Bakersfield College Accreditation

Bakersfield College, approved by the Chancellor of the California Community Colleges, is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges. The Western Association of Schools and Colleges is located at 10 Commercial Boulevard, Suite 204, Novato, California, and is an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U.S. Department of Education. It meets all standards of the California State Department of Education and is listed in the Education Directory, Higher Education, Part 3, published by the United States Office of Education. The University of California, the California State University System, and other colleges and universities give full credit for appropriate courses completed at Bakersfield College. Student complaints must be in writing and directed to the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges at www.accjc.org. Complaints may be made by contacting the ACCJC at 10 Commercial Boulevard, Suite 204, Novato, CA 94949 or at (415) 506-0234.

Bakersfield College is approved by the following:
- California Board of Registered Nursing
- California State Colleges and Universities
- California State Department of Education
- University of California

Alternate Formats

If this material is needed in an alternate format for people with disabilities, please contact Disabled Student Programs & Services at (661) 395-4334.

Disclaimer

Bakersfield College reserves the right to modify its programs, tuition and fees, admission and graduation requirements, schedules, and other policies, procedures, and regulations stated in this catalog without notice. Addenda can be found at www.bakersfieldcollege.edu.
Welcome to a new academic year at Bakersfield College! If you are returning for more coursework, or new to Bakersfield College, you’ll find that Bakersfield College truly offers educational opportunity and every possibility for personal and educational success. We are proud to provide you higher education in a vibrant, innovative, and challenging environment which is diverse and welcoming to every student we serve.

As an immigrant to this country, and a single mother, I understand work ethic and the struggles placed on today’s students. Whether you work full-time, or care for a family, or study countless hours in a rigorous program coursework, college is a challenge and an opportunity. I urge you to look at your education at Bakersfield College as an opportunity first, and a challenge second. Take full advantage of the services and education Bakersfield College provides; be active in our student culture. Through the services and programs provided by Bakersfield College, you will have every opportunity to succeed and achieve your educational goals. But do not forget; college is a challenge. If it weren’t a challenge, it wouldn’t be worth it. Take the challenge of higher education head-on, and you will be successful.

Bakersfield College is entering our centennial year of providing higher education opportunities and challenges to the region. This college has come a long way in 100 years; from 13 students going about their transfer education on the first Bakersfield Junior College campus in 1913, to our robust enrollment of nearly 17,000 students last fall. I’m looking forward to a future 100 years of opportunity and challenge. Aren’t you?

Sincerely,

Sonya Christian, Ed.D.
President, Bakersfield College
## LOCATIONS AND CONTACT INFO

### Panorama Campus
1801 Panorama Drive  
Bakersfield, CA 93305  
(661) 395-4011

### Delano Campus
1450 Timmons Avenue  
Delano, CA 93215  
(661) 720-2000

### Weill Institute
2100 Chester Avenue  
Bakersfield, CA 93301  
(661) 336-5100

### Social Media
Scan the QR code to follow us!

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<tr>
<td>Executive Vice President, Academic Affairs</td>
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<tr>
<td>Vice President, Student Affairs</td>
<td>(661) 395-4204</td>
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<td>Marketing and Public Relations</td>
<td>(661) 395-4256</td>
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## ADMINISTRATION AND FACULTY

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History of Bakersfield College
Established in 1913, Bakersfield College is one of the oldest two-year community colleges in the nation. The initial program offered a one-year curriculum, and in 1915 the trustees of the Kern County High School and Junior College District authorized a second year of junior college and normal school courses. The college opened its present day campus high above the Panorama bluffs in 1956. Bakersfield College offers courses at its satellite campuses located in downtown Bakersfield at the Weill Institute, at its Delano Campus, and other locations in Kern County.

The 153-acre Panorama campus features a state-of-the-art library and technology center and a 19,000-seat stadium that is the crown jewel of community colleges nationwide. Bakersfield College students now enjoy the ability to experience growth in academic, as well as physical and social activities.

As the majority of the buildings on the Panorama Campus are at least 50 years old, state and bond-funded construction will continue to upgrade facilities to help students achieve their academic goals.

Bakersfield College Mission
Bakersfield College is committed to providing excellent learning opportunities in basic skills, career/technical education, and transfer courses for our diverse community so that our students can thrive in a rapidly changing world.

Bakersfield College Vision
The diverse community we serve trusts Bakersfield College with its most precious resource-people. Our high standards of education and service earn that trust. Our values are evident in all that we do.

Bakersfield College Values
Bakersfield College values

- Assisting students to achieve informed educational goals
- Meeting the highest standards of performance in everything we do
- Recruiting and retaining the best and brightest employees
- Promoting a climate of trust by sharing ideas and information
- Fostering a learning environment that respects and supports the diversity of people, ideas, learning styles, and instructional methodologies
- Honoring the traditions and community involvement of Bakersfield College
- Relying on data-informed decision-making

Student Right to Know
In compliance with the federal Student Right-to-Know (SRTK) Act of 1990 (Public Law 101-542), it is the policy of Bakersfield College to publish its student completion and transfer rates. These rates are based on a limited cohort (or group) of students which are tracked for a three-year period. The cohort is limited because it includes only students who entered Bakersfield College in the fall term as first-time, full-time students seeking a degree, certificate or to transfer. Students included in the 2008 SRTK Cohort were tracked from Fall 2008 through Spring 2011 to determine their academic outcomes during the time period.

A student is included in the Completion Rate if they attained a certificate or degree or became ‘transfer-prepared’ within the three-year period. Transfer-prepared is defined as having completed 60 transferable units with a GPA of 2.0 or better.

A student is included in the Transfer Rate if, within the three-year tracking period, they transferred to another postsecondary institution prior to receiving a certificate or degree or becoming ‘transfer-prepared.’

The table below compares Bakersfield College’s Completion and Transfer Rates to the statewide community college average.
These rates do not represent the completion and transfer rates of the entire student population at Bakersfield College nor do they account for student outcomes occurring after the three-year tracking period. For further information on SRTK methodology, interpretation and rates at other community colleges, you can visit the California Community College Chancellor’s Office web site at: srtk.cccco.edu/index.asp.

**Equal Opportunity Employment Statement**

In accordance with the requirements of the Civil Rights Act, Bakersfield College provides services and benefits to students regardless of race, color, national origin, ancestry, gender, age, religion, marital status, medical condition or disability. The lack of English language skills will not be a barrier to administration and participation in vocational education programs. (Title VI and VII of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 503 and 504 of the Rehabilitation Act of 1973, as amended and the Americans with Disabilities Act of 1990)

All persons have the right to seek admission to, and complete an educational program at, Bakersfield College. Interference with students’ access and successful completion of their education by any person through unlawful discriminatory conduct will not be tolerated. The college will initiate disciplinary action against persons found to have interfered with a students’ education through any means of illegal or immoral intimidation.

The Kern Community College District will afford reasonable accommodations for applicants and employees to enable qualified individuals to perform essential job functions. Students with disabilities will be accommodated to ensure accessibility and full participation in educational programs. To request reasonable accommodations, applicants and employees should contact the Human Resources Manager at (661) 395-4660. Students should contact Disabled Student Programs and Services at (661) 395-4334.

**Unlawful Discrimination**

A complaint of alleged unlawful discrimination may be filed within one year of the alleged discrimination. For complaint forms or additional information, contact one of the following:

Human Resources Manager
1801 Panorama Drive
Bakersfield, CA 93305
(661) 395-4660

Additional inquiries pertaining to federal, state, and local equal opportunity laws, and the governing board policies of Bakersfield College or Kern Community College District (KCCD Board Policy Section 11-D) may be directed to the following office:

Vice Chancellor, Human Resources
Kern Community College District

**Students with Disabilities**

Bakersfield College will make reasonable accommodations and/or academic adjustments to ensure that students with disabilities have an equal opportunity to participate in the college’s courses, programs and activities, including extracurricular activities. Students with disabilities who are requesting academic accommodations or auxiliary aids should contact Disabled Student Programs & Services at (661) 395-4334. For DSPS services at the Delano Campus, please contact (661) 720-2000. Participation by students with disabilities in Disabled Student Programs & Services is voluntary. Any student choosing not to participate in the program may elect an alternate path for services through the Executive Vice President, Student Services.

**Declaración De Igualdad de Oportunidad**

De acuerdo con los requisitos de la acta de derechos civiles, Bakersfield College provee servicios y beneficiencias a todos estudiantes sin impedimento de raza, color, origen nacional, ancestria, género, edad, religión, estado civil, condición marital, o impedimento. La falta de capacidad de hablar inglés no ser un obstaculo para la admisión vocacionales. (Titulo VI y VII del Acto Civilde Derechos Civiles de 1974; Titulo IX de los Enmiendas de Educacion de 1972; las Secciones 503 y 504 del Acto de Rehabilitacion del 1973, como modificado.)

Toda persona tiene el derecho de solicitar admisión y completar un programa educativo en Bakersfield College. No se tolerada interferencia alguna con el acceso y termino exitoso de su educación a ninguna persona o estudiante por medio de conducta discriminatoria ilegal. El colegio iniciara acción disciplinaria contra las personas que sean descubiertas interfiriendo con la educacion de los estudiantes por medio de cualquier forma de intimidacion ilegal o inmoral.

**Discriminación Ilegal**

Una queja de discriminación ilegal supuesta se puede ser registrada dentro del termino de un ano de ocurrida la supuesta discriminación. Para obtener formas de quejas o información adicional usted puede ponerse en contacto con la siguiente persona:

Human Resources Manager
1801 Panorama Drive
Bakersfield, CA 93305
(661) 395-4660

Para preguntas adicionales referente a las leyes accion afirmativa y igualdad de oportunidad, ya sean al nivel federal, estatal, o local, y referente a la politica del consejo de gobierno de Bakersfield College o del Distritco Escolar de la Comunidad de Kern, puede ponerse en contacto con siguiente oficina:

Vice Chancellor, Human Resources
Kern Community College District
2100 Chester Avenue
Bakersfield, CA 93301
(661) 336-5140

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<tr>
<th>2008 SRTK Cohort</th>
<th>Completion Rate</th>
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<tr>
<td>Bakersfield College</td>
<td>19.1%</td>
<td>12.8%</td>
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<tr>
<td>Statewide</td>
<td>24.6%</td>
<td>13.9%</td>
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2100 Chester Avenue
Bakersfield, CA 93301
(661) 336-5140
The Bakersfield College Curriculum Committee approved the following Accessibility Statement: Bakersfield College recognizes the importance and benefits of using technology to enhance student learning, especially as it helps students, faculty, and staff communicate more effectively. Every effort will be made to ensure that the design of instructional material and activities for all classes taught at Bakersfield College, both face-to-face and at a distance, are accessible to all students, including those with disabilities.

Estudiantes Incapacitados
Bakersfield College proveerá servicio y/o arreglos académicos para asegurar que estudiantes incapacitados tengan oportunidades iguales para participar en las clases de esta escuela, incluyendo actividades extraescolares. Tales estudiantes que piden arreglos o aparatos auxiliares deben llamar a Disabled Student Programs and Services a (661) 395-4334. Participación es voluntaria. Estudiantes que no desean participar en este programa pueden ponerse en contacto con la oficina del Decano de Aprendizaje/Servicios Auxiliares.

Access to and Confidentiality of Student Records:
Privacy Act
Student records are protected by the Family Educational Rights and Privacy Act, state law, and Kern Community College District Board Policy from access by casual or unauthorized persons. Access to records is provided to the student; appropriate college staff members, persons having written consent of the student, officials of the United States Department of Education; or by court order or subpoena.

The Privacy Act affords Bakersfield College the right to release such directory information as the student’s name, address, e-mail address, photographs, telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended. If a student does not want this information released, the student must check the privacy requested box on the admission/update forms.

Present and former Bakersfield College students are given the right to inspect, review, and challenge the contents of all educational records related to them. No information contained in their educational records may be released without their consent, except to those agencies or individuals authorized by the Act. Students wishing to inspect, review, or challenge any of their educational records must make a request in writing to the Director of Enrollment Services, (661) 395-4301, Room A-7. Copies of the Bakersfield College FERPA Policy are available in the Office of Admissions and Records in the Administration building, room 7.

Policy Concerning Sexual Harassment
Bakersfield College is fully committed to all federal, state, and local human rights and equal opportunity laws. Title VII of the Civil Rights Act of 1964, amended 1991, and Title IX of the Educational Amendments of 1972 are strictly enforced. This legislation specifically prohibits sexual discrimination in employment, and educational programs and services respectively.

Students have the right to gain access to and complete an educational program at Bakersfield College. Interference with students’ admission to and successful completion of their education by any person through unlawful sexual conduct will not be tolerated. The college will initiate disciplinary action against persons found to have interfered with a student’s education through any means of sexual harassment or intimidation.

The student handbook sets forth a statement of Students Rights and Responsibilities and complaint procedures. Students should refer to this publication for further information. A student handbook can be obtained from the Student Government Association in Campus Center, Room 4.
# Matriculation Steps

## As a new student...

If you have received a two-year or higher degree from another college but are new to Bakersfield College, you are exempt from the requirements for orientation, assessment, and counseling.

### Admission or Update
Submit completed admissions form online at www.bakersfieldcollege.edu

Foreign students holding visas must contact the Admissions & Records Office for admission procedures.

### Orientation

Students are expected to participate in an orientation session before assessment testing. Orientation schedules can be found:
- at www.bakersfieldcollege.edu
- in Admissions & Records on the Panorama campus
- at the Delano Campus

### Assessment Testing

You must participate in assessment if you plan to:
- take an English, Math, or other class with prerequisites
- earn a degree
- earn a certificate
- transfer

Assessment information can be found online at www.bakersfieldcollege.edu.

Students can request English as a Second Language assessment by calling 395-4479 and accommodations for disabilities by calling 395-4334.

### Counseling
Counselors will help you:
- review assessment and other criteria for course placement
- identify your educational goal and complete an educational plan
- choose classes
- inform you of special services

## As a continuing student...

Continuing students are enrolled in current semester classes.

### Update
Submit update form online at www.bakersfieldcollege.edu

### Orientation
If you have previously attended orientation, skip this step. If you have never attended an orientation, you are expected to participate in orientation before assessment testing. Orientation schedules can be found:
- at www.bakersfieldcollege.edu
- in Admissions & Records on the Panorama campus
- at the Delano Campus

### Assessment Testing

If you have previously completed a Bakersfield College assessment test, skip this step. If not, you must participate in assessment if you plan to:
- take an English, Math, or other class with prerequisites
- earn a degree
- earn a certificate
- transfer

Assessment information can be found online at www.bakersfieldcollege.edu.

Students can request English as a Second Language assessment by calling 395-4479 and accommodations for disabilities by calling 395-4334.

### Counseling
Counselors will help you:
- review assessment and other criteria for course placement
- identify your educational goal and complete an educational plan
- choose classes
- inform you of special services

## As a former student...

Former students have been enrolled in Bakersfield College classes in the past, but not in the current semester.

### Update
If you attended Bakersfield College before 1987, complete your admissions form as a new student. If you attended Bakersfield College in 1987 or after, complete the update form online at www.bakersfieldcollege.edu

### Orientation
If you have previously attended orientation, skip this step. If you have never attended an orientation, you are expected to participate in orientation before assessment testing. Orientation schedules can be found:
- at www.bakersfieldcollege.edu
- in Admissions & Records on the Panorama campus
- at the Delano Campus

### Assessment Testing

If you have previously completed a Bakersfield College assessment test, skip this step. If not, you must participate in assessment if you plan to:
- take an English, Math, or other class with prerequisites
- earn a degree
- earn a certificate
- transfer

Assessment information can be found online at www.bakersfieldcollege.edu.

Students can request English as a Second Language assessment by calling 395-4479 and accommodations for disabilities by calling 395-4334.

### Counseling
Counselors will help you:
- review assessment and other criteria for course placement
- identify your educational goal and complete an educational plan
- choose classes
- inform you of special services
ADMISSION AND REGISTRATION

Academic Eligibility
A high school graduate, or anyone who has a Certificate of Proficiency or a General Education Development degree (GED) may be admitted to Bakersfield College.

Any person 18 years of age or older who is not a high school graduate may be admitted if his/her previous training or experience indicates that he/she will profit from the offerings of the college. Such students must have the approval of the Director of Enrollment Services.

Special Status Admission/Concurrent Enrollment
In accordance with California Education Code regulations, K-12 students may enroll as special part-time students on a seats-available basis. Enrollment must be recommended by the high school principal, with parental consent and approval by the college Director of Enrollment Services. Units earned may be used for high school or college credit or for both. Students enrolled under this program are exempted from paying enrollment fees.

Residency Determination
A 'resident' is a student who has residence in the state of California for more than one year immediately preceding the residence determination date which is the day before the first day of classes.

The resident of any California community college district may attend a community college in any other district in this state, subject to generally applicable admission criteria, and subject to any restrictions set forth in a notice of restriction issued by a district.

In order to determine a person’s place of residence, reference is made to the following statutory rules:

1. Every person has, in law, a residence.
2. Any person who is married or is 18 years of age or older and under no legal disability to do so, may establish residence.
3. In determining the place of residence the following rules are to be observed:
   a. There can be but one place of residence.
   b. A residence is the place where one remains when not called elsewhere for labor or other special or temporary purpose, and to which he/she returns in seasons of repose.
   c. A residence cannot be lost until another is gained.
   d. The residence can be changed only by the union of act and intent.
   e. A man or a woman may establish his or her residence. A woman’s residence shall not be derivative from that of her husband.
   f. The residence of the parent with whom an unmarried child maintains his/her place of abode is the residence of the unmarried minor child. When the minor lives with neither parent, his/her residence is that of the parent with whom he/she maintained his/her last place of abode, provided the minor may establish his/her residence when both parents are deceased and a legal guardian has not been appointed.
   g. The residence of an unmarried minor who has a parent living cannot be changed by his/her own act, by the appointment of a legal guardian, or by relinquishment of a parent’s right of control, unless the student qualifies for the self-supporting exception.

In general, a resident has citizenship or permanent resident status in the United States and has established residence in California for at least one year immediately preceding the residency determination date (the day before the first day of classes). If you do not have citizenship or permanent resident status in the United States, or have questions regarding your status, please contact the Office of Admissions and Records in the Administration building, room 7.

International Students
Students from countries outside of the United States are eligible to attend Bakersfield College if they have the equivalent of U.S. high school diploma, a TOEFL score of 450 or higher on a paper-based
Admissions Form
An admissions form may be completed on the college web page at www.bakersfieldcollege.edu. It must be filed prior to registration. The application should include the prospective student’s Social Security Number. The Social Security Number will not appear on class roll sheets.

Changing Identification Numbers
All students are assigned an identification number when a completed admissions form is submitted to the Office of Admissions and Records in the Administration building, room 7. Students may use the assigned numbers or their Social Security numbers to access their academic records.

Changing Directory Information
Students may change their name by bringing a photo identification to the Office of Admissions and Records, in the Administration building, room 7. They may change their address, telephone number, or e-mail address on the web at www.bakersfieldcollege.edu. To do that they must select “Register for Classes,” login and then select “Personal Information.”

Passwords
When prospective students complete their admission forms online, they will be asked to create a password. The number must be 8-20 characters long, containing letters and numbers. Students should select combinations that they will be able to remember but that other people would be unable to know.

The first time that students login to register they will be asked to select a password hint question from a drop down menu. They fill in the answer to the question that they select with a one or two word answer. Then, when students forget their passwords, they can click the “Forgot Password” button, and if they enter the correct response, they will be given a screen on which to enter a new password.

Matriculation
What is matriculation?
Every student should have an educational goal, a reason for going to college. Matriculation is the process that allows the college and the student to form a partnership which helps attain that goal. The college asks students to commit themselves to an educational objective and the college commits to fostering student success.

The college agrees to provide:
• An admission process
• An assessment of basic educational skills and career goals
• Counseling/advising for the development of an individual education plan
• Quality instruction
• A wide variety of courses
• Referral to support services as necessary
• Follow up on student academic progress

Students are expected to:
• Complete an orientation session
• Complete assessment

• Declare a specific educational objective or career pathway after completing 15 units of course work
• Attend classes regularly, complete assigned coursework and seek out counseling services as necessary
• Complete courses and maintain progress toward an educational goal as identified in the individual student education plan
• Seek out support services as needed

Assessment (661) 395-4479
Academic skills assessment is designed to determine students’ entry level skills in reading, writing, math and English as a Second Language. Academic skills assessment may be waived by providing proof of eligibility for admission to a California State University with the appropriate combination of ACT and SAT scores and high school grade point average.

Assessment Policy for Students with Disabilities (661) 395-4334
Persons with disabilities who might require testing accommodations should contact Disabled Student Programs and Services. In compliance with federal and state laws, Bakersfield College assures each student an equal opportunity to demonstrate competency or knowledge in a subject area at each point in the educational process. Students with disabilities are expected to demonstrate the same competency or knowledge as other students.

Accommodations are made on an individual basis. Such accommodations may include, but are not limited to, an extension of time, the use of a typewriter, the use of a computer, the use of a spell checker or calculator, the use of a tape recorder and, where appropriate to the disability, an alternative mode of assessment. These tests take place in the Assessment Center.

Policy for Students whose Primary Language is Not English
Persons whose primary language is not English are encouraged to take the English as a Second Language assessment in the Assessment Center at both the Panorama Campus and the Delano Campus. Orientation for students whose primary language is not English is scheduled on both campuses as well.

Exemptions
Only students who have completed an associate degree or higher may be exempt from orientation, assessment and counseling; however, if a student wishes to enroll in a course that has a prerequisite, they must show proof of meeting the prerequisite or take the English, reading, or math assessment.

A student may also decline to participate in the matriculation process, but in so doing relinquishes the right to participate in early registration and may not be able to enroll in courses that have prerequisite requirements. Information is available in the Office of Admissions and Records in the Administration building, room 7 and the Counseling Center in the Student Services building.

Students have the right to challenge or appeal any allegation of violation of matriculation regulations. Challenges or appeals should be submitted to the Vice President of Student Services.
Student Educational Plans
In order for continuing students to receive an early (priority) registration date, they are required to complete a student educational plan with a counselor that identifies their educational goals and those courses needed to complete a degree or certificate. Students may revise their plan at any time.

Course Admission Policy
The policy of the college 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 college, shall be fully open to enrollment and participation by any person who has been admitted to the college and, when applicable, a relevant program, and who meets established prerequisites.

Prerequisites
Many Bakersfield College courses have basic skills or course prerequisites. These prerequisites are established to assist students in selecting courses for which they have the entry level skills. Students who believe that they have the entry level skills without the appropriate assessment test score or previous course may challenge the prerequisite. Students have the right to:

1. Appeal a prerequisite course requirement because the required course is not available
2. Challenge any prerequisite believed to be discriminatory
3. Challenge any matriculation regulations/procedures that have the effect of being discriminatory based on how the services are applied to you
4. Be provided alternative services for the matriculation process if necessary for ethnic and language minority students and students with disabilities

Questions about challenges or appeals for a prerequisite or matriculation regulation/procedure should be directed to Counseling in the Student Services building.

Early (Priority) Registration Appointments
Bakersfield College recognizes that students who complete all matriculation steps (Orientation, Assessment, New Student Workshop, and Student Educational Plan) are more likely to reach their academic goals. These students are given special registration priority appointments. In order to ensure that students who are progressing successfully toward those academic goals have the opportunity to continue that progress, students who have attempted less than 100 units will be allowed to register earlier than those with over 100 units attempted. For their first semester of registration students who receive earlier appointments will have completed Orientation, Assessment, and the New Student workshop. The order of appointment assignments will be as follows:

- Students in special populations such as veterans who have been discharged within the last three years, foster youth, and DSP&S students.
- Continuing students with less than 100 units attempted at Bakersfield College and prior year graduates of local high schools.
- New students not included above.

Students who have not completed all four matriculation steps will be assigned appointments during the first few days of open registration based on the date they completed their admission/update forms.

Registering for Classes
All course registration takes place on Bakersfield College’s web registration system. Detailed instructions for the use of this system can be found in the Registration Information Flyer, on the Bakersfield College website at www.bakersfieldcollege.edu under class schedule.

Students must be officially registered or on the official waitlist before attending classes. Registration dates are indicated in the “About the College” section of this catalog, the registration information flyer, and on the Bakersfield College website.

Waitlists
The electronic waitlist allows students to be moved into a class when seats are available. It is a true first-come, first-serve system. Students trying to register for classes that are closed will be able to select waitlist. During the weeks prior to the start of classes, when vacancies occur in classes, the first student(s) on the waitlist will be moved into the class. Students who are on a waitlist should check their registration regularly on the web. They will have ten days to pay for the class once they have moved into registered status. Students will not be charged the enrollment fees for waitlist classes until they are actually enrolled in the class.

Students should use the waitlist to ensure themselves a chance of getting into the classes they want.

Students on waitlists still must attend the first meeting of the class or they may be dropped from the waitlist. The prerequisite, basic skills, time conflict and repeat checks will prevent ineligible students from moving into the classes.

Students should drop themselves from a waitlist for any class that they no longer wish to take. If a new section of a class is opened at the same day and time as a section with a waitlist, students on the waitlist will be automatically enrolled into the new section.

Maximum Study Load
Students may enroll in a maximum of 19 units per semester and 7 units in summer. Students with strong academic records may be cleared to enroll in more units by a counselor. Students may contact the Counseling Center for an overload request.

Minimum Study Load
Students must enroll in a minimum study load in order to meet certain qualifications such as:

1. Certification as a full-time student to the Department of Health and Human Services: 12 units.
2. Approval by the Veterans Administration for training under Chapter 31, 32, 33, 34, 35 or 1606, Title 38 U.S. Code.

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<tr>
<th>Semester</th>
<th>Summer</th>
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<tr>
<td>Full time</td>
<td>12 units</td>
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<td>3/4 time</td>
<td>9-11 units</td>
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<td>1/2 time</td>
<td>6-8 units</td>
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<td>3. F-1 Visa (foreign) student status: 12 units</td>
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| 4. Eligibility to participate in intercollegiate athletics: 12 units (Repeated courses, previously passed with a C or higher cannot be counted.) Student athletes must maintain a C average (2.0 grade point average) or higher.
5. Eligibility to participate in student government as an office holder: 6 units.

**Academic Success and Progression**

According to the Kern Community College District Board of Trustees
Board Policy Manual pages 48 and 49, students must display academic progress in order to graduate from a program of study or meet minimum requirements for prerequisites.

4D1C - 18 units of study must be completed in a discipline or from related disciplines as listed in the Community Colleges Taxonomy of Programs. Each course counted in this section must be completed with a grade of "C" or better; or a "P" if the course is taken on a pass/no pass basis.

4D1D - 18 semester units of general education must be completed and shall include at least 1 course in each of the following areas:
1. Natural Sciences
2. Social and Behavioral Sciences
3. Humanities
4. Language and Rationality

A course designated by each College as meeting the Ethnic Studies requirement must be taken in at least one of these 4 areas. Courses counted to meet this general education requirement must be completed with a grade point average of 2.0 or better.

4D2B2 - The colleges may award locally approved certificates with fewer than 18 units that certify that a student has completed a credit course or a sequence of credit courses to meet documented workplace needs/standards by demonstrating a level of knowledge, skill(s), and ability(ies) sufficient to earn a minimum grade of "C" in each required course.

**Repeating a Course**

Certain Bakersfield College courses are identified in the course description sections of the catalog as repeatable, with the number of times they may be repeated indicated.

Other courses may be repeated once for credit if a grade lower than C or its equivalent has been earned. A student who has repeated a course under this condition may file a petition with the Office of Admissions and Records in the Administration building, room 7 to have the previous grade and credit disregarded in the calculation of the GPA. Only second attempts will replace the first substandard grade. The original and subsequent grades will remain a part of the student’s permanent record.

If a student earns any combination of ‘D’, ‘F’, or ‘W’ on two attempts in a course taken in the Kern Community College District, that student can only register for a third time with the signature of the faculty chair of the department on a Request to Repeat a Course Beyond the Limit form. This form is available from the Office of Admissions and Records in the Administration building, room 7.

In compliance with Title 5 California Code of Regulations Section 56029, certain course repeats may be authorized for students with disabilities following DSPS policies and procedures.

Courses may also be repeated if the previous grade is at least in part a result of extenuating circumstances such as verified cases of illness, accidents, or other circumstances beyond the control of the student. Approval to repeat under these circumstances should be obtained prior to registration in the Office of Admissions and Records in the Administration building, room 7. In these circumstances, the previous grade will not be disregarded in the calculation of the GPA.

A student may repeat a course to meet a legally mandated training requirement as a condition of continued paid or volunteer employment. The course may be repeated for credit any number of times, regardless of whether or not substandard work was previously recorded, and the grade received each time shall be included for purposes of calculating the student’s grade point average.

The college can provide no assurance that repeated courses will be treated in a similar manner by other educational institutions.

**Remedial Coursework Limitation**

Remedial coursework refers to precollegiate basic skills courses defined as courses in reading, writing, computation, learning skills and English as a Second Language, which are designated as non-degree credit courses. No student shall receive more than thirty (30) semester units of credit for remedial coursework within the Kern Community College district, except for the following:
1. students currently enrolled in one or more courses of English as a Second Language
2. students identified by Bakersfield College as having a qualifying disability

**Auditing a Course**

Students who have been admitted to the college may enroll in courses as auditors with the permission of the instructor and subject to the following provisions:
1. Priority shall be given to students who wish to take the course for credit.
2. A student in a course shall not be permitted to change from audit to credit status nor from credit to audit.
3. The cost to audit a class is $15 per unit. (Students enrolled in 10 or more other units will not be charged this fee.)

Course Audit Forms are available in the Office of Admissions and Records in the Administration building, room 7 beginning on the first day of class.

**Holds that Prevent Registration**

**Financial Holds**

Holds may be placed on a student’s record whenever that student is delinquent or has failed to pay any debt owed to the college or failed to return any library books or other college property or equipment. Students with holds will not be allowed to receive transcripts, certificates or diplomas; have transcripts forwarded; and/or receive other services related to student records. They may not be allowed to register. When the student has cleared the obligation with the Office of Business Services at Bakersfield College, the hold will be removed.

**Academic Standing**

A student who is not in good academic standing will have a hold placed on his/her record until he/she meets with a counselor to make plans to improve his/her grades. These holds will prevent
Probation
Academic Probation—A student who has attempted at least 12 cumulative semester units shall be placed on academic probation when he/she has earned a cumulative semester grade point average below 2.0.

Progress Probation—A student who attempted at least 12 cumulative semester units shall be placed on progress probation when the percentage of all units for which entries of 'W', 'I', NC and 'NP' reaches or exceeds 50 percent.

Students transferring from other collegiate institutions will be placed on probation according to these same standards.

Students on probation may be limited to specific courses and to the number of units for which they may register. The academic status of each student is printed on the student transcript which is updated at the conclusion of each academic term.

Removal From Probation
A student on academic probation for a grade point deficiency shall be removed from probation when the student's cumulative grade point average is 2.0 or higher.

A student on progress probation shall be removed from probation when the percentage of ‘W’, ‘I’, NC and ‘NP’ units falls below 50 percent.

Disqualification
Any student who is placed on academic probation for three consecutive semesters of enrollment shall be disqualified for admission to classes the following semester unless, during the last semester of enrollment, the student earned a grade point average of 2.0 or higher, in which case the student shall be placed on continued probation.

Any student who is placed on progress probation for three consecutive semesters of enrollment shall be disqualified for admission to classes the following semester, unless during the last semester of enrollment, the percentage of units with entries of 'W', 'I', NC and 'NP' was less than 50 percent, in which case the student shall be placed on continued probation.

Reinstatement
A student who is disqualified may be ineligible to attend Bakersfield College. He/she may be conditionally readmitted the following semester upon petition to the Counseling Center. A readmitted student may be restricted to specific courses or programs and a limitation will be placed on the number of units attempted.

Reinstatement application forms may be obtained in the Counseling Center. The Counseling Center is located on the lower level of the Student Services building.

Alternate Class Formats
Extended Learning (661) 395-4635
Extended Learning consists of courses offered from a wide variety of disciplines using non-traditional delivery methods: interactive, online, and hybrid. Dependent upon semester scheduling, Extended Learning provides additional educational options to anyone seeking a college education: students dealing with family and/or job commitments, time limitations or transportation difficulties, individuals willing to explore a less traditional presentation of course content and students who choose to not come to campus for traditionally presented classes. Regardless of the mode of delivery, students receive the same course content described in the catalog and will have the same course expectations.

Bakersfield College offers a variety of online courses, allowing students to self-select classes free of any geographic and time boundaries. It is vital that students have a basic understanding of computer usage, dependable access to the internet, and know how to send and receive e-mail.

Bakersfield College interactive courses connect with classrooms on the Delano Campus, 35 miles north of Bakersfield. Interactive classes may also connect with classes at Porterville College and/or Cerro Coso Community College. Instructors may teach from an origination site at any of the campuses, using real-time two-way video/two-way audio technology. Students benefit from interactivity with students enrolled at one or more remote locations.

Hybrid courses use the internet as the predominate delivery method combined with traditional face-to-face classroom sessions. Students must be able to come to the main Bakersfield College campus for an orientation or session during the semester as well as have access to and be able to use the internet.

Learning Communities and Compressed Courses (661) 395-4433
Bakersfield College offers learning communities and compressed courses. Both give students the opportunity to develop necessary college skills and complete courses while gaining individual support within an organized group of learners. In a learning community, students are enrolled in two linked courses, with the same cohort, or group of students. In a compressed course, two sequential courses are combined, which allows students to complete sequential courses in one semester instead of two or more. Typically, the content of a single course is compressed into an eight-week segment, which is followed immediately by the next course in the sequence, also taught in a compressed format for eight weeks. Notably, students register for the two sequential courses or two linked courses at the start of the semester, but will earn credit for both classes once they complete the sequence. Bakersfield College continues to offer a variety of learning communities and compressed courses that combine a variety of courses, most typically in English, math, and study skills. At least one option is offered each semester. Check the schedule of classes under a learning community search to locate the most current learning community and compressed courses being offered.

Cooperative Work Experience Education (661) 395-4550
1. General Work Experience Education (WEXP B250) is supervised employment which 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. Contact the Office of Career Technical Education for more information.
2. Occupational Work Experience Education (WEXP B248 and B249) is supervised employment extending classroom based
occupational learning at an on-the-job station relating to the students' educational or occupational goal. Work experience credit may be transferable to many colleges and universities. Contact the Office of Career Technical Education for more information.

**Basic Skills/Precollegiate Coursework**

Basic skills courses teach fundamental skills in reading, writing, computation, and study skills that are applicable to any area of study. They provide open access, support services, basic skills courses, resources, and equipment and technology to California Community College students. Basic skills courses are offered in the Academic Development (ACDV), English (ENGL), English as a Second Language (ENSL), and Mathematics (MATH) Departments.

The term "Basic Skills" comprises many areas. The essence of college in general, and basic skills in particular, is to develop skills which will allow students to think abstractly, understand complex concepts, synthesize information, solve multi-step problems, read books and articles, communicate effectively, and leave college with the ability to live, work, and become involved in issues and activities within the community (Winston, R. “Basic Skills: the Promise of Access for California Community College Students,” FACCCTS, Spring 2007: 17-18. Print).

Incoming Bakersfield College students take computerized assessment tests that determine their entry levels in reading, writing, and mathematics. Students are encouraged to take their Academic Development, English, Reading, and Math courses early in their college career, as research shows that basic skills courses improve student success rates.

State regulations set a maximum of 30 units for basic skills courses taken by any student. If a student’s skills are such that more than 30 units will be required to reach college level, that student will be counseled regarding other possible ways to build those skills. Exempted from the 30-unit limitation are students enrolled in English as a Second Language (ENSL) courses and students identified as having a disability.

**Delano Campus (661) 720-2000**

The Delano Campus provides the community with access to Bakersfield College programs and services. Students live in Delano and the rural communities of northern Kern and southern Tulare counties. Day and evening general education, transfer and vocational courses are available to help students obtain an Associate in Arts degree or technical certification. Student and instructional support services include Counseling, Financial Advising, Educational Advising, Assessment Testing, Disabled Student Programs and Services, Extended Opportunity Programs & Services, Computer Lab, Multi-Subject Tutoring, ESL Tutoring, Admissions, Registration and more. The Delano Campus is located at 1450 Timmons Avenue, Delano, California.

**Weill Institute Business Center (661) 395-4104**

The Weill Institute Business Center provides economic and workforce development services. The needs of business, industry and the workforce are met with a highly-skilled staff that provide customized training, job skill assessment, bilingual training, performance consulting, organizational development and many other services. The Business Center also operates the California Compliance School and the Regional Environmental Business Assistance Center.

Also located at the Weill Institute Business Center is the Business Assistance Center, which operates under grants from the U.S. Small Business Administration, the Chancellor’s Office of California Community Colleges and other agencies. The Business Assistance Center offers free counseling to small business owners and individuals interested in starting a business in Kern, Inyo, and Mono counties. Affordable seminars and workshops are held on a regular basis for practical guidance in owning and operating a small business.

**College Fees, Tuition, Books, and Fee Refunds**

**Community College Enrollment Fees**

Enrollment fees are set by the state of California. Enrollment fees are $46 per unit for the 2013-2014 academic year. If the state of California increases the fees, a supplemental bill will be sent to all students.

**Nonresident Tuition Fee**

Nonresident students are required by state law to pay tuition in addition to enrollment fees. The tuition fee for nonresident students is $190 per unit up to a maximum of 15 units per semester. There is an additional $13 per unit capital outlay fee for non-residents.

**California Nonresident Tuition Exemption For Eligible California High School Graduates**

A law was passed by the Legislature in 2001 known as “AB 540.” Any student, other than a non-immigrant alien, who meets all of the following requirements, shall be exempt from paying nonresident tuition at the California Community Colleges, the California State University and the University of 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 nonimmigrant [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 necessary.
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. However, the California Dream Act makes financial aid possible for the AB540 students. Please contact the Office of Financial Aid for details.

To request this exemption, a student must complete the form in the Office of Admissions and Records in the Administration building, room 7. Students may be required to submit additional documentation. Contact the Office of Admissions and Records in the Administration building, room 7 if you have questions.

**Student Health Fee**
A $13 student health fee has been authorized by the Board of Trustees for all students during the fall or spring semester. The fee is $10 for summer session. The purpose of the fee is to make health-center services available to all students and to provide greater healthcare educational programming.

The following health fee exemptions are authorized by law:
1. Students who depend exclusively upon prayer for healing in accordance with the teachings of a bona fide religious sect, denomination, or organization.
2. Students who are attending a community college under an approved apprenticeship training program.

Exemption forms are available in the Office of Admissions and Records in the Administration building, room 7.

**Student Center Fee**
Bakersfield College students shall be assessed a Student Center Fee of $1 per unit for courses on the main campus up to a maximum of $5 per fall semester and $5 per spring semester. The fee shall not be assessed for summer session enrollment.

**Student Representation Fee**
A student representation fee of $1 is charged to all students. This fee will be used by the Student Government Association for:
- Attendance at conferences and meetings of student non-partisan organizations.
- Organizational dues and/or special donations to statewide student organizations or any other recognized student lobby association that works on behalf of community college students.
- Purchase of equipment used for lobbying and/or advocacy such as computers, printers, faxes, modems, software, and accessories.
- Subscriptions to newsletters and/or magazines of higher education.
- Travel expenses for lobbying and/or advocacy for students.
- Leadership training, awareness, and information.
- Hosting non-partisan conferences of legislative issues.

**SGA Discount Card**
The SGA discount card, which allows a 5% discount at the Bakersfield College Bookstore, may be purchased for a $15 fee. Contact Student Activities Office at (661) 395-4355.

**Parking Fees**
Parking is restricted to parking permit holders during all twelve months of the year. A semester parking permit is $30 and a summer permit is $15. Parking permits are not required on weekends. Visitor parking and handicapped parking is enforced at all times. To obtain a student permit go to: www.thepermitstore.com.

**Books**
It is estimated that the cost of books and supplies will be $650 to $850 per semester for a 15-unit schedule. Books may be purchased or rented at the college bookstore which is open year-round except during college holidays.

**Refunds**

**Enrollment and Tuition Refunds**
Enrollment and tuition fees will be credited to the student account, when applicable, for program changes through the first two weeks of the fall or spring semester only. In courses other than semester length, the Office of Admissions and Records in the Administration building, room 7 should be consulted regarding withdrawal and refund deadlines.

To receive the enrollment or tuition refund, a student must apply for the refund in the Business Services Office before the end of the second consecutive semester of non-attendance. Summer session is not considered a semester. If a student does not apply for a fee refund within this time frame, funds will revert to the Kern Community College District.

Should the college cancel a class in which a student is enrolled and there is a reduction in units which results in a lower fee, the student should request a refund through the Business Services Office.

**Student Health Fee Refund**
Health fees will be credited to the student account when applicable, if all classes are dropped and an enrollment fee credit is generated by the transaction. To receive the health fee refund, a student must apply for the refund in the Business Services Office before the end of the second consecutive semester of non-attendance. Summer session is not considered a semester.

**Attendance Policies**

**Class Attendance**
Regular class attendance is expected of all students enrolled in the college. It is especially important that students attend the first sessions of each class for it is during those classes that instructors may distribute syllabi and course requirements, and explain what is expected in terms of attendance. Students enrolled in classes that are full may be dropped by the instructor if they do not attend the first class sessions. Students on a course waitlist should also attend the first class meeting to avoid being dropped.

The attendance policy for each course is established by the instructor and communicated to each class, preferably in writing. Attendance policies will be reasonably related to course objectives, the requirements of institutional reporting and legitimate absences. Instructors are responsible for maintaining accurate attendance and scholarship records.
While it is the responsibility of instructors to communicate attendance policies and to apply them equally to all students, it is the responsibility of students to know the policy in each of their classes and to be aware of their current attendance status. Students who have been absent from a class should notify the instructor of the reason for the absence. Absence in no way relieves students of responsibility for work missed. Excessive absence may result in the student being dropped from the course. Instructors may drop a student from a course when absences number the equivalent of two weeks of class recorded from the first day of instruction. If particular circumstances warrant and can be justified academically, faculty members may drop students after less than two weeks of absences.

Instructors may give consideration to excusing students from classes to participate in scheduled college activities; e.g., athletics, music, field trips, etc. The student must make arrangements in advance to make up the work to be missed.

Students are responsible for officially withdrawing from any class or courses in which they no longer wish to be enrolled. Non-attendance does not release the student from this responsibility.

**First-Day Drop Policy**
Because many classes become filled and are closed, students in lecture and/or lab courses may be dropped if they do not attend classes during the first two weeks without notifying the instructor.

Students in open entry courses may be dropped if they do not begin attending during the first week of classes.

**Extended Learning Attendance and Non-Participation Policy**
All students enrolled in extended learning courses must log in to each course and complete any assignment or other activity, to be determined by the instructor, that are required during the first week. Students who fail to complete first week assignments/activities within the instructor’s deadline may be dropped.

After the first week and during the time period before the final withdrawal date, “students are responsible for officially withdrawing from any class or classes in which they no longer wish to be enrolled,” as stated in the Bakersfield College Catalog. (See the catalog section “Withdrawing from Classes” for additional details.)

The Bakersfield College Attendance Policies: Class Attendance states that “instructors may drop a student from a course when absences number the equivalent of two weeks of class recorded from the first day of instruction.” In the case of extended learning, “absences” shall be defined as “non-participation.” Instructors may drop students after the equivalent of two weeks of non-participation from the first day of class. Non-participation shall be defined as, but not limited to:

- Not following the instructor’s participation guidelines as stated in the syllabus
- Not submitting required assignments
- Not contributing meaningful discussion in required chat rooms, discussion boards, or other online forums
- Not participating in scheduled activities
- Failure to communicate with the instructor as required

It should be noted that simply logging into the course does not constitute participation. Students must demonstrate that they are actively participating in the course by submitting required assignments, contributing to discussion forums, etc. as outlined above.

**Withdrawing from Classes**
Students are responsible for officially withdrawing from any class, classes, or waitlist in which they no longer wish to be enrolled. After registration has been completed, and within the withdrawal date guidelines, students may drop a class or classes through the web registration system. Non-attendance or non-payment does not release the student from this responsibility and may result in a failing grade being awarded.

Within the withdrawal date guidelines, instructors may drop students from a course for nonattendance, disruption, or failure to meet the requirements of the course.

A student who withdraws or is dropped from a semester-length course through the 20 percent date of any term will not have the course included on the permanent record. A 'W' will appear on the permanent record for courses dropped between the 20 percent date and the 60 percent date of the term. No 'W' grades may be issued after the 60 percent date. In courses other than semester length, the instructor or Office of Admissions and Records in the Administration building, room 7 should be consulted regarding withdrawal date deadlines.

A student may contact the Office of Admissions and Records in the Administration building, room 7 regarding the procedure to drop or withdraw after the final withdrawal date deadline if there are verifiable extenuating circumstances. Examples of verifiable extenuating circumstances may be: accidents, illness, death of an immediate family member, or other circumstances beyond the control of the student. This must be done by the last day of classes and prior to the beginning of the final examination period for the term in which the withdrawal will apply. A 'W' is not used in calculating grade point averages, but excessive W’s will be used as factors in progress probation and disqualification.

Students who find it necessary to withdraw from the college are required to return all check-out supplies, equipment and library books, and pay all fines and debts owed the college.

**Transcripts**
Upon written application by the student, a transcript of all work completed at Bakersfield College will be prepared and forwarded to any college, university, employer, or individual designated by the student. Two transcripts are provided free; thereafter, a fee of $4 is charged for each transcript. Transcript requests are submitted to the Office of Admissions and Records in the Administration building, room 7. The form can be downloaded online at www.bakersfieldcollege.edu by clicking Transcripts and following the on screen directions. Orders are processed within eight working days. An additional fee of $8 is charged for processing a transcript ‘rush’ request within 2 hours. To receive a transcript with same day service, the request must be made before 3 p.m. Monday through Thursday or before 9:30 a.m. on Friday.

Students have the right to notify the college not to include their date of birth in their transcripts. A date of birth is a very useful identifier,
and students are encouraged to have it displayed on transcripts. However, under the law, students have a right to request that their date of birth not be displayed on their college transcripts.

**Verification of Enrollment**
The Office of Admissions and Records in the Administration building, room 7 will complete a verification of enrollment upon written request by the student. A fee of $2 is charged for each verification. The $2 fee is waived for financial aid academic progress verification.

**Student Schedule of Classes**
Individual student class schedules are available on the Bakersfield College website at www.bakersfieldcollege.edu.
STUDENT SERVICES

Assessment Center (661) 395-4479
The Bakersfield College Assessment Center offers the following tests: Compass, the College Level Examination Program, and other testing programs. Students may call the Assessment Center for schedule information.

A free parking area is available in the west section of the parking lot at the corner of Haley and University (southwest corner of campus). A student parking permit is required to park in all other parking lots. Day permits are available at the dispensers located in all parking lots.

Athletics (661) 395-4266
The Bakersfield College Athletics program started in 1922 and is known for its quality, its success and the sportsmanship of its students. Over the years former Renegade student athletes, coaches and staff have returned to support the Bakersfield College Athletics program. Community support also plays an important role and is demonstrated by attendance at sporting events and by contributions from the community. This sense of Renegade pride and loyalty contribute to the strong foundation of today’s athletic program.

Bakersfield College has over 300 Renegade student athletes annually. There are nine women’s sports which include basketball, cross country, golf, soccer, softball, swimming, tennis, track and field and volleyball. There are also nine men’s sports which include baseball, basketball, cross country, football, golf, swimming, tennis, track and field and wrestling. Collectively these programs have accumulated 168 Conference Championships, 13 State Championships, and 10 National Championships.

Bakersfield College is a member of the Western State Conference and is governed by the California Community College Athletic Association. Bakersfield College student athletes are supported by a dedicated coaching staff, certified trainers, equipment personnel, and an athletic educational advisor. Every effort is made to ensure compliance with the regulations of the Western State Conference, the CCCAA and the NCAA.

Renegade student athletes are privileged to compete on the grounds of one of the premier community colleges in the nation. Memorial Stadium is arguably the most recognizable and note-worthy venue in all of community college sports. This iconic and historic facility is home to the Renegade football team, as well as the track and field teams. National championship teams and world records are the hallmarks of Memorial Stadium.

The newly refurbished Dean and Adah Gay Sports Complex is home to the Renegade baseball and softball teams. This amazing facility is the standard bearer for the diamond sport in California and was home to the 2012 California State Final Four tournaments for both sports. The volleyball, wrestling and basketball teams all compete in the Gil Bishop Sports Center, an expansive, two-tiered gymnasium with a skybox and adjacent dance studios. This facility is in the process of being completely refurbished, with the lower walls and main floor already completed.

The philosophy of the Bakersfield College Athletics Program mirrors a code of conduct that exemplifies hard work, commitment and accountability—to act like a winner on and off the fields and courts of play. Sportsmanship, as well as achieving their potential as productive members of the community is expected of all Bakersfield College student athletes.

As the Bakersfield College Athletics Department celebrates 90 years, we strive to continually build on the great tradition of The Renegade Legacy.

California Work Opportunities and Responsibility to Kids (CalWORKs) (661) 395-4351 / (661) 395-4047
The CalWORKs Program is a state funded program. CalWORKs is designed for students enrolled at Bakersfield College who are recipients of CalWORKs/TANF/AFDC and are not sanctioned. The program can assist these parents with work opportunities and other educational expenses related to attendance at Bakersfield College. CalWORKs also provides special services which include:
academic, career, and personal counseling; workshops for academic success; work study; curriculum development and redesign; holiday celebration/spring picnic(s); awards/recognition ceremonies. The Bakersfield College CalWORKs Program additionally offers confidential liaison and advocacy between students, the college, the Department of Human Services and other community agencies. For additional information on CalWORKs and eligibility to receive these services, please contact the CalWORKs Office. The CalWORKs Office is located on the second floor of the Student Services Building.

Child Development Center (661) 395-4368
The Child Development Center and State Preschool provide a comprehensive early care and education program that serves college student families and their preschool age children, ages 2 to 5 years. Placement in the program follows state guidelines to assign each family a priority rank based on income and family size. First priority enrollment is given to income eligible families with documented need for services who are Kern Community College District students working toward a specific profession or career goal. Our services support and assist student families to successfully complete their college courses and achieve their goals. In addition, the Child Development Center provides demonstration/observation laboratory classrooms for college students majoring in child development, health careers, and other helping professions. Student interns can gain hands-on experience in our best practices classrooms working with children under the supervision and direction of our licensed teachers.

The centers are primarily funded through the California State Department of Education and are licensed through the California Department of Social Services. All teachers have professional training in child development/early childhood education and are certificated through the California Commission on Teacher Credentialing.

Applications can be found at www.bakersfieldcollege.edu/student/cdc. Click on Apply Now! then follow the instructions to drop off or mail in the completed application. Applications are also available at the Child Development Center, Room 202, during regular business hours.

Computers for Student Use (661) 395-4696
Use of the instructional computers by students at Bakersfield College is encouraged. Access to academic computing services is a privilege enjoyed by all students. The Computer Commons, located in the Library, is an open lab. Student workers are available to assist students in the use of these computers.

Unauthorized access or use of academic computing facilities is in violation of Section 502.b-c of the California Penal Code. Offenders will be disciplined and/or prosecuted in accordance with existing college policy and California law. For details of campus computer policies, see the student handbook, which is available from the Student Government Association in Campus Center, room 4.

Counseling Department (661) 395-4421
The Counseling Department is located in the Larry Robinson Counseling Center. The Counseling Center website can be found at www.bakersfieldcollege.edu/counseling. The Counseling Department is committed to promoting student success by assisting students with educational planning and strategies for navigating higher education and assistance with career choices.

Consultations
Counseling/advising is voluntary and students may select the counselor/advisor of their choice. Meetings with counselors or advisors are confidential; however, limited disclosure may be necessary if, in the professional judgment of the counselor/advisor, such is needed to prevent any individual from harm.

To talk with a counselor/advisor, please stop by the Counseling Center located in the Student Services Building or call (661) 395-4421. Counselors and advisors are also located in other offices and centers at both the Panorama and Delano campuses. Please check with the Counseling Center staff for specific information.

International Students Counseling (661) 395-4421
Students thinking about studying in the United States can learn why it would be a great decision to attend Bakersfield College because of the strong academic programs offered as well as Bakersfield College’s comprehensive student support programs, its outstanding English as a Second Language Program, and its strong transfer relationships with other schools.

If you are ready to apply, just follow the easy steps outlined in the International section of the Bakersfield College website at www.bakersfieldcollege.edu/international.

Career Center (661) 395-4083
The Career Center is located in the Larry Robinson Counseling Center. The virtual Career Center website can be found at www.bakersfieldcollege.edu/career_center. The Bakersfield College Career Center provides resources for assisting students in making career choices that match their interests and natural talents. Resources include self-assessments and career information. The Center is designed to meet the needs of all students depending upon where they are in the career development process.

Disabled Student Programs & Services
Panorama Campus (661) 395-4334
Delano Campus (661) 720-2000
Disabled Student Programs & Services assists the college in providing equal access to educational opportunities for students with disabilities. Disabled Student Programs & Services provides reasonable accommodations to students with documented physical, communication, psychological, developmental, and learning disabilities who are enrolled in classes through Bakersfield College. The department provides accommodations and support services which may include, liaison with California State Department of Rehabilitation and other community resources, test taking assistance, special equipment, mobility assistance, note taking, assistive computer technology, special classes, sign language interpreters, written materials in alternate format, and learning disability assessment. These services are intended to prepare and support students to participate on an equal basis with their non-disabled peers. For college material in alternate format, contact Disabled Student Programs & Services.
ESL Tutoring (661) 395-4570
The ESL Tutoring Program provides tutoring sessions for both international/foreign students and students whose first language is not English. Students benefit from this service by improving their language and reading skills and therefore their successful completion of course work in language skills.

Extended Opportunity Programs and Services (EOP&S) and Cooperative Agencies Resources for Education (CARE) (661) 395-4351
The EOP&S Program is a state funded program that serves students from low-income and educationally disadvantaged backgrounds. Services include academic, career and personal counseling, peer mentoring, financial aid advising, scholarship information, transfer assistance, books and other support services. The EOP&S Program's primary goal is to encourage the enrollment, retention and transfer of students with educational disadvantages to facilitate the successful completion of their goals and objectives in college. Students must complete the Free Application for Federal Student Aid (FAFSA) to determine eligibility and be enrolled in full-time coursework (12 units).

The CARE component offers additional grants and/or services to full-time students who are single parents, TANF recipients, and have as least one child under the age of 14. CARE participants must qualify for financial aid. Services offered include peer mentoring, counseling, tutoring referrals, single-parent workshops, follow-up support and special events.

For additional information on EOP&S/CARE and eligibility to receive these services, please contact the Office of EOP&S/CARE. The Office of EOP&S/CARE is located on the second floor of the Student Services Building. EOP&S services are also offered at the Delano Campus.

To apply, print the EOP&S application found at www.bakersfieldcollege.edu/student/eops and submit to the Office of EOP&S.

Financial Aid
Panorama Campus (661) 395-4428
Delano Campus (661) 725-2011
Students seeking financial assistance to meet the costs of education are encouraged to contact the Office of Financial Aid, located in the Student Services Building (SS 150). A variety of grants, scholarships, and part-time employment opportunities are available for students who qualify on the basis of financial need, enrollment in six or more units leading to a degree or certificate, and satisfactory academic progress.

All students are encouraged to complete the Free Application for Federal Student Aid at www.fafsa.ed.gov to be considered for the following programs. The financial aid priority filing date is March 2.

Board of Governors Waiver
The Board of Governors Waiver is supported by the state of California and waives the enrollment fees for eligible California residents. The Board of Governors Waiver is available for students who have already qualified for other types of financial aid and for students who have exceptionally low incomes including recipients of TANF, SSI, or General Assistance.

Book Vouchers
Book vouchers are available for Pell Grant-eligible students to purchase books and supplies.

Cal Grant B
Cal Grant B is for students from disadvantaged and low income families.

Cal Grant C
Cal Grant C is for students enrolled in a vocational program.

Extended Opportunity Program and Services (EOP&S)
Extended Opportunity Program and Services is a state-funded program offering access and retention services including books for low-income, educationally disadvantaged students.

Cooperative Agencies Resources for Education (CARE)
Cooperative Agencies Resources for Education is a state-funded program offering supportive services and financial assistance for low-income, single parent EOP&S students.

Federal Pell Grant
Federal Pell Grants are a grant program based upon need, cost of attendance and level of enrollment.

Federal Supplemental Educational Opportunity Grant
Federal program which provides additional grant assistance for students with exceptional financial need.

Federal Work Study
On campus employment is available through Federal Work Study, a federally funded program for students who can demonstrate financial need and enrollment in six or more units. Employment is used to fund college expenses.

Scholarships
Cash awards provided by the Bakersfield College Foundation and local groups and organizations for students who can demonstrate academic merit and/or financial need.

Information concerning financial aid programs at Bakersfield College can be obtained by personal contact, by phone, or at www.bakersfieldcollege.edu/financialaid. After you have applied for financial aid, you may check your financial aid status by logging in to InsideBC at inside.bakersfieldcollege.edu.

Student Health and Wellness Program (661) 395-4336
The Student Health and Wellness Program is located in the Campus Center. To schedule appointments for any services, come to the clinic. Walk-ins are also welcome.

Medical Services
The Student Health and Wellness Program Center provides diagnosis and treatment of a wide variety of general medical conditions. The services meet many student healthcare needs, including acute conditions such as fevers, respiratory illnesses, stomach pains, sprains and strains, skin rashes, and minor surgical procedures. The Center also treats and manages patients with chronic conditions.
such as asthma, diabetes and other diseases. Physicals, TB testing, and some vaccines are available free of charge. Students can access medical services free five times per semester. Student health insurance coverage is available for campus-related injuries.

Health-related literature and a variety of over-the-counter medications are available free of charge.

**Mental Health Services**
The Center offers services to address students’ mental health concerns. Students are eligible to receive six free one-hour short term counseling (talk therapy) sessions per semester. Group therapy self-improvement classes are also available.

**Mentoring and Peer Program Services (MAPS)**
The Student Health and Wellness Program utilizes the expertise of students who are trained to provide educational programs and outreach. The peer education program known as MAPS is made up of students who serve as resources, referral agents, and role models for other students.

**Clinica Sierra Vista-Delano Campus**
**Mental Health (661) 720-2003**
Medical (661) 725-4780

Students at the Delano Campus receive free medical and mental health services from Clinica Sierra Vista. Delano Campus students can access MAPS services, free over-the-counter medication, and health-related literature in the Delano Science and Technology Building. Student health insurance coverage is available for campus-related injuries.

**Job Placement Services (661) 395-4550**
The Job Placement Center assists students and alumni in finding both part and full-time jobs. The Center offers various workshops and assistance with job search strategies, resume writing, interview skills, labor market information, job coaching, and skills identification. The College Central Network website is the central location for both on and off-campus job postings. The website also provides information about Bakersfield College career events, workshops, hot job e-mails, and access to community employers. Visit the Job Placement website at www.collegecentral.com/bakersfieldcollege. Job Placement Center services are free to students and Bakersfield College alumni.

**Learning Center (661) 395-4433**
The Jerry Ludeke Learning Center, on the second and mezzanine floors at the west end of the Student Services Building, is comprised of various learning opportunities and well-trained instructors and tutors. The Center offers tutorial services; reading and writing classes; learning and study skills courses; open-entry math courses; a writing center, and a basic skills computer lab. For students who wish to improve their memory, note taking or test taking skills, the Learning Center has short-term courses in these and other study skills subject areas.

Individuals who want to study mathematics may enroll in a hybrid math course in the Learning Center. Courses are taught using a combination of the Internet-based program ALEKS and one-on-one help from instructors in the Math Lab in the Learning Center. Courses are available in Modern College Arithmetic/Prealgebra (MATH B50), Elementary Algebra (MATH B60), and Intermediate Algebra (MATH B70). Students work at their own pace and have the opportunity to complete more than one course in a semester. More information is available on the Learning Center website, www2.bakersfieldcollege.edu/mlc.

**Writing Center (661) 395-4735**
Students needing help with writing assignments may visit the Writing Center. The Writing Center offers guidance in every stage of the writing process, from generation of essay ideas, through development and organization, to citation of sources. Consultants at the Writing Center can help students to take charge of their own writing process and learn new techniques to become more successful writers of college essays. The Writing Center also offers access to computers so that students may work on their assignments at their own pace. The Center takes appointments, but consultants can also assist walk-in students on a first-come, first-served basis. For a successful 30 minute consultation, students are encouraged to bring their assignment sheets, hard-copy notes and drafts, and any other needed material, and to be prepared to discuss their assignments with their consultant. ESL consultants are also available. More information is available on the Writing Center website, bakersfieldcollegewritingcenter.weebly.com.

**Library (661) 395-4461**
The Grace Van Dyke Bird Library provides access to information in a variety of ways and formats. In addition to the over 89,000 books in the collection, the library subscribes to 140 periodicals and six online full-text periodical and newspaper indexes. The library is fully automated, with access to the catalog and periodical indexes not only on campus, but off-campus as well as via the Internet. Reference librarians are available during library hours to assist library users with research needs.

Other services available to all library users include:
- Library Research workshops
- Individual carrels for quiet study
- Study rooms for group work
- Photocopying & computer printing
- Wireless internet and computer access via computers in Computer Commons
- Telephone reference service

Students and staff use their current Gades Card for library circulation privileges. Community members may also have circulation privileges with a payment of an annual fee. Inquire at the circulation desk for details.

**Mathematics, Engineering & Science Achievement (MESA) (661) 395-4776**
Bakersfield College’s Mathematics, Engineering & Science Achievement (MESA) program center, located in the Science and Engineering Building, Room 46, is dedicated to serve underrepresented students in the fields of mathematics, engineering, and the sciences, and who plan to transfer to a four-year institution to complete a baccalaureate degree. MESA requires participation in at least nine orientation workshops for one semester. In addition, the program requires student involvement in one of the following activities per semester: academic excellence workshop; orientation workshops; professional, career development seminars; or capstone
projects. These workshops and activities provide students with critical practice in problem solving techniques as well as exposure to career development in mathematics and science based fields.

MESA offers students book vouchers, scholarships, stipends, free tutoring, field trips to four-year colleges and industries related to students’ fields of study, industry internships, and an environment for studying and networking.

**Student Activities, Clubs and Organization (661) 395-4355**

The Student Government Association of Bakersfield College (SGA) is the student governing organization and has the major responsibilities for campus clubs, organizations and the student activities program in general. SGA is composed of two branches: Executive Board and Student Senate. The goals of the program work in conjunction with the college’s goals to provide opportunities for leadership and personal development, group cooperation and collaboration and the enrichment of student life on campus.

The legislative authority of SGA is contained within the Executive Board and Student Senate. Executive Board members are elected by the students each spring. All official actions undertaken by the SGA stem from the decisions of the Executive Board and Student Senate.

Bakersfield College has broad club and organizational participation representing academic, service, spiritual and special interest organizations. The Activities Board coordinates campus activities through representation from each club and organization.

Campus organizations stimulate new interests, provide opportunities to develop necessary life skills and enhance campus and community life. In addition to general coordination, SGA seeks to cultivate a meaningful activities program. In particular, SGA stages Homecoming in the fall and Spring Fling in the spring, which are two of the major events held on campus during the year. Students interested in any of the clubs or organizations at Bakersfield College may obtain further information in the Office of Student Activities, located in Campus Center; room 4.

**Student Conduct**

The Board of Trustees of the Kern Community College District, in support of public education and the exercise of general supervision of the campuses of the district, believes that student conduct must reflect the standards of good behavior expected by society. Since public education is furnished by the people of the district, it becomes a privilege for students to have this opportunity to further their education.

Students shall respect constituted authority. This shall include conformance to state laws, board regulations, college regulations, and applicable provisions of civil law.

Students are expected to observe high personal standards of decency, morality, honesty, and social relationships. Student conduct should reflect consideration for the rights of others, and students are expected to cooperate with all members of the college community.

Failure to respect the standards as set forth by Bakersfield College may be cause for disciplinary action.

Copies of the Bakersfield College Student Conduct Code Policies and Procedures may be found in the student handbook.

**Transfer Center**

The Transfer Center offers resources and services to all students. The center facilitates the transition of students from Bakersfield College to a baccalaureate college or university. The center helps reduce the complexity of transferring by using articulation and transfer agreements, major preparation and application/personal statement workshops.

Bakersfield College has guaranteed transfer admission agreements with University of California, Davis; University of California, Irvine; University of California, Merced; University of California, Riverside; University of California, San Diego; University of California, Santa Barbara; and University of California, Santa Cruz. Admission advisors from California State University, Bakersfield are housed in the Bakersfield College Counseling Center and regularly work with students to ease the transition between Bakersfield College and California State University, Bakersfield. Other college representatives visit campus periodically and a current schedule can be found on the Transfer website at www.bakersfieldcollege.edu/transfer.

Transfer workshops are offered throughout the year. The Transfer Center maintains current catalog information for California public and private schools. Computers with access to online resources such as www.assist.org to help students with choosing major preparation courses for transfer to California State University and University of California are available. The Transfer Center is located in the Larry Robinson Counseling Center, Student Services building, room 37.

**WorkAbility III (661) 395-4070**

In cooperation with the State Department of Rehabilitation (DOR), Bakersfield College provides job placement for students with disabilities through the WorkAbility III program. A disability may include physical, communication, learning or emotional disability. Assistance with part-time jobs, full-time jobs, internships and work experience placement is provided by WorkAbility III. WorkAbility III also offers job search skills training, including resume writing and interviewing skills. These services are provided to Bakersfield College students who are also clients of DOR. In addition, DOR may provide financial aid which may cover the cost of fees, books and other services.

If a student with a disability believes he/she may qualify for services from DOR, the student can visit the DOR office at 1 405 Commercial Way, Suite 120, Bakersfield, or call (661) 395-2525. Eligible students are urged to apply for services from Disabled Student Programs and Services at the beginning of the semester.

**Veterans Services (661) 395-4414**

Bakersfield College is approved as an institution of higher learning for the training of veterans and veterans’ dependents entitled to educational assistance.

**Educational Benefits for Veterans and Dependents**

To be eligible for veterans benefits the veteran must have an educational objective an associate or baccalaureate degree or a certificate of achievement. The Veterans Administration will not pay
benefits for courses that do not fit in a veteran’s selected program. The following students may be eligible for veteran’s educational benefits:

1. Veterans who were separated from active duty with the armed forces within the past 10 years who participated in the following programs:
   a. Montgomery GI Bill-Active Duty Educational Assistance program (Chapter 30).
   b. The Post - 9/11 Veterans Educational Assistance Act of 2008 (Chapter 33).
   c. Montgomery GI Bill - Selected Reserve Educational Assistance Program (Chapter 1606).
   d. VEAP (Chapter 32) - Contributory VEAP or Section 903 - Services beginning on or after January 1, 1977 through June 30, 1985.
   e. Vocational Rehabilitation (Chapter 31) - Veterans who served in the Armed Forces are eligible for vocational rehabilitation if they suffered a service-connected disability while on active service. A veteran who plans to enter Bakersfield College under Chapter 31 is required to have the Veterans Administration approve his/her occupational choice prior to enrollment in college.

2. Spouses and/or children may be eligible for:
   a. the Dependent’s Educational Assistance Program (Chapter 35). A student must be the child or spouse of a veteran who is deceased or who has a service-connected disability rated at 100 percent.
   b. Chapter 33 benefits if the veteran elects to transfer benefits.

Dependents of veterans with disabilities (spouses and/or children) may be eligible to receive tuition-free assistance at any California post-secondary educational institution.

Additional information may be obtained at Window 6 in the Office of Admissions and Records in the Administration building or at the Veterans Resource Center, in Campus Center, room 30.
ACADEMIC INFORMATION

Academic Credit
Coursework is measured in terms of semester units. A unit equals 18 hours of lecture or 54 hours of lab work per semester in most courses. Lecture courses require additional outside of class work to equal a minimum of 48 hours of student work.

Academic Freedom
The district, the colleges and unit members will adhere to the following in regard to academic freedom:

1. Education in a democracy depends upon earnest and unceasing pursuit of truth and upon free and unrestricted communication of truth.
2. Faculty members shall be free to exercise academic freedom, including freedom of investigation, freedom of discussion in the classroom, freedom to select texts and other instructional materials, freedom of assignment of instructional exercises, and freedom of evaluation of student efforts.
3. Faculty members acknowledge that in the exercise of academic freedom they have a responsibility to be accurate and comprehensive in making reports, to be fair-minded in making interpretations and judgements, to respect the freedoms of other persons, to exclude irrelevant matters from classroom discussions and instructional exercises, and to make appropriate distinctions between statements of fact made as faculty subject matter specialists and opinions made as private citizens.
4. The college recognizes the fundamental right of the faculty member to be free from any censorship or restraint which might interfere with the faculty member’s obligation to pursue truth and maintain his/her intellectual integrity in the performance of his/her teaching functions.

Academic Honesty
The administration, faculty, and staff at Bakersfield College believe that students are entitled to the finest education that the college can make available to them. At the same time, however; a student’s achievement and proficiency in subject matter must include the realization that there are standards of academic honesty which should prevail in all one’s endeavors.

Accordingly, this realization further requires that each student exerts every effort to maintain these standards.

Plagiarism and Cheating
Source: Regulations at California State University, Long Beach, General Catalog, 2011-12.

Definition of Plagiarism
Plagiarism is defined as the act of using the ideas or work of another person or persons as if they were one’s own, without giving credit to the source. Such an act is not plagiarism if it is ascertained that the ideas were arrived at through independent reasoning or logic or where the thought or idea is common knowledge.

Acknowledgment of an original author or source must be made through appropriate references, i.e., quotation marks, footnotes, or commentary. Examples of plagiarism include, but are not limited to, the following: the submission of a work, whether in part or in whole, completed by another, failure to give credit for ideas, statements, facts or conclusions which rightfully belong to another; in written work, failure to use quotation marks when quoting directly from another, whether it be a paragraph, a sentence, or even part thereof; close and lengthy paraphrasing of another’s writing or programming. A student who is in doubt about the extent of acceptable paraphrasing should consult the instructor.

Students are cautioned that, in conducting their research, they should prepare their notes by (a) either quoting material exactly (using quotation marks) at the time they take notes from a source; or (b) departing completely from the language used in the source, putting the material into their own words. In this way, when the material is used in the paper or project, the student can avoid plagiarism resulting from verbatim use of notes. Both quoted and paraphrased materials must be given proper citations.
Definition of Cheating
Cheating is defined as the act of obtaining or attempting to obtain or aiding another to obtain academic credit for work by the use of any dishonest, deceptive or fraudulent means. Examples of cheating during an examination include, but are not limited to, the following: copying, either in part or in whole, from another’s test or examination; discussion of answers or ideas relating to the answers on an examination or test unless such discussion is specifically authorized by the instructor; giving or receiving copies of an examination without the permission of the instructor; using or displaying notes, cheat sheets, or other information or devices inappropriate to the prescribed test conditions, as when a test of competence includes a test of unassisted recall of information, skill, or procedure; allowing someone other than the officially enrolled student to represent the same. Also included are plagiarism as defined and altering or interfering with the grading procedures.

It is often appropriate for students to study together or to work in teams on projects. However, such students should be careful to avoid the use of unauthorized assistance, and to avoid any implication of cheating, by such means as sitting apart from one another in examinations, presenting the work in a manner which clearly indicates the effort of each individual, or such other method as is appropriate to the particular course.

Every instructor has the responsibility and authority for dealing with such instances of cheating and plagiarism as may occur in class. An instructor who determines that a student has cheated or plagiarized has a range of many available options which may be as severe as giving a student a failing grade for the course, if the assignment or test for which the student cheated or plagiarized is of sufficient weight to merit a failing grade for the course. The student may face a range of sanctions as stated in the college’s Student Conduct Policy. Finally, it must be understood that a student who knowingly aids in another student’s cheating or plagiarism e.g., permitting the other student to copy a paper or examination question, is as guilty as the other of the offense.

A student charged with cheating or plagiarism is entitled to appeal that charge by means of the college’s Student Conduct Policies and Procedures.

Academic Standing
A student whose last completed semester GPA and cumulative GPA are 2.0 or higher and whose accumulated units of ‘W’ (Withdrawal), ‘NP’ (No Pass), and/or I (Incomplete) do not reach or exceed 50 percent shall be in good standing.

Academic Probation
A student who has attempted 12 or more semester units and who then earns a cumulative GPA of less than 2.0 during the Fall, Spring or Summer semester shall be placed on Academic Probation for the following semester and will not be able to register until they complete an Academic Success Probation Workshop (a hold will be placed on their registration). A student shall be removed from probationary status when the cumulative GPA reaches 2.00 or higher.

In addition, students on academic probation will be limited in the number of units for which they may register. The academic status of each student is available under Academic Standing in the Registration Status section, on the online transcript in BanWeb, or is printed on the student transcript which is updated at the conclusion of each semester.

Progress Probation
A student who has attempted 12 or more units shall be placed on Progress Probation when the percentage of all units attempted for which entries of ‘W’ (Withdrawal), ‘NP’ (No Pass), and/or I (Incomplete) reaches or exceeds 50%. They will be unable to register for classes for the next semester until they complete an Academic Success Probation Workshop (a hold will be placed on their registration). A student shall be removed from probationary status when the percentage of all the units in which a student has attempted for which entries of ‘W’, ‘NP’, and/or I are recorded is below 50 percent.

In addition, students on progress probation will be limited in the number of units for which they may register. The academic status of each student is available under Academic Standing in the Registration Status section, on the online transcript in BanWeb, or is printed on the student transcript which is updated at the conclusion of each semester.

Subject to Disqualification
Any student who has been placed on Academic and/or Progress Probation for three consecutive semesters of enrollment shall be disqualified for admissions to classes the following semester unless, during the last semester of enrollment, the student earned a GPA of 2.0 or higher or did not receive additional Ws, Is, or NPs, in which case the student shall be placed on Continued Probation.

Counseling for Probationary Students
Each student who is on probation and/or subject to disqualification should attend a face-to-face or online Academic Success Probation Workshop each semester that they are under that status. These workshops are designed to assist students with understanding the reasons for their poor performance and assist them to take steps to succeed. Contact the Counseling Department, (661) 395-4421, or access the Counseling Department website at www.bakersfieldcollege.edu/counseling for more information.

Reinstatement
A student who is disqualified is ineligible to attend Bakersfield College and may be conditionally readmitted the following semester upon petition to the Counseling Department. A readmitted student will be limited in the number of units in which they can register. Students must make a counseling appointment to fill out a Reinstatement Petition and make a plan for future success. Contact the Counseling Department at (661) 395-4421.

Academic Renewal
A maximum of 20 units of substandard academic grades, (D, ‘F’, NC, and NP) taken at Bakersfield College which are not reflective of a student’s present demonstrated ability may be disregarded in the computation of the grade point average if all of the following conditions exist:

1. At least five years have elapsed since the coursework to be disregarded was recorded.
2. At least 12 units of satisfactory coursework (2.0 GPA or higher) have been completed at Bakersfield College subsequent to the coursework to be alleviated.
3. The student completes an Academic Renewal request.
4. The student states in the request the specific courses to be considered under the academic renewal policy. If approved, the substandard work will be disregarded in the computation of the grade point average and an annotation made on the permanent record. The permanent academic record shall remain a true and complete academic history and the coursework disregarded under this policy will remain on the permanent record.

Academic renewal may not be used to raise the GPA in order to qualify for graduation with honors. Academic renewal may not be applied to courses which have been used to meet graduation, certificate, and certification requirements.

**Associate Degrees for Transfer**

California Community Colleges are now offering associate degrees for transfer to the California State University. These may include Associate in Arts (AA-T) or Associate in Science (AS-T) degrees. These designs are intended to provide a clear pathway to a California State University major and baccalaureate degree.

California Community College students who are awarded an AA-T or AS-T degree are guaranteed admission with junior standing somewhere in the California State University system and given priority admission consideration to their local California State University campus or to a program that is deemed similar to their community college major. This priority does not guarantee admission to specific majors or campuses.

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

To view the most current list of Bakersfield College Associate Degrees for Transfer and to find out which California State University campuses accept each degree, please go to: www.sb1440.org/Counseling.aspx. Current and prospective community college students are encouraged to meet with a counselor to review their options for transfer and to develop an educational plan that best meets their goals and needs.

**Catalog Rights / Continuous Enrollment**

Bakersfield College students have the right to elect to meet the graduation requirements in effect during the academic year of first enrollment or at the time of graduation. To maintain catalog rights to graduation requirements, a student must remain in continuous enrollment at Bakersfield College. This means the student must earn a grade of 'A', 'B', 'C', 'D', 'F', 'NP', 'P', 'IP', 'IPD', or 'W' in at least one course each academic year. For the purposes of continuous enrollment, an academic year begins with the summer semester and includes the following fall and spring terms. Petitions for exceptions should be directed to the Executive Vice President, Academic Affairs.

Catalog rights apply only to Bakersfield College graduation and program requirements. If other institutions change their requirements for entrance, graduation, satisfaction of general education patterns, or in other ways it may be necessary for the student to meet the new requirements upon transfer; even if continuous enrollment has been maintained.

**Credits Allowed from Other Institutions**

Students who wish to receive Bakersfield College credits for work completed at other colleges should have official copies of transcripts from such colleges sent to the Office of Admissions and Records in the Administration building, room 7. Upon student completion of a Request for Evaluation in the Office of Admissions and Records in the Administration building, room 7, those transcripts will be reviewed and credit given where appropriate. Bakersfield College only accepts transfer credits from schools that are accredited by regional accrediting commissions of schools and colleges. Transcripts from foreign institutions must be evaluated by an approved international academic credential evaluation service. Information is available at the Office of Admissions and Records in the Administration building, room 7. Evaluations made and credits allowed by Bakersfield College are subject to review and evaluation by any college or university to which a student may transfer. Granting credit toward a Bakersfield College degree or certificate does not guarantee that pass through general education will be granted. Evaluations are completed within 2-3 months from submission.

**Advanced Placement Program**

Advanced Placement is a program of college level courses and exams for high school students. Bakersfield College grants college credit for students who score a three or higher on Advanced Placement exams. Additional information may be obtained from the Office of Admissions and Records in the Administration building, room 7.

Students may submit Request for Evaluation forms to the Office of Admissions and Records in the Administration building, room 7 after they have completed 12 units at Bakersfield College and they must have appropriate documentation of their successful completions of the Advanced Placement courses. A maximum of 30 units of credit by examination may be applied to the associate degree.

**Credit by Examination**

Subject to certain conditions, students may submit Request for Evaluation forms to the Office of Admissions and Records in the Administration building, room 7 after they are enrolled in classes at Bakersfield College and they must have appropriate documentation of their successful completions of the credit by examination. Credit by examination may be allowed for the Advanced Placement Program, the College Level Examination Program (CLEP), upon successful challenge by examination of specific Bakersfield College courses for which a fee equal to the current enrollment fee will be charged. Information on the policy and request for credit by examination forms may be obtained from the Office of Admissions and Records in the Administration building, room 7.

When a CLEP exam exists that has been approved by the appropriate dean for credit as a specific course or courses in the current college catalog, department administered exams will not be used to award credit in that specific course. A list of the courses for which CLEP tests are approved is available in the Office of Admissions and Records in the Administration building, room 7 in the Administration building, room 7 and in the Assessment Center. The college can provide no assurance that credits awarded for credit-by-examination will be treated in a similar manner by other educational institutions.

The student’s permanent record will be annotated to indicate the credit was granted by examination. A maximum of 30 units of credit...
by examination may be applied to the associate degree.

**College Level Examination Program**

The College Level Examination Program is a means through which academic credit may be given for nontraditional forms of educational experience. Those who have reached a college level of education through home or correspondence study, on-the-job training, television courses, military service, or other means may take the CLEP examinations which are offered by the College Entrance Examination Board through the Bakersfield College Assessment Center. Credit for the subject area examination will be awarded upon approval of the appropriate faculty chair. Subject examinations are equated with specific courses listed in the current college catalog. Further information may be obtained from the Office of Admissions and Records in the Administration building, room 7.

Students may submit Request for Evaluation forms to Admissions and Records in the Administration building, room 7 after they are enrolled in classes at Bakersfield College and they must have appropriate documentation of their successful completions of the College Level Examinations courses. A maximum of 30 units of credit by examination may be credited toward the associate degree.

**International Baccalaureate Diploma Program**

The International Baccalaureate Organization’s Diploma Program is a comprehensive and rigorous two-year curriculum for university-bound students between the ages of 16 and 19. After completing the courses at the participating high school, students take the related IB examination, and the information is printed on their high school transcripts. Bakersfield College recognizes the high scholastic quality of the International Baccalaureate Diploma Program and awards credit or placement as approved. Students who plan to enroll at Bakersfield College should submit a copy of their official IB transcript to the Office of Admissions and Records in the Administration building, room 7 for evaluation.

Units for which credit is given pursuant to these examinations will not be counted in determining the 12 semester units in residence required for an associate degree.

**Military Credit**

Bakersfield College will grant veterans from 2 to 12 elective credits for specific service experience and certain educational training while in the service. Evaluation of such experience and training will be made by the Office of Admissions and Records in the Administration building, room 7. Credit evaluations will conform to the regulations set forth by the State Approval Agency of the California State Department of Education and the recommendations of the American Council on Education. A maximum of 12 semester units will be allowed.

Students may submit Request for Evaluation forms to the Office of Admissions and Records in the Administration building, room 7 after they are enrolled in classes at Bakersfield College and they must have appropriate documentation of their successful completions of the military courses.

Veterans may use their military basic training to satisfy Area E of the CSU General Education Requirements by request on transcript order forms.

**Tech Prep Program**

Bakersfield College Tech Prep Program is an integral part of Career and Technical Education, and encourages high school students to continue education training at the college level by offering college credit for high school articulated courses. It provides a smooth transition from high school to a certificate, associate degree or transfer at the community college without the need to repeat articulated courses. Bakersfield College currently has articulation agreements with high schools, Regional Occupational Centers and Programs, and adult schools.

Bakersfield College will articulate course credit to students who have completed and met the competency requirements of an articulated course, are admitted and in good standing at the college, and only for the course listed in the college catalog. See your high school counselor to obtain a list of courses that are currently articulated at your school or check out our Tech Prep website at: www.bakersfieldcollege.edu/community/techprep. Additional information can be obtained from the Office of Career and Technical Education, in the Family and Consumer Education building, room 16.

**Repeating a Course**

Certain Bakersfield College courses are identified in the course description sections of the catalog as repeatable, with the number of times they may be repeated indicated.

Other courses may be repeated once for credit if a grade lower than ‘C’ or its equivalent has been earned. A student who has repeated a course under this condition may file a petition with the Office of Admissions and Records in the Administration building, room 7 to have the previous grade and credit disregarded in the calculation of the GPA. Only second attempts will replace the first substandard grade. The original and subsequent grades will remain a part of the student’s permanent record.

If a student earns any combination of ‘D’, ‘F’, or ‘W’ on two attempts in a course taken in the Kern Community College District, that student can only register for a third time with the signature of the faculty chair of the department on a Request to Repeat a Course Beyond the Limit form. The form should be submitted to the Office of Admissions and Records in the Administration building, room 7.

**Final Examinations**

A final examination or evaluation is required in all courses. Instructors will give final examinations or evaluations at the regularly scheduled time.

**Grades and Credits**

**Grading System**

Grades are earned and awarded in each course and are recorded on the student’s permanent record at the end of each academic term. Evaluation of student achievement will be made in relation to the attainment of the specific objectives of the course. At the beginning of a course the instructor will explain these objectives and the basis upon which grades are determined. A student’s work is considered satisfactory when he/she maintains an average of ‘C’ (grade point average 2.0) or higher.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-Excellent</td>
<td>4 per unit</td>
</tr>
</tbody>
</table>
The following courses are approved for pass-no-pass grading:

- ACDV – B5a, B66, B68, B70a-f, B91, B190, B195, B201a, B201b, B201c, B292
- ADMJ – B60, B61, B63, B81
- APPR – B60cs, B60ec, B60fa, B60fb, B60pe, B60pt, B65xf
- ART – B1, B2, B4, B17
- AUTO – B106, B112
- BIOL – B255
- BSAD – B9, B250
- CADM – B54, B55, B56, B57, B58, B70a, B70b, B70c, B70d, B70e, B70f, B70g, B70h, B70i, B70j, B70k, B70l, B70m, B70n, B70o, B70p, B70r, B70s, B70t, B70u, B70v, B70w, B70x, B70z, B71a, B71f, B71g, B71h, B71i, B71k, B71l, B71m, B71n, B71o, B71p, B71q, B72, B73, B74, B75, B76, B77, B78, B79
- CHDV – B70b
- COMS – B2, B3, B5, B10, B14, B27, B35, B40, B51, B74a, B74b, B74c, B74e, B75c, B82, B96
- CRIM – B1, B2, B3, B4, B5, B8, B9, B10, B55
- EDUC – B24
- ELET – B55a, B63
- ENGL – B34, B60
- ENSL – B22, B50, B51, B60, ENSL B61, B70, B71ab, B71cd, B80, B300N, B301N, B302N, B303N, B304N
- FDSV – B71
- FIRE – B2, B4, B5, B6, B25f, B25h, B29, B71a, B72h
- GEOG – B35a, B35b
- INDT – B10, B274
- JAPN – B3
- MATH – B255
- MDES – B35, B60
- MUSC – B5ab, B230abc
- NURS (VNRS) – all clinical components of nursing courses; NURS B52, B70, NURS B100, B201abcd
- VNRS – B11V, B85LV, B86LV, B87LV, B95LV, B96LV, B97LV
- ORNH – B2
- PHED – B3adp, B66cx, B6t, B6wt, B6y, B32
- PHIL – B7 (Philosophy majors may not take Philosophy courses for Pass/No Pass grading)
- RADT – B4a, B4b, B6, B7, B10, B13
- SPST – B48, B201/B201L
- STDV – B1, B2, B3, B6
- WOOD – B1, B2, B5, B65a, B65b
- WEXP – B250

I-Incomplete

Students may request that instructors issue I grades when they have an unforeseeable emergency and justifiable reasons at the end of the term. The instructor must submit a statement of the requirements for clearance of the incomplete and also indicate the grade to be assigned in lieu of the I if the requirements are not completed. An I must be made up no later than one year following the end of the term in which it was assigned. An I may not be assigned as a withdrawal grade. If the work stipulated is not completed within the time limitation, the grade assigned in lieu of the work being completed will be entered on the permanent record.

W- Withdrawn

The student has withdrawn from a course or has been dropped from a course by the instructor between the dates indicated in these regulations.

IP-In Progress

The IP indicates the course extends beyond the normal end of an academic term and work is in progress, or the course is listed as an open-entry/open-exit course, and has been approved by the instructor to register and complete course requirements in the succeeding semester in order to receive credit and a course grade. The grade and unit credit will appear on the student’s permanent record for the term in which the course work is completed. The IP cannot be given more than twice for any particular course. If a student enrolled in an open-entry, open-exit course is assigned an IP at the end of an attendance period and does not re-enroll in that
course during the subsequent attendance period, the instructor shall assign a grade (‘A’, ‘B’, ‘C’, ‘D’, ‘F’, ‘P’, or ‘NP’) to be recorded on the student’s permanent record for the course.

RD-Report Delayed
The ‘RD’ is a symbol assigned by the Office of Admissions and Records in the Administration building, room 7 when there is a delay in reporting the grade of a student due to circumstances beyond the control of the student.

Grade Reports
Final grades will be made available to students on the Bakersfield College web registration system as soon as possible after the end of each academic term. There will be no additional notification of grades completed or corrected.

Grade Changes
The instructor of each course shall determine the grade to be awarded to each student. The determination of the student’s grade by the instructor shall be final in the absence of mistake, fraud, bad faith, or incompetence. A judgment to change or expunge a grade for reasons of fraud, bad faith, or incompetence shall be made by the college Chief Instructional Officer after consultation with the student, the instructor, and the Division/Department Chair. All parties noted above shall be notified in writing of any changes. Reasons for any grade change shall be documented.

When students request a grade change, provisions shall be made for another faculty member to substitute for the instructor if the instructor is not available or does not respond to communications within a reasonable length of time, the student has filed a discrimination complaint, or the Kern Community College District determines that it is possible there has been gross misconduct by the original instructor.

Honors
Dean’s List
Special recognition is accorded students who maintain a 3.3 grade point average during a semester in which they accumulate at least 42 grade points earned from enrollment in Bakersfield College courses. Students whose academic achievement is at this level are placed on the Dean’s List by the Office of Academic Affairs and are given general recognition on campus and in the community.

Graduation with Honors
Students who have completed at least 60 units in degree applicable letter graded courses, have taken at least 12 of those units at Bakersfield College, and who have earned a cumulative grade point average of 3.50 or higher are eligible for graduation with honors.

The honors designation will appear on the diploma and transcript as follows:

<table>
<thead>
<tr>
<th>Grade Point Average</th>
<th>Honor Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.50 - 3.69</td>
<td>Cum laude</td>
</tr>
<tr>
<td>3.70 - 3.89</td>
<td>Magna cum laude</td>
</tr>
<tr>
<td>3.90 - 4.00</td>
<td>Summa cum laude</td>
</tr>
</tbody>
</table>

Phi Theta Kappa Honor Society
Phi Theta Kappa membership is based on academic achievement. Students must be enrolled in a regionally accredited institution offering an associate degree program. They must complete a

minimum of 12 hours of coursework leading to an associate degree, must generally have a 3.25 grade point average, and must enjoy full rights of citizenship. After induction, members must maintain a GPA of 3.25 or higher. There is a fee for membership in this organization.

President’s Scholars
The president of Bakersfield College invites qualified members of each entering freshman class to participate in the President’s Scholars Program using criteria set up by the President’s Scholars/President’s Re-entry Scholars Program. Honorariums of $100 per semester and priority registration are based exclusively on meeting the program’s criteria each semester.

President’s Re-Entry Scholars Program
The President’s Re-Entry Scholars are re-entry students who have demonstrated, by their achievement at Bakersfield College, a commitment to academic excellence. This program is designed for students who are 25 years old or older, or students who have been out of school for five years. Honorariums are $100 per semester and priority registration is based on meeting the program’s criteria each semester. An explanation of eligibility requirements and information about the program is available.
TRANSFER GUIDE

What is Transfer
Transfer is the process of continuing your education at a four-year college or university, usually after completing your first two years at a community college. If planned correctly, the courses that you pass at community college will count towards requirements for your bachelor’s degree just as if they had been taken at the four-year institution.

Bakersfield College students transfer to a wide variety of universities within California and throughout the United States.

Transfer Services (661) 395-4421
The Bakersfield College Transfer Center is designed to help you during each step of your transfer experience to ensure a smooth and positive transition. A variety of resources are available, including:

- Academic Counseling
- Guidance in researching and selecting a transfer institution
- Individual appointments with representatives from the University of California, California State University, and independent colleges and universities
- Transfer workshops including application and Transfer Admission Guarantee
- Transfer Admission Agreements with University of California and some private colleges
- A library of catalogs and college publications
- Information on important dates and deadlines
- Computer software for college research
- Transfer Fairs
- Up-to-Date Transfer website

The Transfer Center is located in the Student Services building, room 37 or online at www.bakersfieldcollege.edu/transfer.

Educational Opportunities
Transfer is one of several different educational options available to you at Bakersfield College. The college also offers programs and courses designed to prepare students for a new career field, or to upgrade work skills related to a current occupation. The following are the most common degrees and certificates awarded:

Vocational Certificates
Vocational Certificates are awarded after completing specific courses related to a particular occupational area. They are intended for students seeking quick employment or job skills in a specific career field. Vocational Certificates are awarded by community colleges and some private schools.

Associate Degrees
Associate degrees are awarded after completing at least 60 associate degree or transfer semester units of study to include major and general education requirements. It certifies the achievement of in-depth knowledge about a field of study (your major) as well as the ability to communicate, use mathematics, think critically, and understand various modes of inquiry. This degree is the highest level awarded by community colleges. The degrees can be in arts or sciences. The associate degree may also be thought of as the first half of a bachelor’s degree, although most universities do not require that you earn it prior to transfer. If you complete the requirements for an Associate in Arts for Transfer degree (AA-T) or Associate in Science for Transfer degree (AS-T) at Bakersfield College you will earn an associate degree as well as being transfer-ready. The associate degree is a college degree, and as such, has value for employment and on a resume.

Bachelor’s Degree
Bachelor’s degrees are awarded after completing at least 120 semester units of study, including major, general education, and graduation requirements. This is the basic degree awarded by four-year colleges and universities. Transferable units earned at community colleges may count toward the total lower division units needed for a bachelor’s degree. A bachelor’s degree is usually earned in arts or sciences, although other more specialized options exist, such as the Bachelor of Fine Arts.
Transfer Coursework
Transfer coursework are courses designed to meet lower-
division (freshman and sophomore) general education and major
preparation classes of a four-year university.

Choosing a College Major
A major is a field of study that you emphasize in your college
education. It is what you specialize in with your degree. It’s
important to remember that your major is what you will study at the
university you transfer to. At Bakersfield College, you can prepare to
transfer into virtually any major at any university. To narrow down
the options, students often begin to select their major by one of the
following techniques:

- If you have an idea of a career field you want to enter, you
can find majors that are related to, or prepare for, that career
field. Majors and career fields are not always perfectly
matched. However, knowing your intended career field can
help narrow your options.
- To research possible career pathways, visit the Virtual
Bakersfield College Career Center, www.bakersfieldcollege.educareer_center or www.cacareercare.com or you can take
Student Development B2, a career decision making course at
Bakersfield College.
- If you know what university you want to attend, you can
select from the list of majors at that university. Lists of majors
at California state universities are available at www.assist.org
click on Explore Majors.

If you think you might be interested in a particular major but you are
not sure, try taking a general education class in the major and see
how you like it. Students often select their major based simply on the
courses that are the most interesting to them.

- For a description of the most popular majors in California,
visit www.petersons.com/college-search/popular-majors-
west.aspx

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

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

To view the most current list of Bakersfield College Associate
Degrees for Transfer and to find out which California State
University campuses accept each degree, please go to www.sb1440.
org/Counseling.aspx. Current and prospective community college
students are encouraged to meet with a counselor to review their
options for transfer and to develop an educational plan that best
meets their goals and needs.

Bakersfield College currently has four AA-T degrees in Studio Arts,
Communication Studies, Psychology, and Sociology, with more under
development.

Choosing a Transfer University
Each university may have different transfer requirements, so
choosing a transfer university (or a first, second, and third choice)
is important to ensure you complete the right courses. Universities
in the United States are organized into different systems and
categories. Choosing a transfer university is important because:

- The majors offered at each university are different.
- Each university has unique features, including factors like its
student body, its location, and its extracurricular activities.
- You are more likely to do well academically in a university
environment that you enjoy.

The most common universities that Bakersfield College students
transfer to include:

University of California
The University of California combines undergraduate education
(leading to a bachelor’s degree) with emphasis on graduate
programs (master’s and doctorate degrees) and research. The
tuition is relatively inexpensive for California residents. University
of California Davis, Merced and Santa Barbara are three universities
that Bakersfield College students transfer to.

University of California Minimum Requirements
Transfer students will be eligible for admission if they meet the
following requirements:
1. Complete a minimum of 60 University of California-
transferable semester units or 90 University of California-
transferable quarter units.
2. Obtain a minimum 2.4 GPA (2.8 for California non-
residents). The GPA for admission may be significantly higher
due to the department or major applicant pool.
3. Complete two transferable college courses in English
composition and one transferable college course in
mathematical concepts and quantitative reasoning.
4. Complete four transferable college courses chosen from at
least two of the following subject areas: arts and humanities,
social and behavioral sciences, physical and biological
sciences.

The University of California gives high priority to students who
complete major coursework early in their academic career.

Students who complete the Intersegmental General Education
Transfer Curriculum (IGETC) pattern prior to transferring to the
University of California system will meet the transfer eligibility
coursework requirement listed above. Students are strongly
recommended to meet with a counselor to discuss additional
requirements for competitive admissions based on major and
campus choice.

California State University
Emphasizes undergraduate education (leading to a bachelor’s
degree) but also offers master’s degrees. Professors spend more
time in the classroom and less time on research than those in the University of California system. California State Universities emphasize preparation for specific careers and are relatively inexpensive for California residents. California State University, Bakersfield; California State University, Fresno and California State University, Northridge are three local universities in the 23-campus California State University system that Bakersfield College students transfer to.

California State University Minimum Admission Requirements
Transfer students will be eligible for admission if they meet the following requirements:

1. Complete a minimum of 60 California State University-transferable semester units or 90 California State University-transferable quarter units.
2. Obtain a minimum 2.0 GPA (2.4 for California non-residents). Impacted majors, programs and colleges may have higher GPA requirements.
3. Complete the Golden Four (Oral Communication, Written Communication, Critical Thinking, and Mathematics/Quantitative Reasoning) with a grade of ‘C’ or better. Pass/No-Pass grades are not recommended in these areas.

Students are urged to complete a General Education Pattern in its entirety as California State University General Education or IGETC (see appropriate section of this guide for details).

Students are strongly recommended to meet with a counselor to discuss additional requirements for competitive admissions based on major and campus choice.

Private Colleges and Universities
Private colleges and universities are colleges and universities that are not funded by public taxes, and are sometimes called independent. Each university is unique with its own programs, majors, and degrees. Some offer academic programs grounded in a specific religion or philosophy. Others offer programs in only one discipline, such as the arts or technical degrees. Others specialize in providing continuing education to working adults. Private colleges and universities can be smaller and more focused in academic emphasis than public universities.

Historically Black Colleges and Universities
Historically Black Colleges and Universities usually have a majority African American student body although students of all races attend them. They may be private or out-of-state public schools. Most are located in the southern United States.

Hispanic Serving Institutions
The Hispanic Association of Colleges and Universities is a national educational association that represents colleges and universities committed to Hispanic Higher education success in the United States (including Puerto Rico), Latin America, and Spain. Hispanic Association of Colleges and Universities has 193 member Hispanic-Serving Institutions located in 11 U.S. states and Puerto Rico. To be considered a Hispanic-Serving Institution, the Hispanic enrollment at a college or university must be at least 25 percent of the total student enrollment. California is home to 54 Hispanic Serving Institutions including Bakersfield College.

Tribal Colleges and Universities
There are 35 recognized Tribal Colleges and Universities in the United States. These are located mainly in the midwest and southwest. Tribal Colleges and Universities serve approximately 30,000 full and part-time students. They offer two-year associate degrees in over 200 disciplines with some providing bachelor’s and master’s degrees. They also offer 200 vocational certificate programs.

Out-of-State Colleges and Universities
These colleges include those colleges and universities that are not in California. They may be public or private and are usually more expensive for out-of-state residents than those who live and pay taxes in the state. This group of colleges offers a huge variety of degrees and graduate programs.

Preparation for Major Courses
For each major at a four-year institution, there are lower division (freshman and sophomore level) preparatory courses designed to prepare students for upper division study (junior and senior level). Based on the availability of courses, students are strongly encouraged to complete as many major prerequisite courses as possible prior to transfer.

Preparation for major courses for University of California and California State University schools can be found at www.assist.org. The ASSIST website is designed to provide students with the most accurate and up-to-date information available. ASSIST lists which community college courses are equivalent to their four-year counterparts and/or will meet specific requirements. Students can also get valuable information such as additional screening requirements, if the major is impacted, and if there is a required GPA for a specific major on ASSIST.

For students looking to transfer to a private/independent or out-of-state school, you should first access the Bakersfield College Transfer Center website at www.bakersfieldcollege.edu/transfer or talk to a counselor to find out if Bakersfield College has an articulation agreement with your school of interest.

If Bakersfield College has no articulation with the school, you should go to the school’s undergraduate admissions page and search for transfer information or contact the school’s admissions department directly to find out the best way you can take courses towards major preparation.

General Education Courses
General education is a set of courses from a variety of different subject areas that every student must complete in order to earn a bachelor’s degree, regardless of major. The goal is to provide a well-rounded or liberal education and develop the knowledge, skills, and attitudes that together help make up an educated person.

The completion of general education prior to transfer is not required for admission to most universities. However, it is usually in the students’ best interest to complete an appropriate transfer general education pattern at the community college. This is because general education requirements that are not fulfilled prior to transfer must be completed later at the university, which often extends the time and expense of a university education.
Students usually follow one of three transfer general education options:

1. The IGETC pattern: IGETC is accepted by all California State University campuses and most University of California campuses and majors. It is also accepted by some private/independent or out-of-state universities.
2. The California State University General Education pattern: California State University General Education is accepted by all California State University campuses and some private/independent or out-of-state universities. It is not accepted by the University of California system.
3. Alternative general education pattern: It is usually not recommended for students who plan to transfer to the University of California or California State University systems to follow this option. However, students entering high-unit majors such as science or engineering, those transferring to a private/independent or out-of-state institution, or those who plan to apply to only one university may be best served by an alternative general education pattern.

It is strongly recommended that students consult with a counselor to determine which general education pattern is most appropriate for their individual educational goals.

Completion of the IGETC or California State University General Education pattern also fulfills the requirements for general education for a Bakersfield College Associate in Arts or Science degree. Students who complete one of these patterns and additional transfer coursework may also qualify for a Bakersfield College Liberal Arts degree.

General Education Certification

General Education Certification is a legal agreement between the University of California or California State University systems and the California Community Colleges that permits a student to transfer from a community college to a University of California or California State University campus without the need to complete additional lower division general education courses to satisfy university General Education requirements after transfer. Bakersfield College will provide an IGETC or California State University General Education certification upon completion of General Education coursework when requested by the student on the transcript form. This certification may include selected courses taken from other regionally accredited colleges, or credit earned through other means, such as Advanced Placement test credit. Students do not have catalog rights to a certification pattern. Certification is subject to the following conditions:

1. For full certification, no fewer than 39 units will be certified; for partial certification, no fewer than 24 units will be certified;
2. Only entire areas will be certified.

Pass Along Certification

Students who transfer credits from another California community college often want to pass along the general education certifications that they have earned. Any California community college may certify such coursework from another California community college, from a regionally accredited college or university, or from a California State University or University of California campus. It is critically important that students transferring coursework from other colleges and universities, fill out the Request for Evaluation form available under Admissions and Records, Other Forms on the Bakersfield College website or at window #6 in the Office of Admissions and Records in the Administration building room 7 and that they have official transcripts sent to the Office of Admissions and Records in the Administration building, room 7 to be evaluated.

C-ID Course Identification Number

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

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

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

Intersegmental General Education Transfer Curriculum (IGETC)

About the IGETC Pattern

The Intersegmental General Education Transfer Curriculum (IGETC) is a general education pattern that will fulfill all lower division general education requirements at all California State University campuses and most University of California campuses/majors. It is also accepted by some private/independent or out-of-state universities. IGETC is usually recommended for students who intend to transfer to a University of California campus, or who are not yet sure of their intended transfer university. Completion of the IGETC pattern is not an admission requirement for transfer to most University of California or California State University campuses, nor is it the only way to fulfill the lower division General Education requirements of a University of California or California State University campus prior to transfer.

It is strongly recommended that students consult with a counselor to determine which general education pattern is most appropriate for their individual educational goals.

Rules for using the IGETC pattern

- Each course must have been IGETC approved at the time it was taken. See www.assist.org for a list of certified courses
and approval dates.

• Courses may be approved for more than one IGETC area. However, each course may be used to certify only one of the areas it is approved for.
• Students should apply for IGETC certification at the last community college attended prior to transfer. Forms are available on the website under Admissions and Records, Other Forms or at Window 6 in the Office of Admissions and Records in the Administration building, room 7.
• AP credit and coursework completed at accredited U.S. colleges and universities may be used to fulfill some IGETC requirements. All such credit must be evaluated through the Office of Admissions and Records in the Administration building, room 7. Foreign coursework is not acceptable.
• All courses must be passed with a C or higher. C- is not acceptable.
• Students transferring to University of California need not complete the Oral Communication requirement (Area 1C).
• Students transferring to California State University need not complete the Languages Other than English requirement.
• Some University of California campuses do not allow use of IGETC for students who were previously enrolled at a University of California campus.
• Some community college courses have limitations on the amount of credit awarded by the receiving university. See a counselor, the course description in the college catalog, or www.assist.org for more information.

IGETC is NOT recommended for the following transfer destinations

• University of California San Diego Revelle and Eleanor Roosevelt Colleges
• University of California Berkeley Colleges of Business, Chemistry, Environmental Design (Architecture), Engineering, Natural Resources, Optometry.
• University of California Davis College of Engineering
• University of California Irvine Schools of Engineering, Biological Sciences, Physical Sciences
• University of California Riverside Colleges of Engineering, Natural and Agricultural Sciences
• University of California Santa Barbara Colleges of Engineering, Creative Studies
• University of California Los Angeles Schools of Engineering and Applied Science

The IGETC Pattern

Area 1
English Communication: A minimum of nine units required; choose one from each group. Note: Students transferring to the University of California do not have to meet the oral communication requirement or the unit requirement of Area 1.

  Group A
  English Composition: one course, three semester/four to five quarter units.
  ENGL B1a

  Group B
  Critical Thinking-English Composition: one course, three semester/four to five quarter units. Courses must have English Composition as a prerequisite. AP credit may not be used.
  ENGL B2, PHIL B9

  Group C
  Oral Communication: one course, three semester/four to five quarter units.
  COMM B1, B2, B4, B8

Area 2
Mathematical Concepts and Quantitative Reasoning: one course, three semester/4-5 quarter units.
  MATH B1a, B1b, B2, B6a, B6b, B6c, B6d, B6e, B22, B23, B26

Area 3
Arts and Humanities: At least three courses, nine semester/12-15 quarter units. At least one course from the arts and one from the humanities.

  A. Arts:
  ART B1, B2, B4, B35, B36, B37
  MUSC B2, B4a, B4b, B21a, B21b, B22, B23, B27
  THEA B12a, B20, B31, B32

  B. Humanities:
  ASL B2, B3
  ENGL B1b, B5a, B5b, B10, B20a, B21, B27, B28, B30a, B30b
  FREN B2
  HIST B1, B2, B3, B4a, B4b, B15, 17a, B17b, B18, B20a, B20b, B25, B30a, B30b, B36
  JAPN B2
  MUSC B24
  PHIL B6a, B10, B18, B32, B33, B37
  SPAN B3, B4

Area 4
Social and Behavioral Sciences: At least three courses, nine semester/12-15 quarter units. Courses from at least two disciplines or an interdisciplinary sequence.

  ANTH B2, B3, B5
  CHDV B21
  COMM B6
  ECON B1, B2
  GEOG B2
  HIST B1, B2, B3, B4a, B4b, B15, B17a, B17b, B18, B20a, B20b, B25, B30a, B30b, B36
  JRNL B1
  POLS B1, B2, B3, B16
  PSYC B1a, B6, B20, B33, B40
  SOCI B1, B2, B20, B28, B36, B45

Area 5
Physical and Biological Sciences: The IGETC physical and biological science area requires a minimum of two courses, one physical science and one biological science course and at least one of the two must include a laboratory, seven to nine semester/nine to twelve quarter units. Physical and biological science courses that include a laboratory component are listed below in C.

  A. Physical Sciences:
  ASTR B1, B2, B3
  CHEM B1a(L), B2a(L), B11(L), B18(L)
  ERSC B10
  GEOG B1, B3
  GEOG B1, B11
  PHYS B2a(L), B4a(L)
B. Biological Sciences:
ANTH B1
BIOL B3a(L), B3b(L), B7(L), B11(L), B16(L), B20(L)
B32 (L), B33(L)
CRPS B10(L)
PSYC B1b

C. Laboratory Science:
BIOL B3a, B3b, B7, B11, B16, B20, B32, B33
CHEM B1a, B2a, B11, B18
CRPS B10
ERSC B10L
GEOG B1L
GEOL B10, B11L
PHYS B2a, B4a

Area 6
Language Other Than English. University of California Requirement Only. In order to complete IGETC for the University of California system, students are required to demonstrate competence/proficiency in a language other than English equal to two years of high school study. Competence may be demonstrated through the following mechanisms:

Completion of two years of the same foreign language of high school level work with grades of 'C' or better;
Completion of a course or courses at a college or university, with a grade of 'C' or better in each course. Usually, one semester of college work in a language other than English is equivalent to two years of high school work;

Any one of the following course or courses completed with a grade of 'C' or better will fulfill the requirement.

6A: Languages Other Than English
ASL B1 American Sign Language 1
ASL B2 American Sign Language 2
ASL B3 American Sign Language 3
ASL B4 American Sign Language 4
FREN B1 Elementary French
FREN B2 Elementary French
JAPN B1 Elementary Japanese
JAPN B2 Elementary Japanese
SPAN B1ab Elementary Spanish
SPAN B2ab Elementary Spanish
SPAN B3 Intermediate Spanish
SPAN B4 Intermediate Spanish
SPAN B10 Spanish for Heritage Speakers

• Korean/Korean With Listening: not offered before 1995/500
• Latin: 500/530
• Spanish/Spanish With Listening: 500/520

4. Achieve a score of 3, 4, or 5 on a College Board Advanced Placement (AP) Examination in a language other than English.
5. Achieve a score of 5 or higher on an International Baccalaureate (IB) Higher level Examination in a language other than English.
6. Complete, with grades of 'C' or better, two years of formal schooling at the sixth-grade level or higher in an institution where the language of instruction is not English. If secondary school was completed in a non-English-speaking country and the language of instruction of the secondary school was not English, language other than English proficiency can be certified for IGETC without further evaluation. The student must present appropriate documentation of attendance at the secondary school.
7. Earn a passing grade on the international A level or O level exam in a language other than English.
8. If appropriate achievement test is not available to assert proficiency, have competency verified by a faculty member associated with a California community college. Such verification requires that the college provide a document on letterhead asserting that the student’s proficiency in the language is equivalent to two years of high school study. See a counselor for more information. Only students who have no other means to verify foreign language proficiency may pursue this option. Students must petition for faculty member verification through the Evaluations office.
9. A Defense Language Institute language other than English course which is indicated as passed with a C or higher on the official transcript. Completion of courses above proficiency level, with grades of 'C' or better, may also be used to meet the requirement.

California State University General Education Breadth
About the California State University General Education Pattern
The California State University General Education-Breadth pattern is one option that allows California community college transfer students to fulfill the lower-division general education requirements of any California State University campus. The curriculum consists of a 39-unit pattern with five areas of concentration described in the California State University General Education pattern.

For assistance in determining the most appropriate general education program, consult a counselor.

Certification of California State University General Education Requirements
Official notification from a California community college that a transfer student has completed courses fulfilling lower-division general education requirements occurs through a process of certification. Certification is a legal agreement between the California State University and California Community Colleges.

It is the policy of Bakersfield College to provide certification of general education breadth requirements when such service is requested by the student or whenever a student requests that a transcript be sent to a California State University or University
of California if the student has completed all of 39 units for certification. Certification of general education courses is generally requested when the California State University General Education pattern has been completed.

Additional California State University General Education Information and Restrictions

- Completion of the California State University General Education pattern is not an admission requirement nor does completion guarantee admission to any California State University campus or program.
- Certification is based on approved courses listed in the Bakersfield College California State University General Education pattern or from other regionally accredited institutions. Courses taken at other community colleges must fulfill the appropriate General Education breadth area as defined by that college.
- Courses completed at a foreign college or university cannot be used to satisfy requirements for certification.
- Catalog rights do not apply to the California State University General Education pattern
- Prior to certification, students must complete a minimum of 24 units in residence at Bakersfield College.
- Official transcripts from all colleges and universities attended must be on file before submitting an application for certification. The application is available in the Office of Admission and Records in the Administration building, room 7.
- The California State University General Education pattern is accepted by some California private and independent colleges and universities in satisfying lower division general education requirements.
- For additional information, consult a counselor.

The California State University General Education Pattern

Courses required in Oral Communication (Area A.1), Written Communication (Area A.2), Critical Thinking (Area A.3), and mathematics and Quantitative Reasoning (Area B.4) must be completed with grades of ‘C’ or better for admission to most California State University campuses.

California State University General Education Breadth Course List

A. English Language Communication and Critical Thinking: A minimum of nine semester units in both oral and written communication in the English language, and in critical thinking and reasoning. AP credit may not be used for A.3.

A.1. Oral Communication:
- COMM B1, B2, B4, B8

A.2. Written Communication:
- ENGL B1a

A.3. Critical Thinking:
- PHIL B7, B9
- ENGL B1b, B2
- COMM B5

B. Scientific Inquiry and Quantitative Reasoning: A minimum of nine semester units including instruction in physical (B.1) and life science (B.2) and instruction in math/quantitative reasoning (B.4). One of the two science courses from B.1 or B.2 must include a lab. Courses with a lab are shown with an asterisk (*) and separate lab courses are listed in B.3.

B.1. Physical Universe:
- ASTR B1, B2, B3
- CHEM B1a*, B2a*, B11*, B18*
- ERSC B10
- GEOG B1, B3
- GEOL B10, B11
- PHYS B2a*, B4a*
- PHSC B12*

B.2. Life Science:
- ANTH B1
- BIOL B3a*, B3b*, B7*, B11*, B16*, B18*, B20*, B32*, B33*
- CRPS B10*
- PSYC B1b

B.3. Laboratory activity. At least one course shown with an asterisk (*) in Areas B.1 or B.2 or one of the following:
- ERSC B10L
- GEOG B1L
- GEOL B10L, B11L
- Courses from B.1 and B.2 with an * also satisfy the B.3 lab requirement.

B.4. Mathematics/Quantitative Reasoning:
- MATH B1a, B1b, B2, B6a, B6b, B6c, B6d, B6e, B22, B23
- PSYC B5

C. Arts and Humanities: A minimum of nine semester units among the arts, literature, philosophy and foreign languages. Every attempt should be made to include western and non-western cultures. At least one course must be taken from arts and one from humanities.

C.1. Arts (Art, Dance, Music, Theatre):
- ART B1, B2, B4, B13, B35, B36, B37
- MUSC B2, B4a, B4b, B21a, B21b, B22, B23, B24,
- B27
- THEA B1, B2a, B2b, B12a, B12b, B20, B31, B32

C.2. Humanities (Literature, Philosophy, Foreign Languages):
- ASL B1, B2, B3
- ENGL B1b, B5a, B5b, B10, B20a, B21, B27, B28,
- B30a, B30b
- FREN B1, B2
- HIST B1, B15, B18
- JAPN B1, B2
- PHIL B6a, B9, B10, B12, B18, B32, B33, B37
- SPAN B1ab, B2ab, B3, B4, B10

D. Social Sciences: A minimum of nine semester units dealing with human social, political, and economic institutions and behavior and their historical background. Fulfillment of this requirement must include courses taken in at least two disciplines. Every effort should be made to include western or non-western cultures. See notes below for information concerning additional requirements.

D.1. Anthropology and Archaeology:
- ANTH B2, B3, B5

D.2. Economics:
- AGBS B2
- ECON B1, B2
D.3. Ethnic Studies:
- ANTH B5
- COMM B6
- HIST B20a, B20b, B30a, B30b, B33, B36
- SOC1 B28, B36, B45

D.4. Gender Studies:
- HIST B25
- SOC1 B28

D.5. Geography:
- GEOG B2

D.6. History:
- HIST B1, B2, B3, B4a, B4b, B15, B17a, B17b, B18, B20a, B20b, B25, B30a, B30b, B33, B36

D.7. Interdisciplinary Social or Behavioral Science:
- AGRI B1
- CHDV B21
- COMM B6, B7
- PSYC B40

D.8. Political Science, Government, and Legal Institutions:
- JRNL B1
- POLS B1, B2, B3, B12, B16

D.9. Psychology:
- PSYC B1a, B6, B20 (SOC1 B20), B33, B40

D.10. Sociology and Criminology:
- CRIM B1, B5
- SOC1 B1, B2, B20 (PSYC B20), B28, B36, B45

E. Lifelong Learning and Self-Development: A minimum of three semester units in study designed to equip human beings for lifelong understanding and development of themselves as integrated physiological and psychological entities. A maximum of one unit of credit is allowed for physical education activity courses in this area.
- CHDV B21
- FORE B2
- HLED B1
- MEDS B35
- NUTR B10
- PHIL B12
- PSYC B1a, B30, B33, B40
- SOC1 B28
- STDV B3, B6
- PHED B3a, B3ads, B6, B6ct, B6hex, B6y, B7, B9, B10, B11, B12, B13, B14, B16, B17, B20, B22, B23, B24, B25, B26, B27, B28, B29, B30, B32, B33.

California State University U.S. History, Constitution, and American Ideals Certification Courses
The California State University, before awarding a degree, requires students to complete courses or examinations that address:
1. The historical development of American institutions and ideals (Area US-1), and
2. The Constitution of the United States and the operation of representative democratic government under that Constitution (Area US-2), and
3. The process of California state and local government (Area US-3).

This requirement may be fulfilled at a California Community College prior to transfer by completing a combination of courses that satisfies all three areas of the requirement. The requirement may also be completed at a California State University campus after transfer. Courses approved in two US areas may be used to satisfy both areas.

Although this requirement is not part of the General Education requirements for California State University, all students must complete course work in U.S. History, Constitution and Government before graduation from a California State University campus. The courses may also be used to partially fulfill Area D of the California State University General Education Breadth requirements.

Completion of these courses at Bakersfield College is recommended and is not required for Certification.

Students who wish to meet these requirements at Bakersfield College prior to transferring to a California State University campus may take up to six semester units from the combinations below.
- POLS B1 and one of the following: HIST B17a, B17b, B20a, B20b, B30a, B30b, B36, or HIST B17a and POLS B1 or POLS B12 or HIST B18.

Other Transfer General Education Options
Some transfer students are best served by following a general education pattern other than the IGETC or California State University General Education patterns. These typically include students who fall into one of the following three categories:

1. Students entering high unit majors such as an engineering or science discipline. Major preparation for the engineering and science fields typically consists of a high number of units. Most universities prefer (and some require) preparation for major courses be completed prior to transfer. Therefore, it may be more beneficial for students entering these majors to complete relatively fewer General Education courses and more major preparation courses at the community college, while still meeting the minimum admission requirements of the university. Students should review the catalog, other published advising materials of the university and major to which they intend to transfer and www.assist.org for students transferring to the University of California or California State University system and a Bakersfield College counselor for assistance in selecting appropriate courses.

2. Students transferring to a private/independent or out-of-state university. Some private/independent and out-of-state universities accept IGETC or California State University General Education, but most do not. Instead, each university has its own unique General Education pattern. Bakersfield College has established articulation agreements with some of these institutions. These agreements specify the courses students can complete at Bakersfield College to fulfill the university’s General Education requirements. They are available at www.bakersfieldcollege.edu/transfer/transferopportunities.asp For more information on transferring to a private/independent or out-of-state university, visit the Transfer Center.

3. Students who wish to complete the general education requirements of one specific university. Some students decide to complete the General Education requirements for one specific university, rather than the more universally
applicable IGETC or California State University General Education patterns, for several reasons:

- Some universities and/or majors do not accept IGETC and instead suggest following the university’s own General Education pattern.
- Some students know that they will attend only one university (such as those with a guarantee of transfer admission) and so plan to complete the specific General Education pattern for that institution only.
- Some university-specific General Education patterns require fewer total units that IGETC or California State University General Education.

Each university’s unique General Education pattern can be found in their university catalog. In addition, some University of California and California State University campuses have posted their general education patterns on the ASSIST website at www.assist.org.

**Guaranteed Admission Programs**

Bakersfield College offers a number of Guaranteed Admission Programs with several schools including: University of California, Davis; University of California, Irvine; University of California, Merced; University of California, Riverside; University of California, Santa Barbara; University of California, Santa Cruz; as well as California State University, Bakersfield STEM majors. Come to the Transfer Center for program requirements or look online at www.bakersfieldcollege.edu/transfer.

Plan early as some agreements must be signed at least a year in advance of the transfer semester/quarter. Interested students are strongly urged to meet with the Transfer counselor or attend a Transfer Admission Guarantee workshop for details on eligibility requirements as they change every year.

**Applying to a University**

About applying for admission

Universities require you to apply and be admitted before you start attending school there. All students who apply must meet the minimum requirements (usually certain coursework requirements and a minimum transferable GPA). Some schools accept all transfer students who meet the minimum requirements, while others go through a selection process to determine which students will be offered admission.

Application dates and deadlines

Different systems have different dates and deadlines to apply. If you plan to attend a private/independent or out-of-state university, you should check with that school to find their application deadline and procedures. The following dates and deadlines apply to California public universities only:

<table>
<thead>
<tr>
<th>California State University Term of Transfer</th>
<th>Initial Filing Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>Feb. 1-28/29 of current year</td>
</tr>
<tr>
<td>Fall</td>
<td>October 1-November 30 of preceding year</td>
</tr>
<tr>
<td>Winter</td>
<td>June 1-30 of preceding year</td>
</tr>
<tr>
<td>Spring</td>
<td>August 1-31 of preceding year</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>University of California Term of Transfer</th>
<th>Initial Filing Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall semester or quarter</td>
<td>November 1-30 of preceding year</td>
</tr>
<tr>
<td>Winter quarter</td>
<td>July 1-31 of preceding year</td>
</tr>
<tr>
<td>Spring Quarter</td>
<td>October 1-31 of preceding year</td>
</tr>
</tbody>
</table>

All campuses are open for any given Fall term. For Winter/Spring terms, students should verify that the specific campus accepts transfers for that specific term. Check www.csumentor.edu for California State University campuses and www.universityofcalifornia.edu for University of California campuses.

Each campus accepts applications until the end of the filing period or until capacities are reached. If applying after the initial filing period check the campus websites to verify if the campus is still open.

**How to apply**

The University of California and California State University systems strongly encourage all students to apply using the online application process. Not only does it make it easier to read and evaluate your application, but the websites also check your work to make sure you are not missing any required information before you submit your final application.

The University of California application is available at: www.universityofcalifornia.edu/apply.

The California State University application is available at: www.csumentor.edu/admissionapp/undergrad_apply.asp.

**Final Steps to Transfer**

Many universities require you to submit documents, take assessment exams, attend mandatory orientations, or meet other requirements before you enroll. It is very important that you check your email regularly so that you do not miss deadlines. It’s also a good idea to apply for your local Bakersfield College degree and General Education certification from Bakersfield College prior to transfer. You should do as much as you can now to make the transition to your university as smooth as possible.

Petition to Graduate from Bakersfield College

Graduation from Bakersfield College is not automatic. You must fill out a Candidacy for Graduation form and a degree analysis with a counselor or advisor. We recommend you petition to graduate even if you are only completing transfer coursework. Some transfer students may be eligible to receive a Liberal Arts associate degree. You should petition to graduate during your last semester at Bakersfield College by these dates:

- August 1-November 1 for Fall semester graduation.
- January 1-April 1 for Spring semester graduation.
- June 1-July 1 for Summer semester graduation.

The Office of Admissions and Records in the Administration building, room 7 notifies students who do not qualify within twelve weeks of submission of the candidacy form. Students who do not receive such notification should assume that they will graduate if they satisfactorily complete their current term coursework. Students who qualify will receive their diploma in the mail approximately eight weeks after the end of the semester.

File for General Education Certification

General Education Certification is a legal agreement between Bakersfield College and a California public university (University
of California or California State University campus) that all of your lower division General Education requirements have been completed. Certification can be awarded for either the entire IGETC or California State University General Education patterns, or for part of the California State University pattern. Some California private/independent institutions also accept IGETC or California State University General Education certification. You should file for General Education certification when you are enrolled in your final General Education courses and know which university you will be attending. Apply at the Office of Admissions and Records in the Administration building, room 7, Transcript window.

**Attend Commencement**

You don’t have to attend Bakersfield College graduation to transfer or to receive your degree, but it’s a great way to celebrate and be publicly recognized for your achievement. You earned it! Commencement ceremonies are held once a year in May. Students who complete their degree requirements during the fall, spring, or summer prior to the ceremony or will complete them during the following summer are eligible to participate.

**Submit Intent to Register and Transcripts**

After offering you admission, most universities require you to send a statement of intent to register, official transcripts, a deposit, and sometimes additional materials. Review your university admission paperwork for details. Information on ordering transcripts from Bakersfield College is available online at www.bakersfieldcollege.edu/admissions/transcripts.

**Attend New Student Orientation**

Most universities offer a new student orientation day (and some require that you attend), where you learn about university services and requirements, get academic advising, tour the campus, etc. Review your university admission paperwork for details.

**Complete Assessment Tests**

Some universities require transfer students to complete assessment tests either prior to enrollment or during their first year of attendance. Review your university admission paperwork for details.

**Find Housing**

Are you going to live on campus? If so, you will need to apply for campus housing. Check your university online portal account for housing submission dates. If you are going to live off campus, visit your university housing office for listings.

**Send Your Final Transcripts**

You are usually required to send your university a final official transcript after the end of your last regular semester prior to transfer. Information on ordering transcripts from Bakersfield College is online at www.bakersfieldcollege.edu/admissions/transcripts.

**Meet Immunization Requirements**

Most universities require you to provide documentation of immunization against certain communicable diseases, like measles or rubella. Review your university admission paperwork for more information.

**Other Transfer Information**

**University of California Transfer and Physical Education Courses**

The University of California grants a maximum of four semester units of credit for appropriate Physical Education activity courses. Courses that are subject to this limit are listed as such on the college's University of California Transfer Course Agreement, available on web ASSIST at www.assist.org under the University of California Transferable Courses link.

**University of California Transfer and Variable Topics Courses**

These courses are also called Independent Studies, Special Studies, Special Topics, Internships, Field Work, etc. Credit for variable topics courses is given only after a review of the scope and content of the course by the enrolling University of California campus. This usually occurs after transfer and may require recommendations from faculty. University of California does not grant credit for variable topics courses in Journalism, Photography, Health, Business Administration, Architecture, Administration of Justice (Criminology) or Library Departments because of credit restrictions in these areas.
Certificates and Degrees

Students have many different goals in mind when they enroll at Bakersfield College. Some plan to earn a certificate to enhance their job skills while others want to earn an associate degree and/or transfer to a four-year university. Bakersfield College offers the following certificate and degree programs:

- Associate in Arts and Associate in Science degrees can be used to obtain necessary skills for a range of possible careers or they may be used to transfer to a four-year institution.
- Associate in Arts/Associate in Science for Transfer degrees (AA-T, AS-T). Students will earn an associate degree as well as being transfer-ready.
- Certificates of Achievement are awarded to students who complete formal instructional programs of at least 18 units designed to prepare them for a specific field or endeavor.
- Job Skills Certificates are awarded upon the satisfactory completion of coursework (less than 18 units) in a specific area of study.

Students who plan to seek immediate employment rather than to transfer usually choose to meet the Bakersfield College General Education Requirements.

Graduation with an Associate Degree

The awarding of an associate degree is intended to represent more than an accumulation of units. It symbolizes a successful attempt on the part of the college to lead students through patterns of learning experiences designed to develop certain capabilities and insights. Among these are the ability to think and to communicate clearly and effectively both orally and in writing; to solve problems and to use mathematics; to understand the modes of inquiry of the major disciplines; to be aware of other cultures and times; to achieve insights gained through experience in thinking about ethical problems; and to develop the capability for self-understanding. In addition to these accomplishments, the student shall possess sufficient depth in some field of knowledge to contribute to lifetime interest. (Title 5)

Associate in Arts/Sciences Degrees for Transfer (AA-T/AS-T)

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

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

To view the most current list of Bakersfield College Associate Degrees for Transfer and to find out which California State University campuses accept each degree, please go to www.sb1440.org/Counseling.aspx. Current and prospective community college students are encouraged to meet with a counselor to review their options for transfer and to develop an educational plan that best meets their goals and needs.

The associate degree shall be conferred by the Board of Trustees of the Kern Community College District upon a Bakersfield College student who has satisfactorily completed the requirements. These requirements are consistent with those prescribed by the Board of Governors of the California Community Colleges and the Board of Trustees of the Kern Community College District.

Applying for Graduation

Students must complete candidacy for graduation requests during the semester immediately prior to or early in the semester in which they plan to graduate. Applications are available in the Counseling Center, and the EOP&S Office. Students should bring a DegreeWorks
Student View Worksheet to the office that they are obtaining the candidacy request form from. The worksheet and completed graduation request are due as follows:

- To graduate in December, forms are due by November 1
- To graduate in May, forms are due by April 1
- To graduate in August, forms are due by July 1.

The Office of Admissions and Records in the Administration building, room 7 notifies students who do not qualify as soon as possible after the application is received but no later than the end of the graduation semester. Students who do not receive such notification should assume that they will graduate if they satisfactorily complete the courses they are registered for in their final semester. Students who qualify will receive their diplomas in the mail approximately eight weeks after the end of the semester. Duplicate diplomas can only be issued upon written request and upon payment of a replacement fee.

Commencement Ceremonies
Commencement ceremonies are held once each year in May. Students who complete their degree requirements during the fall, summer, or spring prior to the ceremony or who will complete them in the following summer are eligible to participate. Students planning to complete during the following summer must:

- file a candidacy request between April 1 and May 1
- need only one course or less than five units for completion
- submit documentation of registration for the required course(s)

General Requirements
1. Educational Planning Completion of a designated course and a student education plan within the first 15 units at Bakersfield College. Choose from the following:
   - Agriculture: AGRI B1
   - Allied Health: NURS B100
   - Applied Science and Technology: INDT B10
   - Business: BSAD B20
   - Education: EDUC B24
   - FACE: FDSV B50
   - Physical Science: ARCH B1; ENGR B47
   - Student Development: STDV B1, B2, B4, B6
   - Minimum of 60 degree applicable units, with at least a 2.0 grade point average.
   - At least 12 of the 60 units must be completed with Bakersfield College.
   - Completion of the required courses with a minimum grade of 'C' of a designated major.
   - Competency Requirements:
     - Composition: completion of English B1a with a minimum grade of 'C'.
     - Mathematics: Two years of high school algebra or MATH B70 with a minimum grade of 'C'; or an equivalent score on the Placement/Assessment.
     - Reading: a satisfactory score on the Bakersfield College Placement/Assessment or a satisfactory grade in ACDV B50.
   - Completion of a General Education Pattern: Choose 1: Bakersfield College General Education Specific Requirements, or California State University General Education Breadth, or Intersegmental General Education Transfer Curriculum (IGETC). (See General Education Requirements).
   - 7. Completion of one course with a minimum grade of 'C' meeting the Multicultural Requirement

Multicultural Requirement
Multicultural study promotes awareness of and sensitivity to diverse beliefs and practices in contemporary society. Bakersfield College requires students to take courses that are inclusive of multicultural perspectives found in American and global society. This requirement may be satisfied through studying the distinctive cultures of the United States or the world, including but not limited to ethnicity, gender, class, political systems, religions, or human geography.

American Cultural and Ethnic Groups
This requirement includes courses that lead to an understanding of ethnic groups and cultures in American society. Courses will focus on themes that address the theoretical or analytical issues relevant to understanding race, culture and ethnicity. This exploration can be accomplished through the study of, but not limited to: African Americans, Native Americans, Asian Americans, Chicano / Latino Americans, and European Americans from integrative and comparative viewpoints as they relate to the larger context of American history, society and culture.

World Cultures
Students may develop a multicultural perspective through a study of world cultures and their relationship to America in a global society. The study of the history, society or culture of a foreign country and its relationship to America can demonstrate the interdependence of all nations in a global political, economic and social infrastructure.

Courses meeting this requirement should not be based solely on western civilization.

Double Majors
A single associate degree which designates graduation in two majors may be granted if all requirements for both majors are satisfied and an appropriate application for graduation is completed by the filing date for the academic year. The application for graduation must specifically request a double major designation, identify the majors, and, if needed, specify the type of degree to be granted.

The degree granted will depend on the major programs completed. If one program leads to an associate in arts and the other an associate in science, the associate in arts or associate in science degree will be selected by the student.

Double majors are not permitted in the Associate in Arts for Transfer or the Associate in Science for Transfer degree programs.

Additional Associate Degrees
An associate in arts or associate in science degree will be awarded to those already possessing an associate or higher degree if:
1. All requirements in a different major from that of previous associate or higher degree are satisfied; and
2. All general education requirements in effect when beginning the new degree program are satisfied; and
3. At least 12 units, subsequent to the granting of any previous degree, are taken at Bakersfield College; and
4. The student is enrolled at Bakersfield College during the
Because certain basic competencies are necessary for an educated person, the General Education Program specifically requires competency testing (or course alternatives) in reading, written expression, and mathematics.

Institutional Level Learning Outcomes
Upon completion of an associate degree, a student will:

I. Pursue knowledge and evaluate its consequences
   A. Think critically, abstractly, logically, and algorithmically to evaluate and solve problems.
   B. Integrate new information to formulate principles and theories and display openness to different opinions.
   C. Share the desire for intellectual creativity and acquisition of knowledge.

II. Communicate clearly and effectively in both written and oral forms.

III. Demonstrate knowledge and abilities in a chosen area of study.
   A. Demonstrate an understanding of resources and procedures of a field and the ability to use them.
   B. Demonstrate the ability to use current technology to acquire, organize, and analyze information appropriately.
   C. Possess a core of knowledge and skills in a chosen field.
   IV. Appreciate their civic responsibilities.

A. Reflect upon the cultural and ethical dimensions of life.

B. Contribute to society as an actively engaged citizen.

General Education Student Learning Outcomes

A.I. Oral Communication
   1. Form and present informative persuasive messages.
   2. Demonstrate competence in both active and emphatic listening.
   3. Present oral messages to appropriate audiences and adhere to conventions of message delivery.
   4. Manage personal communication apprehension and anxiety.

A.2. Written Communication
   1. Identify the controlling idea and the main points of college-level expository and argumentative essays.
   2. Evaluate expository and argumentative essays through the application of critical thinking techniques.
   3. Write logical and coherent expository and argumentative essays, summaries and paraphrases using correctly the standard conventions of written English.

B.I. Natural Sciences
   1. Demonstrate a knowledge of natural phenomena and recognize the processes that explain them.
   2. Demonstrate a knowledge of scientific methodologies when solving a problem.

B.2. Mathematics and Logic (Analytic Thinking)
   1. Apply formal systems of reasoning in solving problems or analyzing arguments.

C.I. Introduction to the Arts
   1. Demonstrate an understanding of and an ability to describe the ways in which arts, literature, philosophy or foreign languages reflect historical, intellectual, and cultural contexts, as well as aesthetic tastes.

2. Demonstrate the ability to recognize, describe and/or produce various components of an art form or language either visually and/or auditorily.
C.2. **Introduction to the Humanities**

1. Demonstrate an understanding of and an ability to describe the ways in which arts, literature, philosophy or foreign languages reflect historical, intellectual, and cultural contexts, as well as aesthetic tastes.

D.1. **Foundations in the Behavioral Sciences**

1. Demonstrate an understanding of the perspectives, theories, methods and core concepts of the behavioral sciences.
2. Explain the major problems and issues in the disciplines in their contemporary, historical and geographical contexts.
3. Demonstrate an understanding of and an ability to describe the contributions and perspectives of women, ethnic and other minorities, and Western and non-Western peoples.

D.2. **Foundations in the Social Sciences**

1. Demonstrate an understanding of the perspectives, theories, methods, and core concepts of the social sciences.
2. Explain the major problems and issues in the disciplines in their contemporary, historical and geographical contexts.
3. Demonstrate an understanding of and an ability to describe the contributions and perspectives of women, ethnic and other minorities, and Western and non-Western peoples.

D.3. **American (U.S.) Institutions**

1. Demonstrate an understanding of the perspectives, theories, methods, and core concepts of the social sciences.
2. Explain the major problems and issues in the disciplines in their contemporary, historical and geographical contexts.
3. Demonstrate an understanding of and an ability to describe the contributions and perspectives of women, ethnic and other minorities, and Western and non-Western peoples.

E. **Lifelong Understanding and Self-Development**

1. Critically examine the development of the individual as an integrated physiological, psychological, spiritual, and social being.
2. Identify, describe and explain the interactions of the internal and external influences and effects in human development and behavior over the course of the human life span.

### Bakersfield College General Education Pattern

**A. Communication in the English Language and Critical Thinking (6 units)**

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 and communication. Take 3 units in A.1 and 3 units in A.2.

- **A.1. Oral Communication (3 units)** COMM B1, B2, B4, B8
- **A.2. Written Communication (3 units)** ENGL B1a

**B. Physical Universe and Life Forms (6 units)**

Courses in the natural sciences are those that examine the physical universe, its life forms, and its natural phenomena. Further, courses in the natural sciences help the student develop an appreciation and understanding of the scientific method. Courses in the natural sciences, math and logic help students apply logical, qualitative and quantitative reasoning in solving problems or analyzing arguments. Take 3 units in B.1 and 3 units in B.2.

- **B.1. Natural Sciences (3 units)**
  - Life Sciences:
    - ANSC B1
    - ANTH B1
    - BIOL B3a, B7, B11, B16, B18, B20, B32, B33
    - CRPS B1, B10
    - FORE B2
    - PSYC B1b
    - SOIL B1
  - Physical Sciences:
    - ASTR B1, B2, B3
    - CHEM B1a, B2a, B11, B18
    - ERSC B10; B10L
    - GEOG B1, B1L, B3
    - GEOL B10, B10L, B11, B11L
    - PHSC B12
    - PHYS B2a, B4a

- **B.2. Mathematics and Logic Analytical Thinking (3 units)**
  - COMM B5
  - ENGR B19f
  - MATH B70, B1a, B1b, B2, B4a, B6a, B6b, B6c, B21, B22, B23
  - PHIL B7, B9
  - PSYC B5, B6

**C. Arts, Literature, Philosophy and Foreign Language (3 units)**

Courses in the Arts, Literature, Philosophy and Foreign Language are those which study the cultural activities and artistic expressions of human beings. The courses will 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. Art and language study may consist of historical or stylistic survey courses, courses involving speaking (signing) and understanding a language, hands-on creation or re-creation of examples of visual or performing arts, and/or courses which develop specific skills necessary for engaging in visual or performing arts.

- **C.1. Arts**
  - ART B1, B2, B4, B10, B16, B17, B20, B24, B35, B36, B37
  - ORNH B36
  - SPAN B1ab
  - MUSC B2, B4ab, B5ab, B6ab, B9ab, B10a, B12a, B14a, B17a, B21A, B21B, B22, B27
• THEA B1, B2a, B2b, B12a, B20, B27, B31

C.2. Humanities
• ASL B1, B2, B3, B4, B7
• COMM B21
• ENGL B27
• JAPN B1, B2
• SPAN B1ab, B2ab, B3, B4, B10
• PHIL B6a, B10, B12, B18, B37

D. Social, Political, Legal and Economic Institution and Behavior; Historical Background (9 units for AA; 6 units for AS)

Courses in the social and behavioral sciences are those which focus on people as individuals and as members of society. The courses will help the student develop an understanding of the methods of inquiry used by the social and behavioral sciences. For an Associate in Arts degree, choose six units from D.1 and/or D.2 and 3 units from D.3. For an Associate in Science degree, take 3 units from either D.1 or D.2 and three units from D.3.

D.1. Foundations in the Behavioral Sciences
• CHDV B21
• COMM B6*
• PSYC B1a, B20 (SOCI B20), B33, B40
• SOCI B20 (PSYC B20)

D.2. Foundation in the Social Sciences
• AGRI B1
• AGBS B2
• ANTH B2*, B3, B5*
• COMM B7
• CRIM B1, B5
• ECON B1, B2
• GEOG B2*
• HIST B1, B2*, B3*, B4a*, B4b*, B15, B17a*, B17b*, B18*, B20a*, B20b*, B25*, B30a*, B33*, B36
• JRNL B1*
• POLS B1*, B2*, B3*, B12*, B16
• PSYC B20 (SOCI B20)
• SOCI B1*, B2, B20 (PSYC B20), B28*, B36*, B45*

D.3. American (U.S. Institutions)
• HIST B3*, B4b*, B17a*, B17b*, B18*, B20a*, B30b*, B36*
• POLS B1*, B12*

E. Lifelong Understanding and Self-Development (4 units)

Courses in this area will prepare students for lifelong integrated physiological and psychological development. Take 3 units from one of the following courses:
• HLED B1
• NUTR B10
• MEDS B35, or completion of an approved Allied Health Program (RN, Rad Tech, or LVN)
• PSYC B1a, B33
• STDV B6

No more than one unit of activity/skills course work may be used to satisfy the Area E requirement. Take 1 unit from the following PHED courses:
• PHED B2sb, B3adp, B6a, B6bb, B6blb, B6clx, B6jd, B6pf, B6sc, B6t, B6v, B6vi, B6wt, B6y, B10, B11, B12, B13, B14, B16, B17, B20, B22, B23, B24, B25, B26, B27, B28, B29, B32, B33

*Course satisfies the Multicultural Requirement.

Multicultural Requirement

Bakersfield College requires students to take courses that are inclusive of multicultural perspectives found in American and global society. This requirement may be satisfied through studying either American ethnic groups or world cultures.

Note: Students must complete at least one class identified with an (*) to satisfy the Multicultural Requirement for graduation.

The following courses satisfy both a Bakersfield College General Education category and the Multicultural Requirement:
• ANTH B2, B5
• ART B37
• COMM B6
• ENGL B20a
• GEOG B2
• HIST B2, B3, B4a, B4b, B17a, B17b, B18, B20a, B25, B30a, B30b, B33, B36
• JRNL B1
• MUSC B24
• PHIL B37
• POLS B1, B2, B3, B12
• SOCI B1, B28, B36, B45

The following non-general education courses also satisfy the Multicultural Requirement:
• ASL B6
• CHDV B32

General Education Options for Transfer

Bakersfield College students transferring to a California State University or University of California campus have three options for completing their general education requirements. Each option offers advantages and disadvantages. These should be examined carefully. Bakersfield College counselors and advisors can help students carefully examine the available options.

Two of the primary choices for general education are the California State University General Education Breadth pattern and the Intersegmental General Education Transfer Curriculum (IGETC). Both the California State University and IGETC patterns should be seriously considered. The third option is the specific general education pattern for each University of California or California State University campus taken by students who begin their studies at that university. Few transfer students follow this option because the student must match the courses and pattern required at a specific university and Bakersfield College cannot certify completion of this option.

ASSIST

ASSIST is a web-based articulation and transfer planning system that can be accessed at www.assist.org. It describes how course credits earned at one California college or university can be applied
when transferred to another. ASSIST is the official repository of articulation for California’s colleges and universities and, therefore, provides the most accurate and up-to-date information available about student transfer in California. For further information, see a counselor.
PROGRAMS, CERTIFICATES & DEGREES

Listed below are Job Skills Certificates (JSC), Certificates of Achievement (CA), Associate in Arts (AA), Associate in Science (AS), and Associate in Arts for Transfer (AA-T) which Bakersfield College currently offers. Suggested courses of study that may be found in the catalog are indicated by (JSC), (CA), (AA), (AS) or (AA-T). An asterisk (*) indicates that the student must consult the appropriate department chair for further information. Job Skills Certificates (less than 18 units) document the satisfactory completion of training in a specific area of study. Certificates of Achievement (18 units of study or more) are awarded for the completion of a formal instructional program which is designed to give the learner skills, knowledge, and attitudes for a specific field or endeavor.

To apply for any certificate, students must have earned at least three credits of the courses required for the certificate at Bakersfield College. Upon completion of the requirements for a certificate, the student contacts the academic department to complete an application for a Certificate of Achievement or a Job Skills Certificate. Certificates are issued by the department 6-8 weeks after the receipt of the application. Only Certificates of Achievement will be posted to transcripts.

Legend
Job Skills Certificates (JSC)
Certificates of Achievement (CA)
Associate in Arts (AA)
Associate in Science (AS)
Associate in Arts for Transfer (AA-T)

Programs by Department

Agriculture (page 59)

- Agriculture Business Management (CA, AA, AS)
- Animal Science (CA, AA, AS)
- Environmental Horticulture (CA, AA, AS)
- Forestry (CA, AA, AS)
- Plant Science (CA, AA, AS)

- Registered Veterinary Technician (JSC)

American Sign Language (page 66)

- American Sign Language (AA)

Anthropology (page 67)

- Anthropology (AA)

Apprenticeship (page 67)

- Apprenticeship (AA, CA)

Architecture (page 67)

- Architectural Computer Aided Drafting (JSC)
- Architectural Drafting (AA, AS)

Art (page 69)

- Art (AA)
- Studio Art (AA-T)

Automotive (page 69)

- Auto Brakes and Wheel Alignment (CA)
- Auto Engine Overhaul (CA)
- Auto Tune-Up and Emission Systems (CA)
- Automotive Heating, Ventilation & Air Conditioning (JSC)
- Automotive Management (JSC)
- Automotive Power Trains (CA)
- Basic and Advanced Clean Air Car Course (JSC)
- Industrial Technology, Automotive Option (AS)

Biology (page 73)

- Biology - General Biology (AS)
- Biology - Human Biology (AS)

Business Administration (page 74)

- Accounting (AA)
- Office Assistant (JSC, CA)
- Administrative Office Assistant (AA)
- Bookkeeping (CA)
- Business Administration (AA)
- General Business (JSC)
- General Management (JSC)
- Marketing (CA, AA)
- California Real Estate (CA, AA)
- Retail Management (CA)

Chemistry (page 79)
- Chemistry (AS)

Chicano(a)/Latino(a) Studies (page 80)

Child Development (page 80)
- Child Development Assistant Teacher (JSC)
- Child Development Associate Teacher (JSC)
- Child Development Teacher (CA)
- Child Development Master Teacher: Infant Toddler (CA)
- Child Development Master Teacher: Special Education (CA)
- Child Development & Family Relations (AS)

Communication (page 82)
- Communication Studies (CA, AA-T)

Computer Studies (page 83)
- Computer Information Systems (CA, AA, AS)
- Computer Science (CA, AS)
- Web Development (CA, AS)

Construction (page 87)
- Construction Technology (CA)
- Industrial Technology, Construction Option (AS)

Correctional Administration (page 88)
- Correctional Administration (AA)

Criminal Justice (page 89)
- Criminal Justice (AA)

Digital Arts (page 89)
- Digital Arts (CA, AA)

Economics (page 90)
- Economics (AA)

Electronics Technology (page 90)
- Electronics Technology (CA)
- Industrial Technology, Electronics Option (AS)

Emergency Medical Technician (page 91)
- Emergency Medical Technician (JSC)

Engineering (page 92)
- Engineering (AS)
- Engineering Technology (AS)

English (page 93)
- English (AA)

Fire Technology (page 94)
- Fire Technology (CA, AA, AS)
- Wildland Fire Technology (AS)
- Chief Officer Certification (CA)
- Fire Officer Certification (CA)

Foods/Nutrition (page 98)
- Child Nutrition Management Program (CA, AS)
- Culinary Arts (CA, AS)
- Dietetic Services Supervisor (CA)
- Food Service Management (AS)

Geology (page 100)
- Geology (AS)

History (page 101)
- History (AA)

Human Services (page 102)
- Human Services (JSC, AA)

Industrial Drawing (page 103)
- AutoCAD (JSC)
- Industrial Drawing (AA)
- Industrial Technology, Industrial Drawing Option (AS)

Industrial Technology (page 104)
- Industrial Technology (AS)

Journalism (page 104)
- Journalism (AA)

Liberal Arts (page 105)
- Liberal Arts (AA)

Liberal Studies (page 105)
- Liberal Studies (AA)

Manufacturing/Machine Technology (page 107)
- Basic Machine Tool Operations-Lathe, Mill (JSC)
- Computer Numerical Control Programming (JSC)
- Manufacturing Technology (CA)
- Industrial Technology, Manufacturing Technology Option (AS)

Mathematics (page 108)
- Mathematics (AA)

Music (page 109)
- Music (AA)

Nursing (page 110)
- Nursing (AA)
- LVN to Associate Degree Nursing Program (AS)
- Vocational Nursing (CA)
- Nurse Assistant (JSC)

Philosophy (page 115)
- Philosophy (AA)
Physical Education (page 116)
- Physical Education (AA)

Physics (page 116)
- Physics (AS)

Political Science (page 117)
- Political Science (AA)
- Political Science, Emphasis in Domestic Policy (AA)
- Political Science, Emphasis in International Relations (AA)

Primary Care Associate/Physician’s Assistant (page 118)

Psychology (page 119)
- Psychology (AA-T)

Radiologic Technology (page 119)
- Radiologic Technology (AS)
- Principles of Fluoroscopy (JSC)
- Principles of Venipuncture (JSC)

Sociology (page 123)
- Sociology (AA-T)

Spanish (page 123)
- Spanish (AA)

Theatre Arts (page 124)
- Theatre Arts (AA)

Welding (page 124)
- Blueprint Reading and Layout for Welders (JSC)
- Gas Metal Arc/Gas Tungsten Arc Welding/Flux Core Arc Welding (JSC)
- Shielded Metal Arc Welding (JSC)
- Welding (CA)
- Industrial Technology, Welding Option (AS)

Woodworking/Cabinetmaking (page 126)
- Woodworking/Cabinetmaking (JSC)
- Cabinetmaking (CA)
- Industrial Technology, Woodworking and Cabinetmaking Option (AS)
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<tr>
<td>Liberal Arts (AA)</td>
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<tr>
<td>Liberal Studies (AA)</td>
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<td>LVN to Associate Degree Nursing Program (AS)</td>
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<tr>
<td>Manufacturing Technology (CA)</td>
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<tr>
<td>Marketing (CA, AA)</td>
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<td>Mathematics (AA)</td>
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<tr>
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<tr>
<td>Philosophy (AA)</td>
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<td>Plant Science (CA, AA, AS)</td>
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<tr>
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<tr>
<td>Political Science, Emphasis in Domestic Policy (AA)</td>
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<tr>
<td>Political Science, Emphasis in International Relations (AA)</td>
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<tr>
<td>Primary Care Associate/Physician's Assistant</td>
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<td>Principles of Fluoroscopy (JSC)</td>
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<td>Principles of Venipuncture (JSC)</td>
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<tr>
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<td>Sociology (AA-T)</td>
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<td>Spanish (AA)</td>
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<td>Woodworking/Cabinetmaking (JSC)</td>
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Agriculture

Agriculture Business Management
Certificate of Achievement
To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Agriculture Business Management Certificate of Achievement.

To Transfer Coursework
A minimum of 32 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- understand economic concepts and quantitative methods.
- demonstrate critical, integrative, and evaluative thinking.
- have well-developed verbal and written communication skills that are necessary for efficient and clear dissemination of economic analysis, as well as for success in private and public sector careers.
- understand and interpret economic news and trends using economic theory and apply them to agricultural operations for employment that will enhance opportunities and success in agriculture business in the 21st century.
- demonstrate specific skills in agriculture business.
- have an understanding of the business and economics of the agricultural industry, agricultural business, and the implications to the agricultural producer, consumer, and the food system.
- have an understanding of management principles encountered in the day to day operation of an agricultural enterprise.
- understand the production and marketing disciplines needed for employment.

Total Units: 32

Required Courses
Course Number  Title  Units
AGBS B2  Agricultural Economics  3.0
- or -
SOIL B1  Introduction to Soil Science  3.0
- or -
CRPS B1  Principles of Crop Production  3.0
AGRI B1  Agriculture, Environment and Society  3.0
AGBS B6  Agricultural Sales and Communication  3.0
CRPS B1  Principles of Crop Production  3.0
COMS B5  Introduction to Microsoft Office 2010  3.0
- or -
COMS B2  Introduction to Computer Information Systems  3.0
WEXP B248  Cooperative Work Experience Education  3.0
CRPS B2  Forage Crops  3.0
- or -
NRES B1  Range Management  3.0
ANSC B1  Introduction to Animal Science  3.0
- or -
ANSC B2  Beef Production  3.0
- or -
ANSC B4  Dairy Production  3.0
- or -
ANSC B10  Horse Production  3.0
- or -
FORE B2  Natural Resources  3.0
- or -
FORE B1  Introduction to Forestry  3.0
- or -
FORE B3  Wildlife Management  3.0
- or -
FORE B5  Identification of California Wildlife  3.0
- or -
FORE B6  Forestry Skills  3.0
AGRI B49  Agriculture Leadership Training  2.0

Agriculture Business Management
Associate in Arts
To Achieve the Associate in Arts
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Agriculture Business Management Associate in Arts.

To Transfer Coursework
A minimum of 20 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

About the Agriculture Business Management Major
The Agriculture Business Management major is made up of agriculture and agricultural business courses pertaining to the industry.

Many jobs in agriculture require training in business courses such as accounting, computers and salesmanship. Career opportunities include farm management, accounting, marketing of agricultural products, sales and services. The Agriculture Business Management Associate in Arts degree is recommended for students planning to transfer to a four-year college.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate in exams or work samples the ability to explain microeconomic and macroeconomic, analyze and evaluate agribusiness problems and management decisions, and perform basic algebra and introductory calculus operations in the context of applied economic analysis and optimization.
- demonstrate skills in fundamental agribusiness principles and analysis techniques into logical decision-making constructs.
- develop strong communication skills, both oral and written, for the purpose of conveying the results of business analyses in a clear, persuasive, and informative manner.
- learn to apply the concepts, principles, and terminology of business (economics, management, finance, marketing, and others) to real-world issues and opportunities in the agricultural and life sciences industries.
- demonstrate specific skills in agriculture business, such as record keeping, marketing, and problem solving.

Total Units: 20

Required Courses
Course Number  Title  Units
AGBS B2  Agricultural Economics  3.0
SOIL B1  Introduction to Soil Science  3.0
AGRI B1  Agriculture, Environment and Society  3.0
AGBS B6  Agricultural Sales and Communication  3.0
CRPS B1  Principles of Crop Production  3.0
- or -
FORE B1  Introduction to Forestry  3.0
- or -
Upon successful completion, the student will:

- master skills in agriculture business such as statistical methods to analyze commodity markets and economic data, explain how external forces such as law, environmental regulation, and government policies impact agribusiness decision making.
- demonstrate specific skills in agriculture business.
- have an understanding of the business and economics of the agricultural industry; agriculture business and the implications to the agricultural producer, consumer, and the food system; management principles encountered in the day to day operation of an agricultural enterprise.
- understand production and marketing as needed for employment.
- demonstrate managerial and leadership abilities such as public speaking skills and record keeping abilities in the field of agriculture business; understand and interpret economic news and trends using economic theory and apply them to agricultural operations for employment that will enhance opportunities and success in agriculture business in the 21st century.

**Total Units: 32**

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGBS B2</td>
<td>Agricultural Economics</td>
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<td>Introduction to Soil Science</td>
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</tr>
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<td>AGRI B1</td>
<td>Agriculture, Environment and Society</td>
<td>3.0</td>
</tr>
<tr>
<td>AGBS B6</td>
<td>Agricultural Sales and Communication</td>
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</tr>
<tr>
<td>CRPS B1</td>
<td>Principles of Crop Production</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMS B2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>WEXP B248</td>
<td>Cooperative Work Experience Education</td>
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</tr>
<tr>
<td>CRPS B2</td>
<td>Forage Crops</td>
<td>3.0</td>
</tr>
<tr>
<td>-or-</td>
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<td></td>
</tr>
<tr>
<td>NRES B1</td>
<td>Range Management</td>
<td>3.0</td>
</tr>
<tr>
<td>ANSC B1</td>
<td>Introduction to Animal Science</td>
<td>3.0</td>
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<tr>
<td>-or-</td>
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<td></td>
</tr>
<tr>
<td>ANSC B2</td>
<td>Beef Production</td>
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**Total Units: 30**

### Required Courses

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<tr>
<td>ANSC B10</td>
<td>Horse Production</td>
<td>3.0</td>
</tr>
<tr>
<td>FORE B2</td>
<td>Natural Resources</td>
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<tr>
<td>-or-</td>
<td></td>
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</tr>
<tr>
<td>FORE B1</td>
<td>Introduction to Forestry</td>
<td>3.0</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FORE B3</td>
<td>Wildlife Management</td>
<td>3.0</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FORE B5</td>
<td>Identification of California Wildlife</td>
<td>3.0</td>
</tr>
<tr>
<td>-or-</td>
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</tr>
<tr>
<td>FORE B6</td>
<td>Forestry Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>AGRI B49</td>
<td>Agriculture Leadership Training</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Animal Science Certificate of Achievement**

Certificate prepares students for entry level employment in food animal production and animal management and care. This program prepares students for careers in Animal Science and entry level production jobs such as feed mill technician, beef technician, swine technician, poultry technician, animal groomer, small animal assistant technician, and pet store employee.

**To Achieve the Certificate of Achievement**

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Animal Science Certificate of Achievement.

**To Transfer Coursework**

A minimum of 30 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- identify and implement sustainable livestock management practices that will improve livestock quality, provide efficacious management, protect the natural resources, and ensure economic viability of the livestock industry.
- demonstrate specific skills in animal science such as production, genetics, and nutrition within the animal science discipline needed for employment.
- demonstrate a working knowledge of animal production life cycles to develop a ranch management calendar that incorporates scientifically based management decisions and the latest technological advances in livestock husbandry.
- identify and evaluate livestock anatomy and physiology and relate form to function.
Animal Science 
Associate in Arts 
The Animal Science major prepares students for occupations in those areas of agriculture involving production, managing, and marketing of livestock. Both the scientific and practical aspects of the production of horse, beef, sheep, swine, dairy cattle and companion animals are stressed in the courses.

To Achieve the Associate in Arts 
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Animal Science Associate in Arts.

To Transfer Coursework 
A minimum of 23 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes 
Upon successful completion, the student will:

- be able to identify animal contributions to human needs, demonstrate and understand animal behavior, and identify life cycles and biotechnological principles of animal production.
- demonstrate specific skills in animal science such as production, genetics, and nutrition within the animal science discipline needed for employment.
- demonstrate appropriate husbandry best practices to animals of economic value.
- develop problem solving skills for lifetime learning.
- understand the scientific method and design of experiments to test hypotheses and as such, experience the process of discovery.
- demonstrate problem solving and critical thinking skills, skills to make oral presentations, and fundamental knowledge in production and management.

Total Units: 23

Required Courses 

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<th>Title</th>
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<td>ANSC B22</td>
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<td>ANSC B20</td>
<td>Companion Animal Care</td>
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<td>MCAG B1</td>
<td>Intro/Agricultural Mechanics</td>
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<td>ANSC B80</td>
<td>Introduction to Veterinary Technology</td>
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</tr>
<tr>
<td>ANSC B82</td>
<td>Anatomy and Physiology of Domestic Animals</td>
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<tr>
<td>ANSC B84</td>
<td>Small Animal Diseases</td>
<td>1.5</td>
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<tr>
<td>ANSC B86</td>
<td>Pharmacology for Veterinary Technician</td>
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<td>ANSC B88</td>
<td>Surgery, Dental and Anesthesiology for Veterinary Technicians</td>
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<td>ANSC B90</td>
<td>Emergency Medicine, Surgery/Nursing</td>
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<td>Caged Birds, Laboratory, and Exotic Animal Medicine</td>
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ANSC B2 
Beef Production | 3.0

ANSC B3 
Sheep Production | 3.0

ANSC B4 
Dairy Production | 3.0

ANSC B5 
Swine Production | 3.0

ANSC B10 
Horse Production | 3.0

ANSC B6 
Applied Animal Nutrition | 3.0

ANSC B7 
Animal Diseases | 3.0

AGRI B49 
Agriculture Leadership Training | 2.0

ANSC B11 
Livestock Selection and Evaluation | 3.0

CRPS B2 
Forage Crops | 3.0

NRES B1 
Range Management | 3.0

Animal Science 
Associate in Science 
The Animal Science major prepares students for occupations in those areas of agriculture that involve livestock production and related agribusinesses. Both the scientific and practical aspects of the production of horse, beef, sheep, swine, dairy cattle, poultry, and companion animals are the focus of courses. Career opportunities in Animal Science include livestock production, feeds industry sales, veterinary assistant, pharmaceutical sales, ranch/farm management, pet care and retail sales.

To Achieve the Associate in Science 
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Animal Science Associate in Science.

To Transfer Coursework 
A minimum of 26 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes 
Upon successful completion, the student will:

- demonstrate AI procedures, proper record keeping in the field of animal science, and skills in day to day animal production such as proper care, feeding, and reproduction.
- be able to practice proper basic principles of animal safety, evaluate performance such as growth and feed conservation.
- demonstrate specific skills in animal science such as production, genetics, and nutrition within the animal science discipline needed for employment.
- identify conformation qualities in cattle, sheep, and swine.

Total Units: 26

Required Courses 

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<td>AGRI B1</td>
<td>Agriculture, Environment and Society</td>
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<td>Introduction to Animal Science</td>
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<td>Cooperative Work Experience Education</td>
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<tr>
<td>AGRI B49</td>
<td>Agriculture Leadership Training</td>
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</table>

Select 6 units from the following
Environmental Horticulture Certificate of Achievement

The Environmental Horticulture Certificate of Achievement is designed for the student desiring specialized training in order to enter the workforce in the least amount of time.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Environmental Horticulture Certificate of Achievement.

To Transfer Coursework
A minimum of 29 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate managerial and leadership abilities in environmental horticulture classes for employment that will enhance opportunities and success in the horticulture industry in the 21st century.
- master academic proficiency and demonstrate specific skills within environmental horticulture disciplines needed for employment.
- be able to identify regional trees and plants and their use in the landscape.

Total Units: 29

Required Courses

<table>
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<td>Sheep Production</td>
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<tr>
<td>ANSC B10</td>
<td>Horse Production</td>
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Select 6 units from the following

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<tbody>
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<td>ANSC B6</td>
<td>Applied Animal Nutrition</td>
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<tr>
<td>ANSC B7</td>
<td>Animal Diseases</td>
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<tr>
<td>ANSC B11</td>
<td>Livestock Selection &amp; Evaluation</td>
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<tr>
<td>ANSC B83</td>
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<td>ANSC B84</td>
<td>Small Animal Diseases</td>
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<tr>
<td>ANSC B85</td>
<td>Large Animal Diseases</td>
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</tr>
<tr>
<td>ANSC B86</td>
<td>Pharmacology for Veterinary Technicians</td>
<td>1.5</td>
</tr>
<tr>
<td>ANSC B88</td>
<td>Surgery, Dental and Anesthesiology for Veterinary Technicians</td>
<td>1.5</td>
</tr>
<tr>
<td>ANSC B90</td>
<td>Emergency Medicine, Surgery/Nursing</td>
<td>2.0</td>
</tr>
<tr>
<td>ANSC B92</td>
<td>Clinical Pathology for Veterinary Technicians</td>
<td>2.0</td>
</tr>
<tr>
<td>ANSC B94</td>
<td>Caged Birds, Laboratory, and Exotic Animal Medicine</td>
<td>2.0</td>
</tr>
<tr>
<td>ANSC B96</td>
<td>Radiology, Ultrasound, and Diagnostic Imaging for Veterinary Technology</td>
<td>1.5</td>
</tr>
<tr>
<td>NRES B1</td>
<td>Range Management</td>
<td>3.0</td>
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</table>

Environmental Horticulture Associate in Arts

The Environmental Horticulture Associate in Arts degree is designed for the student planning to transfer to a four-year college or university. Career opportunities include the horticulture business, retail and wholesale nursery, landscape design, and the floral industry.

To Achieve the Associate in Arts
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Environmental Horticulture Associate in Arts.

To Transfer Coursework
A minimum of 21 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate managerial and leadership abilities in environmental horticulture classes for employment that will enhance opportunities and success in the horticulture industry in the 21st century.
- master academic proficiency and demonstrate specific skills within environmental horticulture disciplines needed for employment.
- master skills needed for baccalaureate level education or obtain a certificate.

Total Units: 21

Required Courses

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<tr>
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<td>CRPS B3</td>
<td>Integrated Pest Management</td>
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<td>ORNH B1</td>
<td>Introduction to Ornamental Horticulture</td>
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<tr>
<td>ORNH B2</td>
<td>Fundamentals of Nursery Management and Plant Production</td>
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<td>ORNH B3</td>
<td>Landscape Installation and Maintenance</td>
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<td>ORNH B4</td>
<td>Plant Propagation</td>
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<td>ORNH B6</td>
<td>Ornamental Plant Identification - Ground</td>
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<td>ORNH B7</td>
<td>Ornamental Plant Identification - Large Shrubs, Small Trees, Large Trees &amp; Palms</td>
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<td>ORNH B8</td>
<td>Introduction to Landscape Design</td>
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<td>Cooperative Work Experience Education</td>
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<tr>
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<td>Cooperative Work Experience Education</td>
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</tr>
<tr>
<td>AGRI B49</td>
<td>Agriculture Leadership Training</td>
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</table>

Environmental Horticulture Associate in Science

The Environmental Horticulture Associate in Science degree is designed for the student desiring to enter the workforce after earning a two-year degree.

To Achieve the Associate in Science
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Environmental Horticulture Associate in Science.
To Transfer Coursework
A minimum of 33 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- demonstrate managerial and leadership abilities in environmental horticulture classes for employment that will enhance opportunities and success in the horticulture industry in the 21st century.
- master academic proficiency and demonstrate specific skills within environmental horticulture disciplines needed for employment.
- master skills needed for baccalaureate level education or obtain a certificate.

Total Units: 33

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGBS B2</td>
<td>Agricultural Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>SOIL B1</td>
<td>Introduction to Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGRI B1</td>
<td>Agriculture, Environment and Society</td>
<td>3.0</td>
</tr>
<tr>
<td>FORE B1</td>
<td>Introduction to Forestry</td>
<td>3.0</td>
</tr>
<tr>
<td>FORE B2</td>
<td>Natural Resources</td>
<td>3.0</td>
</tr>
<tr>
<td>FORE B6</td>
<td>Forestry Skills</td>
<td>3.0</td>
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<tr>
<td>WEXP B248</td>
<td>Cooperative Work Experience Education</td>
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<tr>
<td>WEXP B249</td>
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</tr>
<tr>
<td>AGRI B49</td>
<td>Agriculture Leadership Training</td>
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Select 12 units from the following

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</thead>
<tbody>
<tr>
<td>FORE B3</td>
<td>Wildlife Management</td>
<td>3.0</td>
</tr>
<tr>
<td>FORE B4</td>
<td>Wildlife Law Enforcement</td>
<td>3.0</td>
</tr>
<tr>
<td>FORE B5</td>
<td>Identification of California Wildlife</td>
<td>3.0</td>
</tr>
<tr>
<td>FORE B7</td>
<td>Wildland Fire Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CRPS B3</td>
<td>Integrated Pest Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CRPS B10</td>
<td>Plant Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>NRES B1</td>
<td>Range Management</td>
<td>3.0</td>
</tr>
<tr>
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<td>Parks and Outdoor Recreation</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL B11</td>
<td>Concepts of Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B37</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
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</tr>
</tbody>
</table>

Forestry

Certificate of Achievement
The Certificate of Achievement in Forestry is designed for students desiring to enter the workforce after completing one year of college. Many technician level careers are available in the forestry/natural resources/wildlife fields. Career opportunities include Forestry, natural resources, wildlife, parks and outdoor recreation, fisheries, rangeland and watershed technician positions.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Forestry Certificate of Achievement.

To Transfer Coursework
A minimum of 33 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- demonstrate managerial and leadership abilities in agriculture classes for employment that will enhance opportunities and success in the agriculture industry in the 21st century.
- master skills needed for baccalaureate level education or obtain a certificate.
- demonstrate specific skills within agriculture disciplines needed for employment.

Total Units: 33

Required Courses

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<td>WEXP B248</td>
<td>Cooperative Work Experience Education</td>
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Forestry

Associate in Arts
The program provides a broad general experience in the arts and science to develop an individual with a well-rounded education, and a core of basic courses which furnish the student with a perspective of the scientific and professional area of forestry, natural resources, fisheries and wildlife. The pre-forestry, resource conservation and wildlife management program at Bakersfield College should conform to the recommended program as prescribed by the school to which the student wishes to transfer. Students planning to go to work after completing a two-year degree should complete the Associate in Science degree and not the Associate in Arts degree. Career opportunities include forestry, fishing industries and wildlife management.

To Achieve the Associate in Arts
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Forestry Associate in Arts.

To Transfer Coursework
A minimum of 24 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- demonstrate managerial and leadership abilities in agriculture classes for employment that will enhance opportunities and success in the agriculture industry in the 21st century.
- master skills needed for baccalaureate level education or obtain a certificate.
- demonstrate specific skills within agriculture disciplines needed for employment.
Upon successful completion, the student will:

- demonstrate specific skills within agriculture disciplines needed for employment

**Total Units: 24**

### Required Courses

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<tbody>
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**Total Units: 31**

### Required Courses

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</table>

### Forestry Associate in Science

The program provides a broad general experience in the arts and science to develop an individual with a well-rounded education, and a core of basic courses which furnish the student with a perspective of the scientific and professional area of forestry, natural resources, fisheries and wildlife. The pre-forestry, resource conservation and wildlife management program at Bakersfield College should conform to the recommended program as prescribed by the school to which the student wishes to transfer. Students planning to go to work after completing a two-year degree should complete the Associate in Science degree. Career opportunities include forestry, fishing industries and wildlife management.

**To Achieve the Associate in Science**

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Forestry Associate in Science.

**To Transfer Coursework**

A minimum of 31 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- master skills needed for baccalaureate level education or obtain a certificate.
- demonstrate specific skills within agriculture disciplines needed for employment

**Total Units: 24**

### Required Courses

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

### Plant Science Certificate of Achievement

This program provides instruction in the planting, growing, harvesting, and marketing of field, forage, and vegetable crops as well as irrigated and range pasture crops. Career opportunities in crop science include farm labor foreman, irrigation manager, seed lab technician, research technician, soils lab and pest control technician.

**To Achieve the Certificate of Achievement**

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Plant Science Certificate of Achievement.

**To Transfer Coursework**

A minimum of 24 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- demonstrate managerial and leadership abilities in plant science classes for employment that will enhance opportunities and success in the plant science industry in the 21st century.
- demonstrate specific skills within agriculture disciplines needed for employment

**Total Units: 24**

### Required Courses

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</tbody>
</table>
Plant Science

Associate in Arts

This program provides instruction in the planting, growing, harvesting, and marketing of field, forage, and vegetable crops as well as irrigated and range pasture crops. See also Environmental Horticulture. Career opportunities in Crop Science include truck and market farm management, orchard and vineyard management, horticulture pest control, low volume irrigation equipment supply and sales and agriculture research technician.

To Achieve the Associate in Arts

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Plant Science Associate in Arts.

To Transfer Coursework

A minimum of 25-28 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- master academic proficiency and demonstrate specific skills within plant science disciplines needed for employment within the industry.
- master skills needed for baccalaureate level education or obtain a certificate

Total Units: 25-28

Required Courses

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<tr>
<td>CRPS B3</td>
<td>Integrated Pest Management</td>
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<td>Principles of Crop Production</td>
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</tr>
<tr>
<td>CRPS B2</td>
<td>Forage Crops</td>
<td>3.0</td>
</tr>
<tr>
<td>NRES B1</td>
<td>Range Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CRPS B4</td>
<td>Vegetable Production</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units: 24

Crops Emphasis

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRPS B1</td>
<td>Principles of Crop Production</td>
<td>3.0</td>
</tr>
<tr>
<td>CRPS B2</td>
<td>Forage Crops</td>
<td>3.0</td>
</tr>
<tr>
<td>CRPS B4</td>
<td>Vegetable Production</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units: 24

Plant Science

Associate in Science

This program provides instruction in the planting, growing, harvesting, and marketing of field, forage, and vegetable crops as well as irrigated and range pasture crops. See also Environmental Horticulture. Career opportunities in Crop Science include truck and market farm management, orchard and vineyard management, horticulture pest control, low volume irrigation equipment supply and sales and agriculture research technician.

To Achieve the Associate in Science

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Plant Science Associate in Science.

To Transfer Coursework

A minimum of 25-28 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- demonstrate managerial and leadership abilities in plant science classes for employment that will enhance opportunities and success in the plant science industry in the 21st century.
- master academic proficiency and demonstrate specific skills within plant science disciplines needed for employment within the industry.
- master skills needed for baccalaureate level education or obtain a certificate

Total Units: 25-28

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGBS B2</td>
<td>Agricultural Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>SOIL B1</td>
<td>Introduction to Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGRI B1</td>
<td>Agriculture, Environment and Society</td>
<td>3.0</td>
</tr>
<tr>
<td>CRPS B10</td>
<td>Plant Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>ORNH B4</td>
<td>Plant Propagation</td>
<td>3.0</td>
</tr>
<tr>
<td>CRPS B3</td>
<td>Integrated Pest Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Horticulture Emphasis (select three of the following)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORNH B2</td>
<td>Fundamentals of Nursery Management and Plant Production</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Upon successful completion, the student will:

Program Learning Outcomes
1. Demonstrate the ability to use and recognize specific language elements in the use of a language.
2. Demonstrate an understanding of, and an ability to describe, the ways in which foreign languages reflect historical and cultural contexts.
3. Transmit a comprehensive knowledge of the cultural heritage being studied.
4. Differentiate and analyze an understanding of the diversity of human expression.

Total Units: 20

American Sign Language

Associate in Arts
The major in American Sign Language provides a linguistic and grammatical study of the language and an in-depth look into the culture of deaf people. The objective of the program is to provide students with a foundation for achieving fluency and the opportunity to transfer to a four-year institution. With additional training, employment opportunities include interpreting, teaching and social service. If transferring to an institution other than UC or CSU, students should check with the receiving institution to ensure transferability of ASL courses as foreign language credit.

To Achieve the Associate in Arts
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an American Sign Language Associate in Arts.

To Transfer Coursework
A minimum of 20 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Level Outcomes
Upon successful completion, the student will:

- demonstrate proficiency in animal care procedures and skills required for employment and enhancement of opportunities and success in the veterinary/pet care industry.
- master academic proficiency in veterinary medicine needed to obtain a job skills certificate.
- improve program graduate success rates for passing California Veterinary Medical Board licensing exam.

Total Units: 20

Registered Veterinary Technician Job Skills Certificate
This certificate prepares students for the California Veterinary Medical Board RVT Licensing Exam. Students must also complete the CVMB required clinic hours by working in a veterinary hospital/clinic. Course eligibility expires five years from the time it is completed for the state exam. Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Registered Veterinary Technicians Job Skills Certificate. Students who do not choose to become licensed RVT’s are still able to work in the field as Animal Health Technicians. Career opportunities include Veterinary Technician/Assistant, supply distributor/representative, retail/wholesale sales, and pet groomer.

To Achieve the Job Skills Certificate
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Registered Veterinary Technician Job Skills Certificate.

To Transfer Coursework
A minimum of 17.5 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- demonstrate proficiency in animal care procedures and skills required for employment and enhancement of opportunities and success in the veterinary/pet care industry.
- master academic proficiency in veterinary medicine needed to obtain a job skills certificate.
- improve program graduate success rates for passing California Veterinary Medical Board licensing exam.

Total Units: 17.5

Pre-Veterinary Medicine Option
The veterinarian diagnoses and treats diseases and disorders of animals; determines the nature of disease or injury and treats animals medically or surgically; performs autopsies to determine causes of death; gives advice on care and breeding of animals. Some engage in general practice, some become involved in research and development, while others are active in such fields as consultation, teaching, technical writing, sales or promotion of commercial products, or provide technical services for commercial firms.

Suggested Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRPS B1</td>
<td>Principles of Crop Production</td>
<td>3.0</td>
</tr>
<tr>
<td>CRPS B2</td>
<td>Forage Crops</td>
<td>3.0</td>
</tr>
<tr>
<td>CRPS B4</td>
<td>Vegetable Production</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Crops Emphasis**

Course Number | Title                          | Units |
---            |--------------------------------|-------|
36            | Biology B21                    | 3.0   |
37            | Biology B22                    | 3.0   |
45            | Applied Animal Nutrition       | 4.0   |
46            | Animal Diseases                | 3.0   |
47            | General Biology I              | 5.0   |
48            | General Biology II             | 5.0   |
49            | General Chemistry I            | 5.0   |
50            | General Chemistry and Chemical Analysis | 5.0 |
51            | Elementary Organic Chemistry   | 5.0   |
52            | Elementary Probability and Statistics | 5.0 |
53            | General Physics-Mechanics and Heat | 4.0 |
54            | General Physics-Sound, Light, Electricity, Magnetism, Modern Physics | 4.0 |

**Biological Science**

Course Number | Title                          | Units |
---            |--------------------------------|-------|
36            | Biology B21                    | 3.0   |
37            | Biology B22                    | 3.0   |
45            | Applied Animal Nutrition       | 4.0   |
46            | Animal Diseases                | 3.0   |
47            | General Biology I              | 5.0   |
48            | General Biology II             | 5.0   |
49            | General Chemistry I            | 5.0   |
50            | General Chemistry and Chemical Analysis | 5.0 |
51            | Elementary Organic Chemistry   | 5.0   |
52            | Elementary Probability and Statistics | 5.0 |
53            | General Physics-Mechanics and Heat | 4.0 |
54            | General Physics-Sound, Light, Electricity, Magnetism, Modern Physics | 4.0 |

**Human Ecology**

Course Number | Title                          | Units |
---            |--------------------------------|-------|
36            | Biology B21                    | 3.0   |
37            | Biology B22                    | 3.0   |
45            | Applied Animal Nutrition       | 4.0   |
46            | Animal Diseases                | 3.0   |
47            | General Biology I              | 5.0   |
48            | General Biology II             | 5.0   |
49            | General Chemistry I            | 5.0   |
50            | General Chemistry and Chemical Analysis | 5.0 |
51            | Elementary Organic Chemistry   | 5.0   |
52            | Elementary Probability and Statistics | 5.0 |
53            | General Physics-Mechanics and Heat | 4.0 |
54            | General Physics-Sound, Light, Electricity, Magnetism, Modern Physics | 4.0 |

**Pre-Veterinary Medicine Option**

The major in Pre-Veterinary Medicine Option prepares students for transfer to a four-year institution for the California Veterinary Medical Board licensing exam. Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an American Sign Language Job Skills Certificate.

**American Sign Language**

Title | Course Number  | Title                          | Units |
---    |---------------|--------------------------------|-------|
36     | Biology B21   | Biology B21                    | 3.0   |
37     | Biology B22   | Biology B22                    | 3.0   |
45     | Applied Animal Nutrition | 4.0 |
46     | Animal Diseases | 3.0   |
47     | General Biology I | 5.0   |
48     | General Biology II | 5.0   |
49     | General Chemistry I | 5.0   |
50     | General Chemistry and Chemical Analysis | 5.0 |
51     | Elementary Organic Chemistry | 5.0   |
52     | Elementary Probability and Statistics | 5.0 |
53     | General Physics-Mechanics and Heat | 4.0   |
54     | General Physics-Sound, Light, Electricity, Magnetism, Modern Physics | 4.0   |
Anthropology

Anthropology Associate in Arts

Anthropology is the scientific study of humanity, examining human biology and culture today and in the past, and biological and cultural change through time. Students with an Anthropology major concentrate in one of the following areas: cultural anthropology, biological/physical anthropology or archaeology. The major in anthropology prepares students for a variety of research/academic positions (e.g. museums, colleges and universities, zoos or government agencies); and non-academic/research positions (e.g. businesses, archaeological companies or professional writing). The objective of this program is to prepare students for transfer to a four-year university. Anthropology’s emphasis on research skills, organizational skills, critical thinking, technical writing, project management and use of holistic perspective make it an excellent undergraduate major for a variety of fields and graduate programs. Career opportunities in Anthropology include teaching, government service, research, and law.

To Achieve the Associate in Arts

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Anthropology Associate in Arts.

To Transfer Coursework

A minimum of 18 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:
- demonstrate an understanding of the perspectives, theories, methods and core concepts of the behavioral sciences.
- explain the major problems and issues in the disciplines in their contemporary, historical and geographical contexts.
- demonstrate an understanding of and an ability to describe the contributions and perspectives of women, ethnic and other minorities and Western and non-Western peoples.

Total Units: 18

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH B1</td>
<td>Physical Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH B2</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH B3</td>
<td>Introduction to Archaeology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH B5</td>
<td>North American Indians</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOCI B1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Apprenticeship

Program Learning Outcomes

Upon successful completion, the student will:
- successfully transition to the Journeyman level designation and certification, upon successful completion of requirements by the California Division of Apprenticeship Standards.
- demonstrate measures used by trades in use of tools, techniques, hands-on skills, and competencies for practices in specific occupations.
- identify and use equipment of specific trade in meeting standards for measurement and calibration.
- read, and apply specific trade instructions and design for construction or production outcomes as required by the specific trade practices and standards.

Apprenticeship courses are designed for indentured apprentices under the Shelley-Maloney California Apprenticeship Standards Act. The Apprentice Agreement states that the student will supplement on-the-job training with related classroom instruction during each year of apprenticeship.

Apprentice classes meet three to eight hours per week and yield two to six units of credit. Joint Apprenticeship Committees administering each program are composed of representation from labor, management, California State Division of Apprenticeship Standards, and Bakersfield College. These committees adopt state approved standards for operation and assure equal opportunity for applicants. Related training in apprenticeable occupations, in addition to those listed below, may be offered as the need arises.

Information for entry into apprenticeship programs may be obtained from the college coordinator of apprenticeship training. Interested persons are encouraged to apply for any of these programs and may contact the Bakersfield College Apprenticeship Department at (661) 395-4408 for further information.

Apprenticeship

Associate in Arts

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of ‘C’ or better.

<table>
<thead>
<tr>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship classes for duration of apprentice period</td>
<td>12-45</td>
</tr>
<tr>
<td>(45 units maximum)</td>
<td></td>
</tr>
<tr>
<td>Work Experience</td>
<td>4-16</td>
</tr>
<tr>
<td>(four semesters, 16 units max)</td>
<td></td>
</tr>
<tr>
<td>Related technical subjects as recommended by JAC</td>
<td>0-6</td>
</tr>
</tbody>
</table>
| In addition, students must comply with the requirements as shown in the catalog under Graduation Requirements. The departmental counselor can assist the student in planning for the A.A. degree.

Certificate of Achievement

<table>
<thead>
<tr>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship classes for duration of apprentice period</td>
<td>12-45</td>
</tr>
<tr>
<td>Work Experience</td>
<td>16</td>
</tr>
<tr>
<td>4-16 Electives (as recommended by JAC) to reach 30 units total (if needed).</td>
<td></td>
</tr>
</tbody>
</table>
Architecture

Architectural Computer Aided Drafting

Job Skills Certificate

This certificate covers the principles of architectural computer aided drafting to include basic 2D and 3D AutoCAD application as well as BIM related software covering architectural practices including both residential and light commercial working documents. Emphasis is also placed on architectural delineation using software.

To Achieve the Job Skills Certificate

Upon completion of the following courses with at least a ’C’ grade in each course, the student will be awarded an Architectural CAD Job Skills Certificate.

To Transfer Coursework

A minimum of 11 semester units in the major with a grade of ’C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate a deep understanding of the core material required for transfer to a four-year university program or for certification in the department programs.
- demonstrate problem solving skills used in industrial design and product development.

Total Units: 11

Required Courses

Course Number | Title | Units
--- | --- | ---
INDR B10 | Introduction to Industrial Drawing & Graphics | 1.0
INDR B11 | Introduction to Computer Aided Drafting & Design (CAD) | 1.0
INDR B20a | Computer Aided Drafting & Design CAD | 3.0
ARCH B16 | Digital Tools for Graphics Communication | 3.0
ARCH B33 | Architectural Computer Practice | 3.0

Electives

Course Number | Title | Units
--- | --- | ---
ARCH B55 | Building Codes | 3.0
INDR B20A | Computer Aided Drafting and Design (CAD) | 3.0

Architectural Drafting

Associate in Arts

This degree covers the principles of architectural CAD to include basic 2D and 3D AutoCAD application as well as BIM related software covering architectural practices including both residential and light commercial working documents. Emphasis is also placed on architectural delineation using software.

To Achieve the Associate in Arts

Upon completion of the following courses with at least a ’C’ grade in each course, the student will be awarded an Architectural Drafting Associate in Arts.

To Transfer Coursework

A minimum of 27.5 semester units in the major with a grade of ’C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.

Total Units: 27.5

Required Courses

Course Number | Title | Units
--- | --- | ---
ARCH B1 | Introduction to Architecture and Environmental Design | 1.5
ARCH B6 | Materials of Construction | 3.0
ARCH B11 | Design and Perspective Drawing | 4.0
ARCH B12 | Design Drawing and Color | 4.0
ARCH B16 | Digital Tools for Graphics Communication | 3.0
ARCH B21 | Architectural Design Fundamentals I | 4.0
ARCH B30 | Residential Building Information Modeling | 4.0
ARCH B33 | Architectural Computer Practice | 3.0

Architectural Drafting

Associate in Science

This degree covers the principles of architectural CAD to include basic 2D and 3D AutoCAD application as well as BIM related software covering architectural practices including both residential and light commercial working documents. Emphasis is also placed on architectural delineation using software.

To Achieve the Associate in Science

Upon completion of the following courses with at least a ’C’ grade in each course, the student will be awarded an Architectural Drafting Associate in Science.

To Transfer Coursework

A minimum of 39.5 semester units in the major with a grade of ’C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- demonstrate proficiency in technical skills required for industrial employment.
- demonstrate problem solving skills used in architectural design.
- demonstrate a deep understanding of the core material required for transfer to a four-year university architectural degree program or for certification in architecture.

Total Units: 39.5

Required Courses

Course Number | Title | Units
--- | --- | ---
ARCH B1 | Introduction to Architecture and Environmental Design | 1.5
ARCH B6 | Materials of Construction | 3.0
ARCH B11 | Design and Perspective Drawing | 4.0
ARCH B12 | Design Drawing and Color | 4.0
students must complete a maximum of 60 required semester units not to a particular campus or major). In order to earn the degree, in Art because it guarantees admission to the CSU system (but transfer-directed students who plan to complete an associate degree (unless the major is a designated high-unit major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete the degree for more information on university admission and transfer requirements. This degree eliminates the additional Bakersfield College graduation requirements.

The Bakersfield College Art Department wishes to expose students to study in a wide variety of media, and to prepare them to make societal contributions by becoming citizens who are visually literate, culturally aware, skilled in creative problem-solving, and aesthetically sensitive.

To Achieve the Associate of Arts Degree for Transfer
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Studio Arts Associate of Arts Degree for Transfer.

Required Courses
Course Number Title Units
ART B36 Survey of Western Art II* 3.0
ART B4 Two Dimensional Design* 3.0
ART B5 Three Dimensional Design 3.0
ART B2 Drawing I* 3.0

Select 3 units from the following
Course Number Title Units
ART B35 Survey of Western Art I* 3.0
ART B37 Survey of Art – Latin America* 3.0

Select 9 units from the following
Course Number Title Units
ART B8 Figure Drawing I 3.0
ART B6 Acrylic Painting I 3.0
ART B10 Ceramics I 3.0
ART B13 Sculpture I 3.0
ART B20 Digital Art I – Vector Art 3.0
ART B17 Black & White Photography 3.0

Select any other local studio course or second semester course to complete 9 units
Course Number Title Units
ART B16 Digital Photography 3.0
ART B24 Digital Art II - Raster Art 3.0
ART B25 Typography 3.0
ART B42 Graphic Design 3.0
Art B9 Figure Drawing II 3.0
Art B11 Ceramics II 3.0

*Courses with an asterisk (*) can be double-counted for General Education.

Automotive

Auto Brakes and Wheel Alignment Certificate of Achievement
This program develops student’s knowledge and skills in automotive
brake and suspension systems operation, trouble-shooting, maintenance, repair, and wheel alignment procedures.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Auto Brakes and Wheel Alignment Certificate of Achievement.

To Transfer Coursework
A minimum of 24 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate a deep understanding of the core material required for transfer to a four-year university degree program or for certification in the department programs.
- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.

Total Units: 24

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO B106</td>
<td>Auto Brakes/Suspension/Alignment</td>
<td>9.0</td>
</tr>
<tr>
<td>AUTO B64</td>
<td>Automotive Electricity and Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO B14</td>
<td>Auto Tune-Up: Electrical/Ignition/Accessories</td>
<td>11.0</td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives — for a total of at least 24 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO B61</td>
<td>Basic &amp; Enhanced Area Clean Air Car Course</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO B2a</td>
<td>Engine Repair &amp; Machining</td>
<td>9.0</td>
</tr>
<tr>
<td>AUTO B75a</td>
<td>Introduction to Engine Overhaul</td>
<td>3.0</td>
</tr>
<tr>
<td>AUTO B75b</td>
<td>Engine Repair Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD B1a</td>
<td>Introduction to Oxygen Acetylene Welding and Cutting</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B1b</td>
<td>Introduction to the Welding Processes</td>
<td>2.0</td>
</tr>
<tr>
<td>WEXP B249</td>
<td>Cooperative Work Experience Education</td>
<td>1-4.0</td>
</tr>
<tr>
<td>INDT B275</td>
<td>Special Problems in Automotive</td>
<td>2-3.0</td>
</tr>
</tbody>
</table>

Auto Engine Overhaul

Certificate of Achievement
This program develops student’s knowledge and skills in the areas of automotive and light truck engine overhaul and machining procedures. Program includes instruction in theory of operation, diagnostic, and repair procedures.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Auto Engine Overhaul Certificate of Achievement.

To Transfer Coursework
A minimum of 24 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.
- demonstrate a deep understanding of the core material required for transfer to a four-year university degree program or for certification in the department programs.

Total Units: 24

Required Courses — Day Students

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO B2a</td>
<td>Engine Repair &amp; Machining</td>
<td>9.0</td>
</tr>
<tr>
<td>AUTO B2b</td>
<td>Advanced Engine Repair &amp; Machining</td>
<td>9.0</td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Required Courses — Night Students

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO B75a</td>
<td>Introduction to Engine Overhaul</td>
<td>3.0</td>
</tr>
<tr>
<td>AUTO B75b</td>
<td>Engine Repair Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>AUTO B75c</td>
<td>Advanced Engine Overhaul</td>
<td>3.0</td>
</tr>
<tr>
<td>AUTO B75d</td>
<td>Advanced Engine Machining</td>
<td>3.0</td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives — for a total of at least 24 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO B1ab</td>
<td>Introduction to Automotive Technology</td>
<td>2-2.0</td>
</tr>
<tr>
<td>AUTO B14</td>
<td>Auto Tune-Up: Electrical/Ignition/Accessories</td>
<td>11.0</td>
</tr>
<tr>
<td>AUTO B15</td>
<td>Auto Tune-Up: Fuel Systems and Emission Control</td>
<td>11.0</td>
</tr>
<tr>
<td>AUTO B64</td>
<td>Automotive Electricity and Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO B61</td>
<td>Basic &amp; Enhanced Area Clean Air Car Course</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO B112</td>
<td>Automotive Transmissions and Gear Boxes</td>
<td>9.0</td>
</tr>
<tr>
<td>INDT B275</td>
<td>Special Problems in Automotives</td>
<td>2-3.0</td>
</tr>
<tr>
<td>WELD B1a</td>
<td>Introduction to Oxygen Acetylene Welding and Cutting</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B1b</td>
<td>Introduction to the Welding Processes</td>
<td>2.0</td>
</tr>
<tr>
<td>WEXP B249</td>
<td>Cooperative Work Experience Education</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Auto Tune-Up and Emission Systems

Certificate of Achievement
This program develops student’s knowledge and skills in the areas of automotive and light truck tune-up and emission control systems. Program includes instruction in theory of ignition, fuel, and computer control systems as well as emission test procedures and complete diagnostic and repair procedures.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Auto Tune-Up and Emissions Systems Certificate of Achievement.

To Transfer Coursework
A minimum of 26 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
Program Learning Outcomes

- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.
- demonstrate a deep understanding of the core material required for transfer to a four-year university degree program or for certification in the department programs.

Total Units: 26

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO B14</td>
<td>Auto Tune-Up: Electrical/Ignition/</td>
<td>11.0</td>
</tr>
<tr>
<td></td>
<td>Accessories</td>
<td></td>
</tr>
<tr>
<td>AUTO B15</td>
<td>Auto Tune-Up: Fuel Systems and</td>
<td>11.0</td>
</tr>
<tr>
<td></td>
<td>Emission Control</td>
<td></td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Electives — for a total of at least 26 units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO B59</td>
<td>Automotive Air Conditioning</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO B64</td>
<td>Automotive Electricity and Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO B61</td>
<td>Basic &amp; Enhanced Area Clean Air Car Course</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO B75a</td>
<td>Introduction to Engine Overhaul -or-</td>
<td>3.0</td>
</tr>
<tr>
<td>AUTO B2a</td>
<td>Engine Repair &amp; Machining</td>
<td>9.0</td>
</tr>
<tr>
<td>ELET B1</td>
<td>Basic Electronics (DC and AC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGL B50</td>
<td>Introduction to College Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>WEXP B249</td>
<td>Cooperative Work Experience Education</td>
<td>1-4.0</td>
</tr>
<tr>
<td>INDT B275</td>
<td>Special Problems in Automtives</td>
<td>2-3.0</td>
</tr>
</tbody>
</table>

**Total Units: 26**

**Automotive Heating, Ventilation & Air Conditioning (HVAC) Job Skills Certificate**

This program develops student’s knowledge and skills in automotive and light truck heating and air conditioning systems. The program includes instruction and theory in the operation, diagnosis, environmental concerns from refrigerants, electrical controls and computer operation, and proper repairs to these systems. Career opportunities include automotive repair business, parts sales and stocking systems.

**To Achieve the Job Skills Certificate**

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Automotive Heating, Ventilation & Air Conditioning (HVAC) Job Skills Certificate.

**To Transfer Coursework**

A minimum of 14 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- understand shop and office personal safety and environmental hazards related to the automotive industry.
- understand how to write service repair orders using both written and computerized formats.
- demonstrate proper telephone and interpersonal communication skills.
- have knowledge of and practice in creating DMV documentation and processing.
- understand California consumer protection laws and the Bureau of Automotive Repairs regulations.
- have knowledge and practice of accepted work ethics in the automotive repair business.
- have knowledge of the automotive parts handling systems and sales techniques.
- have knowledge and practice of handling consumer warranty claims and documentation.

**Total Units: 14**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO B1ab</td>
<td>Introduction to Automotive Technology</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Units: 15**

**Automotive Management Job Skills Certificate**

This program develops the student’s knowledge and basic skills to seek entry level employment in the automotive services industry. This includes general technical knowledge of the automobile and light truck; automotive service writing including California legal requirements set forth by the Bureau of Automotive Repair; customer satisfaction including telephone and face-to-face interpersonal communications skills; handling warranty claims and documentation; DMV documentation and processing; use and understanding of general office keyboarding skills, and automotive parts sales and stocking systems.

**Career opportunities include automotive repair front desk, occupations requiring a general technical knowledge of the automobile and light truck, automotive service writing including California legal requirements set forth by the Bureau of Automotive Repair; handling warranty claims, DMV documentation and processing, automotive parts sales and stocking systems.**

**To Achieve the Job Skills Certificate**

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Automotive Management Job Skills Certificate.

**To Transfer Coursework**

A minimum of 14 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- understand shop and office personal safety and environmental hazards related to the automotive industry.
- understand how to write service repair orders using both written and computerized formats.
- demonstrate proper telephone and interpersonal communication skills.
- have knowledge of and practice in creating DMV documentation and processing.
- understand California consumer protection laws and the Bureau of Automotive Repairs regulations.
- have knowledge and practice of accepted work ethics in the automotive repair business.
- have knowledge of the automotive parts handling systems and sales techniques.
- have knowledge and practice of handling consumer warranty claims and documentation.
### Automotive Power Trains
#### Certificate of Achievement
This program develops student’s knowledge and skills in the areas of automotive and light truck standard and automotive transmissions, differential and drive train components. Program includes instruction in theory of operation, diagnostic and repair procedures as well as complete repair procedures.

**To Achieve the Certificate of Achievement**
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Automotive Power Trains Certificate of Achievement.

**To Transfer Coursework**
A minimum of 15 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**
Upon successful completion, the student will:
- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.
- demonstrate a deep understanding of the core material required for transfer to a four-year university degree program or for certification in the department programs.

**Total Units:** 15

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO B15</td>
<td>Auto Tune-up: Fuel Systems and Emission Controls</td>
<td>11.0</td>
</tr>
<tr>
<td>AUTO B61</td>
<td>Basic and Enhanced Area Clean Air Car Course</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO B61</td>
<td>Basic &amp; Enhanced Area Clean Air Car Course</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO B2a</td>
<td>Engine Repair &amp; Machining</td>
<td>9.0</td>
</tr>
<tr>
<td>AUTO B14</td>
<td>Auto Tune-Up: Electrical/Ignition/Accessories</td>
<td>9.0</td>
</tr>
<tr>
<td>AUTO B12</td>
<td>Automotive Transmissions and Gear Boxes</td>
<td>9.0</td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
<tr>
<td>WEXP B249</td>
<td>Cooperative Work Experience Education</td>
<td>1.4-0</td>
</tr>
<tr>
<td>WELD B74a</td>
<td>Introduction to GMAW &amp; FCAW</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B74b</td>
<td>Introduction to GTAW</td>
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**Electives — for a total of at least 24 units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AUTO B106</td>
<td>Auto Brakes/Suspension/Alignment</td>
<td>9.0</td>
</tr>
<tr>
<td>AUTO B2a</td>
<td>Engine Repair &amp; Machining</td>
<td>9.0</td>
</tr>
<tr>
<td>AUTO B75a</td>
<td>Introduction to Engine Overhaul</td>
<td>3.0</td>
</tr>
<tr>
<td>INDT B275</td>
<td>Special Problems in Automotive</td>
<td>2-3.0</td>
</tr>
<tr>
<td>WELD B74a</td>
<td>Introduction to GMAW &amp; FCAW</td>
<td>2.0</td>
</tr>
</tbody>
</table>

### Basic and Advanced Clean Air Car Course
#### Job Skills Certificate
This course prepares the student to take the California State Smog Test. It also helps prepare the student to take the ASE (Automotive Service Excellence) A-6, A-8 and L-1 tests. All elements of this class are mandated by the California Department of Consumer Affairs, Bureau of Automotive Repair and are subject to periodic change and addition by that agency.

**To Achieve the Job Skills Certificate**
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Basic and Advanced Clean Air Car Course Job Skills Certificate.

**To Transfer Coursework**
A minimum of 24 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**
Upon successful completion, the student will:
- demonstrate proficiency in technical skills and safety principles required for industrial employment in the automotive industry.
- demonstrate problem solving skills used in the automotive industry.
- demonstrate a deep understanding of the core material required for transfer to a four-year university degree program or for certification in the department programs.
required for certification in the automotive program.

Total Units: 32

Select 32 units from the following courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO B1a</td>
<td>General Microbiology</td>
<td>5.0</td>
</tr>
<tr>
<td>AUTO B1b</td>
<td>General Microbiology</td>
<td>5.0</td>
</tr>
<tr>
<td>AUTO B1c</td>
<td>Biochemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>AUTO B1d</td>
<td>Introduction to General, Organic and</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Inorganic Chemistry</td>
<td></td>
</tr>
<tr>
<td>AUTO B111</td>
<td>Human Anatomy &amp; Physiology I</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO B112</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO B13</td>
<td>Special Projects in Biology</td>
<td>1-2.0</td>
</tr>
</tbody>
</table>

**Biology**

**Biology - General Biology**

**Associate in Science**

Biology is the study and application of principles of cell biology, ecology, evolution, genetics, anatomy and physiology as it relates to humans and other organisms. Laboratory and field trip activities emphasize the integrated and interdependent nature of living systems. Course work trains students to use observation and investigation to identify questions and pursue answers using the scientific method.

Graduates with biology degrees may pursue jobs in a variety of fields including; biochemistry, biotechnology, botany, ecology, entomology, genetics, health, immunology, medicine, molecular biology, oceanography, pharmacy, teaching, wildlife management, zoology, and related clinical fields. Biology majors may choose to specialize in research based on a particular organism or an aspect of biology related to those listed above. Career opportunities in Biology include many fields of biology, medical school, dental school and veterinary school.

**To Achieve the Associate in Science**

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Biology - General Biology Associate in Science degree.

**To Transfer Coursework**

A minimum of 20 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- identify medical problems and apply appropriate and effective solutions.
- analyze a clinical situation using anatomical terminology, select the correct technology to use for further examination, analyze and determine a diagnosis when a pathology is described, create a plan of action.
- demonstrate proficiency using a microscope.

Total Units: 18

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL B32</td>
<td>Human Anatomy &amp; Physiology I</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL B33</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL B34</td>
<td>General Microbiology</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**Electives — for a total of at least 18 units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL B21</td>
<td>Special Projects in Biology</td>
<td>1-2.0</td>
</tr>
<tr>
<td>BIOL B22</td>
<td>Pathophysiology</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM B2a</td>
<td>Introductory General Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM B11</td>
<td>Introduction to General, Organic and</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM B1a</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
</tbody>
</table>
The Business Administration department strives to promote and transfer to a UC campus, contact their admissions office for advice. biology majors and other particular courses. If you are planning to Note: Some UC campuses now require calculus-based physics for preparation in mathematics, reading or English will require at least prepared for university-level courses. Students requiring additional professional programs. This program assumes you are academically entrance requirements for most medical schools and other health requirements. The program also meets or exceeds the minimum general-education courses to satisfy campus general education without the need, after transfer, to take additional lower-division general-education courses to satisfy campus general education requirements. The program also meets or exceeds the minimum entrance requirements for most medical schools and other health professional programs. This program assumes you are academically prepared for university-level courses. Students requiring additional preparation in mathematics, reading or English will require at least one additional semester and should consult a counselor for advice.

First Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL B3a</td>
<td>General Biology I</td>
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</tr>
<tr>
<td>CHEM B1a</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>ENGL B1a</td>
<td>Expository Composition</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Art or Humanities elective</td>
<td>3.0</td>
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</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL B3b</td>
<td>General Biology II</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM B1b</td>
<td>General Chemistry and Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>ENGL B2</td>
<td>Advanced Composition and Critical Thinking</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>or-</td>
<td></td>
</tr>
<tr>
<td>PHIL B9</td>
<td>Critical Thinking and Advanced Composition</td>
<td>4.0</td>
</tr>
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</table>

Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH B6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B2a</td>
<td>General Physics-Mechanics and Heat</td>
<td>4.0</td>
</tr>
<tr>
<td>COMM B1</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Art or Humanities elective</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Social or Behavioral Science elective</td>
<td>3.0</td>
</tr>
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</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH B6b</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B2b</td>
<td>General Physics-Sound, Light, Electricity, Magnetism, Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Art or Humanities elective</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Social or Behavioral Science elective</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note: Students transferring to a four-year institution for a Bachelor of Science in Biology generally take the CHEM B1a, B1b sequence. Note: Students transferring for a Bachelor of Science in Nursing should consult the university of choice as to which chemistry sequence meets transfer needs.

Suggested Program for Biology Majors

This suggested program meets all Intersegmental General Education Transfer Curriculum requirements. This program is a series of courses that community college students can use to satisfy lower-division general-education requirements at any California State University or University of California campus. It will permit a student to transfer to a campus of the CSU or the UC system without the need, after transfer, to take additional lower-division general-education courses to satisfy campus general education requirements. The program also meets or exceeds the minimum entrance requirements for most medical schools and other health professional programs. This program assumes you are academically prepared for university-level courses. Students requiring additional preparation in mathematics, reading or English will require at least one additional semester and should consult a counselor for advice.

First Semester

<table>
<thead>
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<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL B3a</td>
<td>General Biology I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM B1a</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>ENGL B1a</td>
<td>Expository Composition</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Art or Humanities elective</td>
<td>3.0</td>
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</table>

Second Semester

<table>
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<tr>
<th>Course Number</th>
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<th>Units</th>
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<tbody>
<tr>
<td>BIOL B3b</td>
<td>General Biology II</td>
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<td>CHEM B1b</td>
<td>General Chemistry and Chemical Analysis</td>
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<tr>
<td>ENGL B2</td>
<td>Advanced Composition and Critical Thinking</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>or-</td>
<td></td>
</tr>
<tr>
<td>PHIL B9</td>
<td>Critical Thinking and Advanced Composition</td>
<td>4.0</td>
</tr>
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</table>

Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH B6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B2a</td>
<td>General Physics-Mechanics and Heat</td>
<td>4.0</td>
</tr>
<tr>
<td>COMM B1</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
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<td></td>
<td>Art or Humanities elective</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Social or Behavioral Science elective</td>
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Fourth Semester

<table>
<thead>
<tr>
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<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MATH B6b</td>
<td>Analytic Geometry and Calculus II</td>
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</tr>
<tr>
<td>PHYS B2b</td>
<td>General Physics-Sound, Light, Electricity, Magnetism, Modern Physics</td>
<td>4.0</td>
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<tr>
<td></td>
<td>Art or Humanities elective</td>
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<tr>
<td></td>
<td>Social or Behavioral Science elective</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note: Students transferring to a four-year institution for a Bachelor of Science in Biology generally take the CHEM B1a, B1b sequence. Note: Students transferring for a Bachelor of Science in Nursing should consult the university of choice as to which chemistry sequence meets transfer needs.

Accounting

Associate in Arts

An Accounting degree provides students with the knowledge and skills necessary for employment and growth in the accounting profession. Using the language of business, accountants assemble and analyze, process, and communicate essential information about financial operations.

To Achieve the Associate in Arts

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Accounting Associate in Arts degree.

To Transfer Coursework

A minimum of 30.5 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- analyze and record financial transactions in a manual or computerized general ledger system.
- prepare financial statements; analyze and prepare financial information for management decision making.
- utilize current income tax resources to prepare personal income tax returns.
- communicate financial information effectively within a business environment.
- process payroll transactions in accordance with current payroll reporting requirements.

Total Units: 30.5

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B53a</td>
<td>Introduction to Accounting 1</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B53b</td>
<td>Introduction to Accounting 2</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B54</td>
<td>Payroll Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B55</td>
<td>Computer Accounting Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B40</td>
<td>Personal Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B51</td>
<td>Business Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B264</td>
<td>Ten-Key Proficiency</td>
<td>0.5</td>
</tr>
<tr>
<td>BSAD B18</td>
<td>Business Law</td>
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</tr>
<tr>
<td>BSAD B20</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B5</td>
<td>Human Relations/People Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note: BSAD B1 may be substituted for BSAD B53a and BSAD B53b.

Office Assistant

Job Skills Certificate

This certificate prepares students as entry-level office support support staff. Students are urged to continue beyond the Job Skills Certificate and earn a Certificate of Achievement or Associate of Arts degree.
To Achieve the Job Skills Certificate
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Office Assistant Job Skills Certificate.

To Transfer Coursework
A minimum of 11 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- interact effectively in oral and written communication.
- participate in office related work experience to achieve the following desirable job qualities:
  - function as a team member.
  - demonstrate interpersonal skills on the job.
  - manage multi-tasks efficiently.
  - model professional and ethical behaviors.
  - identify soft skills such as being on time.
  - demonstrate minimum acceptable skills in ten-key, keyboarding, and document processing.
- demonstrate minimum filing competencies.

Total Units: 11

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B252abc</td>
<td>Computer Keyboarding, Parts 1-2-3</td>
<td>3.0</td>
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<tr>
<td>BSAD B287</td>
<td>Filing</td>
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<td>BSAD B85/B285</td>
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<td>Introduction to Microsoft Office 2010</td>
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</tr>
<tr>
<td>BSAD B264</td>
<td>Ten-Key Proficiency</td>
<td>0.5</td>
</tr>
<tr>
<td>BSAD B53a</td>
<td>Introduction to Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B5</td>
<td>Human Relations/People Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B88</td>
<td>Office Procedures</td>
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<tr>
<td>BSAD B253abc</td>
<td>Document Processing, Part 1-2-3</td>
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<td>BSAD B280</td>
<td>Machine Transcription</td>
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<td>WEXP B248</td>
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<td>WEXP B249</td>
<td>Cooperative Work Experience Education</td>
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</tr>
<tr>
<td>BSAD B20</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Office Assistant Certificate of Achievement

An Office Assistant Certificate of Achievement increases the student’s employability as office support staff. Students who have completed the Job Skills Certificate courses can quickly upgrade to the Certificate of Achievement by completing the following courses with at least a ‘C’ grade.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Office Assistant Certificate of Achievement.

To Transfer Coursework
A minimum of 27.5 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate minimum acceptable skill levels in ten-key, keyboarding, and document processing.
- interact effectively in oral and written communication.
- participate in office related work experience to achieve the following desirable job qualities:
  - function as a team member.
  - demonstrate interpersonal skills on the job.
  - manage multi-tasks efficiently.
  - model professional and ethical behaviors.
  - identify soft skills such as being on time.
  - demonstrate minimum filing competencies.

Total Units: 30.5

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B20</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Bookkeeping Certificate of Achievement.

To Transfer Coursework
A minimum of 25.5 semester units in the major with at least a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• analyze and record financial transactions in a manual or computerized general ledger system.
• communicate financial information effectively within a business environment.
• process payroll transactions in accordance with current payroll reporting requirements.
• prepare financial statements; analyze and prepare financial information for management decision-making.
• utilize current income tax resources to prepare personal income tax returns.

Total Units: 25.5

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B53a</td>
<td>Introduction to Accounting 1</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B53b</td>
<td>Introduction to Accounting 2</td>
<td>3.0</td>
</tr>
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<td>BSAD B54</td>
<td>Payroll Accounting</td>
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</tr>
<tr>
<td>BSAD B55</td>
<td>Computer Accounting Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B5</td>
<td>Business Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B264</td>
<td>Ten-Key Proficiency</td>
<td>0.5</td>
</tr>
<tr>
<td>BSAD B252a</td>
<td>Computer Keyboarding, Part 1</td>
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</tr>
<tr>
<td>BSAD B20</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B5</td>
<td>Human Relations/People Skills</td>
<td>3.0</td>
</tr>
</tbody>
</table>

General Business

Job Skills Certificate
A Job Skills Certificate in General Business will provide the student with broad-based knowledge and skills in business. These core classes provide the foundation for a variety of successful careers in business.

To Achieve the Job Skills Certificate
Upon completion of the following courses with at least a ‘C’ grade
in each course, the student will be awarded a General Business Job Skills Certificate.

To Transfer Coursework
A minimum of 12 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• analyze and record financial transactions in a manual or computerized general ledger system.
• perform the duties of a supervisor or middle level manager.
• effectively communicate within an organization in both written and oral media.
• make legal and ethical decisions that achieve organizational objectives.

Total Units: 12

Required Courses
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BSAD B1</td>
<td>Financial Accounting</td>
<td>4.0</td>
</tr>
</tbody>
</table>

General Management
Job Skills Certificate
The management curriculum is designed to provide the knowledge and skills necessary for success as a manager in today’s demanding organizational climate. The program benefits the individual who aspires to a management position in any organization, including business, government or service organizations.

To Achieve the Job Skills Certificate
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a General Management Job Skills Certificate.

To Transfer Coursework
A minimum of 18 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• perform the duties of a supervisor or middle level manager.
• effectively communicate within an organization in both written and oral media.
• make legal and ethical decisions that achieve organizational objectives.

Total Units: 21

Required Courses
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BSAD B20</td>
<td>Introduction to Business</td>
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</tr>
<tr>
<td>BSAD B30</td>
<td>Fundamentals of Retailing</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B53a</td>
<td>Introduction to Accounting I</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B1</td>
<td>Financial Accounting</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Marketing
Certificate of Achievement
The marketing program provides students with knowledge, techniques, and perspectives relating to the principles and practice of marketing goods and services in a global economy.

Bakersfield College’s marketing program helps students develop a strong understanding of the techniques used in successful business marketing. That training starts with a strong emphasis on the relationship theory and practice in contemporary marketplaces.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Marketing Certificate of Achievement.

To Transfer Coursework
A minimum of 21 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• prepare a marketing plan for a contemporary business, organization, or charity.
• communicate using marketing terminology in both oral and written media.
• use current technologies to research, plan, and communicate in contemporary markets.

Total Units: 21

Required Courses
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B20</td>
<td>Introduction to Business</td>
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</tr>
<tr>
<td>BSAD B30</td>
<td>Fundamentals of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B53a</td>
<td>Introduction to Accounting I</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B1</td>
<td>Financial Accounting</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Marketing
Associate in Arts
To Achieve the Associate in Arts
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Marketing Associate in Arts degree.

To Transfer Coursework
A minimum of 24 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• communicate using marketing terminology in both oral and written media.
• use current technologies to research, plan, and communicate in contemporary markets.
in contemporary markets.
• prepare a marketing plan for a contemporary business, organization, or charity.

Total Units: 24

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B20</td>
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<tr>
<td>BSAD B9</td>
<td>Fundamentals of Marketing</td>
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<td>BSAD B90</td>
<td>Fundamentals of Retailing</td>
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<tr>
<td>BSAD B51</td>
<td>Business Mathematics -or-</td>
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<tr>
<td>MATH B23</td>
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<tr>
<td>BSAD B53a</td>
<td>Introduction to Accounting 1 -and-</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B53b</td>
<td>Introduction to Accounting 2 -or-</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B1</td>
<td>Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BSAD B5</td>
<td>Human Relations/People Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**California Real Estate Certificate of Achievement**

The Real Estate courses offered are recognized by the State of California and accepted as prerequisites for the students to sit for their licensing examinations. These courses are also available for continuing education credits. Upon completion of these courses, the students will have the knowledge to allow them to comply with real estate practice standards imposed by the Real Estate License Law and Commission rules for the State of California. Students have the option of completing certificate and/or two-year degree programs.

This certificate is approved by and operated in cooperation with the California Department of Real Estate and the California Association of Realtors. Upon completion of the following courses with at least a ‘C’ grade in each course, a student will be awarded a Real Estate Certificate of Achievement.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Real Estate Certificate of Achievement.

To Transfer Coursework
A minimum of 24 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• meet the educational requirements and be prepared to pass the California state sales, broker, or appraisal examination.
• complete a comprehensive study of the California real estate industry.
• complete the continuing education requirements for California state real estate licenses.
• understand the chronological process of buying, selling, and owning real estate in California.

Total Units: 24

**Required Courses (should be taken in order listed)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B39</td>
<td>Principles of Real Estate</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B74</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B18</td>
<td>Business Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B75</td>
<td>Real Estate Economics -or-</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B1</td>
<td>Financial Accounting -or-</td>
<td>4.0</td>
</tr>
<tr>
<td>BSAD B53a</td>
<td>Introduction to Accounting 1 -or-</td>
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</tr>
<tr>
<td>BSAD B53b</td>
<td>Introduction to Accounting 2 -and-</td>
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</tr>
<tr>
<td>BSAD B76</td>
<td>Real Estate Finance</td>
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</tr>
<tr>
<td>BSAD B77</td>
<td>Basic Appraisal Principles</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B78</td>
<td>Real Estate Practice</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B20</td>
<td>Introduction to Business</td>
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</tr>
</tbody>
</table>

**Electives — at least 3 units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B71</td>
<td>Escrow Procedures</td>
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<tr>
<td>BSAD B79</td>
<td>Real Estate Investment and Taxation</td>
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<td>BSAD B80</td>
<td>Basic Appraisal Procedures</td>
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<td>BSAD B43</td>
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<td>BSAD B72</td>
<td>Property Management</td>
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<tr>
<td>WEXP B248</td>
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<tr>
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<td>Cooperative Work Experience Education -or-</td>
<td>1-4.0</td>
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<tr>
<td>BSAD B73</td>
<td>Common Interest Developments (CIDs)</td>
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</tr>
<tr>
<td>BSAD B81</td>
<td>Residential Sales Comparisons &amp; Income Approaches</td>
<td>3.0</td>
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</tbody>
</table>

**California Real Estate Associate in Arts**

To Achieve the Associate in Arts
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a California Real Estate Associate in Arts degree.

To Transfer Coursework
A minimum of 24 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• complete a comprehensive study of the California real estate industry.
• meet the educational requirements and be prepared to pass the California state sales, broker, or appraisal examination.
• complete the continuing education requirements for California state real estate licenses.
• understand the chronological process of buying, selling, and owning real estate in California.

Total Units: 24

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B75</td>
<td>Real Estate Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B1</td>
<td>Financial Accounting -or-</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B53a</td>
<td>Introduction to Accounting 1 -or-</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B53b</td>
<td>Introduction to Accounting 2 -and-</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B39</td>
<td>Principles of Real Estate</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Upon successful completion, the student will:

A minimum of 30-31 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- perform the duties of a supervisor or middle level manager.
- analyze and record financial transactions in a manual or computerized general ledger system.
- effectively communicate within an organization in both written and oral media.
- make legal and ethical decisions that achieve organizational objectives.

Total Units: 30-31

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>BSAD B74</td>
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<td>Business Law</td>
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<td>Real Estate Finance</td>
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<td>BSAD B77</td>
<td>Basic Appraisal Principles</td>
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<td>BSAD B78</td>
<td>Real Estate Practice</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B20</td>
<td>Introduction to Business</td>
<td>3.0</td>
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</table>

Electives — at least 3 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B51</td>
<td>Business Mathematics</td>
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<td>BSAD B264</td>
<td>Ten-Key Proficiency</td>
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<td>Human Resource Management</td>
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<td>BSAD B71</td>
<td>Escrow Procedures</td>
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</tr>
<tr>
<td>BSAD B73</td>
<td>Common Interest Developments (CIDs)</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B81</td>
<td>Residential Sales Comparisons &amp; Income Approaches</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B79</td>
<td>Real Estate Investment and Taxation</td>
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<tr>
<td>BSAD B80</td>
<td>Basic Appraisal Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>WEXP B248</td>
<td>Cooperative Work Experience Education</td>
<td>1-4.0</td>
</tr>
</tbody>
</table>

Requirements for the Certificate of Achievement in Retail Management

A Certificate of Achievement in Retail Management is designed to prepare students for entry-level employment. The Certificate will provide students with broad-based knowledge and skills in retailing including grocery chains. This foundation can be built into many successful careers. The certificate is approved by members of the Western Association of Food Chains, all the major supermarket chains in the western 13 states. It encompasses several business essentials, including the soft skills of management and communication required for career success in the retail food industry.

To Achieve the Certificate of Achievement

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Retail Management Certificate of Achievement.

To Transfer Coursework

A minimum of 30-31 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- demonstrate a knowledge of and recognize the processes that explain natural phenomena.
- apply the methodologies of science when approaching a problem.
- apply logical quantitative and qualitative reasoning in solving problems.

Total Units: 38

The Associate of Science in Chemistry is appropriate for students interested in transferring to a four-year university as a major in the sciences. The major will provide students with a complete general education in math and core physical sciences as well as an introduction to some basic computer systems skills. Additionally, the degree provides the student employment opportunities within local industries as a laboratory technician. Career opportunities in Chemistry for transfers, are varied and broad, ranging from all chemical industries, physics, all other areas of the physical sciences, engineering, and all areas of the biological sciences and allied health fields. Examples of local industries include: agriculture, geo and petrochemical businesses, analytical services and laboratories.

To Achieve the Associate in Science

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Chemistry Associate in Science degree.

To Transfer Coursework

A minimum of 38 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- develop a knowledge of and recognize the processes that explain natural phenomena.
- apply the methodologies of science when approaching a problem.
- apply logical quantitative and qualitative reasoning in solving problems.

TotalUnits: 38

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM B1a</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM B1b</td>
<td>General Chemistry &amp; Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM B18</td>
<td>Elementary Organic Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH B6a</td>
<td>Analytic Geometry &amp; Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B6b</td>
<td>Analytic Geometry &amp; Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B6c</td>
<td>Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>COMS B2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives — at least 3 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B65</td>
<td>Principles of Organizational Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B51</td>
<td>Business Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B9</td>
<td>Fundamentals of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B43</td>
<td>Principles of Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B53a</td>
<td>Introduction to Accounting 1</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B1</td>
<td>Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BSAD B90</td>
<td>Fundamentals of Retailing</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B5</td>
<td>Human Relations/People Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B61</td>
<td>Human Resources Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives — at least 3 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS B4a*</td>
<td>Mechanics &amp; Wave Motion</td>
<td>4.0</td>
</tr>
</tbody>
</table>

- or-
An associate degree will academically prepare students planning to enter professions such as law, medicine, teaching, criminal science, journalism, business, and any other that requires a liberal arts education.

To Achieve the Associate in Arts
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Chicano(a)/Latino(a) Studies Associate in Arts degree.

To Transfer Coursework
A minimum of 18 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- analyze major forces, events, and people instrumental in shaping human history.
- examine past social-cultural value systems which have formed a basis for human beliefs and challenges to those beliefs.
- analyze the various racial, ethnic and social sub-groups which have played a role in the shaping of human history.

Total Units: 18

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST B30a</td>
<td>Early Chicano History</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B30b</td>
<td>History of Chicanos in the Southwest</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B33</td>
<td>Latin American History</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Plus one of the classes below

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN B1ab</td>
<td>Elementary Spanish</td>
<td>5.0</td>
</tr>
<tr>
<td>SPAN B2ab</td>
<td>Elementary Spanish</td>
<td>5.0</td>
</tr>
<tr>
<td>SPAN B3</td>
<td>Intermediate Spanish</td>
<td>4.0</td>
</tr>
<tr>
<td>SPAN B4</td>
<td>Intermediate Spanish</td>
<td>4.0</td>
</tr>
<tr>
<td>SPAN B10</td>
<td>Spanish for Heritage Speakers</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Electives — for a total of at least 18 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHST B30e</td>
<td>Art of Latin America</td>
<td>3.0</td>
</tr>
<tr>
<td>CHST/SOCI B36</td>
<td>Sociology of the Chicano</td>
<td>3.0</td>
</tr>
<tr>
<td>SOCI B45</td>
<td>Minority Relations</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Child Development
Child Development Assistant Teacher
Job Skills Certificate
This course work meets the requirements for the Child Development Assistant Teacher Permit. Career opportunities in Child Development include Assistant Child Development Teacher.

To Achieve the Job Skills Certificate
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Child Development Assistant Teacher Job Skills Certificate.

To Transfer Coursework
A minimum of 6 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Chicano(a)/Latino(a) Studies

Chicano(a)/Latino(a) Studies
Associate in Arts
Chicano(a)/Latino(a) Studies is an interdisciplinary program designed to broaden the student’s understanding about the history and cultural background (politics, literature, art) of a people expected to represent the majority population in the Southwestern United States within the next generation.

An associate degree will academically prepare students planning to

Bakersfield College 2013-2014 Catalog
To Transfer Coursework

In each course, the student will be awarded a Child Development Teacher Permit at the Kern County Superintendent of Schools, Office of Credentials, (661) 636-4750 or (661) 636-4751. Students must also meet the General Education requirement and Experience requirement in accordance with the California Commission on Teacher Credentialing.

To Achieve the Certificate of Achievement

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Child Development Teacher Certificate of Achievement.

To Transfer Coursework

A minimum of 27 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

• be able to articulate 12 units with California State University, Bakersfield.
• acquire a teacher permit from the State of California Teacher Commission.
• meet all requirements for the Associate in Science degree in the major.
• be employable as a teacher in publicly funded or private child development programs.
• will have pediatric CPR and First Aid certification.

Total Units: 12

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHDV B20</td>
<td>Principles and Practices</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B36</td>
<td>Developmentally Appropriate Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B42</td>
<td>Child, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B49</td>
<td>Child Health, Safety, and Nutrition</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Child Development Teacher - Infant Toddler Certificate of Achievement

The Certificate of Achievement for Child Development Teacher - Infant Toddler may be earned by taking the 28 units of child development courses required for the Child Development Teacher Certificate of Achievement and the following courses.

To Achieve the Certificate of Achievement

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Child Development Teacher - Infant Toddler Certificate of Achievement.

To Transfer Coursework

A minimum of 33 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

• be able to articulate 12 units with California State University, Bakersfield.
• acquire a teacher permit from the Commission on Teacher Credentialing.
• meet all requirements for the Associate in Science degree in the major.
• be able to receive a job as a master teacher in a publicly funded or private child development program.
• have a pediatric CPR and First Aid certification.
Child Development and Family Relations

Required Courses (completion of the Child Development Teacher Certificate of Achievement plus the following)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHDV B13c</td>
<td>Child Growth and Development: The Infant Toddler Years</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B53a</td>
<td>Early Childhood Education: Adult Supervision</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Units: 35

Child Development Master Teacher - Special Education

Certificate of Achievement

The Certificate of Achievement for Child Development Master Teacher - Special Education may be earned by taking the 28 units of child development courses required for the Child Development Teacher Certificate of Achievement and the following courses.

To Achieve the Certificate of Achievement

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Child Development Master Teacher - Special Education Certificate of Achievement.

To Transfer Coursework

A minimum of 35 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:
- be able to articulate 12 units with California State University, Bakersfield.
- be able to explain topics concerning the child, family, and community, pertaining to child development.
- demonstrate an understanding of the needs of infant/toddler childhood and will be able to demonstrate pediatric CPR and first aid.
- compose observations and assessments on children from infancy to adolescence.
- demonstrate an understanding of the needs of infant/toddler and children with special needs, according to their mastery specializations. The master teacher will be able to design a care plan for the needs of infant and toddlers or special education children commensurate to their specialization.

Required Courses (should be taken in order listed)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHDV B20</td>
<td>Principles and Practices</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B36</td>
<td>Developmentally Appropriate Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B42</td>
<td>Child, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B49</td>
<td>Child Health, Safety and Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B21</td>
<td>Child Growth and Development: Birth Through Adolescence</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B22</td>
<td>Observation &amp; Assessment-Birth Through Adolescence</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B32</td>
<td>Teaching in a Diverse Society</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B41</td>
<td>Supervised Field Experience in Early Childhood Education</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units: 24

Associate in Science

This program is designed to train students to work in a variety of early childhood settings. The two-year program primarily serves students desiring an early childhood background, supervised student teaching experience and fulfillment of academic requirements for a Child Development Teacher Permit.

To Achieve the Associate in Science

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Child Development and Family Relations Associate in Science degree.

To Transfer Coursework

A minimum of 24 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:
- demonstrate an understanding of developmentally appropriate curriculum and explain principles and practices pertaining to child development.
- explain topics concerning the child, family, and community, and will be able to demonstrate pediatric CPR and first aid.
- compose observations and assessments on children from infancy to adolescents.
- demonstrate an understanding of the needs of infant/toddler and children with special needs, according to their mastery specialization. The master teacher will be able to design a care plan for the needs of infant and toddlers or special education children commensurate to their specialization.

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHDV B33</td>
<td>Survey of Special Education</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B52</td>
<td>Care of Infants and Toddlers with Disabilities</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B53a</td>
<td>Early Childhood Education: Adult Supervision</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV B21</td>
<td>Child Growth and Development: Birth Through Adolescence</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B22</td>
<td>Observation &amp; Assessment-Birth Through Adolescence</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B32</td>
<td>Teaching in a Diverse Society</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B36</td>
<td>Developmentally Appropriate Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B40</td>
<td>Creative Art, Movement, and Music Activities for Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B42</td>
<td>Child, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B49</td>
<td>Child Health, Safety, and Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B20</td>
<td>Principles and Practices</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B41</td>
<td>Supervised Field Experience in Early Childhood Education</td>
<td>3.0</td>
</tr>
</tbody>
</table>

The associate degree requires completion of the general associate degree requirements - nutrition, children’s literature, and recommended: physical education/dance, and music. General education requirements with a 2.0 or better GPA for a total of 60 semester units minimum.

Students interested in transferring to a four-year university must follow the CSU-GE or IGETC transfer pattern. Contact a counselor for more information on which classes meet transfer requirements.

Communication

Communication Studies

Associate in Arts for Transfer

The Associate in Arts in Communication Studies for Transfer is intended for all students who plan to complete an AA in
Communication studies. This degree is especially valuable for those students planning on completing a bachelor's degree in Communication or a similar major at a CSU campus because the Associate in Arts in Communication Studies for Transfer guarantees admission to the CSU system (but not to a particular campus or major). In order to earn the Associate in Arts in Communication Studies for Transfer, students must complete a minimum of 60 required semester units of CSU-transferable coursework which includes the CSU General Education or IGETC requirements with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the Associate in Arts in Communication Studies for Transfer will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated high-unit major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete the degree for more information on university admission and transfer requirements. No additional graduation requirements are required to complete this degree.

The Associate in Arts in Communication Studies for Transfer equips students with relational and presentation skills that provide a foundation for success throughout students’ educational careers, business careers and personal interactions. Students learn about verbal and nonverbal channels of communication that inform, persuade, manage, interpret, direct, or influence social interaction in diverse contexts. The degree introduces students to both established and contemporary theories of human communication pertaining to societal construction, maintenance, and perpetuation of acceptable patterns of communicative conduct. Students choosing this degree also acquire pragmatic communication skills enabling them to competently navigate social interaction within interpersonal, small group, public, organizational, and intercultural contexts. Students learn field-specific nomenclature as well as effective oral, listening, and critical thinking skills needed to successfully manage communication encounters in a variety of professional and personal environments. Students will be prepared in this lower division work for a baccalaureate degree in Communication Studies, Speech Communication, or a similar degree.

To Achieve the Associate in Arts for Transfer
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Communication Studies Associate in Arts for Transfer degree.

To Transfer Coursework
A minimum of 18 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- form and present informative persuasive messages.
- demonstrate competence in both active and empathic listening.
- present oral messages to appropriate audiences and adhere to conventions of message delivery.
- manager personal communication apprehension and anxiety.

**Required Core Course**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM B1*</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Group A (any two of the following courses)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM B1*</td>
<td>Interpersonal</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM B5*</td>
<td>Argumentation and</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Rhetoric</td>
<td></td>
</tr>
<tr>
<td>COMM B8*</td>
<td>Small Group</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Group B (any two of the following or any Group A course not used)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM B4*</td>
<td>Persuasive</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM B6*</td>
<td>Intercultural</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM B7*</td>
<td>Organizational</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM B21</td>
<td>Oral Interpretation</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Group C (any one of the following or any Group B course not used)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM B9</td>
<td>Health Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM B10</td>
<td>Communication and</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL B2</td>
<td>Advanced Composition</td>
<td>5.0</td>
</tr>
<tr>
<td>JRNL B1</td>
<td>Media and Society</td>
<td>3.0</td>
</tr>
<tr>
<td>JRNL B2</td>
<td>Beginning Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOCI B1 1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Required Subtotal: 18.0
CSU General Education or IGETC Pattern: 59.0
Transfer Electives (as needed to reach 60 transferable units) 0.0
Degree Total: 60.0

*Courses with an asterisk can be double counted for General Education.

**Communication Certificate of Achievement**

The Communication Certificate is designed to enhance a student's ability to communicate in social, professional, and relational contexts. This certificate is intended to enhance the communication skills of students from all majors and career plans. Students are required to take four classes for a total of twelve units.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Communication Certificate of Achievement.

To Transfer Coursework
A minimum of 12 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- construct, use, and interpret messages across multiple channels to inform, persuade, manage, negotiate, relate, and generally influence each other within and across varying cultural venues.
- identify and value disparate systems of social norms and values that influence the human communicative process.
- understand the various theoretical and pragmatic skills that enable them to navigate social interaction within multiple interpersonal, small group, public, and intercultural contexts.
- become familiar with both field-specific nomenclature as well as effective oral, listening, and critical thinking skills.
**COMS B37**

**COMS B34**

**COMS B32**

**COMS B5**

**COMS B3**

**COMS B2**

Course Number

**Course Number**

**Total Units:** Minimum of 31

**COMS B10**

Leadership and Communication 3.0

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### Computer Studies

**Computer Information Systems Certificate of Achievement**

Designed for the student who plans to specialize in business computer applications.

**To Achieve the Certificate of Achievement**

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Computer Information Systems Certificate of Achievement.

**To Transfer Coursework**

A minimum of 23-24 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- set up, run, and administer various operating systems, including both GUI and command line interfaces.
- set up, configure and administer computer networks.
- use established industry techniques to debug and compile programming code.
- effectively implement programming constructs, including functions, control structures, arrays, classes and objects.
- implement valid database design techniques in the context of software development.
- utilize appropriate tools and concepts in the development of web-based software.
- effectively use the terminology and language of software engineering to communicate.
- utilize both server and client side scripting and programming in the development of software solutions.
- utilize working knowledge of effective business and accounting principles to develop effective technology solutions.

**Total Units: Minimum of 31**

### Required Courses (select 12 units from the following)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B1</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B2</td>
<td>Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B4</td>
<td>Persuasive Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Rhetoric and Argumentation</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B6</td>
<td>Intercultural Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B7</td>
<td>Organizational Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B8</td>
<td>Small Group Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B10</td>
<td>Leadership and Communication</td>
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</tr>
</tbody>
</table>

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### Programming Emphasis (select 9 units from the following)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B14</td>
<td>Introduction to Programming with Java</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B25</td>
<td>Programming with C</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B35</td>
<td>OOP and Data Structures with C++</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74a</td>
<td>Web Design: Adobe Dreamweaver</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74b</td>
<td>Web Design: HTML &amp; XML</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74c</td>
<td>Web Programming: JavaScript/CSS</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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### Networking Emphasis (select 10 units from the following)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B41</td>
<td>Introduction to Linux</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B93</td>
<td>Microsoft Active Directory Services (MCSE 70-219 Exam Prep)</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B100</td>
<td>Computer Hardware Diagnostics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

---

### Business Emphasis (select 9 units from the following)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B2</td>
<td>Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BSAD B20</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B22</td>
<td>Elementary Probability and Statistics</td>
<td>5.0</td>
</tr>
</tbody>
</table>

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### Computer Information Systems Associate in Arts

Designed for the student who plans to transfer to California State University system or private colleges as a computer information systems, management information systems, or data processing major. Provides an emphasis in business computer applications with a broad educational background.

**To Achieve the Associate in Arts**

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Computer Information Systems Associate in Arts degree.

**To Transfer Coursework**

A minimum of 23-24 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- use established industry techniques to debug and compile programming code.
- set up, configure and administer computer networks.
- effectively use the terminology and language of software engineering to communicate.
- set up, run, and administer various operating systems, including both GUI and command line interfaces.
- effectively implement programming constructs, including functions, control structures, arrays, classes and objects.
- utilize appropriate tools and concepts in the development of web-based software.
- utilize both server and client side scripting and programming in the development of software solutions.
- implement valid database design techniques in the context of software development.
• utilize working knowledge of effective business and accounting principles to develop effective technology solutions.

**Total Units: Minimum of 23-24**

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B3</td>
<td>Computer Concepts &amp; Survival Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B14</td>
<td>Introduction to Programming with Java 3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B35</td>
<td>OOP and Data Structures with C++</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B32</td>
<td>Programming with Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B1</td>
<td>Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B22</td>
<td>Elementary Probability and Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>PSYC B5</td>
<td>Elementary Statistics for the Behavioral and Social Sciences</td>
<td>5.0</td>
</tr>
<tr>
<td>COMS B34</td>
<td>SQL and Database Systems Design</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Suggested Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B25</td>
<td>Programming with C</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B35</td>
<td>OOP and Data Structures with C++</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B37</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B41</td>
<td>Introduction to Linux</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74a</td>
<td>Web Design: Adobe Dreamweaver</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74b</td>
<td>Web Design: HTML &amp; XML</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74c</td>
<td>Web Programming: JavaScript/CSS</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B82</td>
<td>CompTIA Networking Technologies-Network+</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B93</td>
<td>Microsoft Active Directory Services (MCSE 70-219 Exam Prep)</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B2</td>
<td>Basic Functions and Calculus for Business</td>
<td>5.0</td>
</tr>
<tr>
<td>BSAD B2</td>
<td>Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BSAD B20</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON B1</td>
<td>Principles of Economics-Micro</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON B2</td>
<td>Principles of Economics-Macro</td>
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<tr>
<td>BSAD B43</td>
<td>Principles of Organization and Management</td>
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<td>BSAD B9</td>
<td>Fundamentals of Marketing</td>
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<tr>
<td>COMM B1</td>
<td>Public Speaking</td>
<td>3.0</td>
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</table>

### Computer Information Systems

**Associate in Science**

Designed for the student who plans to specialize in business computer applications. The student will learn professional skills leading to employment and will gain a broad educational background. Provides a foundation for further studies in computer information systems, management information systems, or data processing.

**To Achieve the Associate in Science**

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Computer Information Systems Associate in Science.

**To Transfer Coursework**

A minimum of 36 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

### Program Learning Outcomes

Upon successful completion, the student will:

- effectively implement programming constructs, including functions, control structures, arrays, classes and objects.
- utilize both server and client side scripting and programming in the development of software solutions.
- implement valid database design techniques in the context of software development.
- effectively use the terminology and language of software engineering to communicate.
- utilize appropriate mathematical concepts and tools in the development of solutions to software problems.
- utilize appropriate tools and concepts in the development of web-based software.
- use established industry techniques to debug and compile programming code.
- write programs that make use of the principles and techniques of object-oriented programming.

**Total Units: Minimum of 36**

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B3</td>
<td>Computer Concepts &amp; Survival Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B14</td>
<td>Introduction to Programming with Java 3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B35</td>
<td>OOP and Data Structures with C++</td>
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<td>Elementary Probability and Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>PSYC B5</td>
<td>Elementary Statistics for the Behavioral and Social Sciences</td>
<td>5.0</td>
</tr>
<tr>
<td>COMS B34</td>
<td>SQL and Database Systems Design</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Programming Emphasis (select 9 units from the following)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B25</td>
<td>Programming with C</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B35</td>
<td>OOP and Data Structures with C++</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B37</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74a</td>
<td>Web Design: Adobe Dreamweaver</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74b</td>
<td>Web Design: HTML &amp; XML</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74c</td>
<td>Web Programming: JavaScript/CSS</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B1</td>
<td>Financial Accounting</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### Networking Emphasis (select 9 units from the following)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B41</td>
<td>Introduction to Linux</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B93</td>
<td>Microsoft Active Directory Services (MCSE 70-219 Exam Prep)</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B100</td>
<td>Computer Hardware Diagnostics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### Business Emphasis (select 9 units from the following)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAD B2</td>
<td>Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BSAD B20</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B20</td>
<td>Digital Art I - Vector Art</td>
<td>3.0</td>
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</table>

### Suggested Courses
Computer Science
Certificate of Achievement
Designed for the student who plans to specialize in math, science, or engineering computer applications.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Computer Science Certificate of Achievement.

To Transfer Coursework
A minimum of 36 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• effectively implement programming constructs, including functions, control structures, arrays, classes, and objects.
• utilize appropriate tools and concepts in the development of web-based software.
• utilize both server and client side scripting and programming in the development of software solutions.
• implement valid database design techniques in the context of software development.
• effectively use the terminology and language of software engineering to communicate.
• use established industry techniques to debug and compile programming code.
• write programs that make use of the principles and techniques of object-oriented programming.
• utilize appropriate mathematical concepts and tools in the development of solutions to software problems.

Total Units: Minimum of 34

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B3</td>
<td>Computer Concepts &amp; Survival Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B14</td>
<td>Introduction to Programming with Java</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B25</td>
<td>Programming with C</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B32</td>
<td>Programming with Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B35</td>
<td>OOP and Data Structures with C++</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B82</td>
<td>CompTIA Networking Technologies-Network+</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B22</td>
<td>Elementary Probability and Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>COMS B41</td>
<td>Introduction to Linux</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74a</td>
<td>Web Design: Adobe Dreamweaver</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74b</td>
<td>Web Design: HTML &amp; XML</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74c</td>
<td>Web Programming: JavaScript/ CSS</td>
<td>3.0</td>
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<td>COMS B93</td>
<td>Microsoft Active Directory Services (MCSE 70-219 Exam Prep)</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B100</td>
<td>Computer Hardware Diagnostics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Electives — at least 12 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B14</td>
<td>Introduction to Programming with Java</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B34</td>
<td>SQL and Database Systems Design</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B37</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives — at least 12 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B14</td>
<td>Introduction to Programming with JAVA</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B32</td>
<td>Programming with Visual Basic</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Computer Science
Associate in Science
Designed for the student who plans to transfer to California State University system or private colleges and to specialize in computer science, math, science, or engineering applications. Students will learn professional skills leading to employment and will gain a broad educational background.

To Achieve the Associate in Science
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Computer Science Associate in Science.

To Transfer Coursework
A minimum of 35 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• effectively implement programming constructs, including functions, control structures, arrays, classes, and objects.
• utilize appropriate tools and concepts in the development of web-based software.
• utilize both server and client side scripting and programming in the development of software solutions.
• implement valid database design techniques in the context of software development.
• effectively use the terminology and language of software engineering to communicate.
• use established industry techniques to debug and compile programming code.
• write programs that make use of the principles and techniques of object-oriented programming.
• utilize appropriate mathematical concepts and tools in the development of solutions to software problems.

Total Units: Minimum of 35

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B3</td>
<td>Computer Concepts &amp; Survival Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B14</td>
<td>Introduction to Programming with Java</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B25</td>
<td>Programming with C</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B32</td>
<td>Programming with Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B35</td>
<td>OOP and Data Structures with C++</td>
<td>3.0</td>
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<tr>
<td>COMS B82</td>
<td>CompTIA Networking Technologies-Network+</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B22</td>
<td>Elementary Probability and Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>COMS B41</td>
<td>Introduction to Linux</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74a</td>
<td>Web Design: Adobe Dreamweaver</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74b</td>
<td>Web Design: HTML &amp; XML</td>
<td>3.0</td>
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<tr>
<td>COMS B74c</td>
<td>Web Programming: JavaScript/ CSS</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B93</td>
<td>Microsoft Active Directory Services (MCSE 70-219 Exam Prep)</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B100</td>
<td>Computer Hardware Diagnostics</td>
<td>4.0</td>
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</table>

Electives — at least 12 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B14</td>
<td>Introduction to Programming with Java</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B34</td>
<td>SQL and Database Systems Design</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B37</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Web Development Certificate of Achievement

This program is designed for the student who plans to design, create and maintain websites and web applications. The student will learn professional skills leading to employment and will gain a broad educational background. In addition, the program provides a foundation for further studies in this and other computer-related fields.

To Achieve the Certificate of Achievement

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Web Development Certificate of Achievement.

To Transfer Coursework

A minimum of 34 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- develop well-formed websites using a combination of application use and coding skills.
- utilize effective design strategies to maximize the communication potential of each web site.
- utilize web programming, scripting, and interactive tools to enhance the interactivity of their web sites.

Total Units: Minimum of 34

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B93</td>
<td>Microsoft Active Directory Services (MCSE 70-219 Exam Prep)</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B100</td>
<td>Computer Hardware Diagnostics</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B6d</td>
<td>Ordinary Differential Equations</td>
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</tr>
<tr>
<td>MATH B6e</td>
<td>Elementary Linear Algebra</td>
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</tr>
<tr>
<td>COMS B101</td>
<td>Web Systems and Security</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74c</td>
<td>Web Programming: JavaScript/CSS</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74b</td>
<td>Web Design: HTML &amp; XML</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B74a</td>
<td>Web Design: Adobe Dreamweaver</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Suggested Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B32</td>
<td>Introduction to Programming with Java</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B33</td>
<td>Programming with Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B34</td>
<td>SQL and Database Systems Design</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B35</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B37</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Design Emphasis (select 9 units from the following)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B82</td>
<td>CompTIA Networking Technologies-Network+</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B20</td>
<td>Digital Art I - Vector Art</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B91</td>
<td>E-Commerce</td>
<td>1.0</td>
</tr>
<tr>
<td>BSAD B65</td>
<td>Principles of Organizational Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Web Programming Emphasis (select 9 units from the following)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B14</td>
<td>Introduction to Programming with Java</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B32</td>
<td>Programming with Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B34</td>
<td>SQL and Database Systems Design</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Cross-Discipline Emphasis (select 9 units from the following)

Any combination of 9 units from the above elective classes.
Upon successful completion, the student will:

Program Learning Outcomes

- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.
- demonstrate a deep understanding of the core material required for transfer to a four year university degree program or for certification in the department programs.

Total Units: 26

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH B6</td>
<td>Materials of Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH B55</td>
<td>Residential Building Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>CNST B1</td>
<td>Introduction to Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CNST B2</td>
<td>Estimating and Scheduling</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Design Emphasis (select 9 units from the following)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART B20</td>
<td>Digital Art I - Vector Art</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B91</td>
<td>E - Commerce</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Electives**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNST B50a</td>
<td>Residential Construction</td>
<td>6.0</td>
</tr>
<tr>
<td>CNST B50b</td>
<td>Residential Construction</td>
<td>6.0</td>
</tr>
<tr>
<td>WEXP B249</td>
<td>Cooperative Work Experience Education</td>
<td>4.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and Design (CAD)</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IND T10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B2</td>
<td>Furniture and Cabinetmaking</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Cross-Discipline Emphasis (select 9 units from the following)**

Any combination of 9 units from the above elective classes.

**Web Programming Emphasis (select 9 units from the following)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMS B14</td>
<td>Introduction to Programming with Java</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B32</td>
<td>Programming with Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B34</td>
<td>SQL and Database Systems Design</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Industrial Technology, Construction Option Associate in Science**

The requirements for the Associate in Science degree in Industrial Technology, Construction Option are intended to provide students with the opportunity to develop and blend the critical thinking skills along with the technical construction skills necessary to supervise or construct structures within the residential building profession. Course work within the construction program is designed to assist students in defining their respective career paths within the diverse and challenging construction profession. Course emphasis is placed on blending technical skill development, industrial safety with practical lab activities. Students can obtain these courses from within the Construction Technology area and from the various related disciplines (architecture, industrial drawing, industrial technology and wood technology).

**To Achieve the Associate in Science**

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Associate in Science degree.

**To Transfer Coursework**

A minimum of 26 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework. To transfer in each course, the student will be awarded an Associate in Science degree.

**Program Learning Outcomes**

Upon successful completion, the student will:

- demonstrate proficiency in technical skills and safety principles required for employment in the construction industry.
- demonstrate program solving skills used in the construction industry.
- demonstrate a deep understanding of the core material...
Upon successful completion, the student will:

- identify, analyze, and apply the ethical components of discretionary decision-making in probation, parole, and institutional corrections.
- demonstrate respect for the dignity and humanity of victims, perpetrators, and wrongfully convicted persons.
- demonstrate the ability to communicate effectively orally and in writing.

**Total Units: 26-29**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH B55</td>
<td>Residential Building Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>CNST B1</td>
<td>Introduction to Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CNST B2</td>
<td>Estimating and Scheduling</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
<tr>
<td>WEXP B249</td>
<td>Cooperative Work Experience Education</td>
<td>6.0</td>
</tr>
<tr>
<td>CNST B50a</td>
<td>Residential Construction</td>
<td>6.0</td>
</tr>
<tr>
<td>CNST B50b</td>
<td>Residential Construction</td>
<td>6.0</td>
</tr>
<tr>
<td>WOOD B2</td>
<td>Furniture and Cabinetmaking</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Electives — for a total of at least 26 units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and Design (CAD)</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B20a</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH B56</td>
<td>Building and Related Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH B6</td>
<td>Materials of Construction</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Correctional Administration**

**Correctional Administration**

**Associate in Arts**

This program includes classes that will guide students toward careers in law enforcement, the courts and the law, and state, local, and private corrections. These courses have been endorsed by the Joint Apprenticeship Committee of the California Department of Corrections, California Youth Authority, and the California Correctional Peace Officers Association.

**To Achieve the Associate in Arts**

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Correctional Administration Associate in Arts.

**To Transfer Coursework**

A minimum of 24 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- identify, analyze, and apply the fundamental theories and concepts underlying the American correctional system.
- identify and describe the operational elements of the major components comprising the American prison and jail systems.
- identify, analyze, and apply basic legal principles and rules to factual situations.
- identify and implement the principles and procedures utilized in legitimate scientific and criminal investigation.
- demonstrate multicultural awareness and respect for constitutional and human rights.
- identify, analyze, and apply the ethical components of discretionary decision-making in probation, parole, and institutional corrections.

**Total Units: 24**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM B21</td>
<td>Introduction to Correctional Administration</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B50</td>
<td>Criminal Justice Report Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B60</td>
<td>Legal Aspects of Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B2</td>
<td>Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B12</td>
<td>Forensic and Scientific Aspects of Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B55</td>
<td>Special Topics in Criminal Justice</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Electives — at least 6 units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM B22</td>
<td>Institutional Treatment and Supervision of Offenders</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B23</td>
<td>Fundamentals of Interviewing &amp; Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B24</td>
<td>Probation, Parole &amp; Community Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B5</td>
<td>Community Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B8</td>
<td>Criminal Investigation</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B9</td>
<td>Juvenile Justice System</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Criminal Justice**

**Criminal Justice**

**Associate in Arts**

This program includes classes that will guide students toward careers in law enforcement and policing, the courts and the law, and state, local, and private corrections.

**To Achieve the Associate in Arts**

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Criminal Justice Associate in Arts degree.

**To Transfer Coursework**

A minimum of 24 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- identify, analyze, and apply the fundamental theories and concepts underlying the American criminal justice system.
- identify and describe the operational elements of the major components comprising the American justice system.
- identify, analyze, and apply basic legal principles and rules to factual situations.

**Total Units: 24**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM B11</td>
<td>Introduction to Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B2</td>
<td>Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B3</td>
<td>Introduction to Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B4</td>
<td>Constitutional Criminal Procedure</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B12</td>
<td>Forensic and Scientific Aspects of Evidence</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Digital Arts

Digital Arts

Certificate of Achievement

The program is designed to prepare students for entry level positions in various graphic art fields such as advertising, graphic design, illustration, and digital imaging. The core learned disciplines are the principles of design, an understanding of the visual elements, exposure to art and design history, conceptual visual problem solving, and the production of a graphic portfolio using established computer graphic software.

To Achieve the Certificate of Achievement

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Digital Arts Certificate of Achievement.

To Transfer Coursework

A minimum of 24 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

• demonstrate an understanding of the principles, elements, and language of art.
• demonstrate the ability to critique their own work, as well as the work of other students; and defend their creative choices verbally.
• demonstrate an understanding of a portfolio or body of work.
• identify and implement the principles and graphic design, illustration, and digital imaging.

Total Units: 24

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART B1</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B2</td>
<td>Drawing I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B8</td>
<td>Figure Drawing I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B4</td>
<td>Two Dimensional Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B20</td>
<td>Digital Art I - Vector Art</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B42</td>
<td>Graphic Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B40</td>
<td>Digital Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B41</td>
<td>Advertising Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B25</td>
<td>Typography</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives — at least 3 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART B16</td>
<td>Digital Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B17</td>
<td>Black and White Photography</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Digital Arts

Associate in Arts

To Achieve the Associate in Arts

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Digital Arts Associate in Arts degree.

To Transfer Coursework

A minimum of 18 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

• demonstrate an understanding of the principles, elements, and language of art.
• demonstrate the ability to critique their own work, as well as the work of other students; and defend their creative choices verbally.
• demonstrate an understanding of a portfolio or body of work.
• identify and implement the principles and graphic design, illustration, and digital imaging.

Total Units: 18

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART B20</td>
<td>Digital Art I - Vector Art</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B42</td>
<td>Graphic Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B40</td>
<td>Digital Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B41</td>
<td>Advertising Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B25</td>
<td>Typography</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives — at least 3 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART B2</td>
<td>Drawing I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B8</td>
<td>Figure Drawing I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B4</td>
<td>Two Dimensional Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B1</td>
<td>Art Appreciation -or-</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B16</td>
<td>Digital Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B17</td>
<td>Black and White Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B24</td>
<td>Digital Art II - Raster Art</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Economics

Economics

Associate in Arts

The major in economics is designed for students interested in preparing for advanced degrees in Economics, Business, Law and for those students concerned with the economic behavior of consumers, businesses, and governments. Economics majors have a wide variety of career opportunities in business, law, journalism, education, politics, finance and banking, government, public and private overseas service, and labor leadership. Many economics majors go on to pursue graduate study in a related professional area, such as law, business, or public administration.

To Achieve the Associate in Arts

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Economics Associate in Arts degree.
Arts degree.

To Transfer Coursework
A minimum of 19 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- develop competence in quantitative methods and computing methods.
- evaluate alternative policies intended to enhance economic outcomes.
- conceptualize and analyze problems using the tools of economic theory and communicate the results.

Total Units: 19

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON B1</td>
<td>Principles of Economics-Micro</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON B2</td>
<td>Principles of Economics-Macro</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B2</td>
<td>Basic Functions and Calculus for Business</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH B22</td>
<td>Elementary Probability and Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>COMS B2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
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</tbody>
</table>

Electives — at least 4 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL B1a</td>
<td>Expository Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>PHIL B7</td>
<td>Introduction to Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B17b</td>
<td>History of the U.S. Since 1877</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS B1</td>
<td>American Government: National, State and Local</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>BSAD B1</td>
<td>Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BSAD B2</td>
<td>Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>COMM B1</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B23</td>
<td>Finite Mathematics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELET B1</td>
<td>Basic Electronics (DC and AC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ELET B5</td>
<td>Programmable Logic Controllers</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET B6</td>
<td>Analog and Digital Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>ELET B56a</td>
<td>Instrumentation &amp; Process Control</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET B61</td>
<td>Telecommunications</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET B62</td>
<td>Radio Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET B70</td>
<td>Mechanical Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
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</tbody>
</table>

Electives — at least 4 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELET B4</td>
<td>Computer Integrated Manufacturing</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET B63</td>
<td>Electronic Systems Installation</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and Design (CAD)</td>
<td>1.0</td>
</tr>
<tr>
<td>MFGT B1ab</td>
<td>Machine Tool Processes</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electronics Technology

Electronics Technology
Certificate of Achievement
The Bakersfield College Electronics Certificate program will show the world that you have gained the necessary knowledge and skills to perform better on the job. This program of study is widely recognized and modeled after local industry competency standards. A certified electronic professional often appears more dedicated, recognized and modeled after local industry competency standards. It is a digital world, and those who understand this world can become valuable additions to technology-focused employers.

Program includes study in the following areas: Electrical theory and components, soldering, wiring diagrams, safety, advanced analog semiconductor and digital devices, power supplies, test equipment, programmable logic controllers, Allen Bradley SLC 500 and CLX 5000 Instrumentation, temperature, pressure, level detectors, radio communications, antenna and transmission lines, telecommunications, video, data, network technology, motor theory and wiring, computer integrated manufacturing, installation and wiring standards, and mechanical systems.

Career opportunities in Electronics Technology include entry level positions in petroleum/energy, manufacturing automation, instrumentation/process control, logistics and distribution, ancillary services, telecommunications, radio communications, food and materials processing, and industrial maintenance.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Electronics Technology Certificate of Achievement.

To Transfer Coursework
A minimum of 34 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate a deep understanding of the core material required for transfer to a four year university degree program or for certification in the department programs.

Total Units: 34

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELET B1</td>
<td>Basic Electronics (DC and AC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ELET B5</td>
<td>Programmable Logic Controllers</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET B6</td>
<td>Analog and Digital Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>ELET B56a</td>
<td>Instrumentation &amp; Process Control</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET B61</td>
<td>Telecommunications</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET B62</td>
<td>Radio Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET B70</td>
<td>Mechanical Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives — at least 4 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELET B4</td>
<td>Computer Integrated Manufacturing</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET B63</td>
<td>Electronic Systems Installation</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and Design (CAD)</td>
<td>1.0</td>
</tr>
<tr>
<td>MFGT B1ab</td>
<td>Machine Tool Processes</td>
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</tr>
</tbody>
</table>

Industrial Technology, Electronics Option
Associate in Science
Technology runs the planet, with electronics playing an essential role. It is a digital world, and those who understand this world can become valuable additions to technology-focused employers. The Industrial Technology Degree, Electronics Option, teaches essential skills that can be put to use as an industrial technician, electronics technician, field service representative, salesperson or computer technician. A degree holding student will also be looked at for quick promotions into supervision and management positions.

To Achieve the Associate in Science
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Industrial Technology, Electronics Options Associate in Science degree.

To Transfer Coursework
A minimum of 34 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate a deep understanding of the core material required for transfer to a four year university degree program or for certification in the department programs.

Total Units: 34

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
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<tbody>
<tr>
<td>ELET B1</td>
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Electives — at least 4 units

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<td>Machine Tool Processes</td>
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</tbody>
</table>
Upon successful completion, the student will:
- demonstrate proficiency in technical skills and safety principles required for employment in the electronics industry.
- demonstrate problem solving skills used in electrical design and product development.
- demonstrate a deep understanding of the core material required for certification in the electronics program.

Total Units: 34

**Required Courses**

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<td>ELET B55a</td>
<td>Electric Motors-Controls</td>
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<td>ELET B56</td>
<td>Instrumentation &amp; Process Control</td>
<td>3.0</td>
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</tbody>
</table>

**Emergency Medical Technology**

**Emergency Medical Technician-1 (EMT-1)**

The Emergency Medical Technician-1 (EMT-1) course consists of 152 hours, which includes 24 hours of emergency room/ambulance experience. The course prepares the student to perform basic emergency care as part of a mobile emergency team. It also provides the student with an understanding of the skills and assessment techniques needed to care for an ill or injured person in the prehospital setting. Upon successful completion of the course, students are eligible to take an examination for certification as an Emergency Medical Technician. 1. EMT-1s are employed by ambulance companies and some private industries to provide emergency care in case of illness or injury. The course is required for ambulance personnel, the California Highway Patrol and many other first care providers such as police, firefighters, and healthcare providers.

**Enrollment**

Enroll through the Bakersfield College Admission and Records Office. The course is offered each fall and spring two evenings per week for 16 weeks. This is a 7.5 unit course.

**Pre-admission Requirements**

1. Each student must possess a current American Heart Association BLS-Healthcare Provider card. Bakersfield College offers a BLS course (MEDS B52).
2. Each student must be at least 18 years of age by the completion date of the course.
3. Mandatory physical examination/immunizations and fit testing must be completed 4 weeks after start of the course. Costs of meeting health requirements are paid by the student. Failure to meet these requirements will result in student ineligibility for clinical rotations.

4. Completion of the 3 unit Medical Terminology Course (MEDS B60) is strongly recommended.

**Conditional Enrollment**

As a condition of enrollment in any Allied Health Program, students are required to submit to and pass a designated drug and alcohol screening, a background screening, and physical examination clearance (at the student’s expense). Please note the following:

- A history of felony conviction(s) or any bar, exclusion or other ineligibility for federal program participation could render a student ineligible for clinical placement, as determined by the clinical agencies.
- If a student cannot obtain background clearance from the clinical agencies, it will not be possible to place the student in the clinical areas, which is a required component of the program. In the event that a student cannot obtain a background clearance, the space will be forfeited. Students who are found to be ineligible for clinical placement by the clinical agency after admission to the program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.
- A physical examination completed by a physician of the student’s choice is required after acceptance to the Program to demonstrate that a student meets the technical standards necessary to meet the Program objectives. Appropriate immunizations and/or vaccinations and fit testing are also required and are performed at the student’s expense.

**Licensure/Certification Eligibility**

Students with a misdemeanor and/or felony arrest conviction, either current or prior, may not receive certification or licensure from the State or County. Also, proof of citizenship (social security card and certified birth certificate) and fingerprinting are required by state certification/licensure agencies. Anyone who wishes clarification may contact the Kern County Emergency Medical Services Office at (661) 868-5200. Upon successful completion of the course, students will be eligible to sit for the National Registry EMT-Basic Examination.

**Accreditation and Program Approval**

Bakersfield College is accredited by the Western Association of Schools and Colleges. The Emergency Medical Technician Program is approved by Kern County Emergency Medical Services and meets all state and county requirements.

**Emergency Medical Technician 1 (EMT-1)**

**Job Skills Certificate**

This certificate complies with state requirements and ensures that the student must meet the local EMS (Kern County authority) approval for county protocol training. It is also required for paramedic personnel and other first care providers such as law enforcement and fire personnel. The certificate provides proof of successful completion of an approved EMT-1 program which is required for employment and fire personnel. The certificate provides proof of successful completion of an approved EMT-1 program which is necessary for the student to take the national licensure exam. Students must complete the required course with at least a B grade.

**Career Opportunities in Emergency Medical Technology**

Employment as an emergency medical technician with the fire department, hospitals, and a variety of healthcare settings statewide.

**To Achieve the Job Skills Certificate**

Upon completion of the following courses with at least a ’C’ grade...
in each course, the student will be awarded an Emergency Medical Technician 1 (EMT-1) Job Skills Certificate.

To Transfer Coursework
A minimum of 7.5 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- demonstrate the ability to comprehend, apply, and evaluate the clinical information relative to his/her role as an entry level EMT-1.
- demonstrate technical proficiency in all skills necessary to fulfill the role of the entry level EMT-1.
- demonstrate personal behaviors consistent with professional and employer expectations for the entry level EMT-1.

Total Units: 7.5

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMTC B50</td>
<td>Emergency Medical Technician I</td>
<td>7.5</td>
</tr>
</tbody>
</table>

### Engineering

#### Engineering

#### Associate in Science

People working in the field of engineering and related technical fields bridge the gap between scientific principles and the application of these principles to the needs of society. The field is quite diversified with exciting job opportunities for people with varied mathematical, scientific, and technical skills. An engineer uses experience and judgment, as well as advanced training in engineering, science, and mathematics to formulate ideas and designs, and to determine standards, specifications, work orders and schedules so that projects can be economically beneficial to mankind. A Bachelor of Science in Engineering is required. Many engineers earn master's or doctorate degrees.

To Achieve the Associate in Science

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Engineering Associate in Science degree.

To Transfer Coursework

A minimum of 47 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- solve engineering related problems as related to student made projects and assignments.

Total Units: 47

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH B6a*</td>
<td>Analytic Geometry &amp; Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B6b</td>
<td>Analytic Geometry &amp; Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B6c</td>
<td>Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B6d</td>
<td>Ordinary Differential Equations</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM B1a*</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>PHYS B4a</td>
<td>Mechanics &amp; Wave Motion</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B4b</td>
<td>Heat, Electricity, &amp; Magnetism</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B4c</td>
<td>Optics &amp; Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGR B17</td>
<td>Introduction to Electric Circuits</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR B36</td>
<td>Engineering Mechanics-Statics</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR B45</td>
<td>Properties of Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR B19c</td>
<td>Computer Programming for Science, Engineering and Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR B47**</td>
<td>Introduction to Engineering and Design</td>
<td>3.0</td>
</tr>
</tbody>
</table>

* May be used to also fulfill general education requirements.
**Meets student development requirement.

### Engineering Technology

#### Associate in Science

Cal Poly Pomona; California State University, Sacramento; California State University, Long Beach Engineering technologists and engineering technicians are members of a technical team that also includes scientists, engineers and craftsmen. The members of the technical team perform job functions that are complementary and sometimes overlapping. By virtue of their education, training and interests, engineering technologists and engineering technicians are usually differentiated as follows: An engineering technologist uses applied and basic training in mathematics, science, and engineering classes, engineering methods learned through classes and experience, and developed technical (hands-on) skills in direct support of engineering activities. A Bachelor of Science degree in Engineering Technology is required. An engineering technician operates in a support role to aid in design, production, manufacturing, operations, and maintenance.

Under professional direction, the engineering technician conducts tests, trouble shooting and analysis, and other similar projects, or carries out functions such as drafting, surveying, designing and technical sales. An Associate in Science degree or a Certificate of Engineering Technology is required.

Bakersfield College offers courses required for two years of engineering technology education. Completion of these courses, called the engineering technology core prepares students either for transfer to the colleges and universities offering bachelor's degrees in Engineering Technology, or for completion of an Associate in Science degree in Engineering Technology. A beginning engineering technology student should have completed high school mathematics through intermediate algebra or MATH BD at Bakersfield College, one year of high school drafting, and be eligible for ENGL B50.

To Achieve the Associate in Science

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Engineering Technology Associate in Science degree.

To Transfer Coursework

A minimum of 40 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- demonstrate proficiency in technical skills and safety principles required for employment as an engineering technologist.
- demonstrate problem solving skills used in engineering technology design and product development.
• demonstrate a deep understanding of the core material required for transfer to a four year university degree program in engineering technology.

**Total Units: 40**

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR B47**</td>
<td>Introduction to Engineering and Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR B45</td>
<td>Properties of Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR B24</td>
<td>Engineering Graphics and Descriptive Geometry</td>
<td>2.0</td>
</tr>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing &amp; Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and Design (CAD)</td>
<td>1.0</td>
</tr>
<tr>
<td>CHEM B2a*</td>
<td>Introductory General Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B2a*</td>
<td>General Physics-Mechanics and Heat</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B2b</td>
<td>General Physics-Sound, Light, Electricity, Magnetism, Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B6ab*</td>
<td>Analytic Geometry and Calculus</td>
<td>8.0</td>
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<tr>
<td>ENGR B19C</td>
<td>Computer Programming for Science, Engineering and Technology (C)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

* May be used to also fulfill general education requirements
**Meets student development requirement

### Electives — at least 7 units from the following

See counselor or advisor for specific courses in the following areas:
- Electronics/Electrical Technology
- Construction Technology
- Manufacturing Processes Technology
- Welding/Fabrication
- Industrial Drawing
- Graphics

### English

Studies in English provide preparation for the professions, government service, and politics. Career opportunities in English include teaching, journalism, publishing, advertising, and copywriting.

Students seeking an associate degree must take the writing course English B1a and may take a literature class to fulfill the humanities requirement. Students seeking a bachelor’s degree should take English B1a and may take English B1b and other literature courses to fulfill specific General Education requirements. Students planning to major in English should take English B1a and B1b and at least two of the following: English B5a, B5b, B20a, B20b, B30a, B30b. Students planning to transfer to the University of California should consider English B2. For specific information, students should consult the catalog of the school to which they intend to transfer.

### Fire Technology

#### Fire Technology Certificate of Achievement

This certificate was developed to assist students who desire to become a firefighter, or desire Fire Technology as a career. This certificate will aid existing firefighters in promoting/advancing through the ranks of engineer, captain, battalion chief, etc. The Bakersfield Fire Department requires an associate degree before a captain can take the promotional exam for battalion chief. This course of study will transfer to a four-year institution.

Note: FIRE B1 is a prerequisite and must be completed before taking other core fire technology courses. FIRE B1 can be waived if the student has completed either academy (B62 or B63) and B2 can be waived for students who have a minimum of two years continuous experience as a full-time paid firefighter. A GPA of at least 2.0 is required in the fire technology program. Of the 30 units required, a minimum of 12 units must be completed at Bakersfield College.

Bakersfield College’s Regional Fire Technology Academy (RFTA) was authorized by the California Fire Service Training and Education System in 1980, with programs of study leading to Certified Fire and Certified Fire Chief. RFTA sponsors many cooperative training
programs with federal, state, and local fire protection agencies. Individuals may develop a program suitable to their career goals with the aid of a college counselor. Courses may lead to the achievement of specific career goals, immediate employment, an associate degree, or transfer credits that satisfy requirements for a bachelor's degree in Fire Technology.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Fire Technology Certificate of Achievement.

To Transfer Coursework
A minimum of 32 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- identify minimum qualifications and entry-level skills for fire fighting hiring.
- describe the following elements:
  - application process.
  - written exam process.
  - physical agility exam.
  - oral interview.
  - chief’s interview.
  - background investigation.
  - fire fighter probationary process.
- identify fire service history, culture, and diversity.
- demonstrate the ability to analyze, appraise, and evaluate fire and emergency incidents and identify components of emergency management and fire fighter safety, including:
  - size-up.
  - report on conditions.
  - Incident Command System.
  - RECEO.
- 10 Standard Firefighting Orders.
- 18 Situations that shout "Watch Out."
- common factors associated with injuries and line of duty deaths.

Total Units: 32

**Required Courses**

<table>
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<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>FIRE B1</td>
<td>Fire Protection Organization</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B2</td>
<td>Personal Fire Safety &amp; Emergency Action</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B7</td>
<td>Building Construction for Fire Protection</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B3</td>
<td>Fire Command, Strategy, Tactics</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B51b</td>
<td>Fire Command 1A</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE B4</td>
<td>Fire Behavior and Combustion</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B5</td>
<td>Fire Prevention Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B51d</td>
<td>Fire Prevention 1A</td>
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</tr>
<tr>
<td>FIRE B51e</td>
<td>Fire Prevention 1B</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE B6</td>
<td>Fire Protection Equipment &amp; Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B72h</td>
<td>Emergency Medical Technician 1</td>
<td>4.0</td>
</tr>
</tbody>
</table>

*ENGL B60 may be substituted for ENGL B50 or ENGL B1a for Fire Technology Certificate of Achievement only.*

Note: FIRE B1 and B2 are waived for students who have a minimum of two years service as a paid, full-time firefighter. A GPA of at least 2.0 is required in the certificate program. Of the 30 units required, a minimum of 12 units must be completed at Bakersfield College.

**Fire Technology Associate in Arts**

This degree program of study was developed to assist students who desire to become a firefighter, or desire Fire Technology as a career. This certificate will aid existing firefighters in promoting/advancing through the ranks of engineer, captain, battalion chief, etc. The Bakersfield Fire Department requires an associate degree before a captain can take the promotional exam for battalion chief. This course of study will transfer to a four-year institute.

Note: FIRE B1 is a prerequisite and must be completed before taking other core fire technology courses. FIRE B1 can be waived if the student has completed either academy (B62 or B63) and B2 can be waived for students who have a minimum of two years continuous experience as a full-time paid firefighter. A GPA of at least 2.0 is required in the fire technology program. Of the 30 units required, a minimum of 12 units must be completed at Bakersfield College.

Bakersfield College's Regional Fire Technology Academy (RFTA) was authorized by the California Fire Service Training and Education System in 1980, with programs of study leading to Certified Fire and Certified Fire Chief. RFTA sponsors many cooperative training programs with federal, state, and local fire protection agencies. Individuals may develop a program suitable to their career goals with the aid of a college counselor. Courses may lead to the achievement of specific career goals, immediate employment, an associate degree, or transfer credits that satisfy requirements for a bachelor's degree in Fire Technology.

To Achieve the Associate in Arts
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Fire Technology Associate in Arts degree.

To Transfer Coursework
A minimum of 22 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- identify minimum qualifications and entry-level skills for fire fighting hiring.
- demonstrate the ability to analyze, appraise and evaluate fire and emergency incidents.
- identify and comprehend laws, regulations, codes and standards that influence fire department operations and identify regulatory and advisory organizations that create and mandate them, especially in the areas of fire prevention, building codes and ordinances, and firefighter health and safety.
- analyze the causes of fire, determine extinguishing agents and methods, differentiate the stages of the fire and fire development, and compare methods of heat transfer.
- identify and describe the apparatus used in the fire service, and the equipment and maintenance of fire apparatus and equipment.
- identify and describe common types of building construction and conditions associated with structural collapse and firefighter safety.
- differentiate between fire detection and fire suppression systems.

**Total Units: 22**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE B1</td>
<td>Fire Protection Organization</td>
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<tr>
<td>FIRE B2</td>
<td>Personal Fire Safety &amp; Emergency Action</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B5</td>
<td>Fire Prevention Technology</td>
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</tr>
<tr>
<td>FIRE B7</td>
<td>Building Construction for Fire Protection</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B3</td>
<td>Fire Command, Strategy, Tactics</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B4</td>
<td>Fire Behavior and Combustion</td>
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</tr>
<tr>
<td>FIRE B6</td>
<td>Fire Protection Equipment &amp; Systems</td>
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</tr>
<tr>
<td>FIRE B72h</td>
<td>Emergency Medical Technician 1</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Fire Technology Associate in Science**

This degree program of study was developed to assist students who desire to become a firefighter, or desire Fire Technology as a career. This certificate will aid existing firefighters in promoting/advancing through the ranks of engineer, captain, battalion chief, etc. The Bakersfield Fire Department requires an associate degree before a captain can take the promotional exam for battalion chief. This course of study will transfer to a four-year institute.

Note: FIRE B1 is a prerequisite and must be completed before taking other core fire technology courses. FIRE B1 can be waived if the student has completed either academy (B62 or B63) and B2 can be waived for students who have a minimum of two years continuous experience as a full-time paid firefighter. A GPA of at least 2.0 is required in the fire technology program. Of the 30 units required, a minimum of 12 units must be completed at Bakersfield.

Bakersfield College’s Regional Fire Technology Academy (RFTA) was authorized by the California Fire Service Training and Education System in 1980, with programs of study leading to Certified Fire and Certified Fire Chief. RFTA sponsors many cooperative training programs with federal, state, and local fire protection agencies. Individuals may develop a program suitable to their career goals with the aid of a college counselor. Courses may lead to the achievement of specific career goals, immediate employment, an associate degree, or transfer credits that satisfy requirements for a bachelor’s degree in Fire Technology.

To Achieve the Associate in Science

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Fire Technology Associate in Science degree.

**To Transfer Coursework**

A minimum of 32-36 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- identify minimum qualifications and entry-level skills for firefighting hiring.
- demonstrate the ability to analyze, appraise and evaluate fire and emergency incidents.
- identify and comprehend laws, regulations, codes and standards that influence fire department operations and identify regulatory and advisory organizations that create and mandate them, especially in the areas of fire prevention, building codes and ordinances, and firefighter health and safety.
- analyze the causes of fire, determine extinguishing agents and methods, differentiate the stages of the fire and fire development, and compare methods of heat transfer.
- identify and describe the apparatus used in the fire service, and the equipment and maintenance of fire apparatus and equipment.
- identify and describe common types of building construction and conditions associated with structural collapse and firefighter safety.
- differentiate between fire detection and fire suppression systems.

**Total Units: 32-36**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE B1</td>
<td>Fire Protection Organization</td>
<td>3.0</td>
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<tr>
<td>FIRE B2</td>
<td>Personal Fire Safety &amp; Emergency Action</td>
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</tr>
<tr>
<td>FIRE B5</td>
<td>Fire Prevention Technology</td>
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<td>FIRE B7</td>
<td>Building Construction for Fire Protection</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B3</td>
<td>Fire Command, Strategy, Tactics</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B4</td>
<td>Fire Behavior and Combustion</td>
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<tr>
<td>FIRE B6</td>
<td>Fire Protection Equipment &amp; Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B72h</td>
<td>Emergency Medical Technician 1</td>
<td>4.0</td>
</tr>
<tr>
<td>FIRE B51a</td>
<td>Fire Management 1A</td>
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<tr>
<td>FIRE B51b</td>
<td>Fire Command 1A</td>
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<tr>
<td>FIRE B51d</td>
<td>Fire Prevention 1A</td>
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<tr>
<td>FIRE B51c*</td>
<td>Fire Command 1B</td>
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<tr>
<td>FIRE B51e*</td>
<td>Fire Prevention 1B</td>
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<td>WEXP B248</td>
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<tr>
<td>WEXP B249</td>
<td>Cooperative Work Experience</td>
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</tbody>
</table>

*Note: Students may substitute up to 4 units of work experience credit in place of FIRE B51c and/or FIRE B51e.

**Wildland Fire Technology Associate in Science**

This degree is designed for people who desire to enter or enhance their career in a state or federal wildland firefighting agency. The course material is linked with the National Multi-
Agency Coordinating Group certification process. Students are given the opportunity to take several didactic and practical tests administered throughout the program to attain both state and national level wildland competencies. The core curriculum includes certification material to secure the basic wildland red card needed for employment in a wildland fire agency. Additional course work is designed to meet or exceed the National Fire Protection Association’s 1051 Standard on Wildland Fire Fighter Professional Qualifications. The elective material is designed to allow a student to obtain some degree of specialization that may tailor a student’s education to qualify for supervisor positions in a wildland organization. Students may be placed in paramilitary and physically demanding environments designed to introduce the student to the job tasks and skills required to operate in the wildland fire services. Career opportunities include the Forest Service and the Bureau of Land Management. Discharged military service personnel can use their military service time towards their career in the Forest Service or the BLM.

To Achieve the Associate in Science
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Wildland Fire Technology Associate in Science degree.

To Transfer Coursework
A minimum of 30 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- differential influences affecting fire behavior.

Total Units: 30

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
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<tbody>
<tr>
<td>FIRE B25a</td>
<td>Wildland Fire Behavior</td>
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<tr>
<td>FIRE B25b</td>
<td>Wildland Firefighter Safety &amp; Survival</td>
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</tr>
<tr>
<td>FIRE B25c</td>
<td>Wildland Fire Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE B25d</td>
<td>Wildland Public Information Officer, Prevention, &amp; Investigation</td>
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</tr>
<tr>
<td>FIRE B25e</td>
<td>Wildland Fire Logistics, Finance, &amp; Planning</td>
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Electives — at least 15 units

<table>
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<tr>
<th>Course Number</th>
<th>Title</th>
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<tbody>
<tr>
<td>FIRE B25f</td>
<td>Wildland Firefighter</td>
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<tr>
<td>FIRE B25g</td>
<td>Wildland Engine Firefighter</td>
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</tr>
<tr>
<td>FIRE B25h</td>
<td>Wildland Fire Dispatching</td>
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<tr>
<td>FIRE B26a</td>
<td>Initial Attack Incident Commander Type 4 (ICT4) (S-200)</td>
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<tr>
<td>FIRE B26b</td>
<td>Interagency Incident Business Management (S-260)</td>
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<tr>
<td>FIRE B26c</td>
<td>Fire Operations in the Wildland Urban Interface (S-215)</td>
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<tr>
<td>FIRE B26d</td>
<td>Crew Boss (S-230)</td>
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<tr>
<td>FIRE B26k</td>
<td>Field Observer (S-244)</td>
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<td>FIRE B26m</td>
<td>Display Processor (S-245)</td>
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<tr>
<td>FIRE B27a</td>
<td>Basic Incident Command System (I-200)</td>
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<tr>
<td>FIRE B27b</td>
<td>I-300 Intermediate Incident Command System (I-300)</td>
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<tr>
<td>FIRE B28b</td>
<td>L-280 Followership to Leadership</td>
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</tbody>
</table>

**Chief Officer Certification (NFPA Standard 1021)**

- differential influences affecting fire behavior.

**Certificate of Achievement**

The Fire Chief Certification will prepare students currently employed in fire science occupations to qualify for promotions such as to Battalion Chief and higher. This training utilizes curricula developed by the California Fire Service Training and Education System (CFSTES, the training branch of the California State Fire Marshall) and meets California Board of Fire Services standards. Certification as a CSFM Fire Officer provides in-service fire personnel the ability to promote and advance in their careers and may provide for educational pay incentives.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Chief Officer Certification (NFPA Standard 1021) Certificate of Achievement.

To Transfer Coursework
A minimum of 22 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- describe the organizational structure used within large scale hazardous materials incidents, including basic duties and responsibilities of key division positions such as incident commander; safety officer; and public information officer.
- list the common types of high-rise hazards and concerns during fire suppression operations.
- describe the history of emergency management and planning for large scale disasters.
- list command tasks and responsibilities associated with emergency operations involving wildland fires.
- analyze and write policy statements that guide fire service organizations.
- develop general personnel administration practices consistent with local, state, and federal statutory and regulatory requirements.
- describe the ten steps of the planning process.
- identify the roles and responsibilities of management personnel within the organization.
- diagram a sample Unified Command structure for a major incident simulation.

Total Units: 22

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE B50a</td>
<td>Fire Command 2-Command Tactics at Major Fires</td>
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<tr>
<td>FIRE B50b</td>
<td>Fire Command 2b-Scene Management at Major Incidents</td>
<td>2.0</td>
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<tr>
<td>FIRE B50c</td>
<td>Fire Command 2c-High-Rise Fire Tactics</td>
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<tr>
<td>FIRE B50d</td>
<td>Fire Command 2d-Management of Large-Scale Disasters</td>
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<tr>
<td>FIRE B50e</td>
<td>Fire Command 2e-Wildland Fire Tactics</td>
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<tr>
<td>FIRE B50f</td>
<td>Fire Management 2a-Organizational Development and Human Relations</td>
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</tr>
<tr>
<td>FIRE B50g</td>
<td>Fire Management 2b-Finance and Business Management for Chief Officers</td>
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<tr>
<td>FIRE B50h</td>
<td>Fire Management 2c-Computer Application for the Fire Service</td>
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<tr>
<td>FIRE B50i</td>
<td>Fire Management 2d-Master Planning</td>
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<tr>
<td>FIRE B50j</td>
<td>Fire Management 2e-Staff Assignments</td>
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</tr>
</tbody>
</table>
Program emphasizes quality food production, production records, nutrition standards and student service in child nutrition programs including public and private schools, child-care centers and day-care centers.

A Sanitation Certificate such as ServSafe or equivalent is required for this certificate.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Child Nutrition Management Certificate of Achievement.

To Transfer Coursework
A minimum of 24 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- practice proper basic principles of food service and safety (sanitation) and their application to food service operations and procedures.
- demonstrate the ability to make decisions and communicate an action plan for a hazardous materials incident.
- analyze the relationship between fire prevention efforts and the reduction of life and property loss.
- apply codes to simulated fire prevention inspection violations.
- identify state arson laws and legal aspects of fire scene investigation.
- list ICS positions and duties and describe the positions to the level of deputies.

Total Units: 18

Total Units: 24
Child Nutrition Program Management Option
Associate in Science
Program emphasizes quality food production, production records, nutrition standards and student service in child nutrition programs including public and private schools, childcare centers and day care centers. A Sanitation Certificate such as ServSafe or equivalent is required for the associate degree.

To Achieve the Associate in Science
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Child Nutrition Program Associate in Science degree.

To Transfer Coursework
A minimum of 30 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• practice proper basic principles of food safety (sanitation) and their application to food service operations and procedures.
• practice the principles and methods of food preparation emphasizing use of standardized recipes, industry production standards, and development of work skills.
• perform dining room service function using a variety of types of service and demonstrate and understanding of quality customer service.
• have an understanding of a supervisor’s role and responsibilities in managing a food service operation.
• maximize nutritional retention in food preparation and storage and application of nutritional principles in menu planning.
• demonstrate basic baking principles and to apply fundamentals to the preparation of a variety of products.

Total Units: 30

Required Courses

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<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
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<tr>
<td>FDSV B50</td>
<td>Introduction to the Foodservice Industry</td>
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</tr>
<tr>
<td>FDSV B52</td>
<td>Foodservice Sanitation and Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV B55a</td>
<td>Foodservice Production Theory I</td>
<td>2.5</td>
</tr>
<tr>
<td>FDSV B55c</td>
<td>Foodservice Production Laboratory I</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR B10</td>
<td>Elementary Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>WEXP B248</td>
<td>Cooperative Work Experience Education</td>
<td>2.0</td>
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<tr>
<td>WEXP B249</td>
<td>Cooperative Work Experience Education</td>
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</tr>
<tr>
<td>COMS</td>
<td>Computer Studies Course</td>
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</table>

Electives — for a total of at least 30 units

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<th>Title</th>
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<tbody>
<tr>
<td>FDSV B55b</td>
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<tr>
<td>FDSV B55d</td>
<td>Foodservice Production Laboratory II</td>
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<tr>
<td>FDSV B59</td>
<td>Foodservice Production Management</td>
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<tr>
<td>FDSV B71</td>
<td>ServSafe Certification</td>
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</tbody>
</table>

Culinary Arts

Certificate of Achievement
Program emphasizes quality food production and service in commercial and institutional food service operations. Course work includes practical training in the campus restaurant, the Renegade Room.

A sanitation certificate such as ServSafe or equivalent is required for this Certificate.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Culinary Arts Certificate of Achievement.

To Transfer Coursework
A minimum of 24.5 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• perform dining room service function using a variety of types of service and demonstrate an understanding of quality customer service.
• practice proper basic principles of food safety (sanitation) and their application to food service operations and procedures.
• practice the principles and methods of food preparation emphasizing use of standardized recipes, industry production standards, and development of work skills.
• maximize nutrient retention in food preparation and storage and application of nutritional principles and to apply fundamentals to the preparation of a variety of products.
• have an understanding of a supervisor’s role and responsibilities in managing a food service operation.

Total Units: 24.5

Required Courses (including completion of the ServSafe exam)

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<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
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<td>Introduction to the Foodservice Industry</td>
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<tr>
<td>FDSV B51</td>
<td>Food &amp; Nutrition Orientation</td>
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<td>FDSV B52</td>
<td>Foodservice Sanitation and Safety</td>
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<td>FDSV B55a</td>
<td>Foodservice Production Theory I</td>
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<td>WEXP B248</td>
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<tr>
<td>COMS</td>
<td>Computer Studies Course</td>
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</tr>
</tbody>
</table>

Culinary Arts

Associate in Science
Degree emphasizes quality food production and service in commercial and institutional food service operations. Course work includes practical training in the campus restaurant, the Renegade Room. National Restaurant Association ServSafe certificate is required for completion of the degree.

Career opportunities in food service include sous chef, food service manager, food buyer, and cook.

To Achieve the Associate in Science
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Culinary Arts Associate in Science degree.
To Transfer Coursework
A minimum of 27.5 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- perform dining room service functions using a variety of types of service and demonstrate an understanding of quality customer service.
- practice proper basic principles of food safety (sanitation) and their application to food service operations and procedures.
- practice the principles and methods of food preparation emphasizing use of standardized recipes, industry production standards, and development of work skills.
- maximize nutrient retention in food preparation and storage and application of nutritional principles to apply fundamentals to the preparation of a variety of products.
- have an understanding of a supervisor’s role and responsibilities in managing a food service operation.

Total Units: 27.5

Required Courses (including completion of the ServSafe exam)

<table>
<thead>
<tr>
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<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDSV B50</td>
<td>Introduction to the Foodservice Industry</td>
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</tr>
<tr>
<td>FDSV B51</td>
<td>Food and Nutrition Orientation</td>
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<td>FDSV B52</td>
<td>Foodservice Sanitation and Safety</td>
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<td>FDSV B55a</td>
<td>Foodservice Production Theory I</td>
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<tr>
<td>FDSV B55b</td>
<td>Foodservice Production Theory II</td>
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<tr>
<td>FDSV B55c</td>
<td>Foodservice Production Laboratory I</td>
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<td>FDSV B55d</td>
<td>Foodservice Production Laboratory II</td>
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<td>FDSV B59</td>
<td>Foodservice Production Management</td>
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<tr>
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<td>Cooperative Work Experience Education</td>
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</table>

Dietetic Services Supervisor Program
Certificate of Achievement

Program provides training for students planning employment in the food service department of a health care operation. Courses in this program meet State of California Department of Health Services certification requirements. Consult with a member of the Foods and Nutrition Program staff before scheduling courses in the program. At this time appropriate clinical field experience will be planned. A sanitation certificate such as ServSafe or equivalent is required for this certificate.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Dietetic Services Supervisor Program Certificate of Achievement.

To Transfer Coursework
A minimum of 18.5 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- locate the state and federal laws and regulations applicable to food service operations in health care (California Code of Regulations, Title 22 Federal Code of Regulations, Business and Professions Code of Registered Dietitians and Dietetic Technicians Registered, FDA Food Code, etc.).
- utilizing the above references laws, and in conjunction with the registered dietitian, determine compliance with regulations and acceptable standards of care.
- identify the role and limitations of the Dietary Service Supervisor under Title 22.
- review, with a registered dietitian, a facility’s policies and procedures to ensure that they are in compliance with regulations and standards of practice.
- locate diet manuals and show ability to use them by making menu substitutions to meet the nutritional needs of residents/patients in accordance with standard of care.
- help registered dietitian ensure that menus and standardized recipes are followed by food service staff. Help develop standardized menus.
- ensure that food is prepared and served by methods that conserve nutritive value, flavor, and appearance. Ensure that food is prepared to meet individual texture and nutrient needs and that substitutions are of similar nutritive value.
- ensure that residents/patients receive and consume foods as prescribed by the physician. Document diet prescriptions, food preferences, and the possible need for texture modification and/or assistance during meal times by maintaining and updating card profiles.
- protect food in all phases of preparation. Ensure that food is inspected for quality upon receiving, then stored, prepared, and served under sanitary conditions to prevent food borne illness. Sanitation oversight includes all food service department areas and components such as storage rooms, refrigerators/freezers, food preparation, and service equipment and surfaces, tray lines, and carts.
- assist with day to day operations such as:
  - food forecasting, ordering, storage, preparation, and service.
  - employee staffing schedules.
  - employee health and safety programs.
  - labor relations.
  - employee orientation and ongoing planned staff development.

Total Units: 18.5

Required Courses (including completion of the ServSafe exam)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDSV B50</td>
<td>Introduction to the Foodservice Industry</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV B52</td>
<td>Foodservice Sanitation and Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV B55a</td>
<td>Foodservice Production Theory I</td>
<td>2.5</td>
</tr>
<tr>
<td>FDSV B55c</td>
<td>Foodservice Production Laboratory I</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV B59</td>
<td>Foodservice Production Management</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR B10</td>
<td>Elementary Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR B50</td>
<td>Modified Diets</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV B64a</td>
<td>Dietetic Service Supervisor Practicum</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Foodservice Management Option
Associate in Science

A sanitation certificate such as ServSafe or equivalent is required for this associate degree.

To Achieve the Associate in Science
Upon completion of the following courses with at least a ‘C’ grade in
each course, the student will be awarded a Foodservice Management Option Associate in Science degree.

To Transfer Coursework
A minimum of 29.5 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- practice proper basic principles of food safety (sanitation) and their application to food service operations and procedures.
- practice the principles and methods of food preparation emphasizing use of standardized recipes, industry production standards, and development of work skills.
- perform dining room service function using a variety of types of service and demonstrate an understanding of quality customer service.
- maximize nutrient retention in food preparation and storage and application of nutritional principles and to apply fundamentals to the preparation of a variety of products.
- demonstrate basic baking principles and to apply fundamentals to the preparation of a variety of products.
- have an understanding of a supervisor’s role and responsibilities in managing a food service operation.

Total Units: 29.5

Required Courses (including completion of the ServSafe exam)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDSV B50</td>
<td>Introduction to the Foodservice Industry</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV B51</td>
<td>Food &amp; Nutrition Orientation</td>
<td>0.5</td>
</tr>
<tr>
<td>FDSV B52</td>
<td>Foodservice Sanitation and Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV B55a</td>
<td>Foodservice Production Theory I</td>
<td>2.5</td>
</tr>
<tr>
<td>FDSV B55b</td>
<td>Foodservice Production Theory II</td>
<td>2.5</td>
</tr>
<tr>
<td>FDSV B55c</td>
<td>Foodservice Production Laboratory I</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV B55e</td>
<td>Advanced Foodservice Practicum</td>
<td>3.0</td>
</tr>
<tr>
<td>FDSV B55i</td>
<td>Food and Nutrition Internship</td>
<td>1.0</td>
</tr>
<tr>
<td>FDSV B59</td>
<td>Foodservice Production Management</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR B10</td>
<td>Elementary Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>WEXP B248</td>
<td>Cooperative Work Experience Education</td>
<td>2.0</td>
</tr>
<tr>
<td>BSAD B53a</td>
<td>Introduction to Accounting I</td>
<td>3.0</td>
</tr>
<tr>
<td>SPST B201L</td>
<td>Special Projects and Studies</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Geology

Geology Associate in Science
The major in geology is appropriate for interested students who desire to be employable within the local petroleum industry as a geo-tech or other analogous position, or are seeking a solid science background for a profession like teaching. The major is designed to provide students with a good general education in math and science, a well-rounded introduction to physical and historical geology, as well as an introduction to some basic engineering skills.

To Achieve the Associate in Science
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Geology Associate in Science degree.

To Transfer Coursework
A minimum of 33 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate a knowledge of and recognize the processes that explain natural phenomena
- apply methodologies of science when approaching a problem
- apply logical quantitative and qualitative reasoning in solving problems or analyzing argument

Total Units: 33

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL B10</td>
<td>Introduction to Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL B10L</td>
<td>Introduction to Geology Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOL B11</td>
<td>Historical Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL B11L</td>
<td>Historical Geology Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOL</td>
<td>Electives</td>
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</tr>
<tr>
<td>CHEM B1a</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM B2a</td>
<td>Introductory General Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing &amp; Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>MATH B1b</td>
<td>Precalculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B70</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>COMS B37</td>
<td>Introduction to Geographic Information</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS B2a</td>
<td>General Physics-Mechanics &amp; Heat</td>
<td>4.0</td>
</tr>
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</table>

Suggested Program for Geology Associate in Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL B10</td>
<td>Introduction to Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL B10L</td>
<td>Introduction to Geology Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing &amp; Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>MATH B70</td>
<td>Intermediate Algebra</td>
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</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MATH B1a</td>
<td>Precalculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>GEOL</td>
<td>Elective</td>
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Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CHEM B2a</td>
<td>Introductory General Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>COMS B37</td>
<td>Introduction to Geographic Information</td>
<td>3.0</td>
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</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS B2a</td>
<td>General Physics-Mechanics &amp; Heat</td>
<td>4.0</td>
</tr>
<tr>
<td>GEOL B11</td>
<td>Historical Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL B11L</td>
<td>Historical Geology Laboratory</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Suggested Electives

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACDV B5</td>
<td>Tutor Training and Practicum</td>
<td>2.0</td>
</tr>
<tr>
<td>ANTH B3</td>
<td>Introduction to Archaeology</td>
<td>3.0</td>
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</tbody>
</table>
To Transfer Coursework

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a History Associate in Arts degree.

History

Associate in Arts

To Achieve the Associate in Arts

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a History Associate in Arts degree.

History

Suggested Transfer Program

Before planning a study list, the community college student should consult a counselor and study the catalog of the transfer institution.

Suggested for Transfer to UCLA

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM B1a</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM B1b</td>
<td>General Chemistry &amp; Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH B6a</td>
<td>Analytic Geometry &amp; Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B6b</td>
<td>Analytic Geometry &amp; Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B2a</td>
<td>General Physics-Mechanics &amp; Heat</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B2b</td>
<td>General Physics-Sound, Light, Electricity, Magnetism, Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL B3a</td>
<td>General Biology I</td>
<td>5.0</td>
</tr>
<tr>
<td>BIOL B3b</td>
<td>General Biology II</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Suggested for Transfer to San Diego State University

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL B10</td>
<td>Introduction to Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL B10L</td>
<td>Geology Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>CHEM B1a</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM B1b</td>
<td>General Chemistry &amp; Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>BIOL B11</td>
<td>Concepts of Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B6a</td>
<td>Analytic Geometry &amp; Calculus I</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Recommended Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing &amp; Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>MATH B6b</td>
<td>Analytic Geometry &amp; Calculus II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Additional Required Course — choose 1 of the following

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST B17ab</td>
<td>History of the U.S.</td>
<td>6.0</td>
</tr>
<tr>
<td>HIST B20ab</td>
<td>African American History of the United States</td>
<td>6.0</td>
</tr>
<tr>
<td>HIST B30ab</td>
<td>Chicano History</td>
<td>6.0</td>
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</tbody>
</table>

Additional Required Courses — choose 2 of the following

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON B2</td>
<td>Principles of Economics-Macro</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B25</td>
<td>Introduction to Women in American History</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B18</td>
<td>History of California</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B36</td>
<td>History of Native American Indians</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG B1</td>
<td>Physical Elements of Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS B1</td>
<td>American Government: National, State and Local</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS B2</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS B3</td>
<td>International Politics</td>
<td>3.0</td>
</tr>
<tr>
<td>SOCI B1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B3</td>
<td>Modern Global Societies</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B33</td>
<td>Latin American History</td>
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</tr>
<tr>
<td>HIST B15</td>
<td>Civilizations of the Middle East</td>
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</table>

Recommended Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL B2</td>
<td>Advanced Composition and Critical Thinking</td>
<td>5.0</td>
</tr>
<tr>
<td>PHIL B6a</td>
<td>Introduction to Philosophy</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH B2</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Human Services

Human Services

Job Skills Certificate

The Human Service Job Skills Certificate emphasizes classroom instruction as well as hands-on-experience through interning with community human services agencies. The field of human services
services is very broad. It is concerned with meeting human needs and improving the overall quality of people's lives. The field is interdisciplinary, meaning that knowledge from a variety of other fields of study is applied to the overall goal of helping people.

**To Achieve the Job Skills Certificate**
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Human Services Job Skills Certificate.

**To Transfer Coursework**
A minimum of 15 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**
Upon successful completion, the student will:
- Demonstrate an understanding of the perspectives, theories, methods and core concepts of the behavioral sciences.
- Explain the major problems and issues in the disciplines in their contemporary, historical and geographical contexts.
- Demonstrate an understanding of an ability to describe the contributions and perspectives of women, ethnic and other minorities and Western and non-Western peoples.

**Total Units: 15**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
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</tr>
<tr>
<td>ENGL B50</td>
<td>Introduction to College Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>HMSV B40</td>
<td>Introduction to Human Services</td>
<td>3.0</td>
</tr>
<tr>
<td>HMSV B5</td>
<td>Human Services Internship</td>
<td>2.0</td>
</tr>
<tr>
<td>SOCI B1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Human Services Associate in Arts**
The major in human services provides the student with an academic background for entry-level positions in various human services agencies. It also prepares the student for upper-division work in human services and other behavioral sciences. The field is interdisciplinary with the overall career goal of helping people.

**To Achieve the Associate in Arts**
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Human Services Associate in Arts degree.

**To Transfer Coursework**
A minimum of 19 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**
Upon successful completion, the student will:
- Demonstrate an understanding of the perspectives, theories, methods and core concepts of the behavioral sciences.
- Explain the major problems and issues in the disciplines in their contemporary, historical and geographical contexts.
- Demonstrate an understanding of an ability to describe the contributions and perspectives of women, ethnic and other minorities and Western and non-Western peoples.

**Total Units: 19**

**Industrial Drawing**

**AutoCAD**

**Job Skills Certificate**
This certificate covers the principles of industrial drawing/CAD with the emphasis on using the AutoCAD software package from basic 2D principles through 3D solid modeling to obtain graphic solutions, design refinements, modifications and delineations. Software customization is also emphasized. Career opportunities include drafter, CAD operator, engineering tech, CAD manager, and architecture CAD operator.

**To Achieve the Job Skills Certificate**
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an AutoCAD Job Skills Certificate.

**To Transfer Coursework**
A minimum of four units of HMSV B5 is required. Two units are permitted in a given semester. All units must be completed in agencies where assignment and supervision is approved by the Program Coordinator. Students wishing to enroll in HMSV B5 must have completed HMSV B40.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMSV B5</td>
<td>Human Services Internship</td>
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</tbody>
</table>

**Total Units: 8**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and Design (CAD)</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B20a</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B20b</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Industrial Drawing

Associate in Arts

To Achieve the Associate in Arts
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Industrial Drawing Associate in Arts degree.

To Transfer Coursework
A minimum of 20 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• demonstrate proficiency in technical skills and safety principles required for industrial employment.
• demonstrate problem solving skills used in industrial design and product development.

Total Units: 20

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and Design (CAD)</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B20a</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
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<tr>
<td>INDR B50</td>
<td>Process Piping</td>
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</tr>
<tr>
<td>INDR B51</td>
<td>Electrical Design</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B52</td>
<td>Geographic Information Systems (GIS)</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B40</td>
<td>Parametric Modeling Fundamentals</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives — at least 3 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH B16</td>
<td>Digital Tools for Graphics Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B20b</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Industrial Technology, Industrial Drawing Option

Associate in Science

Students who complete the Industrial Technology degree with the Industrial Drawing option will acquire information, skills, and training in a variety of fields that will enable them to apply their knowledge in an array of situations, including engineering and manufacturing settings. Students will acquire the practical knowledge and skills to successfully enter industry employment or to advance within their organization. Career opportunities include architecture, engineering, industrial technology draftsman, CAD Technician, engineering technician, CAD Manager, and detailer.

To Achieve the Associate in Science
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Industrial Technology, Industrial Drawing Option Associate in Science degree.

To Transfer Coursework
A minimum of 31 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
• demonstrate proficiency in technical skills and safety principles required for industrial employment.
• demonstrate problem solving skills used in industrial design and product development.
• demonstrate a deep understanding of the core material required for transfer to a four year university degree program in industrial technology.

Total Units: 31

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and Design (CAD)</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B20a</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B20b</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B40</td>
<td>Parametric Modeling Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B50</td>
<td>Process Piping</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B70</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>INDR B51</td>
<td>Electrical Design</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B52</td>
<td>Geographic Information Systems (GIS)</td>
<td>3.0</td>
</tr>
<tr>
<td>MFGT B1ab</td>
<td>Machine Tool Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B2</td>
<td>Furniture and Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR B24</td>
<td>Engineering Graphics and Descriptive Geometry</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B1a</td>
<td>Introduction to Oxygen Acetylene Welding and Cutting</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B1b</td>
<td>Introduction to the Welding Processes</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Suggested Program for Industrial Technology Industrial Drawing Option Associate in Science

First Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and Design (CAD)</td>
<td>1.0</td>
</tr>
<tr>
<td>MATH B70</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDR B20a</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B70</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>INDR B50</td>
<td>Process Piping</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B52</td>
<td>Geographic Information Systems (GIS)</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD B1a</td>
<td>Introduction to Oxygen Acetylene Welding and Cutting</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B1b</td>
<td>Introduction to Welding Processes</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDR B50</td>
<td>Process Piping</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B51</td>
<td>Electrical Design</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B52</td>
<td>Geographic Information Systems (GIS)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Fourth Semester
Industrial Technology

Industrial Technology (General)

Associate in Science

Students who complete the Industrial Technology degree with the Industrial Drawing option will acquire information, skills, and training in a variety of fields that will enable them to apply their knowledge in an array of situations, including engineering and manufacturing settings. Students will acquire the practical knowledge and skills to successfully enter industry employment or to advance within their organization. Career opportunities include architecture, engineering, and Industrial Technology, draftsman, CAD Technician, Engineering Technician, CAD Manager, and detailer.

To Achieve the Associate in Science

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Industrial Technology (General) Associate in Science degree.

To Transfer Coursework

A minimum of 22 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

• demonstrate proficiency in technical skills and safety principles required for industrial employment.
• demonstrate problem solving skills used in industrial design and product development.
• demonstrate a deep understanding of the core material required for transfer to a four year university degree program in industrial technology.

Total Units: 22

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFGT B1ab</td>
<td>Machine Tool Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET B1</td>
<td>Basic Electronics (DC and AC)</td>
<td>4.0</td>
</tr>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and Design (CAD)</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B20a</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD B1a</td>
<td>Introduction to Oxygen Acetylene Welding and Cutting</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B1b</td>
<td>Introduction to the Welding Processes</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Electives V at least 3 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDR B20b</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
<tr>
<td>MFGT B2 CNC</td>
<td>Lathe Programming &amp; Operation</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B2</td>
<td>Furniture and Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>AUTO B1ab</td>
<td>Introduction to Automotive Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>CNST B1</td>
<td>Introduction to Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B5</td>
<td>Introduction to Microsoft Office 2010</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Liberal Arts

Liberal Arts

Associate in Arts

The Liberal Arts major at Bakersfield College is designed to provide students with the opportunity to earn an associate in arts degree in a broad area of study. The major is interdisciplinary and allows students to develop a variety of skills transferable to numerous occupations and fields of study. The major is intended to provide general knowledge and to develop the intellectual capacities, such as reasoning and judgment, as opposed to professional or vocational skills. This major is suitable for transfer students preparing for upper division study in a variety of fields in the liberal arts and for...
those students undecided as to major or further study. Students may satisfy requirements for the Liberal Arts major by completing one of the two options listed below. With any option selected, students must also complete all graduation requirements for Bakersfield College including a total of 60 degree applicable units with an overall grade point average of 2.0.

To Achieve the Associate in Arts
Upon completion of the following courses with at least a ’C’ grade in each course, the student will be awarded a Liberal Arts Associate in Arts degree.

To Transfer Coursework
A minimum of 18 semester units in the major with a grade of ’C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Select one of the following options:

1. Option One.
   - Complete the Intersegmental General Education Transfer Curriculum (IGETC) with a C average.
   - Complete at least 18 units from recommended lower division major preparation for the major at the approved university of your choice with a C grade in each course.
   - UC transferable elective units, if needed, to total 60 units.

2. Option Two.
   - Complete CSU General Education Breadth with a C average.
   - Complete at least 18 units from recommended lower division major preparation for the major at the approved university of your choice with a C grade in each course.
   - CSU transferable elective units, if needed, to total 60 units.

**Liberal Studies**

**Liberal Studies Associate in Arts**

Courses listed are based on information available at the time of publication of this catalog for the Liberal Studies Major Credential Track at CSU Bakersfield and are intended for students who plan to obtain a multiple subjects teaching credential. Students are advised to see a counselor for the most current requirements for a Liberal Studies major at CSU Bakersfield. Students transferring to other colleges or universities are advised to consult the catalog of the school they plan to attend. This degree is articulated directly with CSU Bakersfield and may not be applicable to any other CSU.

To Achieve the Associate in Arts
Upon completion of the following courses with at least a ’C’ grade in each course, the student will be awarded a Liberal Arts Associate in Arts degree.

To Transfer Coursework
A minimum of 18 semester units in the major with a grade of ’C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

A.1. Oral Communication
   1. Form and present informative persuasive messages.

2. Demonstrate competence in both active and empathic listening.
3. Present oral messages to appropriate audiences and adhere to conventions of message delivery.
4. Manage personal communication apprehension and anxiety.

A.2 Written Communication
1. Identify the controlling idea and the main points of college-level expository & argumentative essays.
2. Evaluate expository & argumentative essays through the application of critical thinking techniques.
3. Write logical & coherent expository & argumentative essays, summaries & paraphrases using correctly the standard conventions of written English.

A.3 Critical Thinking
1. Make judgments that skillfully interpret information and phenomena.
2. Skillfully support judgments.
3. Identify & skillfully explore assumptions, implications, and alternatives to judgments.
4. Identify & differentiate statements of opinion, matters of fact, and arguments.
5. Analyze arguments into supporting judgments and supported judgments.
7. Skillfully evaluate the support for judgments.

B.1 Natural Sciences
1. Demonstrate a knowledge of natural phenomena and recognize the processes that explain them.
2. Demonstrate a knowledge of scientific methodologies when solving a problem.

B.2 Mathematics and Logic
1. Apply formal systems of reasoning in solving problems or analyzing arguments.

C.1 Introduction to the Arts
1. Demonstrate an understanding of and an ability to describe the ways in which arts, literature, philosophy or foreign languages reflect historical, intellectual, and cultural contexts, as well as aesthetic tastes.
2. Demonstrate the ability to recognize, describe and/or produce various components of an art form or language either visually and/or auditorily.

C.2 Introduction to the Humanities
1. Demonstrate an understanding of and an ability to describe the ways in which arts, literature, philosophy or foreign languages reflect historical, intellectual, and cultural contexts, as well as aesthetic tastes.

D.1 Foundations in the Behavioral Sciences
1. Demonstrate an understanding of the perspectives, theories, methods and core concepts of the behavioral sciences.
2. Explain the major problems and issues in the disciplines in their contemporary, historical and geographical contexts.
3. Demonstrate an understanding of and an ability to describe the contributions and perspectives of women, ethnic and other minorities, and Western and non-Western peoples.
D.2 Foundations in the Social Sciences
1. Demonstrate an understanding of the perspectives, theories, methods and core concepts of the social sciences.
2. Explain the major problems and issues in the disciplines in their contemporary, historical and geographical contexts.
3. Demonstrate an understanding of and an ability to describe the contributions and perspectives of women, ethnic and other minorities, and Western and non-Western peoples.

D.3 American (U.S.) Institutions
1. Demonstrate an understanding of the perspectives, theories, methods and core concepts of the social sciences.
2. Explain the major problems and issues in the disciplines in their contemporary, historical and geographical contexts.
3. Demonstrate an understanding of and an ability to describe the contributions and perspectives of women, ethnic and other minorities, and Western and non-Western peoples.

E. Lifelong Understanding and Self-Development
1. Critically examine the development of the individual as an integrated physiological, psychological, spiritual, and social being.
2. Identify, describe and explain the interactions of the internal and external influences and effects in human development and behavior over the course of the human life span.

F. Demonstrate knowledge and abilities in a chosen area of study.
1. Demonstrate an understanding of resources and procedures of a field and the ability to use them.
2. Demonstrate the ability to use current technology to acquire, organize, and analyze information appropriately.
3. Possess a core of knowledge and skills in a chosen field.

Total Units: 18

Required Courses - V select 18 units in areas 1-8

Area 1 - Language

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL B1a</td>
<td>Expository Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGL B1b</td>
<td>Introduction to Types of Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL B10</td>
<td>Introduction to Shakespeare</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL B21</td>
<td>African American Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL B23</td>
<td>Women's Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL B30a</td>
<td>Survey of American Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL B30b</td>
<td>Survey of American Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL B35</td>
<td>Children's Literature and Storytelling</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM B1</td>
<td>Public Speaking</td>
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</table>

Area 2 - Mathematics

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MATH B4a</td>
<td>Mathematics for Elementary School Teaching</td>
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</table>

Area 3 - Science

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BIOL B11</td>
<td>Concepts of Biology</td>
<td>4.0</td>
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<tr>
<td>PHSC B12</td>
<td>Physical Science</td>
<td>4.0</td>
</tr>
<tr>
<td>ERSC B10</td>
<td>Introduction to Earth Science</td>
<td>3.0</td>
</tr>
<tr>
<td>ERSC B10L</td>
<td>Earth Science Laboratory</td>
<td>1.0</td>
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Area 4 - Humanities and Social Science

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>HIST B17a</td>
<td>History of the United States</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS B1</td>
<td>American Government: National, State, and Local</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B18</td>
<td>History of California</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B1</td>
<td>World History from the Origins of Civilizations to 1500</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG B2</td>
<td>Human Geography</td>
<td>3.0</td>
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<tr>
<td>PHIL B7</td>
<td>Introduction to Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL B9</td>
<td>Critical Thinking and Advanced Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>COMM B5</td>
<td>Rhetoric and Argumentation</td>
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</table>

Area 5 - Visual and Performing Arts

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART B1</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B2</td>
<td>Drawing I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B35</td>
<td>Survey of Western Art I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B36</td>
<td>Survey of Western Art II</td>
<td>3.0</td>
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<tr>
<td>MUSC B2</td>
<td>Basic Elements of Music</td>
<td>3.0</td>
</tr>
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<td>MUSC B22</td>
<td>Music Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>THEA B1</td>
<td>Introduction to Acting</td>
<td>3.0</td>
</tr>
<tr>
<td>THEA B20</td>
<td>Theatre Appreciation</td>
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Area 6 - Health and Physical Education

<table>
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<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>HLED B1</td>
<td>Principles of Health Education</td>
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Area 7 - Human Development

<table>
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<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>*PSYC B1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B40</td>
<td>Introduction to Lifespan Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV B21</td>
<td>Child Growth &amp; Development: Birth through Adolescence</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Area 8 - Ethnic, Gender, Cultural, and Handicapped Perspectives
No course articulated.

Area 9 - Introductory Field Experience and Technology

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC B24</td>
<td>Early Field Experience for Elementary Teachers</td>
<td>3.0</td>
</tr>
<tr>
<td>COMS B2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.
- demonstrate a deep understanding of the core material required for transfer to a four year university program or for certification in the department programs.

Total Units: 3

Required Courses
Course Number | Title | Units
--- | --- | ---
MFGT B1ab | Machine Tool Processes | 3.0

Computer Numerical Control Programming Job Skills Certificate
This certificate covers the principles of set-up, operation and programming of computer numerical control (CNC) lathes and milling machines. Career opportunities include CNC Machinist CNC Programmer and CNC Operator.

To Achieve the Job Skills Certificate
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Computer Numerical Control Programming Job Skills Certificate.

To Transfer Coursework
A minimum of 6 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.
- demonstrate a deep understanding of the core material required for transfer to a four year university program or for certification in the department programs.

Total Units: 6

Required Courses
Course Number | Title | Units
--- | --- | ---
MFGT B2 | CNC Lathe Programming & Operation | 3.0
MFGT B3 | CNC Mill Programming | 3.0

Manufacturing Technology Certificate of Achievement
This program teaches students the spectrum of tools utilized in the manufacturing industry: manual machining, computer-controlled machining (CNC), welding, computer aided design, and basic math.

To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Manufacturing Technology Certificate of Achievement.

To Transfer Coursework
A minimum of 31 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate proficiency in technical skills and safety principles required for employment in the manufacturing industry.
- demonstrate problem solving skills used in manufacturing design and product development.
- demonstrate a deep understanding of the core material required for transfer to a four year university program or for certification in the manufacturing program.

Total Units: 31

Required Courses
Course Number | Title | Units
--- | --- | ---
MFGT B1ab | Machine Tool Processes | 3.0
MFGT B2 | CNC Lathe Programming & Operation | 3.0
MFGT B3 | CNC Mill Programming | 3.0
INDR B10 | Introduction to Industrial Drawing and Graphics | 1.0
INDR B11 | Introduction to Computer Aided Drafting and Design (CAD) | 1.0
TECM B52 | Introduction to Technical Mathematics | 3.0
MATH BA | Elementary Algebra | 3.0
INDT B10 | Occupational Readiness | 3.0
WELD B1a | Introduction to Oxygen Acetylene Welding and Cutting | 2.0
WELD B1b | Introduction to the Wedding Processes | 2.0
WELD B54a | Blueprint Reading for Welders and Machinists | 3.0

Electives — at least 7 units
Course Number | Title | Units
--- | --- | ---
INDR B20a | Computer Aided Drafting and Design | 3.0
INDR B40 | Parametric Modeling Fundamentals | 3.0
INDT B273 | Special Problems in Machine Tool Metal Working | 2.3.0
**Industrial Technology, Manufacturing Technology Option**

**Associate in Science**

This program teaches students the spectrum of tools utilized in the manufacturing industry: manual machining, computer-controlled machining (CNC), welding, computer aided design, and mathematics. General education courses may be selected to prepare for career advancement or to help meet transfer requirements for the California State University system.

Career Opportunities include machinist, CNC Operator, CNC Programmer, and drafter/designer.

**To Achieve the Associate in Science**

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Industrial Technology, Manufacturing Technology Option Associate in Science degree.

**To Transfer Coursework**

A minimum of 24 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- demonstrate proficiency in technical skills and safety principles required for employment in the manufacturing industry.
- demonstrate problem solving skills used in manufacturing design and product development.
- demonstrate a deep understanding of the core material required for transfer to a four year university program or for certification in the manufacturing program.

**Total Units: 24**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFGT B1ab</td>
<td>Machine Tool Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>MFGT B2</td>
<td>CNC Lathe Programming &amp; Operation</td>
<td>3.0</td>
</tr>
<tr>
<td>MFGT B3</td>
<td>CNC Mill Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and Design (CAD)</td>
<td>1.0</td>
</tr>
<tr>
<td>TECM B52</td>
<td>Introduction to Technical Mathematics -or equivalent-</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD B1a</td>
<td>Introduction to Oxygen Acetylene Welding and Cutting</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B1b</td>
<td>Introduction to the Welding Processes</td>
<td>2.0</td>
</tr>
<tr>
<td>WEXP B249</td>
<td>Cooperative Work Experience Education</td>
<td>1.0</td>
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</tbody>
</table>

**Electives — at least 3 units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDR B20a</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B40</td>
<td>Parametric Modeling Fundamentals</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD B73</td>
<td>Special Problems in Tool Metal Working</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B53ab</td>
<td>Shielded Metal Arc Welding</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD B74a</td>
<td>Introduction to GMAW (Gas Metal Arc Welding)</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD B74b</td>
<td>Introduction to GTAW (Gas Tungsten Arc Welding)</td>
<td>2.0</td>
</tr>
<tr>
<td>WEXP B249</td>
<td>Cooperative Work Experience Education</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Mathematics**

This degree represents the standard freshman and sophomore level classes for a mathematics major. Career opportunities include teaching, actuarial, and statistics.

**Mathematics Associate in Arts**

To Achieve the Associate in Arts

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Mathematics Associate in Arts degree.

**To Transfer Coursework**

A minimum of 18 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- use mathematics to investigate, model, and solve a variety of real-world problems.
- use a variety of problem-solving methods.
- use mathematics to write and communicate in their discipline.
- view mathematics as a language to describe relationships and patterns. Demonstrate an understanding of concepts and skills needed for future mathematics courses or courses in related disciplines.
- demonstrate a solid understanding of functions from multiple perspectives.
- use numerical, graphical, symbolic, and verbal representations to solve problems and communicate with others.
- use mathematics to investigate, model, and solve a variety of real-world problems.
- use technology as a tool for exploring mathematical concepts.
- demonstrate an ability to work with mathematical abstractions, analyze mathematical relationships, make plausible conjectures, and develop proofs.
- synthesize their mathematical knowledge.

**Total Units: 18**

**Recommended Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL B7</td>
<td>Introduction to Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS B4a</td>
<td>Mechanics and Wave Motion</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGR B19c</td>
<td>Computer Programming for Science, Engineering and Technology (C)</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Music

Students who plan to major or minor in music should commit themselves to the highest possible level of proficiency in theory, piano, literature, group performance, and applied (individual) instruction in their performance area. Students should take the required courses in music and complete courses in general education for the transfer college of their choice. Elective courses will both enrich the student’s background and balance weak areas of knowledge for later academic growth. Career opportunities in music include performer, conductor, composer, arranger; recording artist, recording engineer; critic, musicologist, theorist, private teacher, single-subject teacher; professor; copyist, church musician, music therapist, sound technician, tour manager, and agent.

Music

Associate in Arts

To Achieve the Associate in Arts

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Music Associate in Arts degree.

To Transfer Coursework

A minimum of 24-26 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- demonstrate the ability to recognize, describe and/or effectively produce various components of music including elements of pitch and rhythm,
- demonstrate an understanding and appreciation of the ways in which arts reflect historical, intellectual, and cultural contexts, as well as aesthetic tastes,
- demonstrate through successful group or individual performance acquired musical skills and knowledge appropriate to lower-division major preparation.

Total Units: 24-26

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC B4a</td>
<td>Elementary Theory</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSC B4b</td>
<td>Elementary Theory</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSC B5a</td>
<td>Class Piano</td>
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</tr>
<tr>
<td>MUSC B5b</td>
<td>Class Piano</td>
<td>1.0</td>
</tr>
<tr>
<td>MUSC B15a</td>
<td>Ear Training and Sight Singing</td>
<td>1.0</td>
</tr>
<tr>
<td>MUSC B15b</td>
<td>Ear Training and Sight Singing</td>
<td>1.0</td>
</tr>
<tr>
<td>MUSC B21a</td>
<td>History of Music</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSC B21b</td>
<td>History of Music</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSC B4c</td>
<td>Intermediate Theory-Contemporary Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSC B15c</td>
<td>Intermediate Ear Training/Sight Singing</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Group Performance Courses (one per semester, four semesters minimum)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC B10a,b,c,d</td>
<td>Concert Band</td>
<td>4.0</td>
</tr>
<tr>
<td>MUSC B12a,b,c,d</td>
<td>College Orchestra</td>
<td>4.0</td>
</tr>
<tr>
<td>MUSC B13a,b,c,d</td>
<td>Jazz Ensemble</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Suggested Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC B14a,b,c,d</td>
<td>College Choir</td>
<td>6.0</td>
</tr>
<tr>
<td>MUSC B18a,b,c,d</td>
<td>Drum Line</td>
<td>4.0</td>
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</table>

Nursing

Nursing

Associate in Arts

To Achieve the Associate in Arts

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Nursing Associate in Arts degree.

To Transfer Coursework

A minimum of 41 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- demonstrate the standards of competent performance as defined by the California Board of Registered Nursing. The successful graduate will be considered competent when he/she consistently demonstrates the ability to transfer knowledge; scientific knowledge from social, biological, and physical sciences in applying the nursing process as follows:
  - formulates a nursing diagnosis through observation of the client’s physical condition and behavior, and through interpretation of information obtained from the client and others, including the health team.
  - formulates a care plan, in collaboration with the client, which ensures that direct and indirect nursing care services provide for the client’s safety, comfort, hygiene, and protection, and for disease prevention and restorative measures.
  - performs skills essential to the kind of nursing action to
be taken, explains the health treatment to the client and family and teaches the client and family how to care for the client’s health needs.

• delegates tasks to subordinates based on the legal scopes of practice of the subordinates and on the preparation and capability needed in the tasks to be delegated, and effectively supervises nursing care being given by subordinates.

• evaluates the effectiveness of the care plan through observation of the client’s physical condition and behavior, signs and symptoms of illness, and reactions to treatment and through communication with the client and health team members, and modifies the plan as needed.

• acts as the client’s advocate, as circumstances require, by initiating action to improve health care or to change decisions or activities which are against the interests or wishes of the client, and by giving the client the opportunity to make informed decisions about health care before it is provided.

(Title 16, California Code of Regulations, Division 14 – Board of Registered Nursing, Article 4, Section 1443.5)

• perform Nursing practice, which includes those functions, including basic health care, that help people cope with difficulties in daily living that are associated with their actual or potential health or illness problems or the treatment thereof, including all of the following:

• direct and indirect patient care services that ensure the safety, comfort, personal hygiene, and protection of patients; and the performance of disease prevention and restorative measures. (Business and Professions Code, Division 2, Chapter 6, Section 2725)

• direct and indirect patient care services, including, but not limited to, the administration of medications and therapeutic agents, necessary to implement a treatment, disease prevention, or rehabilitative regimen ordered by and within the scope of licensure of a physician, dentist, podiatrist, or clinical psychologist, as defined by Section 1316.5 of the Health and Safety Code.

• the performance of skin tests, immunization techniques, and the withdrawal of human blood from veins and arteries.

• observation of signs and symptoms of illness, reactions to treatment, general behavior, or general physical condition, and:

• determination of whether the signs, symptoms, reactions, behavior, or general appearance exhibit abnormal characteristics.

• implementation, based on observed abnormalities, of appropriate reporting, or referral, or standardized procedures, or changes in treatment regimen in accordance with standardized procedures, or the initiation of emergency procedures.

Mission
The mission of the Bakersfield College Associate Degree Nursing Program is to prepare entry-level registered nurses as providers and managers of care across the health/illness continuum and as members within the profession. Graduate nurses will collaborate with members of the health care team, be effective communicators, be politically aware, and demonstrate a commitment to life long learning.

Prerequisite Requirements
All prerequisites must be completed with a ‘C’ grade or higher.

• ENGL B1A (Expository Composition), four units at Bakersfield College or equivalent course at another accredited college.

• MATH BD (Intermediate Algebra) or higher, three units at Bakersfield College or an equivalent course at another accredited college.

• CHEM B1 1 (Introduction to General, organic and Biochemistry) or CHEM B2A (Introduction to General Chemistry) or CHEM B1A (General Chemistry) at Bakersfield College or an equivalent Chemistry course of three to five units from another accredited college.

• BIOL B16 (General Microbiology) five units at Bakersfield College or equivalent course at another accredited college.

• BIOL B32 (Anatomy & Physiology I) four units at Bakersfield College or equivalent course at another accredited college.

• BIOL B33 (Anatomy & Physiology II) four units at Bakersfield College or equivalent course at another accredited college.

• (Anatomy and Physiology requirement can also be met with Human Anatomy (minimum of four units) AND Human Physiology (minimum of four units) of equivalent courses from another accredited college.

General Education
General education courses are required to graduate from Bakersfield College with an Associate Degree in Nursing. It is suggested that most of these courses be completed prior to beginning the Nursing Program.

• Social Science (three units) – any course listed in Area D3 of the Bakersfield College General Education Pattern

• Arts, Literature, Philosophy, and Foreign Language (three units) – any course listed in Area C of the Bakersfield College General Education Pattern.

• COMM B1* or COMM B2*

• ANTHB2* or SOC B1*

• PSYC B1A*

• Physical Education (one unit) required from PHED courses numbered from B2-B33 or B49.

• HLED-Health Education (three units) is waived for RN students.

• NURS B100 - Educational Planning (recommended) or -any course listed under Bakersfield College General requirements for graduation. (A student development course is recommended to be taken during the first semester of courses at Bakersfield College to assure priority registration.)

*Board of Registered Nursing required course; the courses must be completed with a ‘C’ grade or better. Note: All graduation requirements of the college must be met to earn an Associate of Science in Nursing and to take the NCLEX RN – Licensure Exam.

First Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS B20</td>
<td>Fundamentals of Nursing</td>
<td>4.0</td>
</tr>
<tr>
<td>NURS B21</td>
<td>Medical Surgical Nursing 1</td>
<td>5.0</td>
</tr>
<tr>
<td>NURS B22</td>
<td>Pharmacology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS B23</td>
<td>Medical Surgical Nursing 2</td>
<td>4.5</td>
</tr>
<tr>
<td>NURS B24</td>
<td>Obstetrics - Maternity Nursing</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS B25</td>
<td>Mental Health - Psychiatric Nursing</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
</table>
**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS B26</td>
<td>Medical Surgical Nursing 3</td>
<td>5.5</td>
</tr>
<tr>
<td>NURS B27</td>
<td>Pediatric Nursing</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**LVN to Associate Degree Nursing Program**

**Associate in Science**

To Achieve the Associate in Science

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Nursing Associate in Science degree.

To Transfer Coursework

A minimum of 20 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

**Program Learning Outcomes**

Upon successful completion, the student will:

- demonstrate the standards of competent performance as defined by the California Board of Registered Nursing. The successful graduate will be considered competent when he/she consistently demonstrates the ability to transfer knowledge scientific knowledge from social, biological, and physical sciences in applying the nursing process as follows:
  - formulates a nursing diagnosis through observation of the client's physical condition and behavior, and through interpretation of information obtained from the client and others, including the health team.
  - formulates a care plan, in collaboration with the client, which ensures that direct and indirect nursing care services provide for the client's safety, comfort, hygiene, and protection, and for disease prevention and restorative measures.
  - performs skills essential to the kind of nursing action to be taken, explains the health treatment to the client and family and teaches the client and family how to care for the client's health needs.
  - delegates tasks to subordinates based on the legal scopes of practice of the subordinates and on the preparation and capability needed in the tasks to be delegated, and effectively supervises nursing care being given by subordinates.
  - evaluates the effectiveness of the care plan through observation of the client's physical condition and behavior, signs and symptoms of illness, and reactions to treatment and through communication with the client and health team members, and modifies the plan as needed.
  - acts as the client's advocate, as circumstances require, by initiating action to improve health care or to change decisions or activities which are against the interests or wishes of the client, and by giving the client the opportunity to make informed decisions about health care before it is provided.

The study of nursing is the application of knowledge from the arts and sciences. The purpose of the Bakersfield College LVN to Associate Degree Program is to provide the foundation for students to become competent registered nurses. The LVN-ADN Program respects the individuality of students and recognizes that each student has different educational, experiential, cultural, spiritual, economic and social backgrounds and a unique support system. The aim of the program is to provide a positive, innovative learning model that fosters the development of critical thinking and problem solving skills so that the graduate nurse is equipped to deliver care to a culturally diverse population in a variety of healthcare settings.

**Mission**

The mission of the Bakersfield College LVN-Associate Degree Nursing Program is to prepare entry-level registered nurses as providers and managers of care across the health/illness continuum and as members within the profession. Graduate nurses will collaborate with members of the health care team, be effective communicators, be politically aware, and demonstrate a commitment to life long learning.

**Prerequisite Requirements**

- All prerequisites must be completed with a C grade or higher.
  - ENGL B1A (Expository Composition), 4 units at Bakersfield College or equivalent course at another accredited college.
  - MATH BD (Intermediate Algebra) or higher, 3 units at Bakersfield College or an equivalent course at another accredited college.
  - CHEM B1A (General Chemistry) at Bakersfield College or an equivalent Chemistry course (3-5 units) from another accredited college.
  - BIOL B16 (General Microbiology) 5 units at Bakersfield College or equivalent course at another accredited college.
  - BIOL B32 (Anatomy & Physiology I) 4 units at Bakersfield College or equivalent course at another accredited college.
  - BIOL B33 (Anatomy & Physiology II) 4 units at Bakersfield College or equivalent course at another accredited college.

(Title 16, California Code of Regulations, Division 14 - Board of Registered Nursing, Article 4, Section 1443.5)

- perform Nursing practice, which includes those functions, including basic health care, that help people cope with difficulties in daily living that are associated with their actual or potential health or illness problems or the treatment thereof, including all of the following:
  - direct and indirect patient care services that ensure the safety, comfort, personal hygiene, and protection of patients; and the performance of disease prevention and restorative measures. (Business and Professions Code, Division 2, Chapter 6, Section 2725)
  - direct and indirect patient care services, including, but not limited to, the administration of medications and therapeutic agents, necessary to implement a treatment, disease prevention, or rehabilitative regimen ordered by and within the scope of licensure of a physician, dentist, podiatrist, or clinical psychologist, as defined by Section 1316.5 of the Health and Safety Code.
  - the performance of skin tests, immunization techniques, and the withdrawal of human blood from veins and arteries.
  - observation of signs and symptoms of illness, reactions to treatment, general behavior, or general physical condition, and:
    - determination of whether the signs, symptoms, reactions, behavior, or general appearance exhibit abnormal characteristics.
    - implementation, based on observed abnormalities, of appropriate reporting, or referral, or standardized procedures, or changes in treatment regimen in accordance with standardized procedures, or the initiation of emergency procedures.
College or equivalent course at another accredited college.
• (Anatomy and Physiology requirement can also be met with Human Anatomy (min. of 4 units) AND Human Physiology (min. of 4 units) of equivalent courses from another accredited college.)
• Proof of IV Certification is required. Students may meet this requirement by taking Meds B66 prior to entering the LVN-ADN Program.
• One year experience working as an LVN.
• Possession of current California Vocational Nurse License.
• American Heart Association BLS - Healthcare Provider card - current within one year. (MEDS B52 fulfills this requirement)
• Overall GPA of 2.5.
• Graduation from high school or an equivalent education.

General Education
General education courses are required to graduate from Bakersfield College with an Associate Degree in Nursing. It is suggested that most of these courses be completed prior to beginning the Nursing Program.
• Social Science (3 units) – any course listed in Area D3 of the Bakersfield College General Education Pattern
• Arts, Literature, Philosophy, and Foreign Language (3 units) – any course as listed in Area C of the Bakersfield College General Education Pattern.
• COMM B1* or COMM B2*
• ANTHB2* or SOC B1*
• PSYC B1A*
• Physical Education (1 unit) required from PHED courses numbered from B2-B33 or B49.
• HLED-Health Education (3 units) is waived for RN students
• NURS B100 - Educational Planning - recommended or any course listed under Bakersfield College General requirements for graduation. (A student development course is recommended to be taken during the first semester of courses at Bakersfield College to assure priority registration.)
• *Board of Registered Nursing required course. Courses must be completed with a C grade or better.

Note: All graduation requirements of the college must be met to earn an Associate of Science (A.S.) in Nursing and to take the NCLEX RN – Licensure Exam.

Application Procedure
The Allied Health office must receive all application forms and transcripts during the designated filing periods. For detailed information on the application period and procedures, please refer to the Allied Health web site at www2.bakersfieldcollege.edu/alliedhealth/ or come to the Bakersfield College Allied Health Office in MS 178.

Conditional Enrollment
As a condition of enrollment in any Nursing/Allied Health Program, students are required to submit to and pass a designated drug and alcohol screening, a background screening, and physical examination clearance (at the student’s expense). Please note the following:
• A history of felony conviction(s) or any bar, exclusion or other ineligibility for federal program participation could render a student ineligible for clinical placement, as determined by the clinical agencies.
• If a student cannot obtain background clearance from the clinical agencies, it will not be possible to place the student in the clinical areas, which is a required component of the program. In the event that a student cannot obtain a background clearance, the space will be forfeited. Students who are found to be ineligible for clinical placement by the clinical agency after admission to the program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.
• A physical examination completed by a physician of the student’s choice is required after acceptance to the Program to demonstrate that a student meets the technical standards necessary to meet the Program objectives. Appropriate immunizations and/or vaccinations and mask fit testing are also required and are performed at the student’s expense.
• More information can be found on the Allied Health web site at www2.bakersfieldcollege.edu/alliedhealth/ or in the Bakersfield College Allied Health Office, MS 178.

Program Costs
An estimated cost for the program is approximately $1,500.

Transfer and Challenge by Exam Policy
For transfer and challenge by exam policies, contact the Nursing Department for further information.

Program Approval/ Accreditation
The California Board of Registered Nursing approves the Bakersfield College Associate Degree Nursing Program. The Western Association of Schools and Colleges accredits Bakersfield College.

Licensure/Certification Eligibility
Record of any misdemeanor and/or felony is subject to review by the Board of Registered Nursing before a RN license may be granted. Anyone who wishes clarification may contact the Board of Registered Nursing, PO Box 944210, Sacramento, CA 94244. Applicants for RN Licensure must submit a valid Social Security number at the time of application.

Career Opportunities in Registered Nursing
Employment in a variety of healthcare facilities and settings.

LVN-ADN Program Curriculum
The following courses are taken after the student enters the Program.

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS B25</td>
<td>3.5</td>
</tr>
<tr>
<td>NURS B26</td>
<td>5.5</td>
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<tr>
<td>NURS B70</td>
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<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS B28</td>
<td>7.0</td>
</tr>
<tr>
<td>NURS B29</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Program Accreditation
The California Board of Registered Nursing accredits the Bakersfield College Associate Degree Nursing Program. The Western Association of Schools and Colleges accredits Bakersfield College.

LVN to Non-Degree Nurse (30 unit option)
Total Units: 20

Students seeking information regarding the 30-unit option preparation for the registered nurse licensing examination may receive further information from the Dean of the Associate Degree Nursing Program. The 30 unit option is specific to California only. As a 30 unit option you are not a graduate of Bakersfield College's
Nursing Program.

Transfer and Challenge by Exam Policy
For transfer and challenge by exam policies, contact the Nursing Department for further information.

Career Opportunities in Registered Nursing
Employment in a variety of healthcare facilities and settings.

Prerequisite Requirements
All prerequisite courses must be completed prior to submission of program application. Courses in-progress at the time of application will not be considered.

1. The following courses must be completed with a grade of 'C' or higher:
   - Introductory Physiology (with lab) must meet Board of Registered Nursing requirements in Physiology.
   - General Microbiology (with lab) must meet Board of Registered Nursing requirements in Microbiology.

2. Additional Prerequisites:
   - Graduation from high school or an equivalent education.
   - Possession of a current California Vocational Nurse License.
   - Employment as a LVN for at least 1 year.
   - IV Certification.

30 Unit Option Curriculum*

Third Semester
Course Number  Title  Units
NURS B25  Mental Health-Psychiatric Nursing  3.5
NURS B26  Medical Surgical Nursing 3  5.5
NURS B70  Role Transition: Bridging Theory to Practice  2.0

Fourth Semester
Course Number  Title  Units
NURS B28  Medical Surgical Nursing 4  7.0
NURS B29  Gerontology - Community Nursing  2.0

*The prerequisites of microbiology and physiology equal 10 units.

Vocational Nursing Program
Certificate of Achievement
To Achieve the Certificate of Achievement
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Vocational Nursing Certificate of Achievement.

To Transfer Coursework
A minimum of 20 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- demonstrate an understanding of how to use and practice basic assessment (data collection), participate in planning, execute interventions in accordance with the care plan or treatment plan, and contribute to evaluation of individualized intervention related to the care plan or treatment plan.
- perform direct patient/client care by which the student performs basic nursing services.
- administers medications.
- applies communication skills for the purpose of patient/client care and education.
- contributes to the development and implementation of a teaching plan related to self-care for the patient/client.

The study of nursing is the application of knowledge from the arts of sciences. The purpose of the Bakersfield College Vocational Nursing Program is to provide the foundation for students to become competent vocational nurses. The VN Program respects the individuality of students and recognizes that each student has different educational, experiential, cultural, spiritual, economic and social backgrounds and a unique support system. The aim of the Program is to provide a positive, innovative learning model that fosters the development of critical thinking and problem-solving skills so that the student completing the program is equipped to deliver care to a culturally diverse population in a variety of healthcare settings.

Vocational Nursing Program Mission
The mission of the Bakersfield College Vocational Nursing Program is to prepare entry-level vocational nurses as providers of care across the health/illness continuum and as members within the profession.

Prerequisite Requirements
All prerequisites must be completed prior to the start of the Program with a C grade or higher. Priority is provided to students with all prerequisite courses completed at the time of submitting an enrollment form.

- Proof of graduation from high school or an equivalent education.
- BIOL B18 (Essentials of Human Anatomy and Physiology) at Bakersfield College or an equivalent course at another accredited college.
- PSYC B1A (General Psychology) at Bakersfield College or an equivalent course at another accredited college.
- MATH BA (Elementary Algebra) at Bakersfield College or an equivalent course at another accredited college.
- Eligibility for ENGL B1A (Expository Composition) as demonstrated by qualifying scores on the college assessment test or completion of ENGL B1 or ENGL B50 at Bakersfield College or equivalent course from another accredited college with a C or higher.
- Nurse Assistant certification - highly recommended.
- MEDS B60 (Medical Terminology) – highly recommended.

Note: Students desiring to continue their education and become a registered nurse need to refer to the prerequisites required for the Associate Degree Nursing Program.

Application Procedure
The Allied Health office must receive all application forms and transcripts during the designated filing periods. For detailed information on the application period and procedures, please refer to the Allied Health web site at www2.bakersfieldcollege.edu/allied health/ in the Bakersfield College Allied Health Office in MS 178.

Conditional Enrollment
As a condition of enrollment in any Nursing/Allied Health Program, students are required to submit to and pass a designated drug and alcohol screening, a background screening, and physical examination clearance (at the student's expense). Please note the following:

- A history of felony conviction(s) or any bar, exclusion or other ineligibility for federal program participation could render a student ineligible for clinical placement, as determined by the clinical agencies.
- If a student cannot obtain background clearance from the...
clinical agencies, it will not be possible to place the student in the clinical areas, which is a required component of the program. In the event that a student cannot obtain a background clearance, the space will be forfeited. Students who are found to be ineligible for clinical placement by the clinical agency after admission to the program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.

- A physical examination completed by a physician of the student’s choice is required after acceptance to the program to demonstrate that a student meets the technical standards necessary to meet the Program objectives. Appropriate immunizations and/or vaccinations and mask fit testing are also required and are performed at the student’s expense.

More information can be found on the Allied Health web site at: www2.bakersfieldcollege.edu/alliedhealth/ or in the Bakersfield College Allied Health Office, MS 178.

Program Costs
An estimated cost for the first semester of the program is approximately $2,500.

Transfer and Challenge by Exam Policy
For transfer and challenge by exam policies, contact the Nursing Department for further information.

Program Approval/Accreditation
The California Board of Vocational Nursing and Psychiatric Technicians accredits the Bakersfield College Vocational Nursing Program. The Western Association of Schools and Colleges accredits Bakersfield College.

Licensure/Certification Eligibility
Conviction of any offenses other than minor traffic violations must be reported to the Board of Vocational Nursing and Psychiatric Technicians at the time of application for licensure. For clarification contact the VN Program Director or the Board of Vocational Nursing and Psychiatric Technicians, 2535 Capitol Oaks Drive, Suite 205, Sacramento, California, 95833, (916) 263-7800. Applicants for VN Licensure must submit a valid Social Security number at the time of application.

Certificate of Achievement
Upon completion of the program of study for Vocational Nursing, the student is eligible for a Certificate of Achievement.

Career Opportunities in Vocational Nursing
Employment as a Licensed Vocational Nurse in a variety of health care settings.

Vocational Nurse Program Curriculum
The following courses are taken after the student enters the Vocational Nursing Program.

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>VNRS B1</td>
<td>Nursing Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>VNRS B1LV</td>
<td>Vocational Nursing Laboratory</td>
<td>6.0</td>
</tr>
<tr>
<td>VNRS B1G</td>
<td>Gerontological Nursing</td>
<td>1.0</td>
</tr>
<tr>
<td>VNRS B31AB</td>
<td>Basic Pharmacology</td>
<td>2.0</td>
</tr>
<tr>
<td>VNRS B75</td>
<td>Medical/Surgical Nursing I</td>
<td>3.5</td>
</tr>
</tbody>
</table>

| Nurse Assistant Job Skills Certificate |

Program Learning Outcomes
Upon successful completion, the student will:

- demonstrate an understanding of knowledge and skills necessary to provide basic patient care including but not limited to the following skills:
  - performing basic hygiene
  - taking and documenting vital information (vital signs, height, weight)
  - documenting patient care
  - assisting with elimination needs
  - collecting specimens
  - demonstrate an understanding of effective communication and interpersonal skills
  - promote the independence of patients
  - demonstrate an understanding of protection of patient privacy and patient rights
  - demonstrate an understanding of safety and emergency procedures including the Heimlich maneuver

The Nurse Assistant course prepares the student to provide services to those who need health care. The student will learn the role of the caregiver, the health care environment, health care safety, adult needs in health and illness, and basic care giving skills.

Nurse Assistant Program Mission
The mission of the Bakersfield College Nurse Assistant Program is to provide vocational education that will prepare the student to provide basic services to those who need healthcare. The program is committed to improving and advancing the health and welfare of our community by preparing competent, safe, health care professionals.

Enrollment
Enroll in MEDS B69 through the Bakersfield College. Consult the current class schedule for course offerings. For more information go to www2.bakersfieldcollege.edu/allied health/ or come by the Office of Allied Health in the Math Science building, room 178.

Conditional Enrollment
As a condition of enrollment in any Nursing/Allied Health Program, students are required to submit to and pass a designated drug and alcohol screening, a background screening, and physical examination clearance. Please note the following:

- A history of felony conviction(s) or any bar, exclusion or other
ineligibility for federal program participation could render a student ineligible for clinical placement, as determined by the clinical agencies.

- If a student cannot obtain background clearance from the clinical agencies, it will not be possible to place the student in the clinical areas, which is a required component of the program. In the event that a student cannot obtain a background clearance, the space will be forfeited. Students who are found to be ineligible for clinical placement by the clinical agency after admission to the program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.

- A physical examination completed by a physician of the student’s choice is required after acceptance to the Program to demonstrate that a student meets the technical standards necessary to meet the Program objectives. Appropriate immunizations and/or vaccinations and mask fit testing are also required and are performed at the student’s expense.

More information can be found on the Allied Health web site at www2.bakersfieldcollege.edu/alliedhealth/ or in the Bakersfield College Allied Health Office, MS 178.

Program Costs
An estimated cost for the program (fees, textbooks, uniforms, and examination) is approximately $1,000. Financial aid may be available.

Program Approval Accreditation
The California Department of Public Health approves the Bakersfield College Nurse Assistant Program. The Western Association of Schools and Colleges accredits Bakersfield College.

Licensure/Certification Eligibility
Students with a misdemeanor and/or felony arrest conviction, either current or prior, may not receive certification or licensure from the State or County. Also, a Social Security number and fingerprinting are required by State certification/licensure agencies.

Upon successful completion of the Nurse Assistant course, the student is eligible to take the competency exam for a Certified Nurse Assistant administered by the American Red Cross. This provides proof to the California Department of Public Health that the student has met the requirements for licensure. Students must complete the required courses with at least a ‘C’ grade.

Total Units: 6

Employment as a Certified Nurse Assistant in a variety of health care settings.

Nurse Assistant Curriculum

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDS B69</td>
<td>Nurse Assistant</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Philosophy
A major in philosophy has always been and continues to be one of the strongest traditional liberal arts majors in higher education. Some students major in Philosophy as a precursor to graduate work and academic careers, teaching and doing research in Philosophy and Education. Philosophy’s emphasis on critical thinking, theories of knowledge, value and reality, truth, rational argument and proof make it an excellent pre-professional undergraduate major (e.g., for law, theology, medicine, business, computer science) or minor (e.g., for the natural, physical and social science and humanities majors).

Philosophy

Associate in Arts
To Achieve the Associate in Arts
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Philosophy Associate in Arts degree.

To Transfer Coursework
A minimum of 18 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- Explicate and criticize philosophical arguments
- Explain major philosophical ideas
- Defend personal positions on important philosophical issues

Total Units: 18

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL B6a</td>
<td>Introduction to Philosophy</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL B7 or</td>
<td>Introduction to Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL B9</td>
<td>Critical Thinking and Advanced Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>PHIL B10</td>
<td>Introduction to Ethics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives — at least 9 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL B12</td>
<td>Ethics of Living and Dying</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL B18</td>
<td>History of Ancient Philosophy</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL B32</td>
<td>World Religions: East</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL B33</td>
<td>World Religions: West</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL B37</td>
<td>Introduction to World Religions</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Physical Education

Physical Education

Associate in Arts
A major in physical education will encourage students to perceive learning as the merging of cognitive, affective, social, and psychomotor domains. A major in physical education allows students to transfer to a four-year university/college and is a starting point for a variety of bachelor’s, master’s and doctorate degrees. A degree in physical education can lead to employment in a variety of teaching and coaching avenues along with athletics and recreation based jobs, including athletic training, physical therapy, adaptives, etc.

The major requirements for an associate degree in physical education may be satisfied by completing 23 units as outlined below.

To Achieve the Associate in Arts
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Physical Education Associate in Arts degree.

To Transfer Coursework
A minimum of 23 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.
Program Learning Outcomes
Upon successful completion, the student will:

- Critically examine the development of the individual as an integrated physiological, psychological, spiritual, and social being.
- Demonstrate an understanding of the concepts and principles of physical fitness and specific sport skills.
- Value physical activity and become a lifelong participant in physical activity.
- Achieve a health-enhancing level of physical fitness; and perform the specific activity with an adequate degree of proficiency.

Total Units: 23

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLED B1</td>
<td>Principles of Health Education</td>
<td>3.0</td>
</tr>
<tr>
<td>PHED B39a</td>
<td>Prevention and Care of Athletic Injuries</td>
<td>3.0</td>
</tr>
<tr>
<td>PHED B40</td>
<td>Introduction to Physical Education</td>
<td>3.0</td>
</tr>
<tr>
<td>PHED B31</td>
<td>Standard First Aid</td>
<td>1.0</td>
</tr>
<tr>
<td>BIOL B32</td>
<td>Human Anatomy and Physiology I</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL B33</td>
<td>Human Anatomy and Physiology II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Electives — at least 5 units from the following

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHED B5vb</td>
<td>Volleyball (Women)</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6bb</td>
<td>Basketball</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6g</td>
<td>Golf</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6sc</td>
<td>Soccer</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6t</td>
<td>Tennis</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6v</td>
<td>Volleyball</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B10</td>
<td>Intercollegiate Football</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B11</td>
<td>Intercollegiate Basketball</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B12</td>
<td>Intercollegiate Track and Field</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B13</td>
<td>Intercollegiate Tennis</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B14</td>
<td>Intercollegiate Baseball</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B16</td>
<td>Intercollegiate Golf</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B17</td>
<td>Intercollegiate Cross-Country</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B20</td>
<td>Intercollegiate Wrestling</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B22</td>
<td>Women's Intercollegiate Tennis</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B23</td>
<td>Women's Intercollegiate Soccer</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B24</td>
<td>Intercollegiate Golf for Women</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B25</td>
<td>Women's Intercollegiate Volleyball</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B26</td>
<td>Women's Intercollegiate Track and Field</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B27</td>
<td>Women's Intercollegiate Cross-Country</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B28</td>
<td>Women's Intercollegiate Basketball</td>
<td>2.0</td>
</tr>
<tr>
<td>PHED B29</td>
<td>Women's Intercollegiate Softball</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Individual Activities

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHED B3adp</td>
<td>Adaptive Physical Education</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6a</td>
<td>Archery</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6bLb</td>
<td>Beginning Ballet (Same as DANC B6bLb)</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6da</td>
<td>Dance Aerobics</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6fcx</td>
<td>Fitness Center</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6jd</td>
<td>Jazz Dance (Same as DANC B6jd)</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6kx</td>
<td>CardioKickboxing Fitness</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6md</td>
<td>Modern Dance (Same as DANC B6md)</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6pl</td>
<td>Pilates</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6py</td>
<td>Pilates/Yoga Mat Flow</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6wt</td>
<td>Weight Training</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B6y</td>
<td>Yoga</td>
<td>1.0</td>
</tr>
<tr>
<td>PHED B2sb</td>
<td>Beginning Swimming</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Physics

Physics

Associate in Science

The Associate in Science degree in Physics is designed to prepare students to begin upper division course work in pursuit of a bachelor’s degree or ultimately a graduate degree in physics upon transfer to a four-year college or university. Earning this degree should allow the student to become acquainted with the basic knowledge of physics contained in a calculus-based introductory physics sequence and the mathematics that supports that level of competency. The student will demonstrate proficiency in communication, critical thinking, quantitative problem solving, and laboratory science skills. This degree represents a step in a path preparing students for careers in any of the many branches of physics, physics education, and other technical fields, such as some engineering disciplines in which physics is an integral part.

To Achieve the Associate in Science

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Physics Associate in Science degree.

To Transfer Coursework

A minimum of 34 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- Demonstrate a knowledge of and recognize the processes that explain natural phenomena.
- Apply the methodologies of science when approaching a problem.
- Apply logical quantitative and qualitative reasoning in solving problems.

Total Units: 34

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS B4a</td>
<td>Mechanics &amp; Wave Motion</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B4b</td>
<td>Heat, Electricity, &amp; Magnetism</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B4c</td>
<td>Optics &amp; Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM B1a</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM B1b</td>
<td>General Chemistry &amp; Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH B6a</td>
<td>Analytic Geometry &amp; Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B6b</td>
<td>Analytic Geometry &amp; Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B6c</td>
<td>Calculus III</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Before planning a study list, the community college student should consult a counselor and study the catalog of the senior institution to which he/she intends to transfer.

The introductory courses in Physics (PHYS B2a-B2b or B4a-B4c) and Chemistry (CHEM B1a-B1b, B2a) are designed to provide a foundation and understanding of the laws and principles of the physical world (matter and energy). These courses should be completed early in a student’s academic program to insure greater success in subsequent courses.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS B4a</td>
<td>Mechanics &amp; Wave Motion</td>
<td>4.0</td>
</tr>
</tbody>
</table>
Political Science

Political Science

Associate in Arts

The majors in political science are designed for students interested in gaining an understanding of the structure and functions of governments. The majors are an important part of the liberal arts program and prepare students for further study and careers in education, law, business, government, international relations and journalism.

The student should select the major emphasis, and courses according to his/her area of specialization as well as the requirements of the college to which he/she plans to transfer. The student should also consult his/her counselor and the appropriate four-year college catalogs in determining an appropriate minor, foreign language requirements, and other requirements.

To Achieve the Associate in Arts

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Political Science Associate in Arts degree.

To Transfer Coursework

A minimum of 18 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- demonstrate their understanding of the relevance of state and local politics, determining and developing an objective appraisal of major trends in social, economic, and political life.
- evaluate the power relationships between legislative, executive and judicial branches of government.
- compare and contrast the factors that determine the emergence of republican or authoritarian systems of governance.
- evaluate the influence of conflict and cooperation in the international bargaining process.

Total Units: 18

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS B1</td>
<td>American Government: National, State and Local</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS B2</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL B2</td>
<td>Advanced Composition &amp; Critical Thinking</td>
<td>5.0</td>
</tr>
</tbody>
</table>
Primary Care Associate/Physician’s Assistant

Prerequisites and Course Requirements
Stanford University Medical Center administers a program to train individuals who function in association with physicians in the maintenance and delivery of primary health care to medically underserved communities.

Upon completion of the prerequisite pre-clinical program at Bakersfield College or other accredited institutions, students admitted to the program have 15 months of clinical experience coordinated through Stanford University Medical Center. Students participate in didactic course work full-time for the first quarter (3 months) at Stanford Medical Center in Palo Alto, California. Then they complete an equivalent of five days of didactic instruction each month (12 months) thereafter. All clinical experience occurs in an office practice preceptorship. Contact Counseling Department for further information.

Prerequisites
Minimum requirements for application and admission include:
1. United States citizen or permanent visa.
2. High School Diploma or equivalent.
3. A minimum of 18 months direct patient care experience.
4. Satisfactory completion of the following academic prerequisites or their equivalents.

General Education courses are required for the Primary Care Associate program. It is recommended that an associate degree at Bakersfield College be completed prior to applying to the program.

The student must have a preceptor site established in order to complete the clinical experiences necessary for the program. Some assistance may be available in locating a preceptor.

Upon successful completion of the Primary Care Associate program. The graduate will sit for a certifying examination administered by the National Commission on Certification of Physician’s Assistants. Passing this examination allows the Physician’s Assistant to perform direct patient services under the supervision of primary care physicians certified by the California Board of Medical Quality Assurance.

Pre-Clinical Program Requirements
A minimum grade of ‘C’ must be attained in each of these courses. Only work from a regionally accredited college can be accepted.

Algebra - Elementary. One year of high school math or MATH BA at Bakersfield College.

Chemistry - Introductory. One year of high school chemistry or equivalent.

Cultural Anthropology or Sociology - ANTH B2, SOCI B1 at Bakersfield College, or another acceptable course.

English Composition Freshman level - ENGL B1a at Bakersfield College or another acceptable course.

General Psychology - PSYC B1a at Bakersfield College or other acceptable course.

Microbiology with laboratory; BIOL B16 at Bakersfield College, or other acceptable course.

*American History and Institutions. See Graduation and General Education Section of this catalog.

*Computer Literacy - Two semester units. Must include experience at a terminal (COMS B2) at Bakersfield College, or other acceptable course.

*Ethnic Studies - A course that reflects the experience of an American ethnic group.

*Humanities - One course from List A and one course from List B. (A) Literature, Philosophy (not Logic), or Western Civilization. (B) Art Appreciation, Music Appreciation, or Theatre Arts Appreciation.
Psychology

Psychology Associate in Arts for Transfer

The Associate in Arts in Psychology for Transfer is intended for those transfer-directed students who plan to complete an Associate of Arts in Psychology because it guarantees admission to the CSU system (but not to a particular campus or major). In order to earn the Associate in Arts in Psychology for Transfer, students must complete a minimum of 60 required semester units of CSU-transferable coursework which includes the CSU General Education or IGETC requirements with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the Associate in Arts in Psychology for Transfer will be required to complete no more than 60 units after transfer to earn a bachelor’s degree (unless the major is a designated high-unit major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete the degree for more information on university admission and transfer requirements. This degree eliminates the additional Bakersfield College graduation requirements.

The major in psychology provides a study of the behavior of individuals and groups. The four-year degree in this major contributes to the foundational knowledge for positions in research and teaching, counseling, and working in clinical settings.

To Achieve the Associate in Arts for Transfer

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Psychology Associate in Arts for Transfer degree.

To Transfer Coursework

A minimum of 21 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

- demonstrate an understanding of the perspectives, theories, methods and core concepts of the behavioral sciences.
- explain the major problems and issues in the disciplines in their contemporary, historical and geographical contexts.
- demonstrate an understanding of and an ability to describe the contributions and perspectives of women, ethnic and other minorities, and Western and non-Western peoples.

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC B1a*</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B1b*</td>
<td>Biological Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B5*</td>
<td>Elementary Statistics for the Behavioral and Life Sciences</td>
<td>5.0</td>
</tr>
<tr>
<td>PSYC B6*</td>
<td>Research Methods for the Behavioral and Social Sciences</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Any two of the following courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC B2</td>
<td>Interpersonal and Group Process Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B20</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B30</td>
<td>Human Sexuality</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B33</td>
<td>Psychology of Adjustment</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B40</td>
<td>Lifespan Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Required Subtotal: 39.0

CSU General Education or IGETC Pattern: 21.0

Transfer Electives (as needed to reach 60 transferable units)

Degree Total: 60.0

*Courses with an asterisk can be double counted for General Education. No additional graduation requirements are required to complete this degree.

Radiologic Technology

Radiologic Technology is a health care profession whose practitioners work in hospitals, imaging centers, and private physicians’ offices. The radiologic technologist (radiographer) is a member of the health care team who works directly with the patient and the physician performing a wide variety of diagnostic x-ray procedures. The role of the graduate radiographer may be that of staff radiographer, special imaging radiographer, supervisor, administrator or educator, depending upon the level of education and experience obtained.

The Bakersfield College Associate in Science degree Radiologic Technology Program provides concurrent didactic and clinical education. The program is 24 months in length (excluding prerequisite coursework) and begins each year in June. Students should anticipate making a full time commitment to the program during the school year. Summer sessions are required and semester/terms may be scheduled beyond the regular college session dates. The Program is primarily scheduled during the day; however an evening clinical rotation will be completed during the second year of the program. Clinical education sites include hospitals and imaging centers located in Bakersfield, California and Delano, California. Students may be assigned to any clinical education center in any geographical location.

The program provides the theory skill and experience necessary to apply for admission to the licensure exam administered by the American Registry of Radiologic Technologists; and for certification from the State of California, Department of Public Health, Radiologic Health Branch, as a Certified Radiologic Technologist. The student is also eligible to write the State Fluoroscopy Permit exam. Students must earn a minimum grade of ‘C’ in all radiography courses, have met the State mandated curriculum and clinical hours, met all clinical education competencies and earned the Associate in Science degree to be recommended for these examinations/ certifications. For program information, brochure and enrollment application form, consult the following website at www2.bakersfieldcollege.edu/alliedhealth/
1. Students will be clinically competent.
2. Students will critically think and problem solve.
3. Students will demonstrate effective communication skills.
4. Students will demonstrate professional growth and development.
5. The Program will graduate entry-level radiographers.

Radiologic Technology Program Prerequisite Requirements
All prerequisite coursework must be completed prior to applying for the Radiologic Technology Program. Students are strongly encouraged to complete prerequisite courses prior to enrolling in general education courses. This will improve a student’s opportunity to apply for program enrollment. The following prerequisite courses must be completed with a C grade or higher.

1. BIOL B18 (Essentials of Anatomy and Physiology)
   -or-
   BIOL B32 (Human Anatomy and Physiology I)
   -and-
   BIOL B33 (Human Anatomy and Physiology II)
   -or-
   equivalent course(s) at another accredited college.
   Note: BIOL B14 (Human Anatomy) and BIOL B15 (Human Physiology) were previously taught at Bakersfield College and they meet this requirement.
2. MATH BD (Intermediate Algebra - 5 units) at Bakersfield College or equivalent course at another accredited college. A higher level college math course will be accepted in lieu of this algebra requirement.
3. MEDS B60 (Medical Terminology - 3 units) at Bakersfield College or equivalent course at another accredited college.
4. ENGL B1a (Expository Composition - 4 units); or an equivalent course at another accredited college. This prerequisite must be met by all new and Wait List applicants effective February 2013.
5. Minimum cumulative grade point average of 2.7 with Math BD passed on the first attempt
   OR
   A minimum cumulative grade point average of 2.9 with Math BD passed on the second attempt. Withdrawal grades count as an attempt. This prerequisite must be met by all new and Wait List applicants effective February 2013.
6. Graduation from high school or an equivalent education.

Enrollment Procedures and Application Filing Period
Application forms and all required documents must be received by the Radiologic Technology Program Office during the application month of February. Late applications will not be accepted. The next application period for new applicants will be February 2013. Due to the large number of students on the current Program Wait List, new applications will not be accepted in 2012. Students currently on the Wait List must refer to #7 under Application Procedures for more information.

Application Procedures
1. Complete required prerequisite courses (see above)
2. Obtain application form from the Allied Health Department located in Room 178 of the Math-Science Building on the main campus; or by telephone at (661) 395-4284; or on the website at www2.bakersfieldcollege.edu/alliedhealth/
3. Arrange for an official copy of your high school transcript to be mailed directly to the: Radiologic Technology Program, Bakersfield College, 1801 Panorama Drive, Bakersfield, California 93305. A copy of High School Equivalency (GED) is required if your high school transcript does not identify graduation. Note: You may also hand deliver this transcript providing the transcript is official and sealed.
4. If you are a Bakersfield College student with no college courses other than Bakersfield College courses: Provide the Program with an unofficial Bakersfield transcript from the college web site or an unofficial transcript from the Admissions and Records Office.
5. If you have taken courses from any college other than Bakersfield College:
   - Apply for admission to Bakersfield College either in person or online at www.bakersfieldcollege.edu, click on Admissions and Records and follow the directions under “Enrolling”.
   - Submit an official copy of your transcripts from your previous college to the Office of Admissions & Records and request an evaluation of your transcripts. This process requires the form “Request for Evaluation”. You may obtain this form in the Office of Admissions & Records or on the Bakersfield College under Admissions & Records “Other Forms.” Note: This process can take up to 12-16 weeks. Once your transcripts have been evaluated and posted to your Bakersfield College transcript, the student must either print a copy of the Bakersfield College transcript from the website or request one from the Office of Admissions and Records. This evaluation must be completed and then submitted to the Program prior to the end of the Program enrollment filing period during the month of February. It is the responsibility of the student to supply this information to the Program during the month of February prior to the end of the enrollment filing period.
6. Late application materials will not be considered for the current application period. Applicants are responsible for ensuring that their application is complete. The program is NOT responsible for late materials or incomplete applications. The application must be thoroughly completed and signed to be considered for eligibility.
7. Students on the Wait List must reapply annually during the enrollment month of February. This is required every year to keep the applicant’s file current. If the student does NOT reapply, the student will be removed from the Wait List. Applications will be accepted in February 2012 for current Wait List students only.
8. Through 2012, if the Radiologic Technology Program has more applicants for enrollment than space available and the current Wait List will fill the next program class of students, priority is provided to residents of the Kern Community College District. This procedure will be eliminated for the 2013 enrollment period.

General Education Requirements
General education courses are required to graduate from the Bakersfield College Associate in Science degree Radiologic Technology program. It is suggested that these courses be completed prior to program enrollment. Refer to the Bakersfield College General Education and Graduation Requirements in this catalog for more specific information and requirements for the college (the list below does NOT identify all requirements). All students are encouraged to regularly check the college requirements for graduation to ensure that AS degree requirements will be met at the end of the radiography program.

1. Student Development: It is recommended that students complete this component as they begin college coursework.
2. Computer Studies (3 units) - COMS B2 or COMS B5 or equivalent is necessary to meet Radiologic Technology Program completion.
4. Arts, Literature, Philosophy and Foreign Language-Humanities - Philosophy B12 recommended.

5. Health Education - Students that successfully complete the Radiologic Technology Program are waived from the Health Education requirement for graduation.

6. Communication, Social Science, and Physical Education: Any course that meets the Associate in Science degree requirements and the general education pattern of the college.

7. An individual who has previously received an associate degree or higher must meet and earn the Associate in Science Degree requirements for the Radiologic Technology Program to meet eligibility requirements for certification and licensure.

Health Requirements and Screenings

1. A physical examination will be required after the students receive notification of enrollment into the program to demonstrate that a student meets the technical standards necessary to meet the objectives of the program. A copy of the Essential Technical Standards required for Radiologic Technologists may be obtained in the Allied Health Division Office located in the Math-Science building, room 178 or on the program website at www2.bakersfieldcollege.edu/alliedhealth.

2. As a condition of enrollment to the Radiologic Technology Program, all students are required to submit to and pass a designated drug and alcohol screen.

3. As a condition of enrollment in any Allied Health Program with a clinical component, students are required to submit to and pass a designated background check. Every student offered space in the program will be required to submit to a background screening as part of his or her clinical requirements for admission. Please note the following:

   • A history of felony conviction(s) or any bar, exclusion or other ineligibility for federal program participation could render a student ineligible for clinical placement, as determined by the clinical agencies.

   • If a student cannot obtain background clearance from the clinical agencies, it will not be possible to place the student in clinical areas, which is a required component of the program.

   • In the event that a student cannot obtain a background clearance, the space will be forfeited.

   • Students who are found to be ineligible for clinical placement by the clinical agency after admission to the radiography program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.

4. Immunizations/health tests are needed for acceptance in a clinical education center and to protect the health and welfare of the student and community. Immunizations may include, but not be limited to, rubella, varicella, Hepatitis B, and Tuberculosis screening and the seasonal flu vaccine is also required.

5. The medical exams, drug/alcohol screens, background screen, immunizations and tests are performed at the expense of the student.

6. The student must possess a current Basic Life Support/CPR (cardiopulmonary resuscitation) card by the American Health Association (Healthcare Provider card). This card must be provided at the start of the program and be kept valid during the entire 24-month program.

Program Supply Information

Students will be required to purchase uniforms, textbooks and selected equipment, provide transportation to off campus clinical education centers in Bakersfield, California and Delano, California and pay current college fees. Estimated costs for books, uniforms, fees and required equipment for the first year of the program are approximately $1,200 to $1,400. Subsequent semesters require enrollment fees, supplies, books and course syllabi (approximately $1,200). Additional expenses for the last semester of enrollment also include the program pin and application fees for national and state licensure/registration examinations (approximately $450).

Licensure/Certification Eligibility

The American Registry of Radiologic Technologists (ARRT) requires review of any conviction, misdemeanor or felony, or a sanction by the Program regarding an academic honor code, or review of suspension or dismissal by a radiography program and review of licensure suspension, denial or other disciplinary action by a regulatory authority or certification board other than the ARRT. This review may be conducted prior to or during the program. For more information contact the ARRT at: 1225 Northland Drive, Mendota Heights, MN 55120, (651) 687-0048, or www.arrt.org. The State Department of Public Health, Radiologic Health Branch and the American Registry of Radiologic Technology requires possession of either a Social Security number or Tax payer ID number to apply for licensure and/or registration.

Accreditation

Bakersfield College is accredited by the Western Association of Schools and Colleges. The Radiologic Technology Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, Illinois 60606-3182, (312) 704-5300 or www.jrcert.org. The program is also approved by the State of California, Department of Public Health, Radiologic Health Branch, P.O. Box 997414, MS-7610, Sacramento, CA, 95899-7414, (916) 327-5106 or www.cdph.ca.gov/rhb.

Career Opportunities in Radiologic Technology

This degree is a Career and Technical Education program which prepares students for both State licensure and national certification in radiography which is necessary for employment in x-ray technology.

Radiologic Technology

Associate in Science

The following courses are taken after students have been enrolled in the Radiologic Technology Program.

To Achieve the Associate in Science

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Radiologic Technology Associate in Science degree.

To Transfer Coursework

A total of 58.5 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

• competently perform radiographic positioning.

First Summer Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADT B1a</td>
<td>Introduction to Radiologic Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>RADT B1b</td>
<td>Patient Care</td>
<td>2.0</td>
</tr>
</tbody>
</table>
Upon successful completion, the student will:

**Program Learning Outcomes**

1. Compete in technical skills necessary to perform diagnostic radiographic procedures.
2. Successfully perform fluoroscopic procedures which are necessary for employment in the field of x-ray technology.
3. Competently perform radiographic positioning.
4. Employ appropriate radiation protection practices for patients and themselves.
5. Competently perform radiographic positioning.

**Principles of Venipuncture Job Skills Certificate**

The purpose of this certificate is for successful completion of the Principles of Venipuncture course taught at Bakersfield College. The venipuncture regulations and requirements are part of the Health and Safety Code of California, Section 106985. The certificate is necessary for job readiness and to indicate competency for the performance of venipunctures at the job site. The State of California code requires a certificate to indicate proficiency. The certificate is part of the Career and Technical Education program which prepares students for employment in medical imaging and permits individuals to administer contrast media for x-ray examinations as part of their job as a radiologic technologist.

**Program Learning Outcomes**

Upon successful completion, the student will:

- demonstrate competency by successfully performing venipuncture techniques on humans in the laboratory setting.

**Sociology**

**Associate in Arts for Transfer**

The Associate in Arts in Sociology for Transfer is intended for those transfer-directed students who plan to complete an AA in Sociology because it guarantees admission to the CSU system (but not to a particular campus or major). In order to earn the Associate in Arts in Sociology for Transfer, students must complete a minimum of 60 required semester units of CSU-transferable coursework which includes the CSU General Education or IGETC requirements with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the Associate in Arts in Sociology for Transfer will be required to complete no more than 60 units after transfer to earn a bachelor’s degree (unless the major is a designated high-unit major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete the degree for more information on...
Sociology is the study of groups, institutions, social relationships, and social problems in contemporary society. The sociology major prepares the student for careers in law, social work, human services, urban development, law enforcement agencies, public service, counseling, mental health, teaching, and community service. Students will be prepared for a baccalaureate degree in Sociology or a similar degree.

To Achieve the Associate in Arts for Transfer
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Sociology Associate in Arts for Transfer degree.

To Transfer Coursework
A minimum of 19 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- demonstrate an understanding of the perspectives, theories, methods and core concepts of the social sciences.
- explain the major problems and issues in the disciplines in their contemporary, historical and geographical contexts.
- demonstrate an understanding of and an ability to describe the contributions and perspectives of women, ethnic and other minorities, and Western and non-Western peoples.

Required Core Courses: 3 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SOCI B1*</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
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</table>

Group A: Any two of the following

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>SOCI B2*</td>
<td>Problems of Modern Society</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B5*</td>
<td>Elementary Statistics for the Behavioral and Life Sciences</td>
<td>5.0</td>
</tr>
<tr>
<td>PSYC B6*</td>
<td>Research Methods for the Behavioral and Social Sciences</td>
<td>4.0</td>
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</table>

Group B: Any three of the following (or any Group A course not already used)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI B2B*</td>
<td>Introduction to Gender</td>
<td>3.0</td>
</tr>
<tr>
<td>SOCI B45*</td>
<td>Minority Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>CRIM B1*</td>
<td>Introduction to Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>SOCI B20*</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOCI B36*</td>
<td>Sociology of the Chicano</td>
<td>3.0</td>
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</table>

Additional Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SOCI B21</td>
<td>Special Projects/Sociology</td>
<td>1-4.0</td>
</tr>
</tbody>
</table>

Any transferable anthropology or psychology course

Required Subtotal 19.0

CSU General Education or IGETC Pattern: 39.0

Transfer Electives (as needed to reach 60 transferable units)

Degree Total 60.0

*Courses with an asterisk can be double counted for General Education. No additional graduation requirements are required to complete this degree.

Spanish

Spanish Associate in Arts
The major of Spanish provides a linguistic and grammatical study of the language and an in-depth look into the culture of Spanish-speaking peoples. The objective of the program is to prepare students for transfer to a four-year university. Employment opportunities are numerous, and include both academic and non-academic positions, including working for corporations, business entities, and not-for-profits. Numerous career pathways are open to students demonstrating a proficiency in spoken and written Spanish including, but not limited to, teaching, social service, and retail.

To Achieve the Associate in Arts
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Spanish Associate in Arts degree.

To Transfer Coursework
A minimum of 18 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:

- demonstrate the ability to use and recognize specific language elements in the use of a language.
- demonstrate an understanding of, and an ability to describe, the ways in which foreign languages reflect historical and cultural contexts.
- transmit a comprehensive knowledge of the cultural heritage being studied.

Total Units: 18

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN B1ab</td>
<td>Elementary Spanish</td>
<td>5.0</td>
</tr>
<tr>
<td>SPAN B2ab</td>
<td>Elementary Spanish</td>
<td>5.0</td>
</tr>
<tr>
<td>SPAN B3</td>
<td>Intermediate Spanish</td>
<td>4.0</td>
</tr>
<tr>
<td>SPAN B4</td>
<td>Intermediate Spanish</td>
<td>4.0</td>
</tr>
<tr>
<td>SPAN B10</td>
<td>Spanish for Heritage Speakers</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Theatre Arts

Theatre Arts Associate in Arts
Students must comply with the requirements as shown in the catalog under graduation requirements. Students should seek the advice of a theatre instructor, counselor or advisor for assistance in planning for an associate degree. Career opportunities include acting, directing, technical theatre, stage management, TV/film careers (behind and in front of the camera), teaching, public speaking, and politics.

To Achieve the Associate in Arts...
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Theatre Arts Associate in Arts degree.

To Transfer Coursework
A minimum of 18 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate the ability to recognize, describe, and/or effectively produce various components of a performing art form.
- demonstrate an understanding and appreciation of the ways in which arts reflect historical, intellectual, and cultural contexts, as well as aesthetic tastes.

Total Units: 18

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>THEA B2ab</td>
<td>Elements of Acting</td>
<td>6.0</td>
</tr>
<tr>
<td>THEA B27</td>
<td>Acting Theatre Laboratory</td>
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</tr>
<tr>
<td>THEA B28</td>
<td>Technical Theatre Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>THEA B12a</td>
<td>Introduction to Shakespeare</td>
<td>3.0</td>
</tr>
<tr>
<td>THEA B1</td>
<td>Introduction to Acting</td>
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</tr>
</tbody>
</table>

Note: Theatre majors should enroll for at least one unit of THEA B27 or THEA B28 per semester.

Electives

<table>
<thead>
<tr>
<th>Electives</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA B31</td>
<td>Introduction to Film Studies</td>
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</tr>
<tr>
<td>THEA B32</td>
<td>Contemporary Film Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B1</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B2</td>
<td>Drawing I</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B1</td>
<td>Introduction to Woodworking Technologies</td>
<td>3.0</td>
</tr>
<tr>
<td>DANC B6bLb</td>
<td>Beginning Ballet</td>
<td>1.0</td>
</tr>
<tr>
<td>DANC B6jd</td>
<td>Jazz Dance</td>
<td>1.0</td>
</tr>
<tr>
<td>DANC B6md</td>
<td>Modern Dance</td>
<td>1.0</td>
</tr>
<tr>
<td>THEA B20</td>
<td>Theatre Appreciation</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Welding

Blueprint Reading and Layout for Welders Job Skills Certificate
This certificate covers the principles of blueprint reading as it applies to welders. Emphasis is placed on the ability to visualize and interpret working drawings. Welding symbols and basic shop math are included. Layout techniques including mathematical and pipe fitting technology are covered. Career opportunities include blueprint reading and layout in the welding industry.

To Achieve the Job Skills Certificate
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Blueprint Reading and Layout for Welders Job Skills Certificate.

To Transfer Coursework
A minimum of 6 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.
- demonstrate a deep understanding of the core material required for transfer to a four year university degree program or for certification in the department programs.

Total Units: 6

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD B54a</td>
<td>Blueprint Reading for Welders and Machinists</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD B54b</td>
<td>Template Development and Layout for the Welder</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Gas Metal Arc/Gas Tungsten Arc Welding/Flux Core Arc Welding

Job Skills Certificate
This certificate emphasizes welding processes of gas metal arc welding (GMAW), gas tungsten arc welding (GTAW) and flux core arc welding (FCAW). Theory and application as well as safety of these applications while welding on mild steel, aluminum and stainless steel are emphasized. Career opportunities include welder.

To Achieve the Job Skills Certificate
Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Gas Metal Arc/Gas Tungsten Arc Welding/Flux Core Arc Welding Job Skills Certificate.

To Transfer Coursework
A minimum of 10 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes
Upon successful completion, the student will:
- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.
- demonstrate a deep understanding of the core material required for transfer to a four year university degree program or for certification in the department programs.

Total Units: 10

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD B1a</td>
<td>Introduction to Oxygen Acetylene Welding and Cutting</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B1b</td>
<td>Introduction to the Welding Processes</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B53ab</td>
<td>Shielded Metal Arc Welding</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD B74a</td>
<td>Introduction to GMAW &amp; FCAW</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Shielded Metal Arc Welding

Job Skills Certificate
This certificate emphasizes welding processes from oxy-acetylene cutting and brazing through shielded metal arc welding using many different welding electrodes and all positions. Blueprint reading and
Upon successful completion, the student will:

1. Demonstrate proficiency in technical skills and safety principles required for industrial employment.
2. Demonstrate problem solving skills used in industrial design and product development.
3. Demonstrate a deep understanding of the core material required for transfer to a four year university degree program or for certification in the department programs.

Total Units: 32

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD B1a</td>
<td>Introduction to Oxygen Acetylene Welding and Cutting</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B1b</td>
<td>Introduction to the Welding Processes</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B53ab</td>
<td>Shielded Metal Arc Welding</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD B54a</td>
<td>Blueprint Reading for Welders and Machinists</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD B54b</td>
<td>Template Development and Layout for the Welder</td>
<td>3.0</td>
</tr>
<tr>
<td>MFGT B1ab</td>
<td>Machine Tool Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD B54a</td>
<td>Blueprint Reading for Welders &amp; Machinists</td>
<td>3.0</td>
</tr>
<tr>
<td>IND T B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Industrial Technology, Welding Option Associate in Science

Students must comply with the requirements as shown in the catalog under graduation requirements. Students should seek the advice of a welding instructor, counselor or advisor for assistance in planning for an associate degree. Career opportunities include jobs requiring skills in welding and layout.

To Achieve the Associate in Science

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded an Industrial Technology, Welding Option Associate in Science degree.

To Transfer Coursework

A minimum of 39-40 semester units in the major with a grade of ‘C’ or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program Learning Outcomes

Upon successful completion, the student will:

1. Demonstrate proficiency in technical skills and safety principles required for industrial employment.
2. Demonstrate problem solving skills used in product design and development in the welding industry.

Total Units: 39-40

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD B1a</td>
<td>Introduction to Oxygen Acetylene Welding and Cutting</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B1b</td>
<td>Introduction to the Welding Processes</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B53ab</td>
<td>Shielded Metal Arc Welding</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD B55ab</td>
<td>Structural Plate Certification</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD B55cd</td>
<td>ASME Pipe Certification</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD B74a</td>
<td>Introduction to GMAW &amp; FCAW</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B74b</td>
<td>Introduction to GTAW</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B54a</td>
<td>Blueprint Reading for Welders &amp; Machinists</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD B54b</td>
<td>Template Development and Layout for the Welder</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Upon successful completion, the student will better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

To transfer coursework
A minimum of 6 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program learning outcomes
Upon successful completion, the student will
- demonstrate proficiency in technical skills and safety principles required for employment in the woodworking/cabinetmaking industry.
- demonstrate problem solving skills used in product design and development in the woodworking industry.
- demonstrate a deep understanding of the core material required for certification in the woodworking program.

Total units: 6

Select 6 units from the following

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOOD B1</td>
<td>Introduction to Woodworking Technologies</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B2</td>
<td>Furniture and Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B5</td>
<td>Intermediate Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>INDT B274</td>
<td>Special Problems in Woodworking</td>
<td>2-3.0</td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Cabinetmaking

Certificate of Achievement

To achieve the certificate of achievement
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Cabinetmaking Certificate of Achievement.

To transfer coursework
A minimum of 33 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program learning outcomes
Upon successful completion, the student will
- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.
- demonstrate a deep understanding of the core material required for transfer to a four year university degree program and/or certification in the department programs.

Total units: 33

Required courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOOD B1</td>
<td>Introduction to Woodworking Technologies</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B2</td>
<td>Furniture and Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>CNST B1</td>
<td>Introduction to Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B5</td>
<td>Intermediate Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B65a</td>
<td>Advanced Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B65b</td>
<td>Advanced Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL</td>
<td>Approved Course</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH B50</td>
<td>Modern College Arithmetic &amp; Pre-Algebra</td>
<td>4.0</td>
</tr>
<tr>
<td>Math Placement Assessment Level 2 or Above</td>
<td>-or-</td>
<td></td>
</tr>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing and</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Graphics</td>
<td></td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives—select 33 units from the following

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDT B249ab</td>
<td>Cooperative Work Experience Education</td>
<td>1-4.0</td>
</tr>
<tr>
<td>INDT B274</td>
<td>Special Problems in Woodworking</td>
<td>2-3.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>and Design (CAD)</td>
<td></td>
</tr>
<tr>
<td>INDR B20a</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
<tr>
<td>FORE B2</td>
<td>Natural Resources</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL B50</td>
<td>Introduction to College Composition</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Industrial Technology, Woodworking and Cabinetmaking Option

Associate in Science

To achieve the Associate in Science
Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded an Industrial Technology, Woodworking and Cabinetmaking Associate in Science degree.

To transfer coursework
A minimum of 29 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.

Program learning outcomes
Upon successful completion, the student will
- demonstrate proficiency in technical skills and safety principles required for industrial employment.
- demonstrate problem solving skills used in industrial design and product development.
- demonstrate a deep understanding of the core material required for certification in the woodworking program.

Total units: 29

Required courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOOD B1</td>
<td>Furniture and Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B2</td>
<td>Furniture and Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B5</td>
<td>Intermediate Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>INDT B274</td>
<td>Special Problems in Woodworking</td>
<td>2-3.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>and Design (CAD)</td>
<td></td>
</tr>
<tr>
<td>INDR B20a</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
<tr>
<td>FORE B2</td>
<td>Natural Resources</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL B50</td>
<td>Introduction to College Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
<td>Units</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>WOOD B1</td>
<td>Introduction to Woodworking Technologies</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B2</td>
<td>Furniture and Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B5</td>
<td>Intermediate Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B65a</td>
<td>Advanced Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD B65b</td>
<td>Advanced Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>FORE B1</td>
<td>Introduction to Forestry</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B11</td>
<td>Introduction to Computer Aided Drafting and</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Design (CAD)</td>
<td></td>
</tr>
<tr>
<td>INDR B20a</td>
<td>Computer Aided Drafting and Design (CAD)</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B10</td>
<td>Introduction to Industrial Drawing and</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Graphics</td>
<td></td>
</tr>
<tr>
<td>CNST B1</td>
<td>Introduction to Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>INDT B10</td>
<td>Occupational Readiness</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td><em>or equivalent</em></td>
<td></td>
</tr>
</tbody>
</table>

**Suggested Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORE B2</td>
<td>Natural Resources</td>
<td>3.0</td>
</tr>
<tr>
<td>INDR B30b</td>
<td>Industrial Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>MFGT B1ab</td>
<td>Machine Tool Processes</td>
<td>3.0</td>
</tr>
</tbody>
</table>
COURSES
Academic Development Courses

**ACDV B5 Tutor Training and Practicum**

*2 units*

**Prerequisites:** Minimum grade of B in subject to be tutored or approval of subject area instructor or evaluation of prerequisites by the Tutor Trainer and/or Tutor Coordinator.

**Recommended:** Reading - transfer level.

**Description:** Essential human relations skills and methods of effective tutoring, placing these skills into practice with tutees referred by the Tutor Coordinator. Students may be referred by subject area instructor(s). Students not charged a materials fee for class magazine. (Summer students not charged a materials fee for class magazine.)

**Hours:** 18 lecture, 54 supervised tutoring

**CCS:** Liberal Arts/Science

**Transferable:** CSU and private colleges

**ACDV B5a Tutor Training and Practicum**

*1 unit*

**Prerequisites:** Minimum grade of B in subject to be tutored or approval of subject area instructor or evaluation of prerequisites by the Tutor Trainer and/or Tutor Coordinator.

**Recommended:** Reading - transfer level.

**Description:** Designed for returning tutors to build tutoring skills. Skills include essential human relations skills and methods of effective tutoring, placing skills into practice with tutees referred by the Tutor Coordinator. Students may be referred by subject area instructor(s).

**Hours:** 9 lecture, 27 supervised tutoring

**CCS:** Liberal Arts/Science

**Transferable:** CSU and private colleges

**ACDV B50 Reading for Academic Success**

*3 units*

**Prerequisites:** Reading - two levels prior to transfer, or successful completion of ACDV B62 or ENSL B51 with grades of ‘C’ or better.

**Description:** Recommended for students who have not met the reading competency requirements at entrance or for those who wish to improve their skills in academic reading. Emphasizes critical reading, critical thinking, and reading flexibility with college-level material which may include poetry, short stories, essays, textbook chapters. Focuses on application, analysis, synthesis, and evaluation in both oral and written form. Includes responding, summarizing, and outlining.

**Hours:** 54 lecture

**CCS:** Pre-collegiate basic skills

**Transferable:** Not transferrable. Not degree applicable.

**ACDV B55 First Year Student Success**

*0.5 unit*

**Description:** Introduces the college’s academic, social, and physical environments and promotes personal development necessary for student success. To increase their probability of college success, students will locate, navigate, and utilize the campus academic and student services resources. Course covers note-taking, test-taking, textbook reading, effective communication, and time-management skills necessary for college success.

**Hours:** 9 lecture

**CCS:** Pre-collegiate basic skills

**Transferable:** Not transferrable. Not degree applicable.

**ACDV B61 Accelerated Reading**

*4 units*

**Prerequisites:** Reading - three levels prior to transfer

**Advisory:** ENSL B70 and/or ACDV B201a, and/or ACDV B201b. This course is recommended for students who place at Reading Level 3 or 4 who need to improve academic vocabulary, reading comprehension, critical thinking, research skills, and reading flexibility with college level material. Students who successfully pass this course will have fulfilled the reading competency requirement for graduation.

**Hours:** 72 lecture

**CCS:** Pre-collegiate basic skills

**Transferable:** Not transferrable. Not degree applicable.

**ACDV B62 Developing Basic Reading Skills**

*3 units*

**Prerequisites:** Reading - three levels prior to transfer or successful completion of ACDV B91 or ACDV B201a, or ENSL B61 with minimum grades of C.

**Recommended:** English - three levels prior to transfer or enrollment in ACDV B66 or ACDV B65, or ACDV B201a or successful completion of ENSL B80 with a minimum grade of C.

**Description:** Recommended for students who need to improve vocabulary and reading comprehension and flexibility. Focuses on demonstration and application of reading strategies as they apply to textbook reading. Includes paragraph analysis, study strategies such as SQ3R and outlining, and vocabulary building techniques. Practice in application and analysis level thinking skills.

**Hours:** 54 lecture

**CCS:** Pre-collegiate basic skills

**Transferable:** Not transferrable. Not degree applicable.

**ACDV B65 Developing College Writing Skills**

*2 units*

**Prerequisites:** Writing - three levels prior to transfer or ACDV B201 and reading - two levels prior to transfer

**Description:** Designed to prepare students for success in English Level 04 by developing basic multi-paragraph writing skills in response to expository passages. Emphasizes the writing process and the review of basic English writing conventions. Note for all ACDV B65 sections: Special materials fee for class magazine. (Summer students not charged a materials fee for the magazine.)

**Important:** Instructional materials fees will be refunded during the refund period. After that deadline students will be offered the opportunity to pick up their unused materials.

**Hours:** 36 lecture

**CCS:** Pre-collegiate basic skills

**Transferable:** Not transferrable. Not degree applicable.

**ACDV B66 Student Success**

*1-3 units*

**Recommended:** Concurrent enrollment in ACDV B280 or B281

**Description:** Covers the development of successful personal behaviors; interpersonal skills development, effective listening and note taking, time management, textbook reading, math computation, and test taking skills necessary for success in connected core courses.

**Hours:** 18 for each 1

**CCS:** Pre-collegiate basic skills

**Transferable:** Not transferrable. Not degree applicable.

**ACDV B70A Study Skills: Time Management**

*0.5 unit*

**Recommended:** Reading - four levels prior to transfer or satisfactory completion of ACDV B62 with minimum grade of C.

**Description:** Students may take any or all of the six mini-courses...
ACDV B70a Study Skills: Note Taking

0.5 unit

Recommended: Reading - four levels prior to transfer or satisfactory completion of ACDV B62 with minimum grade of C.

Description: Students may take any or all of the six mini-courses offered. Each half-unit course is designed to give practical training in studying effectively for college classes. Students work interactively in small groups, whole class and independently through guided instruction and hands-on activities to improve skills in the following areas: Topics: ACDV B70a-Time Management, ACDV B70b-Note Taking, ACDV B70c-Textbook Reading, ACDV B70d-Test Taking, ACDV B70e-Memory, ACDV B70f-Vocabulary.

Not: Offered Pass/No Pass grading only.

Hours: 9 lecture, 6 laboratory

CCS: Pre-collegiate basic skills

Transferable: Not transferrable. Not degree applicable.

ACDV B70b Study Skills: Test Taking

0.5 unit

Recommended: Reading - four levels prior to transfer or satisfactory completion of ACDV B62 with minimum grade of C.

Description: Students may take any or all of the six mini-courses offered. Each half-unit course is designed to give practical training in studying effectively for college classes. ACDV B70d-Test Taking, offered Credit/No Credit grading.

Hours: 9 lecture, 6 laboratory

CCS: Pre-collegiate basic skills

Transferable: Not transferrable. Not degree applicable.

ACDV B70e Study Skills: Memory

0.5 unit

Recommended: Reading - four levels prior to transfer or satisfactory completion of ACDV B62 with minimum grade of C.

Description: Students may take any or all of the six mini-courses offered. Each half-unit course is designed to give practical training in studying effectively for college classes. ACDV B70e-Memory, offered Credit/No Credit grading.

ACDV B70f Study Skills: Vocabulary

0.5 unit

Recommended: Reading - four levels prior to transfer or satisfactory completion of ACDV B62 with minimum grade of C.

Description: Students may take any or all of the six mini-courses offered. Each half-unit course is designed to give practical training in studying effectively for college classes. ACDV B70f-Vocabulary, offered Credit/No Credit grading.

Hours: 9 lecture, 6 laboratory

CCS: Pre-collegiate basic skills

Transferable: Not transferrable. Not degree applicable.

ACDV B77 Developing College Math Skills

2 units

Recommended: Reading - three levels prior to transfer

Description: This course provides an emphasis on basic arithmetic operations including whole numbers, fractions, decimals, and per cent to prepare students for pre-algebra course.

Hours: 36 lecture

CCS: Pre-collegiate basic skills

Transferable: Not transferrable. Not degree applicable.
ACDV B201B Communication Skills: Writing
0.5-1 unit
**Description:** Individually prescribed lessons in spelling, reading, vocabulary development, study skills, critical thinking and/or English. Supervised repetition and practice in the laboratory on assigned tasks, which may range from general communication skills to specific problems. NOTE: FOR ALL ACDV B200 SERIES COURSES: Courses numbered in the B201 and B281 series are open entry/open exit lab courses. Students should report to SS 143 as soon as possible to find out course requirements.

**Note:** ACDV B201B is recommended as a supplement to all English and Academic Development classes.

**Repeat:** 1

**Hours:** 27 for each .5, maximum of 1 unit

**CCS:** Pre-collegiate basic skills

**Transferable:** Not transferrable. Not degree applicable.

---

ACDV B201C Developing Basic Math Skills
0.5-1 unit
**Description:** Individually prescribed lessons in basic math skills from number systems through advanced algebra. Supervised repetition and practice in the laboratory on assigned lessons and assessments.

**Hours:** 27 for each .5, maximum of 1 unit

**Repeat:** 3

**CCS:** Pre-collegiate basic skills

**Transferable:** Not transferrable. Not degree applicable.

---

ACDV B280 Supervised Tutoring
0 unit
**Description:** Provides tutoring in various academic subjects, conducted in a designated learning center, to augment classroom instruction. Referral by subject-area instructor, counselor, or tutor trainer is suggested.

**Note:** Weekly hours are decided jointly by the instructor and student. Students cannot register by telephone or the web for this course; see instructor in SS 143 to complete enrollment. Open entry/open exit.

**Hours:** 1 to 54

**Repeat:** unlimited

**CCS:** Pre-collegiate basic skills

**Transferable:** Associate Degree only. Not transferrable.

---

ACDV B281A Supervised Tutoring-Computer: Reading
0 unit
**Description:** Provides tutoring in various academic subjects, conducted in a computer lab, to augment classroom instruction. Open entry/open exit.

**Note:** Weekly hours are decided jointly by the instructor and students. Students cannot register by the web for this section; see instructor in SS 143 to complete enrollment.

**Hours:** 1 to 85

**Repeat:** unlimited

**CCS:** Pre-collegiate basic skills

**Transferable:** Associate Degree only. Not transferrable.

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ACDV B281B Supervised Tutoring-Computer: Writing
0 unit
**Description:** Provides tutoring in various academic subjects, conducted in a computer lab, to augment classroom instruction. Open entry/open exit.

**Note:** Weekly hours are decided jointly by the instructor and student. Students cannot register by the web for this course; see instructor in SS 143 to complete enrollment.

**Hours:** 1 to 85

**Repeat:** unlimited

**CCS:** Pre-collegiate basic skills

**Transferable:** Associate Degree only. Not transferrable.

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ACDV B281C Supervised Tutoring-Computer: Mathematics
0 unit
**Description:** Provides tutoring in various academic subjects, conducted in a computer lab, to augment classroom instruction. Open entry/open exit.

**Note:** Weekly hours are decided jointly by the instructor and student. Student cannot register by the web for this course; see instructor in SS 143 to complete enrollment.

**Hours:** 1

**Repeat:** unlimited

**CCS:** Pre-collegiate basic skills

**Transferable:** Not transferrable. Not degree applicable.

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ACDV B290 Adaptive Computer Access/Disabled
0.5-2 units
**Prerequisites:** Admission to Supportive Services Center Program, evaluation by Supportive Services counselor or Learning Disabilities instructor.

**Hours:** 27 for each .5

**Repeat:** 4, maximum of 2 units

**CCS:** Pre-collegiate basic skills

**Transferable:** Not transferrable. Not degree applicable.

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ACDV B292 Spelling
0.5-1 unit
**Description:** Recommended for students who have persistent spelling problems. Individually prescribed laboratory work with tapes and exercises.

**Note:** Open entry/open exit within a semester but not beyond a semester.

**Hours:** 27 for each .5

**Repeat:** 1

**CCS:** Pre-collegiate basic skills

**Transferable:** Not transferrable. Not degree applicable.

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**Administration of Justice Courses**

**ACDMJ B60 Arrest and Control Techniques. PC 832**
1 unit
**Description:** Introduces methods and regulations used by peace officers regarding the powers of arrest, and laws of search and seizure. Students will engage in weaponless self-defense and physical arrest activities. Course is designed to meet the requirements of California Penal Code section 832, which establishes a minimum mandatory standard of training for peace officers in the State of California. Meets the Commission on Peace Officers Standards and Training (POST) requirements.

**Hours:** 30 lecture, 10 laboratory

**Repeat:** unlimited

**CCS:** Occupational Education

**Transferable:** Not transferrable. Not degree applicable.

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**ACDMJ B61 PC 832 Firearms Training**
0.5 unit
**Prerequisites:** ADMJ B60 with minimum grade of C.
**Description:** Provides students with the competencies required for certification by Peace Officer Standards and Training (POST) for Penal Code section 832 Firearms. Students will engage in the use of
Agriculture Business

Management Courses

AGBS B2 Agricultural Economics
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Course covers the role of agriculture in the economic system. Basic economic principles are applied to agriculture production, pricing and marketing. Emphasis placed on effects of state and federal farm programs on production agriculture economic position.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

Agriculture Courses

AGRI B1 Agriculture, Environment, and Society
3 units
Recommended: Reading - one level prior to transfer.
Description: Involves the sociology of agriculture presented through an examination of relationships between societies and their environments, economics, and agriculture. Emphasis on the analysis of agriculture’s use of technology and the corresponding impact on the environment, economy, and society. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

AGRI B49 Agriculture Leadership Training
2 units
Description: Agriculture leadership training through the application of individual and group leadership techniques. Requires participation as: an Agriculture Ambassador team member in the promotion and understanding of California agriculture, participation in college recruitment activities (including giving recruitment presentations at off campus sites), hosting prospective student groups for on-campus visitations, and sponsoring recruitment activities for the local agriculture industry. Field trips required.
Note: Elective credit only.
Hours: 18 lecture, 54 laboratory
Repeat: none
CCS: Occupational Education
Transferable: CSU and private colleges

American Sign Language Courses
ASL B1 American Sign Language 1
5 units
Recommended: Reading - one level prior to transfer.
Description: Study of fundamentals of American Sign Language (ASL). Introduces the basic vocabulary and grammatical structure of ASL, conversational strategies, numbers, fingerspelling, and nonverbal aspects of American Sign Language. Provides an overview of Deaf history and Deaf cultural values. Outside assignments require practice with video tape programs. Field trips required.
Hours: 90 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ASL B2 American Sign Language 2
5 units
Prerequisites: ASL B1 with a grade of ‘C’ or better.
Recommended: Reading - one level prior to transfer.
Description: Continued study of the fundamentals of American Sign Language. Emphasizes grammatical structure, various sentence types, giving directions, conceptual accuracy, vocabulary, verb agreement, and increased fingerspelling and numerical proficiency. Further development of conversational strategies. Exploration of Deaf culture emphasizing Deaf history in the United States. Field trips required.
Hours: 90 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ASL B3 American Sign Language 3
5 units
Prerequisites: ASL B2 with a grade of ‘C’ or better.
Recommended: Reading - one level prior to transfer.
Description: Study of advanced aspects of American Sign Language. Emphasizes advanced conversational fluency in ASL along with intensive work on comprehensive skills and grammatical structure. Focus on temporal aspects, conditional clauses, pronouns, and nonmanual indicators. Discussion of various aspects of American Deaf culture with focus on literary tradition. Field trips required.
Hours: 90 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ASL B4 American Sign Language 4
5 units
Prerequisites: ASL B3 with a grade of ‘C’ or better.
Recommended: Reading - one level prior to transfer.
Description: Advanced study of American Sign Language. Emphasis is on receptive and expressive conversational fluency and contrasting hearing and Deaf rhetorical approaches. Focus on specific linguistic aspects of ASL, such as classifiers and role-shifting. Advanced practice with receptive and expressive fingerspelling. Also includes issues pertinent to Deaf culture.
Note: Field trips required.
Hours: 90 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ASL B5 American Deaf Culture
3 units
Prerequisites: ASL B1 with a grade of ‘C’ or better.
Description: Introduction to the practical and philosophical components of American Deaf culture, such as types and causes of deafness and the Deaf community as defined according to language, values, culture, and attitudes. Included is a study of Deaf advocacy, services, education, and legal rights of Deaf people.
Note: Field trips required.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ASL B7 ASL Literature and Performance
3 units
Prerequisites: ASL B2 (with a grade of ‘C’ or better). Community performance required.
Description: Exploration and analysis of storytelling, folklore, poetry, and music of the American Deaf community. Analysis and interpretation of musical lyrics into visual concepts; study and performance of ASL poetry, hand-shape and ABC stories. Study of Deaf folklore and other forms of oral storytelling traditions.
Note: Field trips required.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: CSU and private colleges

Animal Science Courses

ANSC B1 Introduction to Animal Science
3 units
Advisory Reading - one level prior to transfer.
Description: Survey of the livestock industry, supply of animal products and their uses; special emphasis on the origin, characteristics, adaptation and contributions of farm animals to the global Ag industry; analysis of the economic trends and career opportunities in animal agriculture. Nutrition, digestive systems, breeds, selection, and reproduction are included in course. Field trips may be required.
Hours: 36 lecture, 54 laboratory
CCS: Occupational Education
Transferable: UC, CSU and private colleges

ANSC B2 Beef Production
3 units
Recommended: ANSC B1. Reading - one level prior to transfer.
Description: Defines and appraises all segments of the beef industry, focusing on production, reproduction, marketing, and processing. History and development of important breeds and their contribution to the U.S. beef industry will be emphasized. Selection, nutrition, health management, handling, and processing will be defined, analyzed, and applied.
Hours: 36 lecture, 54 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

ANSC B3 Sheep Production
3 units
Recommended: Reading - one level prior to transfer and algebra.
Description: Defines and appraises all segments of the sheep industry, focusing on production, reproduction, marketing, and wool. History of the development of important breeds and their contribution to the U.S. sheep industry will be emphasized. Selection, nutrition, health management, handling and processing will be defined, analyzed, and applied.
Hours: 36 lecture, 54 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

ANSC B4 Dairy Production
3 units
Recommended: Reading - one level prior to transfer and algebra.
ANSC B5 Swine Production  
3 units  
**Recommended:** Reading - one level prior to transfer and high school algebra with a grade of ‘C’ or better.  
**Description:** Application of the principles of nutrition, physiology, herd selection, breeding, and marketing to swine production and management. Structure of the industry, enterprise establishment, systems of production, production practices and herd improvement programs will be discussed. Evaluation of production responses and economic returns will be defined, analyzed, and applied.  
**Hours:** 36 lecture, 54 laboratory  
**CS:** Occupational Education  
**Transferable:** CSU and private colleges

ANSC B6 Applied Animal Nutrition  
4 units  
**Recommended:** Reading - one level prior to transfer and algebra.  
**Description:** Covers fundamentals of feeding livestock, including feed composition, feed nutrients, and values, digestive systems of major livestock species and their utilization of feedstuffs, ration balancing, computer analysis of feed, and least cost formulation.  
**Hours:** 54 lecture, 54 laboratory  
**CS:** Occupational Education  
**Transferable:** CSU and private colleges

ANSC B7 Animal Diseases  
3 units  
**Description:** Covers major and common diseases of farm livestock, focusing on the cause, symptoms, treatment and prevention of the specific diseases. Students will learn fundamentals of the immune system and use of vaccines and pharmaceuticals. Safe use, particularly in food animals is stressed.  
**Hours:** 54 lecture  
**CS:** Occupational Education  
**Transferable:** CSU and private colleges

ANSC B10 Horse Production  
3 units  
**Recommended:** ANSC B1. Reading - one level prior to transfer.  
**Description:** Survey of the equine industry, encompassing the evolution and role of the equine species throughout history; breed selection and development, nutrition, disease, preventative health, reproductive management, basic horsemanship, and stabilizing alternatives. Laboratory required. Field Trips. (C-ID AG-AS 116L)  
**Hours:** 54 lecture, 54 laboratory  
**CS:** Occupational Education  
**Transferable:** CSU and private colleges

ANSC B11 Livestock Selection and Evaluation  
3 units  
**Description:** Detailed analysis of visual, analytical, and physical methods of appraising beef, sheep, swine and horses concerning functional and economic value; written and oral summaries of evaluation; specific reference made to performance data and factors determining carcass value. Laboratory required.  
**Hours:** 36 lecture, 54 laboratory  
**CS:** Occupational Education  
**Transferable:** UC, CSU and private colleges

ANSC B22 Animals and Society  
3 units  
**Recommended:** Reading - one level prior to transfer.  
**Description:** Deals with the human/animal bond and the positive/controversial aspects of animals in human lives. Includes topics covering the scientific and psychological implications of animals in our society. Students will encounter and analyze social and ethical issues that affect society and veterinary medicine.  
**Hours:** 54 lecture  
**CS:** Occupational Education  
**Transferable:** CSU and private colleges

ANSC B83 Introduction to Veterinary Technology  
4 units  
**Description:** Introductory course designed to orient and instruct students in knowledge required for success in advanced veterinary technology courses. Topics include: anatomy and physiology of domestic animals (Integumentary, cardiovascular, respiratory, reproductive, gastrointestinal, and neurological systems), nutrition, pharmacology, basics of chemistry, biology, microbiology, (including cellular anatomy/physiology), genetics and heredity, and career opportunities. Medical terminology, regulations, office management and record keeping skills are also covered, as they pertain to working in a veterinary practice. Field trips may be required.  
**Note:** formerly ANSC B80 and ANSC B82.  
**Hours:** 72 lecture  
**CS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

ANSC B84 Small Animal Diseases  
1.5 units  
**Prerequisites:** Either ANSC B83 or both ANSC B80 and ANSC B82 with grades of ‘C’ or better.  
**Description:** Presents knowledge of diseases in small domestic animals, including prevention and treatment programs. Includes instruction in physical diagnosis and discussion of tests and procedures needed for proper diagnosis that the technician uses to assist veterinarian. Also covers animal husbandry procedures relating to disease prevention. Disease entities to be taught include: mechanical, genetic, infectious, nutritional, endocrine, and metabolic conditions.  
**Hours:** 27 lecture  
**CS:** Credit - degree applicable  
**Transferable:** Associate Degree only Not transferrable.

ANSC B85 Large Animal Diseases  
1.5 units  
**Prerequisites:** Either ANSC B83 or ANSC B80 with a grade of ‘C’ or better.  
**Description:** Covers diseases in large animals, including diagnosis, prevention, and treatment programs. Includes instruction in physical diagnosis and discussion of tests and procedures needed for proper diagnosis. Instruction in animal nursing and husbandry procedures relating to disease prevention will also be included. Disease entities taught include infectious, nutritional, endocrine, mechanical and metabolic conditions.  
**Hours:** 27 lecture  
**CS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.
ANSC B86 Pharmacology for Veterinary Technicians
1.5 units
Prerequisites: Either ANSC B83 or both ANSC B80 and ANSC B82 with grades of ‘C’ or better.
Description: Intended to instruct students with required knowledge of pharmacological and biological agents used in veterinary medicine, mycological and biological agents used in veterinary medicine, including calculations, classifications, action, and methods of administration, dispensing and labeling, FDA, USDA, and DEA guidelines regarding restricted and scheduled drugs as they relate to small animals and residue avoidance in food animals. Dosages, agents, and administration of pharmaceuticals are covered.
Hours: 27 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

ANSC B88 Surgery, Dental, and Anesthesiology for Veterinary Technicians
1.5 units
Prerequisites: Either ANSC B83 or ANSC B80 with a grade of ‘C’ or better.
Description: Instruction in the identification and care of instruments, the importance of asepsis and sterilization techniques, surgical pack preparation, anesthetic instrumentation, induction and monitoring, surgical nursing, assisting and instrumentation, and suturing techniques used in veterinary medicine.
Hours: 27 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

ANSC B90 Emergency Medicine, Surgery/Nursing Procedures for Veterinary Technicians
2 units
Prerequisites: Either ANSC B83 or both ANSC B80 and ANSC B82 with grades of ‘C’ or better.
Description: Provides the student with knowledge of emergency procedures for veterinary technicians, including client management, triage, supportive therapy, medicine and surgery for the peracutely ill patient. Nursing procedures as they relate to emergency and non-emergency care will be presented, including bandaging, splitting, casting, and fluid therapy.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

ANSC B92 Clinical Pathology for Veterinary Technicians
2 units
Prerequisites: Either ANSC B83 or both ANSC B80 and ANSC B82 with grades of ‘C’ or better.
Description: Course covers biology, microbiology, parasitological cytology, urinalysis, hematology, serology, and pathology necessary for a career as a Registered Veterinary Technician. The student will be instructed in normal and abnormal test values. Course covers the understanding, reading and application of specific test results, as well as specimen handling and necropsy techniques.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

ANSC B94 Caged Birds, Laboratory, and Exotic Animal Medicine
2 units
Prerequisites: Either ANSC B83 or both ANSC B80 and ANSC B82

with grades of ‘C’ or better.
Description: Covers anatomy, physiology, disease descriptions, and identification of caged birds, laboratory, and exotic animals. Instruction in restraint, physical examination, anesthesia, surgery, specimen collection, species identification, and the legal ramifications of owning exotic animals.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

ANSC B96 Radiology, Ultrasound, and Diagnostic Imaging for Veterinary Technology
1.5 units
Description: Course is intended to give the student a sound knowledge of the techniques used in physical imaging in veterinary medicine. Includes history, statutes, and regulations, positioning techniques, developing, and film and screen characteristics. Instruction includes knowledge for preparing patient for imaging (radiograph and ultrasonography), positioning patient for imaging, safety during imaging, processing images/radiographic film, and maintenance of imaging equipment.
Hours: 27 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

Anthropology Courses

ANTH B1 Physical Anthropology
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Study of human biology through time. Examines the biological development of the hominin lineage with consideration of cultural developments. Topics include biology and genetics, evolutionary processes and speciation, nonhuman primates, examination of the hominin lineage through fossils and molecular data, technological developments, and human diversity.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ANTH B2 Cultural Anthropology
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Scientific study of contemporary cultures and their lifeways. Focuses on behavioral patterns, learning, diversity, and culture as an adaptive mechanism. Emphasis on examining the constituents of cultural systems holistically, and comparatively analyzing world cultures. Examples from cultures worldwide are presented in various formats.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ANTH B3 Introduction to Archaeology
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Scientific study of past cultures and culture change. Emphasizes reconstruction of past lifeways through systematically examining material remains. Topics include fieldwork techniques,
data analysis, dating methods, cultural change and adaptation, interpreting behavior patterns of past cultures, interactions between cultures and environments, and managing archaeological remains. Field trips may be required.

**Hours:** 54 lecture
**CCS:** Liberal Arts/Science
**Transferable:** UC, CSU and private colleges

### ANTH B5 North American Indians

- **3 units**
- **Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.
- **Description:** Detailed examination and comparative study of Native Peoples of North America from initial peopling of the New World to today. Topics include Native Peoples today, policies and laws, culture areas of North America, and specific cultures. Emphasis on pre-contact lifeways, cultural interactions, and cultural adaptations to environmental situations through time.

**Hours:** 54 lecture
**CCS:** Liberal Arts/Science
**Transferable:** UC, CSU and private colleges

### ANTH B21 Special Projects/Anthropology

- **1 unit**
- **Recommended:** ANTH B1 or ANTH B2 with a minimum grade of 'B', and evaluation by instructor.
- **Description:** Application of anthropological knowledge and techniques to real world situations through (a) the formulation and completion of an anthropological research project, or (b) complete an Internship by working for local museums or similar organizations, engaging in a variety of tasks related to one or more areas of anthropology.

**Note:** Enrollment limitations for students who have successfully completed ANTH B21a, 21b, 21c and/or 21d.

**Hours:** 54 laboratory
**Repeat:** none
**CCS:** Liberal Arts/Science
**Transferable:** CSU and private colleges

### Apprenticeship Courses

Apprenticeship classes are designed for apprentices actively employed in the fields and indentured under the Shelley-Maloney Apprenticeship Act. The apprentice agreement states that the student will supplement on-the-job training with related classroom instruction each year of his or her apprenticeship. Registration in any vocational education program is offered without regard to race, color, national origin, sex, or disability. Also, the lack of English language skills will not be a barrier to admission and participation in any Bakersfield College vocational education program. For registration information contact the Bakersfield College Apprenticeship Program at (661) 395-4408.

#### APPR B55-1 Carpenter P.E.T.S.

- **2 units**
- **Hours:** 26 lecture, 54 laboratory
- **Repeat:** unlimited
- **CCS:** Occupational Education
- **Transferable:** Associate Degree only. Not transferrable.

#### APPR B56-1 Operating Engineers/E.O.

- **3 units**
- **Prerequisites:** Indentured operating engineer apprentice or journeyperson.

**Hours:** 26 lecture, 54 laboratory
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

#### APPR B56-2 Operating Engineers/E.O.

- **3 units**
- **Prerequisites:** Indentured operating engineer apprentice or journeyperson.

**Hours:** 26 lecture, 54 laboratory
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

#### APPR B56-3 Operating Engineers/E.O.

- **3 units**
- **Prerequisites:** Indentured operating engineer apprentice or journeyperson.

**Hours:** 26 lecture, 54 laboratory
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

#### APPR B56-4 Operating Engineers/E.O.

- **3 units**
- **Prerequisites:** Indentured operating engineer apprentice or journeyperson.

**Hours:** 26 lecture, 54 laboratory
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

#### APPR B56-5 Operating Engineers/E.O.

- **3 units**
- **Prerequisites:** Indentured operating engineer apprentice or journeyperson.

**Hours:** 26 lecture, 54 laboratory
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

#### APPR B56-6 Operating Engineers/H.D.R.

- **3 units**
- **Prerequisites:** Indentured operating engineer apprentice or journeyperson.

**Hours:** 26 lecture, 54 laboratory
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

#### APPR B56-7 Operating Engineers/H.D.R.

- **3 units**
- **Prerequisites:** Indentured operating engineer apprentice or journeyperson.

**Hours:** 26 lecture, 54 laboratory
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

#### APPR B56-8 Operating Engineers/H.D.R.

- **3 units**
- **Prerequisites:** Indentured operating engineer apprentice or journeyperson.

**Hours:** 26 lecture, 54 laboratory
## Architecture Courses

### ARCH B1 Intro to Architecture and Environmental Design

1.5 units

**Description:** Familiarization with the professional fields of architecture, landscape architecture, structural engineering construction and city/regional planning. Introduction to schools of architecture programs as they relate to individual aptitudes and the design process. Guest speakers.

**Note:** Satisfies 0.5 unit counseling requirement for graduation from Bakersfield College.

**Hours:** 27 lecture

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

### ARCH B6 Materials of Construction

3 units

**Description:** Use of application of construction processes and materials. Field trips required.

**Hours:** 36 lecture, 54 laboratory

**CCS:** Occupational Education

**Transferable:** CSU and private colleges

### ARCH B11 Design and Perspective Drawing

4 units

**Description:** Basic techniques used in graphic communications for the environmental design fields including orthographic projection, pictorials, perspectives, shades and shadows. Exercises to develop basic skills and speed in the representation of ideas.

**Hours:** 36 lecture, 108 laboratory

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

### ARCH B12 Design, Drawing and Color

4 units

**Prerequisites:** ARCH 11 with a grade of ‘C’ or better.

**Description:** An introduction to the use of digital tools in architectural design and visual communication in the areas of 3D modeling, image editing, 2D graphics and page layout.

**Hours:** 27 lecture, 81 laboratory

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

### ARCH B16 Digital Tools for Graphics Communication

3 units

**Prerequisites:** ARCH B1, B11, B12 with grades of ‘C’ or better. Field trips may be required.

**Description:** Continuation of the content and issues introduced in ARCH B21 plus the theories, principles, methods and means pertaining to the creation of two-and three-dimensional visual organizations to communicate intended concepts and meanings.

**Hours:** 36 lecture, 108 laboratory

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

### ARCH B21 Architectural Design Fundamentals I

4 units

**Prerequisites:** ARCH B1, B11, B12 with grades of ‘C’ or better. Field trips required.

**Description:** Theories, principles, methods and means pertaining to the creation of two- and three-dimensional visual organizations to communicate intended concepts and meanings.

**Hours:** 36 lecture, 108 laboratory

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

### ARCH B22 Architecture Design Fundamentals II

4 units

**Prerequisites:** ARCH B21 with a grade of ‘C’ or better.

**Description:** Continuation of the content and issues introduced in ARCH B21 plus the theories, principles, methods and means pertaining to the creation of architectural forms, space and organizations and incorporation of function and light as issues that shape the built environment and support the communication of intended concepts and meanings.

**Hours:** 36 lecture, 108 laboratory

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

### ARCH B30 Residential Building Information Modeling

4 units

**Prerequisites:** Arch B6.

**Description:** Introduction to the application of computers in architecture with the use of Building Information Modeling (BIM), including operating systems, applications and graphic systems as they relate to construction documents and design technology. Residential
The visual arts from prehistory to the present. The role of art in the creation of world culture, as well as art processes and visual vocabulary are examined. Field trips may be required.

**Hours:** 54 lecture

**Transferable:** Associate Degree only. Not transferrable.

**ARCH B26 Commercial Building Codes**

3 units

**Recommended:** Reading - one level prior to transfer

**Description:** Study of the uniform building codes, local codes and related ordinances. Fundamental structural concepts involved in code work, code interpretation and enforcement. Field trips required.

**Hours:** 54 lecture

**Transferable:** UC, CSU and private colleges

### Art Courses

**ART B1 Art Appreciation**

3 units

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** Lecture course which presents a broad introduction to the visual arts from prehistory to the present. The role of art in the creation of world culture, as well as art processes and visual vocabulary are examined. Intended for non-Art majors.

**Hours:** 54 lecture

**Transferable:** UC, CSU and private colleges

**ART B2 Drawing I**

3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** Course introduces the fundamentals of representational drawing. The visual vocabulary and design principles and elements are covered, as related to drawing. Media may include pencil, ink, charcoal, conte, pastels, and watercolor. Non repeatable.

**Hours:** 27 lecture, 81 laboratory

**ART B2A Basic Drawing**

1.5 units

**Recommended:** Reading - one level prior to transfer

**Description:** A foundation in seeing through drawing. Emphasizes major theories and techniques in understanding composition and form. Systematic examination of graphic elements, their formal properties, relations and functions in the organization of graphic structures. Development of drawing as a medium of expression.

**Hours:** 54 supervised tutoring

**Transferable:** UC, CSU and private colleges

**ART B2AB Basic Drawing**

3 units

**Recommended:** Reading - one level prior to transfer CAN Code: ART 8

**Description:** A foundation in seeing through drawing. Emphasizes major theories and techniques in understanding composition and form. Systematic examination of graphic elements, their formal properties, relations and functions in the organization of graphic structures. Development of drawing as a medium of expression.

**Hours:** 54 supervised tutoring

**Transferable:** UC, CSU and private colleges

**ART B3 Drawing II**

3 units

**Recommended:** ART B2 or equivalent with grade of ‘C’ or better.

**Description:** A continuation of ART B2. Builds on the conceptual and technical aspects of drawing; as well as an increased exploration of media and techniques. An increased use of color is required.

**Hours:** 27 lecture, 81 laboratory

**Transferable:** UC, CSU and private colleges

**ART B4 Two-Dimensional Design**

3 units

**Recommended:** Reading - one level prior to transfer

**Description:** Examines the principles and elements of two-dimensional design. Content includes: elements and principles of design, color theory, art terminology and analysis of form and content. Not open to students with credit in ART B3a, B3b, or ART B3ab.

**Hours:** 27 lecture, 81 laboratory

**Transferable:** UC, CSU and private colleges

**ART B5 Three-Dimensional Design**

3 units

**Recommended:** Reading - one level prior to transfer
ART B6 Acrylic Painting I
3 units
Prerequisites: ART B2 with a grade of ‘C’ or better or equivalent.
Recommended: Reading - one level prior to transfer.
Description: Introduction to acrylic painting as an expressive medium. Students review and refine techniques using acrylic paint as an expressive medium. Emphasis is placed upon personal explorations. Not open to students who have successfully completed ART B4a, B4b or ART B4ab.
Hours: 27 lecture, 81 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ART B7 Acrylic Painting II
3 units
Prerequisites: ART B6 with a grade of ‘C’ or better.
Description: Continuation of ART B6. Students review and refine techniques using acrylic paint as an expressive medium. Emphasis is placed upon personal explorations. Not open to students who have successfully completed ART B4c, B4d, or ART B4cd.
Hours: 27 lecture, 81 laboratory
CCS: Liberal Arts/Science
Transferable: CSU and private colleges

ART B8 Figure Drawing I
3 units
Prerequisites: ART B2 with a grade of ‘C’ or better, or equivalent.
Recommended: Reading - one level prior to transfer.
Description: Introductory course in drawing from live models. Emphasis is placed upon an understanding of the structure, anatomy, and expression of the human figure. Media may include pencil, ink, charcoal conte, pastels, and watercolor. Not open to students who have taken ART B4e, B4f or ART B4ef.
Hours: 27 lecture, 81 laboratory
CCS: Liberal Arts/Science
Transferable: CSU and private colleges

ART B9 Figure Drawing II
3 units
Prerequisites: ART B8 with a grade of ‘C’ or better, or equivalent (ART B4e with grades of ‘C’ or better).
Recommended: Reading - one level prior to transfer.
Description: Drawing course, using live models, is a review and refinement of drawing techniques and exercises that are introduced in ART B8. Emphasis is placed upon a more personal expression of the human figure. Media may include pencil, ink, charcoal conte, pastels, and watercolor. Not open to students who have successfully completed ART B2g, B2h, or ART B2gh.
Hours: 27 lecture, 81 laboratory
CCS: Liberal Arts/Science
Transferable: CSU and private colleges

ART B10 Ceramics I
3 units
Recommended: Reading - one level prior to transfer.

ART B11 Ceramics II
3 units
Prerequisites: ART B10 with a grade of ‘C’ or better or ART B7a, B7b, or ART B7ab with grades of ‘C’ or better.
Description: Continuation of ART B10. Expanding the skills in forming techniques, wheel-throwing and slab construction; various glaze applications. Exploration of building and surface treatments including slip casting, site specific and installation work. Raku and other firing techniques are covered. Not open to students who have successfully completed ART B7c, B7d, or ART B7cd.
Materials Fee: $15.00 covers cost of glazes and some clay, and students will receive finished ceramic artwork.
Hours: 27 lecture, 81 laboratory
CCS: Liberal Arts/Science
Transferable: CSU and private colleges

ART B12 Ceramics III
3 units
Prerequisites: ART B11 or ART B7cd with a grade of ‘C’ or better, or ART B7c and ART B7d with grades of ‘C’ or better.
Recommended: Reading - one level prior to transfer.
Description: Designed for students interested in developing a personal style in their work. Advanced wheel-throwing and hand building techniques, glaze application and formulation. Includes theory and practical application of kiln operation, electric and gas fired, oxidation and reduction. Not open to students who have successfully completed ART B7e and B7f or ART B7ef.
Materials Fee: $15.00 covers cost of glazes and some clay, and students will receive finished ceramic artwork.
Hours: 27 lecture, 81 laboratory
CCS: Liberal Arts/Science
Transferable: CSU and private colleges

ART B13 Sculpture I
3 units
Prerequisites: ART B5 (Three Dimensional Design).
Recommended: Reading - one level prior to transfer.
Description: Introduces sculptural concepts and investigates their translation into three-dimensional forms. Problems involving various technical means are explored. Students investigate the role of materials and techniques in the creative process. Not open to students who have successfully completed ART B11a and B11b, or ART B11ab.
Hours: 27 lecture, 81 laboratory
CCS: Liberal Arts/Science
Transferable: CSU and private colleges

ART B13C Printmaking: Intaglio/Monoprint
1.5 units
Recommended: Reading - one level prior to transfer.
Description: Expressive potential of the fine art print through the knowledge gained in intaglio and monotype printing techniques.
Hours: 54 supervised tutoring
ART B13CD Beginning Printmaking: Intaglio/Monoprint
3 units
Recommended: Reading - one level prior to transfer.
Description: Expressive potential of the fine art print through the knowledge gained in intaglio and monotype printing techniques.
Hours: 54 supervised tutoring
Repeat: 3
Transferable: UC, CSU and private colleges

ART B13D Printmaking: Intaglio/Monoprint
1.5 units
Prerequisites: ART B13c with a grade of C.
Description: Expressive potential of the fine art print through the knowledge gained in intaglio and monotype printing techniques.
Hours: 54 supervised tutoring
Transferable: UC, CSU and private colleges

ART B14 Sculpture II
3 units
Prerequisites: ART B16 with a grade of ‘C’ or better.
Recommended: Reading - one level prior to transfer.
Description: Advanced study in sculptural concepts and three-dimensional forms. Explores the expressive meaning of form and the expressive potential of materials. Not open to students who have successfully completed ART B11cd.
Hours: 27 lecture, 81 laboratory
Transferable: UC, CSU and private colleges

ART B15A Advertising Graphics
1.5 units
Recommended: Reading - one level prior to transfer.
Hours: 54 supervised tutoring
Transferable: UC, CSU and private colleges

ART B15C Advertising Graphics
1.5 units
Recommended: Reading - one level prior to transfer.
Hours: 54 supervised tutoring
Transferable: UC, CSU and private colleges

ART B16 Digital Photography
3 units
Recommended: Reading - one level prior to transfer.
Description: Introduction to the possibilities of digital photography. Topics covered include digital cameras, scanning, printing, color management and file management. Students create original images for use in class, and explore photo manipulation with raster software. A suitable digital camera is required.
Materials Fee: $15.00 covers cost of ink and paper for printing student projects. Students receive a portfolio of prints.
Hours: 27 lecture, 81 laboratory
Transferable: UC, CSU and private colleges

ART B17 Black and White Photography
3 units
Recommended: Reading - one level prior to transfer.
Description: In this course students will study the basic principles of cameras, optics, light, film development, exposure, exposure meters, and enlarging. Photographic quality, exploration of the photographers environment, and personal expression is emphasized. A suitable 35mm film camera is required. Not open to students who have successfully completed ART B17ab, or ART B17a and B17b.
Hours: 27 lecture, 81 laboratory
Transferable: UC, CSU and private colleges

ART B20 Digital Art I - Vector Art
3 units
Recommended: Reading - one level prior to transfer.
Description: Foundational course introducing vector art and the use of digital technology as a design tool. Through a series of projects, students create original artwork and explore elements and principles of design.
Materials Fee: $15.00 for toner and paper. Students will receive a portfolio of printed work.
Hours: 27 lecture, 81 laboratory
Transferable: UC, CSU and private colleges

ART B24 Digital Art II - Raster Art
3 units
Recommended: Reading - one level prior to transfer.
Description: Introduces raster art as used in commercial digital media. Through a series of projects, students create original artwork and refine their design skills. Image creation, scanning, editing, composition, re-touching, and problem solving are explored. Elements, principles and language of design are reviewed.
Materials Fee: $15.00 for toner and paper. Students will receive a portfolio of printed work.
Hours: 27 lecture, 81 laboratory
Transferable: UC, CSU and private colleges

ART B25 Typography
3 units
Prerequisites: ART B20 and ART B24 with grades of ‘C’ or better or equivalent.
Recommended: Reading - one level prior to transfer.
Description: Focuses on effective letterform usage in visual media. Students create typographic design solutions and explore the evolution of letterforms from ancient to contemporary. Projects feature investigating of structure, format, legibility, and expression.
Materials Fee: $15.00 for toner and paper. Students receive a portfolio of printed work.
Hours: 27 lecture, 81 laboratory
Transferable: UC, CSU and private colleges

ART B29 Special Studies in Art
1-3 units
Prerequisites: Limitation on Enrollment (e.g. Performance tryout or audition). Student must have successfully completed a sequence of courses; and have approval by professor after a portfolio review.
Description: Independent study course intended for students pursuing deep exploration into a specific body of work. Content and unit credit are determined by instructor and student in consultation. Enrollment by permission of instructor only.
Hours: for each 1
Repeat: 3
ART B35 Survey of Western Art I
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Course is a historical survey of western architecture and visual arts beginning in the Paleolithic age (30,000 BC) and continuing through Proto-Renaissance (1400 CE).
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ART B36 Survey of Western Art II
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Course is a historical survey of the western architecture and visual arts from 1400 CE to the present day.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ART B37 Survey of Art - Latin America
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Historical survey of the arts in Latin America. Focuses on the Spanish-speaking regions of the Americas, as well as Cuba and the Dominican Republic. Students examine artistic contributions by Latin American artists who have taken the equivalent courses, CHST B30e or ART B30e.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ART B40 Digital Illustration
3 units
Prerequisites: ART B25 with a grade of ‘C’ or better.
Recommended: Reading - one level prior to transfer.
Description: Course introduces illustration for editorial, technical, scientific, and informational publication. Emphasis is placed on problem solving and the importance of concept development. Typography is considered an integral element to illustration projects. Formerly ART B22. Not open to students who have successfully completed ART B22.
Materials Fee: $15.00 for toner and paper. Students receive a portfolio of printed work.
Hours: 27 lecture, 81 laboratory
CCS: Occupational Education
Transferable: UC, CSU and private colleges

ART B41 Advertising Design
3 units
Prerequisites: ART B20, B24 and ART B25 with grades of ‘C’ or better.
Recommended: Reading - one level prior to transfer.
Description: Course focuses on the design of advertising. Through concept development, type and images, students create original advertising solutions. A broad study of advertising media will be explored. Not open to students who have successfully completed ART B23.
Materials Fee: $15.00 for toner and paper. Students will receive a portfolio of printed work.
Hours: 27 lecture, 81 laboratory
CCS: Occupational Education
Transferable: UC, CSU and private colleges

ART B42 Graphic Design
3 units
Prerequisites: ART B40 and ART B41
Recommended: Reading - one level prior to transfer.
Description: Course in design with an emphasis on visual communication. Through concept development, type, and images, students create original design solutions. Identify ad branding development is introduced. Project based course. Students progress at their own speed through projects, which are developed with increasing technical complexity. Not open to students with credit in ART B21.
Hours: 27 lecture, 81 laboratory
CCS: Occupational Education
Transferable: UC, CSU and private colleges

ART B46 Advanced Photography I
3 units
Prerequisites: ART B16, or ART B17 with grades of ‘C’ or better.
Recommended: Reading - one level prior to transfer.
Description: Course focuses on review and refinement of photography skills, with an emphasis on personal expression. A suitable SLR camera is required.
Hours: 27 lecture, 81 laboratory
CCS: Occupational Education
Transferable: UC, CSU and private colleges

ART B47 Advanced Photography II
3 units
Prerequisites: ART B46 or B17cd with grades of ‘C’ or better.
Recommended: Reading - one level prior to transfer.
Description: Course is study of photography in an area of specialized and personal interest. Advanced work is done in camera technique, printing practices and studio lighting. Students create technically proficient work of an expressive and original nature. A suitable SLR camera is required.
Hours: 27 lecture, 81 laboratory
CCS: Occupational Education
Transferable: UC, CSU and private colleges

ART B48 Advanced Photography III - Independent Study
1-3 units
Prerequisites: ART B17gh or ART B47 with grades of ‘C’ or better.
Recommended: Reading - one level prior to transfer.
Description: Strengthening of graphic visualization and technical skills through challenging individual assignments, in preparation for professional experience. A suitable manually adjustable camera is required. Content and unit credit are determined by the instructor and student in consultation. Evaluation by instructor of students photography skills.
Hours: for each 1
CCS: Occupational Education
Transferable: UC, CSU and private colleges

Astronomy Courses

AS TR B1 Physics of the Cosmos
3 units
Prerequisites: Reading - one level prior to transfer.
**AUTO B2A Engine Repair and Machining**  
*9 units*

**Recommended:** AUTO B1AB or evaluation of previous experience by instructor.

**Description:** This course covers the acquisition of practical skills required for accurate internal combustion engine diagnosis, repair and all phases of engine rebuilding machine work. Demonstrated lecture, simulated problem diagnosis and practical application on live vehicles will be used. Individual instruction on engine rebuilding machinery & tools is an integral part of this course. Engine theory, design, diagnosis, repair, practical and theoretical high performance modifications are all part of this course. Preparation for the A1 and A8 ASE exams will be covered. Theory of internal combustion, piston-type engine design and maintenance. Practice in engine overhaul procedures and mechanical problems diagnosis. This course is similar to Auto B75A but includes more lab hours. The extended lab time offers a greater degree of practical experience.

**Hours:** 108 lecture, 162 laboratory  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges, elective credit only

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**ASTR B2 Life in the Universe**  
*3 units*

**Prerequisites:** Reading - one level prior to transfer.

**Recommended:** Math BA or MATH B60 with a grade of ‘C’ or better.

**Description:** Introductory course emphasizing the application of physics to understand the physical processes on the Earth and beyond the Earth, and how we know those processes are occurring while still being bound to the Earth (or our solar system). The process and philosophy of science is examined from the astronomical perspective. Among topics include: the motions, properties, evolution of the Sun, planets (including exoplanets), stars galaxies and the universe and how we know about them; the analysis of electromagnetic radiation; atomic structures; astronomical instruments; brief history of astronomy; Newton’s law of gravity; general relativity.

**Hours:** 54 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

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**ASTR B3 Solar System**  
*3 units*

**Prerequisites:** Reading - one level prior to transfer.

**Recommended:** Math BA or MATH B60 with a grade of ‘C’ or better.

**Description:** Introductory course on the Sun, Earth, other planets, moons, rings, comets, asteroids, and exo-solar planets, formation and development of the Earth and solar system, and possibility of life on other worlds.

**Hours:** 54 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** CSU and private colleges

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**Automotive Technology Courses**

**AUTO B1AB Introduction to Automotive Technology**  
*4 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** Introduction to the operation and maintenance of the modern automobile with emphasis on the theory of the basic operating systems. These systems include 1) the engine and its systems (lubrication, cooling, fuel emissions controls), b) electrical systems (battery, starting, charging, lighting, and ignition, c) the chassis (suspension, wheel alignment, steering, brakes, tires, and wheels, d) the drive line (clutch, standard, and automatic transmissions, universal joints and differential). Not open to students with credit in AUTO B1, B1a, or B1B.

**Hours:** 54 lecture, 54 laboratory  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges, elective credit only

**AUTO B2B Advanced Engine Repair and Machining**  
*9 units*

**Prerequisites:** AUTO B2a with a grade of ‘C’ or better.

**Description:** This course covers the acquisition of advanced skills required for accurate internal combustion engine diagnosis, repair and all phases of engine rebuilding machine work. Demonstrated lecture, simulated problem diagnosis and practical application on live vehicles will be used. Individual instruction on advanced engine rebuilding machinery & tools is an integral part of this course. Advanced engine theory, design, diagnosis, repair, practical and theoretical high performance modifications are all part of this course. Preparation for the A1 and A8 ASE exams will be covered. Theory of internal combustion, piston-type engine design and maintenance. Practice in engine overhaul procedures and mechanical problems diagnosis. This course is similar to Auto B75B but includes more lab hours. The extended lab time offers a greater degree of practical experience.

**Material Fee:** $10.00 for Hazmat removal, solvents and cleaners.

**Hours:** 108 lecture, 162 laboratory  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges, elective credit only

**AUTO B3 Fundamentals of Automotive Management and Services**  
*4 units*

**Recommended:** AUTO B1a with a grade of ‘C’ or better, and Reading - one level prior to transfer.

**Description:** Course covers critical knowledge and skills necessary to prepare traditional and non-traditional students for employment in four positions within the service management operations of automotive dealerships/businesses and shops. Positions are: 1) Service Writer/Advisor, 2) Parts-Sales and Service (Parts Counter Person), 3) Warranty Specialist and 4) DMV Specialist.

**Hours:** 54 lecture, 54 laboratory  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges, elective credit only

**AUTO B14 Auto Tune-Up: Electrical/Ignition/Accessories**  
*11 units*

**Recommended:** AUTO B1a with a grade of ‘C’ or better, or one year of automotive repair work experience. Reading - one level prior to transfer.

**Description:** Prepares for ASE A6, A8 exams. Fundamentals of au-
tomatic electrical/electronic component repair. Includes electrical theory, diagnosis and repair of battery, starting, charging and igni-
tion systems including computer controlled systems. Laboratory emphasis on computerized diagnosis of the modern automobile.

**Note:** Elective credit only.

**Hours:** 162 lecture, 108 laboratory

**Repeat:** 2

**CCS:** Occupational Education

**Transferable:** CSU and private colleges, elective credit only

**AUTO B15 Auto Tune-Up: Fuel Systems and Emissions Controls**

**11 units**

**Recommended:** AUTO B1ab with a grade of ‘C’ or evaluation by instructor of previous work experience. Reading - one level prior to transfer.

**Description:** Theory, operation, and servicing of automotive fuel systems, emission systems and advanced engine performance. Prepares for the ASE A8 exam.

**Hours:** 162 lecture, 108 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**AUTO B50A Diesel and Heavy Equipment Technician Training**

**3.5 units**

**Description:** Repair service on heavy equipment. Emphasizes maintenance, repair, trouble-shooting, design, safety, tool usage, welding and air conditioning. Not open to students with credit in AUTO B50A or AUTO B50B or AUTO B80.

**Hours:** 64 lecture, 192 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**AUTO B50AB Diesel and Heavy Equipment Technician Training**

**7 units**

**Description:** Repair service on heavy equipment. Emphasizes maintenance, repair, trouble-shooting, design, safety, tool usage, welding and air conditioning. Not open to students with credit in AUTO B50A or AUTO B50B or AUTO B80.

**Hours:** 64 lecture, 192 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**AUTO B50B Diesel and Heavy Equipment Technician Training**

**3.5 units**

**Description:** Repair service on heavy equipment. Emphasizes maintenance, repair, trouble-shooting, design, safety, tool usage, welding and air conditioning. Not open to students with credit in AUTO B50A or AUTO B50B or AUTO B80.

**Hours:** 32 lecture, 96 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**AUTO B56A Diesel Engines and Systems Basics**

**2 units**

**Recommended:** Reading - one level prior to transfer.

**Description:** Diesel technology used in agriculture and transportation industries, covers principles of operation, diagnosis and service.

**Hours:** 18 lecture, 18 laboratory

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**AUTO B56B Diesel Engines and Systems Basics**

**2 units**

**Recommended:** Reading - one level prior to transfer.

**Description:** Diesel technology used in agriculture and transportation industries, covers principles of operation, diagnosis and service.

**Hours:** 18 lecture, 18 laboratory

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**AUTO B59 Automotive Air Conditioning**

**4 units**

**Recommended:** Reading - one level prior to transfer

**Description:** Prepares for the ASE A7 and T7 exams. Safety, prin-
ciples and theory of automotive air conditioning systems, laboratory practice in the service and repair of automotive heating, ventilation and air conditioning components.

**Hours:** 54 lecture, 54 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**AUTO B61 Basic and Enhanced Area Clean Air Car**

**4 units**

**Recommended:** Reading - one level prior to transfer

**Description:** Prepares for the ASE A7 and T7 exams. Safety, prin-
ciples and theory of automotive air conditioning systems, laboratory practice in the service and repair of automotive heating, ventilation and air conditioning components.

**Hours:** 54 lecture, 54 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**AUTO B64 Auto Electricity and Electronics**

**4 units**

**Recommended:** Reading - one level prior to transfer

**Description:** Fundamentals of automotive electronics and electrical components including ignitions, computers, batteries, alternators, 
and starters. Laboratory emphasis on testing and servicing of electri-
cal equipment. Prepares for ASE A6 exam.

**Hours:** 54 lecture, 54 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**AUTO B67A,B,C Motor Sports Dynamics/Technical Preparation**

**1-1-1 units**

**Recommended:** Reading - one level prior to transfer

**Description:** Explores operation and diagnosis of race car suspen-
sion and engine performance. Explores the various methods of race team management and organization

**Hours:** 54 lecture (18 per unit)

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**AUTO B75A Introduction to Engine Overhaul**

**3 units**

**Recommended:** AUTO B1ab

**Description:** This course covers the acquisition of basic, practical skills required for accurate internal combustion engine diagnosis, re-
pair and all phases of engine rebuilding machine work. Demonstrat-
ed lecture, simulated problem diagnosis and practical application on live vehicles will be used. Individual instruction on engine rebuilding
machinery & tools is an integral part of this course. Preparation for the A1 and A8 ASE exams will be covered. Theory of internal combustion, piston-type engine design and maintenance. Practice in engine overhaul procedures and mechanical problems diagnosis. 

**Hours:** 36 lecture, 54 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

### AUTO B75B Engine Repair Techniques 3 units

**Prerequisites:** AUTO B75a with a grade of 'C' or higher.

**Description:** This course covers the acquisition of advanced skills required for accurate internal combustion engine diagnosis, repair and all phases of engine rebuilding machine work. Demonstrated lecture, simulated problem diagnosis and practical application on live vehicles will be used. Preparation for the A1 and A8 ASE exams will be covered. Theory of internal combustion, piston-type engine design and maintenance. Practice in engine overhaul procedures and mechanical problems diagnosis.

**Hours:** 36 lecture, 54 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

### AUTO B75C Advanced Engine Overhaul 3 units

**Prerequisites:** AUTO B75b with a grade of 'C' or better.

**Description:** Application of engine overhaul theory and procedures, including component inspection and tolerances, is covered in this course. Advanced engine theory, design, diagnosis, repair, practical and theoretical high performance modifications are all part of this course. This class also provides additional lab hours during which the students will complete specific lab tasks associated with this class.

**Hours:** 36 lecture, 54 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

### AUTO B75D Advanced Engine Machining 3 units

**Prerequisites:** AUTO B75c with a grade of 'C' or better.

**Description:** Application of engine overhaul theory and procedures, including reassembly and initial startup procedures, is covered in this class. Individual instruction on advanced engine rebuilding machinery & tools is an integral part of this course. Advanced engine theory, design, diagnosis, repair, practical and theoretical high performance modifications are all part of this course. This class also provides additional lab hours during which the students will complete specific lab tasks associated with this class.

**Hours:** 36 lecture, 54 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

### AUTO B76 Performance Engine Building 2 units

**Prerequisites:** AUTO B2a and AUTO B2b, or AUTO B75a, B75b, B75c, B75d all with grades of 'C' or better.

**Description:** Theory of high performance engines and machining skills necessary to modify stock production engines for maximum output. Test sessions at local racetrack will show applied theory and skills.

**Hours:** 18 lecture, 36 laboratory

**Repeat:** 1

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

### AUTO B90 Automotive Maintenance and Repair 6 units

**Description:** Engine components, chassis, brake, air conditioning services and basic engine tune-up.

**Hours:** 48 lecture, 144 laboratory

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

### AUTO B106 Auto Brakes, Suspension, Steering, and Alignment 9 units

**Prerequisites:** AUTO B1ab, or AUTO B14, or AUTO B15, or AUTO B64, with grades of 'C' or better.

**Recommended:** Reading - one level prior to transfer

**Description:** A comprehensive course in automotive and light truck brakes, alignment, suspension, and steering systems. Design to give students the skills and knowledge to diagnose and repair these systems to industry standards.

**Hours:** 108 lecture, 162 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

### AUTO B112 Auto Transmission and Gear Boxes 9 units

**Prerequisites:** AUTO B1ab, or AUTO B64a, or AUTO B14, or AUTO B15, with grades of 'C' or better.

**Recommended:** Reading - one level prior to transfer

**Description:** Automotive transmissions and transaxles, computer controls, 2, 3, and 4 speed transmissions, override, and all related components. Also covers standard transmissions and transaxles, clutches, U joints, differentials, and all related components. Successful completion should enable student to pass the National Institute of Service Excellence test.

**Note:** Not open to students who have received a satisfactory grade in both AUTO B12a and AUTO B112b.

**Hours:** 108 lecture, 162 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

### Biology Courses

### BIOL B3A General Biology I 5 units

**Prerequisites:** MATH BD or MATH B70 with a grade of 'C' or better and Reading - one level prior to transfer.

**Description:** Introductory course for students majoring in the biological sciences or pursuing pre-professional programs of study such as pre-medical, pre-pharmacy, pre-dentistry. Emphasizes scientific processes and methods of biology including original research. Explores unifying principles of micro- and macro-evolutionary processes, biodiversity of organisms, systematics, principles of ecology, animal behavior and plant biology. Field trips required.

**Hours:** 54 lecture, 108 laboratory

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

### BIOL B3B General Biology II 5 units

**Prerequisites:** CHEM B1a with a grade of 'C' or better.

**Description:** Principles of cell biology, molecular biology, metabolism, biochemistry, molecular genetics, and physiology. Field trips required.

**Hours:** 54 lecture, 108 laboratory

**CCS:** Liberal Arts/Science
BIOL B7 Environmental Biology
4 units
Prerequisites: Reading - one level prior to transfer.
Description: Introduction to environmental science with major consideration given to the processes that sustain human life on this planet. Topics include: the relevance of ecology to human affairs; current biological and physical environmental issues; population ecology; biogeochemical cycles; ecosystems and biodiversity including introduced and endangered species; energy flow through ecosystems; pollution and wastes; global changes; environmental economics and ethics; and potential ecological effects on the future of the planet.
Hours: 54 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

BIOL B11 Concepts of Biology
4 units
Prerequisites: Reading - one level prior to transfer.
Description: A non-majors introductory course that applies biological concepts to issues of everyday life. Concepts considered include scientific method; ecosystems and energy flow; organization, structure, function, behavior and evolution of organisms; inheritance; disease; ethics.
Note: Field trips may be required.
Hours: 54 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

BIOL B16 General Microbiology
5 units
Prerequisites: Reading - one level prior to transfer. Any college level chemistry and any college level biology course with a grade of 'C' or better.
Description: Introduction to the study of microorganisms. Topics include: survey of microorganisms, history, physical and chemical agents, bacterial genetics, bacterial metabolism, bacterial diseases by transmission, fungal and protozoal infections, viral diseases, immunology, public health and epidemiology, nosocomial infections, biotechnological engineering, applications to food, water and sewage treatment. Field trips required.
Hours: 54 lecture, 108 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

BIOL B18 Essentials of Human Anatomy and Physiology
4 units
Prerequisites: Reading - one level prior to transfer.
Description: An integrated life science course specifically targeted for students in allied health programs. Topics include microscopic and gross anatomy as well as physiology of all human organ systems; skeletal, muscular, cardiovascular, lymphatic/immune, respiratory, digestive, excretory, nervous, endocrine, reproductive and integumentary. Additional topics will address cell structure and function, human development and human heredity.
Hours: 54 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

BIOL B20 Human Biology
4 units
Prerequisites: Reading - one level prior to transfer.
Description: An introductory biology course designed specifically for non-science majors, covering basic chemical principles of life, cell and tissue structure and function, human anatomy and physiology, health aspects, and genetics. Topics include evolution, population growth and environmental impact on humans. Field trips required.
Hours: 54 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

BIOL B21 Special Projects in Biology
0.5-2 units
Prerequisites: Any college biology course with grades of 'C' or better and Reading - one level prior to transfer.
Repeat: 3 or until a limit of 4 units is reached.
Description: Individually directed work in biology laboratory. Students will learn biological preparation, and/or development of teaching materials while assisting in a biology laboratory.
Hours: 27 for each .5
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

BIOL B32 Human Anatomy and Physiology I
4 units
Prerequisites: BIOL B32 with a grade of 'C' or better and Reading - one level prior to transfer.
Description: This is the first part of a two-semester integrated anatomy and physiology course providing the necessary foundation required for BIOL B33. The course covers the principles of human anatomy and physiology, emphasizing the integration of structure, function, and maintenance of homeostasis. Topics are anatomical terminology, body chemistry, histology, articulations, and the following systems: integumentary, skeletal, muscular, central and peripheral nervous, and special senses. Both BIOL B32 and BIOL B33 must be taken to study all the major body systems. This series meets the diverse needs of students seeking careers in such allied health fields as nursing, pharmacy, and physician's assistant.
Hours: 54 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

BIOL B33 Human Anatomy/Physiology II
4 units
Prerequisites: BIOL B32 with a grade of 'C' or better and Reading - one level prior to transfer.
Description: This is the second part of a two-semester integrated anatomy and physiology course that covers the principles of human anatomy and physiology, emphasizing the integration of structure, function, and maintenance of homeostasis. The topics include the following systems: nervous (CNS), endocrine, cardiovascular, lymphatic/immune, respiratory, digestive, excretory, nervous, endocrine, reproductive and integumentary. Both BIOL B32 and BIOL B33 must be taken to study all the major body systems. This series meets the diverse needs of students seeking careers in such allied health fields as nursing, pharmacy, and physician's assistant.
Hours: 54 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

BIOL B34 Pathophysiology
3 units
Prerequisites: BIOL B32 and BIOL B33, or an older BIOL B14 - Anatomy and BIOL B15 - Physiology series, all with grades of 'C' or better.
Description: The study of the basic principles and processes of diseases within the human body using background information from
anatomy, physiology, and chemistry. Topics include basic disease mechanisms as well as the etiology and pathogenesis of disorders by body system. Diagnostic procedures, preventative measures, and examples of current therapeutic practices are also explored.

**Hours:** 54 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** CSU and private colleges

### Business Administration Courses

#### BSAD B1 Financial Accounting

4 units

**Prerequisites:** Mathematics - one level prior to transfer; or MATH BD/MATH B70 and ACDV B50 or Reading - one level prior to transfer with a grade of 'C' or better.

**Description:** An introduction to the theory and practice of accounting and financial reporting. Topics include the accounting cycle, financial statements and accounting for assets, liabilities, equities, revenues and expenses.

**Hours:** 72 lecture  
**CCS:** Occupational Education  
**Transferable:** UC, CSU and private colleges

#### BSAD B2 Managerial Accounting

4 units

**Prerequisites:** BSAD B1 with grades of 'C' or better.

**Description:** With a strong emphasis on decision-making, the use of accounting information and tools for strategic planning. Measurement and reporting performance for management decisions. Product costing using activity based costing, process and job order systems. Cost-volume-profit, budget, variance and capital investment analysis.

**Hours:** 72 lecture  
**CCS:** Occupational Education  
**Transferable:** UC, CSU and private colleges

#### BSAD B5 Human Relations/People Skills

3 units

**Recommended:** Reading - one level prior to transfer. Writing - two levels prior to transfer.

**Description:** A behavior approach to the business environment including self-understanding, motivation techniques as related to the workplace and issues affecting morale, discrimination and developing leadership techniques for success. Provides insight on the effects of drugs and alcoholism on the individual and work group. Emphasizes career selection and the important facets of communication and skill building.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

#### BSAD B9 Fundamentals of Marketing

3 units

**Recommended:** Reading - one level prior to transfer

**Description:** Survey of marketing, including consumer behavior, company and environmental analysis, market segmentation, product development, pricing, promotion, and distribution.

**Note:** Elective credit only.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

#### BSAD B18 Business Law

3 units

**Recommended:** Reading - one level prior to transfer.


**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** UC, CSU and private colleges

#### BSAD B19 Business Law: Business Entities and Estates

1 unit

**Recommended:** Reading - one level prior to transfer.

**Description:** This course will cover business organizations including sole ownership, partnerships, and corporations. It will also include discussions of wills and trusts. Business students transferring to CSUB are advised to take this course in addition to BSAD B18 to match CSUB’s ACC 275.

**Hours:** 18 lecture  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

#### BSAD B20 Introduction to Business

3 units

**Recommended:** Reading - two levels prior to transfer.

**Description:** Introduction to the nature, function and management of the business enterprise in our modern political, social and economic environment. Evaluation of the relationships of business to government, to labor and to the public. Students will complete the educational planning requirement for priority registration.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** UC, CSU and private colleges

#### BSAD B39 Principles of Real Estate

3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** Introduction to the many fields of real estate activity in California. Basic information about the ownership, use and enjoyment of land. Furnishes the proper foundation, including the language of real estate transactions for anyone interested in a real estate career. Satisfies partial educational requirement of the state sales and brokers licenses.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

#### BSAD B40 Personal Finance

3 units

**Recommended:** Reading - one level prior to transfer Mathematics - two levels prior to transfer.

**Description:** Principles and skills of budgeting, making intelligent consumer choices related to consumer credit, banking services, insurance, taxes, transportation, investing for personal retirement, and real estate planning.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

#### BSAD B43 Principles of Management

3 units
**BSAD B51 Business Mathematics**

3 units  
**Description:** Basic arithmetic skills reviewed and applied to the solution of business problems. Emphasizes bank records, invoices, cash and trade discounts, markup and markdown, inventory valuation, payroll, simple and compound interest, promissory notes, installment buying, stocks and bonds, amortization, real estate loans, property tax, personal income tax, depreciation, and insurance.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

**BSAD B53A Introduction to Accounting 1**

3 units  
**Recommended:** Reading - two levels prior to transfer  
**Description:** An introduction to modern financial accounting theory and practice. Analysis of financial transactions using the rules of double-entry bookkeeping. Accounting cycle including adjusting entries, the expanded worksheet, the use of special journals, bank reconciliations and the preparation of financial statements.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**BSAD B53B Introduction to Accounting 2**

3 units  
**Prerequisites:** BSAD B53A with grade of 'C' or better  
**Description:** A continuation of an introduction to modern financial accounting theory and practice. Analysis of financial transactions peculiar to the partnership and inventory, accounts receivable, notes payable, notes receivable and drafts, depreciation, depletion and amortization, capital stock transactions, bonds and other long-term liabilities and Statement of Cash Flows.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**BSAD B54 Payroll Accounting**

3 units  
**Prerequisites:** BSAD B53A or BSAD B1 with grades of 'C' or better  
**Description:** A foundation in payroll computations, payroll record keeping, and the filing of quarterly and annual payroll tax reports. Involves the study of California Disability Insurance, California Unemployment Insurance, Federal Social Security, Federal Unemployment Insurance, Federal Income Tax and California Income Tax, and how these taxes affect the employee/employer.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**BSAD B55 Computer Accounting Applications**

3 units  
**Prerequisites:** BSAD B1 a with a grade of 'C' or better  
**Description:** Review and practical application of accounting principles, electronic spreadsheets, word processing and data management as they pertain to solution of accounting problems and situations that offer services to property owners. Contains current, specific information on the real estate market, inflation, and government activities. Detailed emphasis is given to the management of residential property, condominiums, office buildings, and shopping centers. Satisfies partial requirement of state sales and broker license.
BSAD B73 Common Interest Development  
3 units  
**Recommended:** Reading - one level prior to transfer.  
**Description:** Intended as a guide for condominium and homeowners associations, board of directors and property owners regarding issues that arise in the context of community or homeowner association living. Satisfies partial educational requirements for sales and brokers licenses.  
**Formerly:** REAL B58 or REAL 58.  
**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

BSAD B74 Legal Aspects of Real Estate  
3 units  
**Recommended:** Reading - one level prior to transfer.  
**Description:** A study of California real estate law, including rights incident of property ownership and management, agency, contracts and application to real estate transfer, conveyancing, probate proceedings, trust deeds and foreclosures, as well as recent legislation governing real estate transactions. Satisfies partial educational requirement of State brokers examinations.  
**Formerly:** REAL B60 or REAL 60  
**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

BSAD B75 Real Estate Economics  
3 units  
**Recommended:** BSAD B39 or REAL B39.  
**Description:** Advanced course dealing with the nature and classification of land; business fluctuations and their relationship with real estate cycles; residential and commercial market trends; rural property and special purpose trends; economic factors affecting the development of property, construction and subdivision. Satisfies partial educational requirement for State Brokers Examination.  
**Formerly:** REAL B61  
**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

BSAD B76 Real Estate Finance  
3 units  
**Recommended:** BSAD B39 or REAL B39.  
**Description:** Practical study and analysis of real estate financing, with actual cases illustrating lending policies, problems, risks involved in financing transactions in residential, apartment, commercial, and special purpose properties. Satisfies partial educational requirement for State Brokers Examination.  
**Formerly:** REAL B62  
**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

BSAD B77 Basic Appraisal Principles  
3 units  
**Recommended:** BSAD B39 (formerly REAL B63).  
**Description:** Principles and basic fundamentals of real estate appraisal pertaining primarily to single-family and small multiple dwellings. Explains the appraisal process and the different approaches, methods, and techniques used to determine the value of various types of property. Satisfies partial educational requirement for State Brokers Examination.  
**Formerly:** REAL B63.  
**Hours:** 54 lecture  
**Repeat:** 1  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

BSAD B78 Real Estate Practice  
3 units  
**Recommended:** BSAD B39 or REAL B39.  
**Description:** Basic elements of day-to-day real estate sales and brokerage practice, primarily for holders of real estate licenses as salesmen and brokers. Topics include listing, prospecting, advertising, financing, sales techniques, escrow and ethics. Satisfies partial educational requirement for State Brokers Examination.  
**Formerly:** REAL B64  
**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

BSAD B79 Real Estate Investment and Taxation  
3 units  
**Recommended:** BSAD B53a or ACCT B53a.  
**Description:** Principles and practical applications of real estate investment and tax analysis. Basic fundamentals relevant to students interested in learning real estate investment techniques. Real estate forms and cases are used to aid in solving problems.  
**Formerly:** REAL B65  
**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

BSAD B80 Basic Appraisal Procedures  
3 units  
**Prerequisites:** BSAD B77 with a grade of ‘C’ or better.  
**Description:** Principles of appraisal, the appraisal process, features of appraisal, property considerations, appraisal techniques and professional standards of appraisers. Actual appraisal of a local apartment complex illustrating all the factors involved in the appraisal process. Satisfies partial educational requirement of State Brokers Examination.  
**Formerly:** REAL B68.  
**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

BSAD B81 Residential Sales Comparison and Income Approaches  
3 units  
**Prerequisites:** BSAD B77, REAL B63, BSAD B80, or REAL B68 with grades of ‘C’ or better.  
**Description:** This practical, hands-on course reviews residential appraisal techniques and using a case study, demonstrates the skills needed by modern residential appraisers. The course takes participants through a residential appraisal from the time the assignment is received to the point at which a value conclusion is reached and the appraiser is ready to complete the appraisal report. The case study is supplemented with problems focusing on individual valuation procedures.  
**Formerly:** REAL B69  
**Hours:** 54 lecture
BSAD B82 Real Estate Office Administration
3 units
Recommended: BSAD B39.
Description: Assists the Real Estate professional in the planning, managing, organizing, staffing and marketing of a Real Estate Office as well as covering Department of Real Estate requirements. Satisfies partial educational requirements for the sales and broker licenses.
Hours: 54 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

BSAD B85 Business English
3 units
Description: Basic English grammar course focusing on nouns, pronouns, verbs, adjectives, adverbs, conjunctions, and prepositions. Also includes standard punctuation, capitalization, number usage, and vocabulary development.
Hours: 54 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

BSAD B88 Office Procedures
3 units
Description: A finishing course for students completing their training in office assisting. Course focuses on the techniques currently taking place in the office environment and is designed to develop knowledge and skills necessary for success in the workplace. Topics such as job attitudes, communications, human relations, and time and stress management are featured. Also included are telephone techniques, processing mail, travel arrangements, appointment scheduling, arranging meetings, the job application process, and interviewing techniques.
Hours: 54 laboratory
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

BSAD B90 Fundamentals of Retailing
3 units
Description: Principles and practices used in management of retail businesses. Includes site selection, layout, organization, staffing, positioning, customer service, promotional techniques, and all aspects of the critical buying function.
Hours: 54 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

BSAD B91 E-Commerce
1 unit
Description: Introduces students to E-Commerce basics. Emphasis is placed on exploring marketing issues, payment processing, collections, security, and customer service.
Hours: 18 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

BSAD B250 Quick Computer Keyboarding for Survival
1 unit
Description: Students learn the basic techniques of the touch system in the mastery of the alpha/numeric keyboard and develop speed and accuracy in keying data. Open entry/open exit course with individualized instruction in a supervised laboratory.

BSAD B252A Computer Keyboarding, Part 1
1 unit
Prerequisites: BSAD B252a with a grade of 'C' or better.
Description: A continuation course where students learn the basic techniques of the touch system in the mastery of the alpha/numeric keyboard and develop speed and accuracy in keying data. This is a basic course in the Office Technology curriculum and is a life-long learning skill.
Hours: 54 laboratory
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

BSAD B252B Computer Keyboarding, Part 2
1 unit
Prerequisites: BSAD B252b with a grade of 'C' or better.
Description: A finishing course for students completing their training in office assisting. Course focuses on the techniques currently taking place in the office environment and is designed to develop knowledge and skills necessary for success in the workplace. Topics such as job attitudes, communications, human relations, and time and stress management are featured. Also included are telephone techniques, processing mail, travel arrangements, appointment scheduling, arranging meetings, the job application process, and interviewing techniques.
Hours: 54 laboratory
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

BSAD B252C Computer Keyboarding, Part 3
1 unit
Prerequisites: BSAD B252c with at least a grade of C.
Description: The third part win a series where students learn the basic techniques of the touch system in the mastery of the alpha/numeric keyboard and develop speed and accuracy in keying data. They also develop the basic formatting skills necessary to produce letters, memorandums, reports, and tables. This is a basic course in the Office Technology curriculum and is a life-long skill.
Hours: 54 laboratory
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

BSAD B253A Document Processing, Part 1
1 unit
Prerequisites: BSAD B253a with a grade of C.
Description: Further develops keyboarding speed, accuracy, and production rates on letters, reports, tables, forms, rough drafts, newsletters, and other documents using Microsoft Word applications. Emphasis is on producing usable copy for employment purposes and increasing keyboarding skill levels.
Hours: 54 laboratory
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

BSAD B253B Document Processing, Part 2
1 unit
Prerequisites: BSAD B253b with a grade of C.
Description: The second part in the series where student further develops keyboarding speed, accuracy, and production rates on letters, reports, tables, forms, rough drafts, newsletters, and other
documents using Microsoft Word applications. Emphasis is on producing usable copy for employment purposes and increasing keyboarding skill levels. Open entry/open exit course with individualized instruction in a supervised laboratory.
Hours: 54 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

BSAD B253C Document Processing, Part 3
1 unit
Prerequisites: BSAD B253b with a grade of C.
Description: The third in the series where student further develops keyboarding speed, accuracy, and production rates on letters, reports, tables, forms, rough drafts, newsletters and other documents using Microsoft Word applications. Emphasis is on producing usable copy for employment purposes and increasing keyboarding skill levels. Open entry/open exit course with individualized instruction in a supervised laboratory.
Hours: 54 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

BSAD B264 Ten-Key Proficiency
0.5 unit
Description: Skill and proficiency in the use of the ten-key calculator by touch and the application of such skill and proficiency in the solution of the more frequently encountered business problems. Open entry/open exit course with individualized instruction in a supervised laboratory.
Hours: 27 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

BSAD B280 Machine Transcription
1.5 units
Prerequisites: BSAD B253c with a grade of C’ or equivalent and BSAD B85 or BSAD B285 or equivalent.
Description: Students learn the skill of operating transcribing machines and develop skill in keying documents while listening to dictated material. Practice in transcribing letters, memoranda, and other business correspondence is stressed. Course emphasizes English usage, punctuation, spelling/word usage, and proper document formatting when transcribing data. Open entry/open exit course with individualized instruction in a supervised laboratory.
Formerly: OFFT B280
Hours: 81 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

BSAD B285 Business English
3 units
Description: Basic English grammar course focusing on nouns, pronouns, verbs, adjectives, adverbs, conjunctions, and prepositions. Also includes standard punctuation, capitalization, number usage, and vocabulary development.
Hours: 162 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

BSAD B287 Filing
1.5 units
Description: Training in principles of filing and records management according to the Association of Records Managers and Administrators (ARMA). Study and practice in filing by alphabetic, numeric, geographic, and subject methods. Open entry/open exit course with individualized instruction in a supervised laboratory.
Hours: 81 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

Chemistry Courses

CHEM B1A General Chemistry I
5 units
Prerequisites: Reading - one level prior to transfer. CHEM B2a with a grade of C or better or high school chemistry; MATH BD/MATH B70 with a grade of ‘C’ or better or 2 years of high school algebra.
Recommended: Prerequisites should be completed within 2 years of the course to enable success.
Description: Basic principles of chemistry, including atomic structures, stoichiometry, reaction energy, chemical bonding, periodic relationships of the elements, states and properties of matter, solutions, introduction to acids and bases, a brief introduction to descriptive chemistry of the elements, and other topics as appropriate. The laboratory emphasizes quantitative methods.
Hours: 54 lecture, 108 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

CHEM B1bB General Chemistry and Chemical Analysis
5 units
Prerequisites: CHEM B1a with a grade of ‘C’ or better.
Recommended: Chemistry prerequisite accomplished within two years prior to taking this class.
Description: Continuation of CHEM B1a. Includes kinetics; equilibrium; thermodynamics; equilibrium as it applies to acid-base, solubility, and electrochemistry; nuclear chemistry; coordination chemistry; the descriptive chemistry of selected elements; and an introduction to organic chemistry. The laboratory includes qualitative analysis, quantitative techniques, and descriptive experiments.
Hours: 54 lecture, 108 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

CHEM B2a Introductory General Chemistry
4 units
Prerequisites: MATH BA/MATH B60 with a grade of ‘C’ or better and reading - one level prior to transfer.
Recommended: Math prerequisite accomplished within the two previous years.
Note: Not open to students with credit in CHEM B1A.
Description: Course covers the principles and applications of general college chemistry. It is designed for liberal arts, physical education and some baccalaureate nursing majors. Recommended also for students who need additional background for the more intensive course, CHEM B1a.
Hours: 54 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

CHEM B11 Introduction to General, Organic, and Biochemistry
5 units
Prerequisites: MATH BA/MATH B60 or equivalent with grade of ‘C’ or equivalent. Reading - one level prior to transfer.
Description: An introduction to general, organic, and biochemistry using a qualitative and quantitative approach. Topics include physical principles of chemistry; inorganic compounds and reactions; a
survey of organic chemistry-classification, composition, reactions, nomenclature; biochemistry-classification, composition, reactions in living organisms.

**Hours:** 54 lecture, 108 laboratory  
**CCS:** Liberal Arts/Science  
**Transferable:** CSU and private colleges

### CHEM B18 Elementary Organic Chemistry  
**5 units**

**Prerequisites:** CHEM B1a with a grade of ‘C’ or better; or CHEM B2a with a grade of B or better; or evaluation by instructor of students skills and knowledge.

**Description:** Introduction to and study of the chemistry of organic compounds: the functional groups, representative types of, theory behind, organic reactions, and the biological classes of proteins, fats, carbohydrates, and nucleic acids. Will prepare students well for further study in organic chemistry, and serve those interested in the sciences and related fields, including those requiring a semester of organic chemistry for transfer/entrance. The laboratory covers fundamental techniques including separations, synthesis, identification, and instrumental analysis.

**Hours:** 54 lecture, 108 laboratory  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

### Chicano Studies Courses

#### CHST B30E Art of Latin America  
**3 units**

**Recommended:** Reading - one level prior to transfer.

**Description:** Historical survey of the arts in Latin America. Focuses on the Spanish speaking regions as well as Cuba and the Dominican Republic. Students examine artistic contributions by Latin American artists to colonial and modern art forms. Identical to ART B30e and ART B37.

**Hours:** 54 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

### Child Development Courses

#### CHDV B13C Child Growth and Development: The Infant Toddler Years  
**3 units**

**Recommended:** Reading - one level prior to transfer.

**Description:** Study of theory, research, cognitive and sensory development of the Infant Toddler Years. Class will look at mother-child interactions as well as role of caregivers along with age appropriate curriculum and infant programs.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

#### CHDV B20 Principles and Practices  
**3 units**

**Recommended:** Reading - one level prior to transfer.

**Description:** An examination of the underlying theoretical principles of developmentally appropriate practices applied to programs and environments. Emphasis is on the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and development for all children. Course includes a review of the historical roots of early childhood programs and the evolution of the professional practices promoting advocacy, ethics and professional identity. Formerly CHDV B20, Introduction to Child Growth and Development.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

#### CHDV B21 Child Growth and Development: Birth through Adolescence  
**3 units**

**Recommended:** CHDV B20. Reading - one level prior to transfer.

**Description:** Interdisciplinary study of physical, social, emotional, and cognitive and language development from conception through adolescence for both typical and atypical children. The family and broader cultural environments provide the context for the study. Topics include historical views of children, developmental theories, research methodology, and patterns of growth.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** UC, CSU and private colleges

#### CHDV B22 Observation and Assessment: Birth through Adolescence  
**3 units**

**Prerequisites:** CHDV B21 (with a grade of ‘C’ or better, may be taken concurrently). Reading - one level prior to transfer.

**Description:** Course includes acquisition and application of basic observation skills regarding children’s physical, cognitive, language, social and emotional development from birth to adolescence.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** UC, CSU and private colleges

#### CHDV B32 Teaching in a Diverse Society  
**3 units**

**Recommended:** Reading - one level prior to transfer.

**Description:** The relationship between critical aspects of culture and the social-emotional development of children, adolescents and adults is analyzed from an anti-bias, multi-cultural perspective. Diversity is examined through the different values, beliefs, modes of communicating, behaving and perceiving the world.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

#### CHDV B33 Survey of Special Education  
**3 units**

**Recommended:** Reading - one level prior to transfer.

**Description:** Introduction to special education in the public schools. Emphasizes legal aspects, assessment and placement. Includes examination of all disabilities served in the public schools and day care settings and the role of the child care professionals and paraprofessionals in the field of special education.

**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

#### CHDV B36 Developmentally Appropriate Curriculum  
**3 units**

**Recommended:** Reading - one level prior to transfer.

**Description:** Planning for and implementation of developmentally appropriate curriculum for children ages birth - 8 years. Includes major concepts and theories of child growth and development for children in infant/toddler, preschool, kindergarten and early primary grades. Students will be expected to observe and assess classroom environments using their knowledge of developmentally appropriate
CHDV B40 Creative Art, Movement, and Music Activities for Young Children

3 units
Recommended: Reading - one level prior to transfer.
Description: Materials, methods, and objectives in teaching art, movement, and music activities for children birth to six years old. The growth of creativity through developmentally appropriate activities, and communicating to parents the value of play will be emphasized. Meets Child Development Associated Options, competencies numbers 4-7.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

CHDV B41 Supervised Field Experience in Early Childhood Education

3 units
Recommended: Reading - one level prior to transfer.
Prerequisites: CHDV B20 and CHDV B21 and CHDV B42 and CHDV B36 with grades of 'C' or better.
Description: Basic techniques of working with children including promoting self-esteem; creativity; self-discipline; development of physical and cognitive skills; and planning appropriate curriculum, connections between theory and practice, development of professional behaviors, child centered approaches to teaching, learning, and assessment, implementing and evaluating experiences that promote positive development and learning. The lab portion of this course includes supervised field experience working with children two to five years in age in a Child Development Center applying knowledge gained in lecture. Field trips may be required.
Note: Course combines the previous CHDV B41 and CHDV B41I Formerly: CHDV B41a or CHDV B41b plus CHDV B41al or CHDV B41bl
Hours: 18 lecture, 108 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

CHDV B42 Child, Family, and Community

3 units
Recommended: Reading - one level prior to transfer.
Description: Includes study of the socializing of children in developmental, family, and community contexts, with an emphasis on historical and socio-cultural factors. In addition, identity development will be highlighted, showing the importance of respectful, reciprocal relationships that support and empower families. Field trips may be required.
Hours: 54 lecture
CCS: Occupational Education
Transferable: UC, CSU and private colleges

CHDV B43 Techniques of Parent Education

2 units
Recommended: Reading - one level prior to transfer.
Description: The philosophy, materials, and techniques necessary for a viable parent education program for parents of young children, including conducting group discussions, parent meetings and conferences, developing parents self-esteem and participation. Developing teacher communication skill will be emphasized.
Hours: 36 lecture
CCS: Occupational Education
Transferable: CSU and private colleges, elective credit only

CHDV B45A Administration of Programs for Young Children: Business Procedures

3 units
Recommended: CHDV B41a and CHDV B41b with grades of C.
Description: Administration of programs for young children including private and publicly-funded child care centers and preschool programs. Emphasizes business procedures and public policy.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges, elective credit only

CHDV B45B Administration of Programs for Young Children: Personnel Management Procedures

3 units
Recommended: CHDV B41a and CHDV B41b with grades of C.
Description: Administration of programs for young children including private and publicly-funded child care centers and preschool programs. Emphasizes personnel management and public policy.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges, elective credit only

CHDV B49 Child Health, Safety, and Nutrition

3 units
Recommended: Reading - one level prior to transfer.
Description: Introduction to the laws, regulations, standards, policies and procedures and early childhood curriculum related to child health safety and nutrition. The key components that ensure physical health, mental health and safety for both children and staff will be identified along with the importance of collaboration with families and health professionals. Focus on integrating the concepts into everyday planning and program development for all children. Pediatric CPR and First Aid certification are completed (books and certification costs are at the student's expense) Totally fulfills California licensing mandate of 15 hours of training in preventative health practices.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges, elective credit only

CHDV B50 Creative Use of Literature and Puppetry with Young Children

3 units
Recommended: Reading - one level prior to transfer.
Description: Exposes student to creative use of literature and puppetry to be used with preschool aged children.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: Associate Degree only. Not transferrable

CHDV B52 Care of Infants and Toddlers with Disabilities

3 units
Recommended: Reading - one level prior to transfer.
Description: Interdisciplinary course designed to prepare child care workers and education aides to care for disabled and chronically ill infants and toddlers.
CHDV B53A Early Childhood Education: Adult Supervision
2 units
Recommended: Reading - one level prior to transfer.
Description: A study of the methods and principles of supervising and teaching adults in early childhood classrooms. Emphasis is on the role of experienced classroom teachers who function as a supervisor and/or mentor for staff or new teachers in a child care environment while simultaneously addressing the needs of the children and parents.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

CHDV B67 The School Age Child
3 units
Recommended: Reading - one level prior to transfer.
Description: Social, emotional, physical and cognitive development of the child through the preadolescent years, including planning curriculum and structuring the environment and classroom activities for each stage.
Hours: 54 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

CHDV B69 Science and Math for Young Children
3 units
Recommended: Reading - one level prior to transfer.
Description: Exposes student to concepts of math and science for young children.
Hours: 54 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

CHDV B70Z Continuing Professional Development
0.5-1 unit
Description: Attendance and participation in selected/approved community events concerning children and their families, early childhood education, professional development, and related topics.
Hours: 9 for each .5
Repeat: unlimited
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

Communication Courses

COMM B1 Public Speaking
3 units
Recommended: Writing - one level prior to transfer. Reading - one level prior to transfer.
Description: Instruction in the composition, presentation and evaluation of original speeches and critical assessment of other communication events. Emphasizes topic selection, research, organization, development, delivery, audience analysis and critical analysis of persuasive communication.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

COMM B2 Interpersonal Communication
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Introduction to all aspects of the communication process including intrapersonal, interpersonal, and group communication, as well as speaking in public. Emphasizes an understanding of communication in everyday life in conjunction with a knowledge of how to present ideas, thoughts and feelings. Introduction to various theories of interpersonal communication; participation in experiences designed to enhance competence and develop skills in interpersonal relationships.
C-ID: COMM 130
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

COMM B4 Persuasive Communication
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Principles and practices of persuasion in various communication settings. Prepare and deliver persuasive speeches for specific audiences.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

COMM B5 Rhetoric and Argumentation
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Theoretical and practical aspects of argumentation and public debating to develop students critical thinking abilities. Emphasis is on composition, presentation, and evaluation of speeches in argumentative, debate, and advocacy contexts. Identification of public issues, research and organization of evidence, building sound and effective arguments, and facility with debate formats are the primary learning outcomes of this course. Introduces logical reasoning and builds competence with formal reasoning before applying those to argumentation and debate about public issues.
C-ID: COMM 120
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

COMM B6 Intercultural Communication
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Study of basic theory and skills of intercultural communication. Emphasis is given to communicating effectively in diverse social and professional environments. Focus will also be given to the analysis and comparisons of message perception and transmission in interactions between people from different cultures. Practical application of these skills will also be highlighted.
C-ID: COMM 160
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

COMM B7 Organizational Communication
3 units
Recommended: Writing - one level prior to transfer. Reading - one level prior to transfer.
Description: Study of basic theory and skills of intercultural communication. Emphasis is given to communicating effectively in diverse social and professional environments. Focus will also be given to the analysis and comparisons of message perception and transmission in interactions between people from different cultures. Practical application of these skills will also be highlighted.
C-ID: COMM 160
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges
COMM B8 Small Group Communication
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: This oral communication class examines small group processes such as group formation and development, conflict, problem solving, and group climate. Covers an understanding of diversity, leadership roles, and theory. Students participate in class groups where experiential learning and presentations are part of the class experience. Small group meetings outside of class time are required. Field trips may be required.
C-ID: COMM 140
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

COMM B9 Health Communication
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Course introduces student to the theory and practice of health communication in dyadic, small group, organizational, and mass media contexts. Students examine topics such as provider-client communication, the influence of diversity and culture on health communication, and the role that the mass media plays in disseminating health information. Selected topics and theories of human communication are directly applied to communication situations in health care settings through the use of case studies. Emphasis is on understanding and improving health communication among health professionals, between health professionals and clients, and with the general public.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

COMM B10 Leadership and Communication
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Course presents theories of communication, leadership and followship as they explore the essential role communication plays in leadership at all levels. Course emphasizes the study of communication skills that are central to performing successfully as a leader in a variety of contexts including organizational, familial, team and public settings. Specific attention is given to self-assessment of leadership and communication skills, self-reflection, and creation of a personal leadership communication plan.
Note: Not open to students with credit in COMM B49b or COMM B49, Leadership and Communication.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

COMM B21 Oral Interpretation
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Study of the theoretical and technical aspects involved in the selection, analysis, interpretation and oral performance of various forms of literature, including poetry, prose, and drama (plays, scripts, and screenplays). Includes participation in various types of performance exercises including presentation of prose, poetry, drama and group ensemble.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

COMM B49A Communication Ambassadors
3 units
Prerequisites: COMM B1, or B2, or B4, or B5, or B6, or B7, or B8 all with grades of ‘C’ or higher, or evaluation by instructor of students public speaking, interpersonal, and group skills.
Description: Course allows students to apply a variety of skills learned in other Communication classes. Students will participate in a variety of practical projects including: public speaking, leadership, project management, event planning, administration of programs, database management and research projects. Students will speak to members of the community and high schools. The goal of the class is to strengthen communication skills and to broaden students understanding of the discipline.
Hours: 54 lecture
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

COMM B49C Political Communication: The Presidential Election
3 units
Recommended: Reading - one level prior to transfer
Description: Course designed to help students understand and appreciate the unique communication strategies and events that are only present in the Presidential Election Process. Course examines theories and practices of political communication during presidential elections. Students will focus on methods that candidates, parties, and stakeholders use to communicate political messages. Students will examine the use of both traditional media and emerging technologies in contemporaneous political campaigns. Students will also analyze and criticize candidate speeches and debate performances.
Note: Offered every 4 years in the fall semester to coincide with the Presidential General Election.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

Computer Studies Courses
COMS B2 Introduction to Computer Information Systems
3 units
Recommended: Mathematics - one level prior to transfer
Prerequisites: Reading - one level prior to transfer.
**COMS B3 Computer Concepts and Survival Skills**

3 units

**Description:** An introduction to computers and computer information systems as problem-solving and personal productivity tools. The focus of the course is to provide the survival skills and computer literacy that most computer users need today. The lecture portion of the course includes a brief history of computing, computer ethical and societal implications of computer use. The lab portion of the course will provide hands-on experience with software and techniques that will help students to be productive personally and professionally. Examples include: word processing, spreadsheets, backup, anti-virus, anti-spyware, communications, multimedia, Email, web based research, and operating systems. Not open to students who have taken COMS B2.

**Hours:** 54 lecture

**Repeat:** none

**CCS:** Occupational Education

**Transferable:** CSU and private colleges

**COMS B5 Introduction to Microsoft Office 2010**

3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** Intended for home users and business people who desire a working knowledge of personal computer hardware and software. Special emphasis on software that is most widely used in Kern County as well as the nation. Mainly focuses on business and home applications of personal computers. Hands-on training with word processing, spreadsheets, database management systems, electronic presentations, and the necessary operating system fundamentals to the listed application software.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** CSU and private colleges

**COMS B10 Structured Program Design Using Python**

2 units

**Recommended:** Reading - one level prior to transfer.

**Description:** Fundamentals of writing computer programs. Emphasis is on the development of logic to solve problems. Covers various tools and techniques used to write structured programs using any programming language.

**Hours:** 36 lecture

**Repeat:** none

**CCS:** Occupational Education

**Transferable:** CSU and private colleges

**COMS B14 Introduction to Programming with Java**

3 units

**Prerequisites:** Mathematics - one level prior to transfer. Reading - one level prior to transfer.

**Description:** Fundamentals of structured programming and operating systems in Java. Develops structured programming and problem solving skills and provides experience in using the computer in a variety of applications.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

**COMS B25 Programming with C**

3 units

**Prerequisites:** COMS B14 or COMS B16.

**Recommended:** Successful completion of a high-level programming language course or an assembly language course. Reading - one level prior to transfer.

**Description:** Fundamentals of structured programming and operating computer systems in C. Develops structured programming and problem-solving skills and provides experience in using the computer in a variety of applications.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

**COMS B27 Introduction to Assembly Language**

3 units

**Prerequisites:** At least one course in a high level computer programming language.

**Recommended:** Reading - one level prior to transfer.

**Description:** Fundamentals of assembly language programming. Topics include binary, octal and hexadecimal arithmetic, data storage, bit manipulation, processor architecture and instruction set, system hardware, operating-system supervisory functions, program modularization through effective use of macros and procedures, use of assembler, linker, object-library manager, and debugger utilities, and I/O to/from the screen, keyboard and auxiliary storage. Emphasizes the development of libraries (macro and object) of commonly-used input/output routines. The primary machine for the course will vary; the major topics of the course are common to assembly-language programming on any processor; and in any environment.

**Note:** Effective Spring 2006, lab hours no longer required.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

**COMS B32 Programming with Visual Basic**

3 units

**Recommended:** A high-level computer language.

**Description:** Designed as an intermediate-level programming class. Students are introduced to an object-oriented, data-driven language. Explores the Visual Basic programming language to create real-world applications. Coverage of topics include: OOP concepts; Visual Basic.NET IDE; Graphical user interfaces (GUI); Structured programming constructs; File processing; Debugging; Designing, building, and accessing ADO databases; Classes and objects.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** CSU and private colleges

**COMS B34 SQL and Database Systems Design**

3 units

**Recommended:** At least one programming language or application that uses formatted data files.

**Prerequisite:** Reading - three levels prior to transfer.

**Description:** Course emphasizes best practices for relational database design (modeling) and the use of Structured Query Language (SQL) for database manipulation. Normalization, data diagramming, concurrency and other key database concepts will be discussed.
Microsoft Access, MySQL, Microsoft SQL Server, and other database management systems may be used to demonstrate concepts. Upon successful completion of this course, students will be able to design real world databases and manipulate them using SQL.

**Note:** For elective credit only.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** CSU and private colleges

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**COMS B35 OOP and Data Structures with C++**

*3 units*

**Prerequisites:** COMS B25 with a grade of ‘C’ or better or evaluation by instructor of students knowledge of the C programming language.

**Description:** Object-oriented programming and data structures using C++. Topics include a quick review of the kernel language (ANSI-standard C), abstract data types, encapsulation, function and operator overloading (polymorphism), container classes, and inheritance. Topics also include stacks, queues, and ordered lists implemented as static arrays, dynamic arrays, linked lists, and binary trees.

**Formerly:** COMS B11

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

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**COMS B37 Introduction Geographic Information Systems (GIS)**

*3 units*

**Recommended:** COMS B2, or COMS B5, or evaluation by the instructor of students knowledge of computer information systems and software applications.

**Description:** An introduction to methods of managing and processing spatial data. Covers the basic assumptions, concepts, theories, and structures of geographic information systems. Hands-on experience in data input, management, analysis, and display.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

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**COMS B41 Introduction to Linux**

*3 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** A general introduction to Linux Installation and Administration. Covers the essentials of installing, configuring, maintaining, administering and troubleshooting the Linux Operating System.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** CSU and private colleges

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**COMS B51 Assistive Technologies and the Internet**

*2 units*

**Recommended:** Reading - two levels prior to transfer.

**Description:** Students will actively engage in assessment, identification, and development of effective computing techniques using standard and assistive technology. Identify and develop individual learning preferences and strategies (visual/verbal, etc.), evaluate computer input and output options for increased usability, and improve access through specialized Text-to-Speech software applications. Students will also learn to use basic tools and features in Internet Explorer to conduct searches, identify credible information, locate academic and general information, and use a variety of online resources to complete a research project.

**Hours:** 36 lecture

**Repeat:** 3

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**COMS B54 Introduction to OpenOffice**

*1.5 units*

**Recommended:** COMS B52A or COMS B5.

**Description:** Introduction to a free Open Source OpenOffice software application suite. Covers basic word processing, spreadsheets, presentation, and database applications in OpenOffice.

**Hours:** 27 lecture

**Repeat:** none

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

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**COMS B74A Web Design: Adobe Dreamweaver**

*3 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** An introduction to the design, planning, and creation of Web sites using Adobe Dreamweaver.

**Hours:** 54 lecture

**Repeat:** none

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

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**COMS B74B Web Design: HTML and XML**

*3 units*

**Description:** An introduction to using hypertext mark-up language(s) to create Web sites. Students will learn how to create, debug and modify websites using mark-up language(s).

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

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**COMS B74C Web Programming: JavaScript/CSS**

*3 units*

**Recommended:** COMS B74b.

**Description:** Uses dynamic hypertext mark-up language to create Web sites. Emphasizes scripting for flexibility, interactivity and dynamic content. Student will learn basic programming concepts and techniques, using HTML and popular scripting languages. Includes a brief introduction to the Java programming language.

**Note:** Not open to students who have taken COMS B74D.

**Hours:** 54 lecture

**Repeat:** 3

**CCS:** Occupational Education

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**COMS B74E Intermediate Web Development: Web Authoring Tools**

*3 units*

**Recommended:** COMS B74a or evaluation by instructor of students web authoring skills.

**Description:** Designing and implementing intermediate web authoring components and concepts using Macromedia Dreamweaver. Covers techniques for implementing tables, frames, forms, components and data-driven applications in an intermediate-level-setting. Also covers integration of design with technology components.

**Formerly:** COMS B74d, 74e, and 74F.

**Hours:** 54 lecture

**Repeat:** 3

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

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**COMS B75C Web Programming: PHP**

*3 units*
**COMS B77B Spatial Analysis and Data Modeling in GIS**

1.5 units

**Recommended:** COMS B37, or COMS B77 with grades of 'C' or better; or evaluation by the instructor of students knowledge of computer information systems and software applications.

**Description:** Introduces the theories and technology behind spatial analysis and spatial modeling in geographic information systems (GIS). Takes the student beyond vector data into raster (grid) datasets. Students learn to conduct meaningful analysis with GIS, which can be applied to conservation, municipal planning, business, and the social sciences. Covers the use of the ArcGIS Spatial Analyst, as well as ArcGIS Model Builder.

**Hours:** 27 lecture

**Repeat:** 2

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**COMS B82 CompTIA Network+**

3 units

**Description:** Designed for individuals interested in a career in computer networking. Course prepares students for the vendor-neutral CompTIA Network+ certification exam. Topics covered are: networking fundamentals, the OSI model, network protocols, logical and physical architectures in both local and wide area networks, the physical parts of a network (wiring, NICs, hubs, routers, bridges and switches), popular network operating systems, network troubleshooting and security.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**COMS B87 Introduction to Remote Sensing**

1.5 units

**Recommended:** COMS B37 or COMS B77 grades of 'C' or better, or evaluation by the instructor of students knowledge of computer information systems and software applications.

**Description:** Introduction to fundamentals of remote sensing science and digital image processing. Focus on remote sensing principles. Hands-on experience of the processing and interpretation of remotely sensed data using image processing techniques and software. Course intended to provide information necessary to successfully use remotely sensed imagery in conjunction with other geospatial technologies to answer questions about the world in which we live. Class will cover the use of ERDAS IMAGINE@ suite of software tools.

**Hours:** 27 lecture

**Repeat:** 2

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**COMS B93 Microsoft Active Directory Services (MCSE 70-219 Exam Prep)**

3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** An introduction to Microsoft Active directory Services (MCSE 70-219 Exam Prep). Covers how to plan, configure, and administer active directory services. Hands on experience includes configuring Domain name System (DNS), managing user accounts and permissions, networking resources, and how to implement and troubleshoot security in an active directory environment.

**Hours:** 54 lecture

**Repeat:** none

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**COMS B100 Computer Hardware Diagnostics**

4 units

**Recommended:** COMS B2.

**Description:** Designed to cover the information and materials needed to enable students to successfully pass the A Plus examination. Deals with the hardware and software, installation and troubleshooting. The various diagnostic tools and methods used in the industry will be explored.

**Hours:** 54 lecture, 54 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**COMS B101 Web Systems and Security**

3 units

**Prerequisites:** COMS B74b with a grade of 'C' or better, or evaluation by instructor of students web design experience.

**Description:** This course builds upon the foundational knowledge from the more introductory web development courses to explore some of the more advanced and complex concepts that one should master in order to become a successful web designer.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

### Construction Technology Courses

**CNST B1 Introduction to Construction**

3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** Basic concepts of the construction industry. Overview of careers in construction, related safety and math, print reading, and construction techniques investigated.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** CSU and private colleges

**CNST B2 Estimating and Scheduling**

3 units

**Recommended:** CNST B1 with a grade of 'C' or better; or one year work experience in the construction related industry. Reading - one level prior to transfer.

**Description:** Techniques in managing and organizing a construction project including plan reading, estimating and scheduling are covered. The extraction of the information necessary to calculate quantities and costs is investigated. Use of computer programs to manage a construction project and to calculate the cost and keep track of the scheduling is explored and practiced. Practice and theory are pursued.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** CSU and private colleges

**CNST B50A Residential Construction**

7 units

**Recommended:** Reading - one level prior to transfer.

**Description:** Intended to provide students with an overview of the
construction profession. Various aspects of residential construction from site preparation through framing phases will be studied and performed. Special interest will be on construction safety, the initial phases of construction & investigation of emerging building trends & techniques. Finish carpentry & plumbing phases and techniques will also be introduced.

**Hours:** 54 lecture, 216 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**CNST B50B Residential Construction**  
7 units  
**Recommended:** Reading - one level prior to transfer.  
**Description:** Intended to provide students with an overview of the construction profession. Various aspects of residential construction from post rough framing to final completion will be studied and performed. Special interest will be on construction safety, the finish carpentry & electrical phases of construction & investigation of emerging building trends & techniques. Initial phases and techniques will be reviewed.

**Hours:** 54 lecture, 216 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**Correctional Administration Courses**

**CADM B54 Corrections Officer Core Course**  
7 units  
**Description:** Provides the student with necessary knowledge and skills required to effectively supervise inmates in a correctional setting. Designed to comply with the Corrections Standards Authority in the Standards and Training for Corrections Basic Core Course. Covers professionalism, ethics, laws, custody, and supervision of inmates, demonstrated skills in handling of contraband, restraint techniques, cell extractions, weaponless defense, physical condition- ing, first aid, and CPR.

**Hours:** 90 lecture, 118 laboratory  
**Repeat:** 2  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**CADM B55 Deputy Probation Officer Core Course**  
3.5 units  
**Description:** Introductory probation officer training providing the necessary knowledge and skills required for entry level deputy probation officers. Designed to comply with the State of California, Board of Corrections, Standards and Training for Corrections (STC). Covers professionalism, ethics, introduction to the criminal justice system, laws, confidentially, juvenile detention, case information and problem identification, interviewing, restitution, report writing, casework, counseling, monitoring and supervising offenders, officer safety and defensive tactics, physical skills, responding to probationer performance, CPR.

**Repeat:** 2  
**Hours:** 140 lecture, 36 laboratory  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**CADM B56 Special Topics**  
0.2-3 units  
**Description:** Various mandated training topics required by Standards and Training in Corrections (STC) from the California Board of Corrections.

**Hours:** 8 for each .2.

**Repeat:** unlimited  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**CADM B57 Juvenile Institutions Officer Core Course**  
6 units  
**Description:** Designed to meet the requirements for entry-level staff for employment in a juvenile correctional institute. Written to comply with the State of California, Board of Corrections, Standards and Training for Corrections (STC).  
**Hours:** 116.5 lecture, 51.5 laboratory  
**Repeat:** 2  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**CADM B58 Supervisor Core Course**  
3 units  
**Description:** Provides the STC training curriculum for newly promoted corrections supervisors. Includes supervisory role identification, leadership style, values, ethics, principles, assertive leadership, employee performance appraisals, liability issues and legal updates, discipline, employee counseling, investigations, report review, and team building. Meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Repeat:** Unlimited  
**Hours:** 56 lecture, 24 laboratory  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70A Prisoner Transportation**  
0.2 unit  
**Description:** Intended for peace officers, correctional officers, juvenile institutions staff and probation officers. Covers various modes of prisoner transportation, the risks involved, and how to achieve a secure transportation, including the application and use of mechanical restraints. This course meets the training requirements as set forth by the Corrections Standards and Training for Corrections Program.

**Hours:** 7 lecture, 1 laboratory  
**Repeat:** unlimited  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70B Prison Gangs**  
0.2 unit  
**Description:** Intended for people working in law enforcement and corrections. Topics include identifying known prison gangs, gang member identification/activities, policies on gang validation, gang recruitment measures, interviewing techniques and protective custody measures for gang dropouts. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Note:** Registration will be held during the first hour of the first class meeting.

**Hours:** 8 lecture  
**Repeat:** unlimited  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70C Escape Prevention**  
0.2 unit  
**Description:** Intended for people working in corrections. Covers escape prevention procedures that deal primarily with basic insti-
tutional security principles, accountability of inmates, human error, and techniques used for escape prevention. Meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Programs.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70D Suicide Prevention**

0.2 unit

**Description:** Designed for students who work in corrections. Covers identifying the potential for suicide, prevention techniques, intervention and responses including proper communication techniques during a crisis. Meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70E Handling Aggressive and Assaultive Inmates**

0.2 unit

**Description:** Provides training to corrections staff. Examines the violent criminal, explains the reasons for inmate violence, and offers tools to de-escalate confrontations. Provides demonstrations and an opportunity to practice evasive defense tactics. Meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 4 lecture, 4 laboratory
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70F Sexual Harassment Prevention**

0.2 unit

**Description:** Designed for students who work in law enforcement/corrections. Identifies Sexual harassment from a legal, moral, and social concept. Provides advice and counsel on how to prevent sexual harassment in the workplace. Meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70G Understanding Prejudice**

0.2 unit

**Description:** Intended for people working in law enforcement and corrections. Teaches tolerance of others who are unlike oneself, to make allowances for cultural differences, values and beliefs. Adjusts preconceptions and misconceptions, attitudes and encourages communication styles without implications of discrimination. Meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**CADM B70H Crime Scene Preservation and Investigation**

0.2 unit

**Description:** Intended for correctional officers, juvenile institutions staff and probation officers. Provides the required competencies to identify a crime scene, preserve evidence, mark and collect physical, trace and transient evidence. Meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 6 lecture, 2 laboratory
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70I Anger Management**

0.2 unit

**Description:** Intended for people working in law enforcement and corrections. Designed to provide students with tools to control their own anger as well as provide a process to deal with angry people. Meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70J Informant Development and Management**

0.2 unit

**Description:** Designed for students who work in corrections. Provides the communication tools and legal framework necessary for successful implementation, use and protection of informants in a correctional institution. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70K Anatomy of a Set-Up: How Inmates Manipulate Correctional Staff**

0.2 unit

**Description:** Provides training to corrections staff on theories of crime, criminal thinking and behavior; how inmates will select, test and attempt to manipulate staff. Identifies the signs that contribute to and make employees receptive to a set up and con games. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70L Use of Force and Civil Liabilities**

0.2 unit

**Description:** Designed for students who work in corrections. Students will identify and discuss specific trends in civil liabilities in the field of corrections with a focus on use of force. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.
**CADM B70M Drug Recognition and Under Influence**

*0.2 unit*

**Description:** Provides training to law enforcement, corrections and security officers (also recommended for educators). Prepares students to identify specific illicit drugs and the signs and symptoms of drug use and influence. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70O Fire and Life Safety**

*0.2 unit*

**Description:** Hands-on training for corrections institution staff in fire prevention and suppression. Provides the knowledge and skills necessary for fire and emergency responses. Topics include evacuation management, tactical control measures, use of fire suppression equipment, use of the SCBA, search and rescue techniques. Meets the certification requirements for Standards and Training in Corrections (STC) from the California Board of Corrections.

**Note:** Registration will be held during the first hour of the first class meeting.

**Hours:** 5 lecture, 3 laboratory
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70P Positive Inmate Staff Relations through Communication and Ethics**

*0.2 unit*

**Description:** Provides training to corrections staff. Develops practical communication and ethical skills toward a positive inmate/staff working relationship in a jail/institutional environment. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70Q Emergency Procedures**

*0.2 unit*

**Description:** Designed for corrections staff. Provides an overview of various emergencies arising within a correctional facility, including natural disasters, riots, work strikes, escapes. Policy, planning and response are discussed. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70R Inmate Work Incentive Program**

*0.2 unit*

**Description:** State law mandates that every inmate shall have a reasonable opportunity to participate in a full-time credit qualifying assignment, consistent with institutional security and available resources. Designed for the correctional officer who supervises such inmates. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70S Women in Corrections**

*0.2 unit*

**Description:** Designed for students who work in corrections. Explores the history of women in corrections and the career developments for women that have evolved in the field of corrections. Other topics include: special training needs, problems and restrictions placed on women, developing a mentoring program for female correctional staff. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70T Blood Borne Pathogens, T.B. Awareness, Psychotic Inmates**

*0.2 unit*

**Description:** Primarily designed for students who work in corrections. Learn how to prevent the transmission of blood borne pathogens; identify Tuberculosis awareness factors; recognize and deal with psychotic inmates. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70U Conflict Resolution and Hostage Survival**

*0.2 unit*

**Description:** Designed for students who work in corrections. Covers Conflict Resolution: develop skills to defuse and deescalate confrontational situations. Teaches: tactics and techniques to avoid being taken hostage, and what to do if you are taken hostage in a correctional setting. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 8 lecture
**Repeat:** unlimited
**CCS:** Occupational Education
**Transferable:** Not degree applicable. Not transferrable.

**CADM B70V Facility and Inmate Searches**

*0.2 unit*

**Description:** Provides training for corrections staff. Develops and enhances the knowledge and skills of searching both inmates and facilities. Covers searching techniques, clothed and unclothed body searches, and the current trends of introduction of contraband into a facility. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.
Provides training to law enforcement, corrections and security supervisors (also recommended for educators). Prepares students to identify and determine whether an employee is under the influence of alcohol or drugs. Other topics include how supervisors can solicit help for employees to overcome substance abuse/addiction. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 6 lecture, 2 laboratory  
**Repeat:** unlimited  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

### CADM B70W Restraint Gear Application 0.2 unit

**Description:** Provides explanation and hands-on practice for the proper application and use of restraint gear. Explains how some gear can be slipped, picked, shimmed or broken. Course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 4 lecture, 4 laboratory  
**Repeat:** unlimited  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

### CADM B70X Cell Extraction 0.2 unit

**Description:** Designed for correctional staff. Provides knowledge and skills to perform calculated and emergency cell extractions in a safe manner. Course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Note:** Registration will be held during the first hour of the first class meeting.

**Hours:** 6 lecture, 2 laboratory  
**Repeat:** unlimited  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

### CADM B70Z Inmate Classification/Disciplinary Process 0.2 unit

**Description:** Provides an introduction to the inmate classification process. Describes the basic procedure for assigning an inmate to a particular job based on security level and defines how the disciplinary process is a part of the classification process. Class meets the certification requirements for Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 7 lecture, 1 laboratory  
**Repeat:** unlimited  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

### CADM B71A Basic Principles of Management 0.4 unit

**Description:** An introduction to best practices of two-way communication between administration and line staff to ensure good facility management. Students will develop their leadership and communication skills. The art of discipline and grievances will be explored. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 12 lecture, 4 laboratory  
**Repeat:** unlimited  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

### CADM B71F Drug and Alcohol Awareness for Supervisors 0.2 unit

**Description:** Provides training to law enforcement, corrections and...
CADM B71L Progressive Discipline
0.2 unit
Description: Intended for people working in corrections. Teaches method of Progressive Discipline utilized in a correctional setting to ensure uniform consistency, avoid confusion, follow due process requirements, and create a positive behavior change among inmates. Course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.
Hours: 6 lecture, 2 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B71M Stress in the Corrections Environment
0.2 unit
Description: Intended for people working in corrections. Identifies stress, how it affects both the physical and mental health of individuals. Topics include identifying symptoms of stress, recognizable physical and psychological reactions to stress, and stress reducers/relaxation techniques. Course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.
Hours: 7 lecture, 1 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B71N Positive Thinking in Corrections
0.2 unit
Description: Intended for people working in corrections. Identifies and discusses the premise that a positive attitude in the correctional workplace fosters job satisfaction, builds self-esteem, and reinforces desired performance. Course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.
Hours: 6 lecture, 2 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B71O Assertiveness Training for Corrections
0.2 unit
Description: Trains Correctional Officers to present themselves as confident, effective communicators and therefore enjoy better inmate control and institutional effectiveness. Course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.
Hours: 6 lecture, 2 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B71P Employee Post Trauma
0.2 unit
Description: Intended for people working in corrections. Covers basic assessment tools, methods of coping, as well as tools and skills to facilitate post traumatic recovery. Course meets the Standards and Training for Corrections Program.
Hours: 6 lecture, 2 laboratory
Repeat: unlimited

CADM B71Q Liability Issues and Courtroom Demeanor
0.2 unit
Description: Intended for people working in corrections. An introduction to the legal liabilities and responsibilities of corrections personnel while at work and expectancies when called to testify in a court of law. Other topics include: identification of adverse employees, insufficient training, and negligent supervision among others. Course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.
Hours: 8 lecture
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B71R Prison Rape Elimination Act (PREA)
0.2 unit
Description: Provides the skills necessary to investigate complaints, threats, or signs of sexual assault/rape against inmates. Course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.
Hours: 8 lecture
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B72 Chemical Agents
0.2 unit
Description: Intended for peace officers, correctional officers, juvenile institutions staff and probation officers. Provides the required competencies and certification for the use of chemical agent sprays. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.
Hours: 6 lecture, 2 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B73 Basic Baton Course
0.2 unit
Description: Provides students with the practical, safe, legal and technical aspects of the use of the police baton. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.
Note: Registration will be held during the first hour of the first class meeting.
Hours: 2 lecture, 6 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B74 Weaponless Defense and Control Tactics
0.2 unit
Description: Provides training to law enforcement, corrections and security officers to perform their daily tasks with less danger to themselves and to increase their ability to control suspects and prisoners in a humane and lawful manner. This course meets the training requirements as set forth by the Corrections Standards Authority.
thority for counties participating in the Standards and Training for Corrections Program.

Note: Registration will be held during the first hour of the first class meeting.

Hours: 2 lecture, 6 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B75 Surviving Edged Weapons
0.2 unit
Description: Provides training to law enforcement, corrections staff and security officers. Teaches responses to the mounting threat of knife culture offenses. Topics covered include safe positioning, communicating commands to inmates, how to assess an edged weapon assailant, evasive defensive tactics and disarming techniques. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

Hours: 3 lecture, 5 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B76 Basic Firearms Familiarization
0.2 unit
Description: Designed to give the first-time shooter hands-on experience as well as knowledge of the operation of a handgun and range safety. Students will engage in the use of firearms, which will include handgun familiarization; safety; care, cleaning and storage; firearms range qualification.

Note: Per Penal Code section 13511.5 students must obtain written clearance from the California Department of Justice verifying that they are not prohibited from possessing firearms.

Note: Registration will be held during the first hour of the first class meeting.

Hours: 4 lecture, 4 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B77 Intermediate Firearms Course
0.4 unit
Description: Designed to expand upon the skills and knowledge of firearms familiarity and range safety. Students will engage in the use of firearms, which will include safe handling; care, cleaning and storage; firearms range qualification.

Note: Per Penal Code section 13511.5, students must obtain written clearance from the California Department of Justice verifying that they are not prohibited from possessing firearms.

Hours: 8 lecture, 8 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B78 Less Lethal/Specialty Impact Weapons
0.2 unit
Description: Provides training to law enforcement, corrections and security officers in the proper, safe, legal, technical and practical use of less lethal/specialty impact weapons. A demonstration of such weapons and munitions will be conducted. Course meets the training requirements as set forth by the Corrections and Standards Authority for counties participating in the Standards and Training for Corrections Program.

Hours: 2 lecture, 4 lab, 4 supervised tutoring

Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

CADM B79 Emergency Response Team Training
1.5 units
Description: Provides training for newly appointed officers to a Correctional Emergency Response Team (CERT). Covers the duties of a CERT team member including transport of high risk inmates, extracting uncooperative prisoners from their cells, searches, high profile security, barricaded persons, mass arrest and responding to hostage situations. Course meets the training requirements as set forth by the Corrections Standards Authority for countries participating in the Standards and Training for Corrections Program.

Hours: 24 lecture, 56 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

Criminal Justice Courses

CRIM B1 Introduction Criminal Justice
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.

Description: An overview of the American criminal justice system and its sub-systems; roles and role expectations of criminal justice professionals; theories of crime causation, punishment and rehabilitation; ethics, and multicultural awareness.

Hours: 54 lecture
CCS: Occupational Education
Transferable: UC, CSU and private colleges

CRIM B2 Criminal Law
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.

Description: Historical development, philosophy of law and constitutional provisions, definitions, classification of crimes and their application to the criminal justice system, legal research, review of case law, methodology and concepts of law as a social force. Explores crimes against persons, property, and the state as a social, religious, and historical ideology.

Hours: 54 lecture
CCS: Occupational Education
Transferable: UC, CSU and private colleges

CRIM B3 Introduction to Evidence
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.

Description: Origin, development, philosophy and constitutional basis of the law of evidence; constitutional and procedural considerations affecting arrest, search and seizure, kinds of degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies reviewed from a conceptual level.

Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

CRIM B4 Constitutional Criminal Procedure
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.

Description: Provides an analysis of the rights and remedies under the U.S. Constitution and California Constitution. Emphasis on applications of constitutional principles to the criminal justice system.
CRIM B5 Community Relations
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: The relationship of criminal justice agents and the community; causal and symptomatic aspects of community perceptions; lack of cooperation and trust; study of behavioral causes; strategies to develop and enhance multi-cultural awareness and harmonious relationships.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

CRIM B8 Criminal Investigation
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Fundamentals of criminal investigation; investigator skill requirements; modus operandi determination; the collection, identification and preservation of physical evidence; crime scene investigation; interviews and interrogations; sources of information; surveillance; field note-taking and report writing; courtroom preparation; and the investigation of specific crimes.
Hours: 54 lecture
CCS: Occupational Education
Transferable: UC, CSU and private colleges

CRIM B9 Juvenile Justice System
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Techniques of handling juvenile offenders and victims; prevention and suppression of delinquency; diagnosis and referral; organization of community resources; juvenile law and juvenile court procedures.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

CRIM B10 Organized Crime
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Interrelations of organized crime to the community; impact of covert criminal activities upon the social structure; symptoms of organized crime activity, i.e. narcotics and white collar crime; political influences in the legal system; and management of crime control units.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

CRIM B12 Forensic and Scientific Aspects of Evidence
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: The examination and evaluation of evidence using scientific principles and procedures for use in a legal setting including forensic (autopsy), entomology, anthropology, trace evidence (hair and fiber), fingerprints, serology, ballistics, and DNA. Emphasis on the importance of forensic evidence and science to exonerate the innocent as well as to convict the guilty.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

CRIM B21 Introduction to Correctional Administration
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: A survey of the total correctional cycle and the relationships of its components. Included are: historical, theoretical and philosophical explanations of criminal behavior; statistics and research findings; employment opportunities; employment requirements.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

CRIM B22 Institutional Supervision and Treatment of the Offender
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: A survey of the basic knowledge and skills required of corrections personnel including treatment and supervision of offenders; programs, procedures, legal issues and research in the correctional setting.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

CRIM B23 Fundamentals of Interviewing and Counseling
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: A survey of the basic theories and techniques employed in interviewing and counseling by the correctional worker; traces the development of the meaningful relationship between client and caseworker; explores the various types of counseling employed with a correctional relationship, including group counseling.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

CRIM B24 Probation, Parole, and Community Corrections
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Theory and techniques of probation and parole supervision, including historical development with emphasis on recent
programs, research, and development in the field.

**CRPS B2 Forage Crops**

*3 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** Study of important forage crops of California and the nation; species, varieties, adaptations, production methods, feeding qualities, and processing. Students who have previously successfully completed the course may repeat when needed for State mandated pest control license. Students must obtain a special override from the Office of Admissions and Records in the Administration building. Field trips required.

**Hours:** 54 lecture

**Transferable:** CSU and private colleges

**CRPS B3 Integrated Pest Management**

*3 units*

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer and Mathematics - one level prior to transfer.

**Description:** Fundamental principles of pest control and management in commercial agriculture. Includes pest identification, pest incidence diagnosis, and methods of chemical, physical, and biological control. Students who have previously successfully completed the course may repeat when needed for State mandated pest control license. Students must obtain a special override from the Office of Admissions and Records in the Administration building. Field trips required.

**Hours:** 36 lecture, 54 laboratory

**Transferable:** CSU and private colleges

**CRPS B4 Vegetable Production**

*3 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** Principles and practices of vegetable crop production. Methods used in seeding, propagation and culture of vegetables and the application of the principles underlying vegetable production techniques.

**Hours:** 36 lecture, 54 laboratory

**Transferable:** UC, CSU and private colleges

**CRPS B10 Plant Biology**

*4 units*

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer. Not open to students who have taken BIOL B10.

**Description:** An introductory course covering the fundamental principles of plant science with emphases on structure, function, reproduction, and development of seed plants. The principles will be related to the practices of applied plant biology in crop production, forestry, and horticulture.

**Hours:** 54 lecture, 54 laboratory

**Transferable:** UC, CSU and private colleges
Description: Fundamental jazz dance techniques and fundamentals and terminology of ballet as they relate to jazz dance including warm-up exercises for the preparation of the human body as an instrument for dance. Different styles and rhythms of jazz dance and music for jazz dance will be introduced.

Hours: 36 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

DANC B6MD Modern Dance (PHED B6MD)
1 unit
Description: Modern dance as a lifelong physiological, psychological and social activity. A coeducational course in which the student will learn warm-ups, techniques, experiences with movement improvisation and develop knowledge of the elements of dance composition.

Hours: 36 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

Earth Science Courses

ERSC B10 Introduction to Earth Science
3 units
Prerequisites: Reading - one level prior to transfer.
Description: Introduction to the fundamentals of Earth Science, including the solid Earth, atmosphere, hydrosphere, and Earth's place in the universe. Investigations include interactions between Earth's systems including the rock cycle, plate tectonic cycle, weathering cycle, hydrologic cycle, and global climate. Two Saturday field trips are optional.

Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ERSC B10L Earth Science Laboratory
1 unit
Prerequisites: ERSC B10 (with minimum grade of 'C', may be taken concurrently).
Description: Earth Science laboratory exercises are designed to enhance lecture topics from Earth Science 10. Lab work will include the identification of rocks and minerals, the rock cycle, weather systems and the effect of weather on landforms, ocean systems and the solar system.

Note: This lab course can be taken subsequent to or concurrently with the lecture, ERSC B10.

Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ECON B2 Principles of Economics-Macro
3 units
Recommended: Eligibility for ENGL B50. Reading - one level prior to transfer. MATH BA/MATH B60 (with a grade of 'C' or better), or one year of high school algebra.
Description: Principles of economic analysis and decision making from the viewpoint of the individual consumer, worker, and firm. Emphasis on the price system allocation of resources and income, supply and demand analysis, the structure of American industry, and applications to current economic policy and problems.

Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

Education Courses

EDUC B24 Early Field Experience for Elementary Teachers
3 units
Recommended: Reading - one level prior to transfer.
Description: Introduction to the elementary classroom. Provides an opportunity of observation and participation in an elementary classroom setting to explore teaching as a profession. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College.

Note: In addition to the scheduled hours, students will be required to arrange 54 total lab hours in a school district classroom setting.

Hours: 54 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

Electronics Technology Courses

ELET B1 Basic Electronics (DC and AC)
4 units
Recommended: Reading - one level prior to transfer.
Description: Introduction to electricity and electronics including basic components, electronic circuit calculations, basic electronic test equipment use, electrical measurement, relays and ladder diagrams, alternating current (AC) circuits, and electronic schematic diagrams.

Hours: 54 lecture, 54 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

ELET B5 Programmable Logic Controllers
3 units
Prerequisites: ELET B5 with a grade of 'C' or better.
Recommended: Reading - one level prior to transfer.
Description: The function and application of programmable logic controllers. Students will become familiar with the programming of Allen Bradley SLC-500 series controllers with RSLogix software. Topics covered include bit-level input and output instructions, timers, counters, latches, documentation, and troubleshooting.

Note: Not open to students who have completed MFGT B4, MFGT B5 or MFGT B50.

Hours: 54 lecture, 54 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges
Description: The function and application of programmable logic controllers. Students will become familiar with the programming of Allen Bradley ControlLogix series controllers with RSLogix software. Topics covered include bit-level input and output instructions, timers, counters, latches, documentation, and troubleshooting.

Note: Not open to students who have taken the equivalent course, MFGT B5.

Hours: 36 lecture, 54 laboratory

CCS: Occupational Education
Transferable: CSU and private colleges

ELET B56 Instrumentation and Process Control
3 units
Prerequisites: ELET B1 with a grade of ‘C’ or better.
Recommended: Reading - one level prior to transfer.
Description: Basic principles of process instrumentation and control. Topics include: level, pressure, flow, and level measurement, final control elements, piping and instrument diagrams and tags, PID controller programming, and basic control algorithms.

Hours: 36 lecture, 54 laboratory

Transferable: Associate Degree only. Not transferrable.

ELET B58 Advanced Programmable Logic Controllers
3 units
Prerequisites: ELET B5 with a grade of ‘C’ or better.
Description: The function and application of programmable logic controllers. Students will become familiar with the programming of Allen Bradley ControlLogix series controllers with RSLogix 5000 software, providing all of the basics of using the Rockwell Automation ControlLogix platform of PLCs. It will allow students to be involved with either maintenance, or engineering of control systems and machinery with the latest technology from Rockwell Automation. Students will have both theory and lab time, learning how to put a system together, understanding the memory and data structure of the PLC, and writing simple programs. Documenting the written program utilizing the features of the programming software as well as troubleshooting techniques will also be emphasized throughout the course.

Transferable: Associate Degree only. Not transferrable.

Hours: 36 lecture, 54 laboratory

Repeat: 1

CCS: Occupational Education
**EMTC B50 Emergency Medical Technician I Recertification Preparation**

*1 unit*

**Prerequisites:** Must possess current EMT-1 certification or certification that has expired in less than one year.

**Description:** A review of material in EMTC B50 with updates on EMT-1 issues and new material or skill techniques. An approved refresher course that follows state regulations and leads to a recertification completion certificate. Required to continue practice of pre-hospital emergency care.

**Hours:** 24 lecture

**Repeat:** unlimited

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

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**ENGR B17 Introduction to Electrical Circuits**

*3 units*

**Prerequisites:** PHYS B4b with a grade of ‘C’ or better.

**Recommended:** MATH B6d (may be taken concurrently).

**Description:** Principles and techniques of D.C. and A.C. circuit analysis, including Kirchhoff’s laws, mesh and nodal analysis, Thévenin’s and Norton’s theorems, impedance, phasors, frequency response, power calculations, natural and forced responses, analog building blocks, operational amplifiers, and Laplace transforms.

**Hours:** 54 lecture

**Transferable:** UC, CSU and private colleges

**ENGR B17L Electric Circuit Laboratory**

*1 unit*

**Prerequisites:** ENGR B17 with a grade of ‘C’ or better; may be taken concurrently.

**Description:** Experimental verification of the electric circuit laws including Ohms law, Kirchhoff’s laws, network theorems, mesh and nodal analysis, Thévenin and Norton analysis, OP-amp circuits, sinusoidal RC, RL, RLC circuits, phasors, and ideal transformer. Use of electrical instruments and development of laboratory techniques.

**Hours:** 54 laboratory

**Transferable:** UC, CSU and private colleges

**ENGR B19C Computer Programming for Science, Engineering, and Technology**

*3 units*

**Prerequisites:** MATH B6a with a grade of ‘C’ or higher; may be taken concurrently.

**Recommended:** Reading - one level prior to transfer.

**Description:** Methods used in the solution of science and engineering problems on digital computers. Programming of algorithms for solutions of numerical problems using a higher level language. Utilizes the C programming language.

**Hours:** 54 lecture

**Transferable:** UC, CSU and private colleges

**ENGR B19F Computer Programming: Fortran**

*3 units*

**Prerequisites:** MATH B6a (may be taken concurrently).

**Recommended:** Reading - one level prior to transfer.

**Description:** Methods used in the solution of science and engineering problems on digital computers. Programming of algorithms for solutions of numerical problems using a higher level language. ENGR B19f uses the Fortran language.

**Hours:** 54 lecture

**Transferable:** UC, CSU and private colleges

**ENGR B24 Engineering Graphics and Descriptive Geometry**

*2 units*

**Prerequisites:** INDR B10, INDR B11, and MATH B1b with a grade of ‘C’ or higher.

**Description:** Orthographic projection, auxiliary views, sectioning, threads and fasteners, dimensioning, tolerance, and working drawing. Descriptive geometry used to obtain points, lines, planes, intersections, developments and spatial relationships. Instrument and computer aid drafting systems used as aid to visualization and design.

**Hours:** 18 lecture, 54 laboratory

**Transferable:** UC, CSU and private colleges

**ENGR B36 Engineering Mechanics-Statics**

*3 units*

**Prerequisites:** PHYS B4a and MATH B6a with grades of ‘C’ or better.

**Description:** Principles of statics and their application to engineering problems, equilibrium of two-dimensional and three-dimensional systems of particles and rigid bodies. Concentrated and distributed force systems, structures, friction, virtual work and moments of inertia.

**Hours:** 54 lecture

**Transferable:** UC, CSU and private colleges

**ENGR B37 Engineering Mechanics-Dynamics**

*3 units*

**Prerequisites:** ENGR B36 and MATH B6c with grades of ‘C’ or higher.

**Description:** Fundamental principles of motions of particles and
rigid bodies and their application to engineering problems. Velocity, acceleration, relative motion, work, energy, impulse and momentum. Mathematical modeling and analysis of mechanical systems.

**ENGR B40 Surveying I**

*3 units*

**Prerequisites:** High school trigonometry, or TECM B52 with a grade of ‘C’ or better; or concurrent enrollment in MATH B1B.

**Recommended:** Reading - one level prior to transfer.

**Description:** Introduction to the techniques of calculation and survey instrument use in field measurements. Topics include measurement of distances, angles, and directions; differential leveling; traversing and traverse computations; total station instrument use and field procedure; coordinate geometry and area calculations; topographic surveys/mapping.

**Hours:** 36 lecture, 54 laboratory

**ENGR B41 Surveying II: Construction Surveying**

*3 units*

**Prerequisites:** ENGR B40 with grade of ‘C’ or higher.

**Recommended:** Reading - one level prior to transfer.

**Description:** Construction surveying methods and computations. Study of the surveying procedures in construction, including volume computations, horizontal curves, reverse curves, vertical curves, staking, grading, profiles and cross sections. Instrument experience is emphasized with both use and care of electronic and mechanical surveying equipment. Introduction to global positioning systems and photogrammetry.

**Hours:** 36 lecture, 54 laboratory

**ENGR B45 Properties of Materials**

*3 units*

**Prerequisites:** CHEM B2A and PHYS B2A and MATH B1B or CHEM B1A and PHYS B4A and MATH B1A each with a grade of ‘C’ or better.

**Description:** Internal structure of engineering materials. Characteristics of single and multiple phase metals; polymers, ceramics and composite materials. Mechanical, thermal, chemical and electrical behavior of engineering materials. Laboratory investigation of the physical properties of metals, wood, soils, concrete, and polymers.

**Hours:** 36 lecture, 54 laboratory

**ENGR B47 Introduction to Engineering and Design**

*3 units*

**Description:** Introduction to the engineering profession and the engineering design process. Engineering Profession: Survey of engineering disciplines, functions, communications, and ethics. Includes development of a personal educational plan. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College. Engineering Design: Introduction to the design process and some of the computational skills required to solve engineering problems. Students will work in teams to design, manufacture, and test products. Some training in the use of Excel to solve engineering problems.

**Hours:** 36 lecture, 54 laboratory

**ENGR B60 Introduction to Robotics**

*3 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** Introduction to the basic concepts and control application of robotics. The operation of different types of end actuators is covered along with robotic microcontrollers and basic system sensors. Basic programming techniques are covered.

**Hours:** 36 lecture, 54 laboratory

**English Courses**

**ENGL B1 Introductory Composition**

*4 units*

**Prerequisites:** ENGL B60 with a grade of ‘C’ or better or CR or English Level 5.

**Description:** Emphasizes the writing of expository and argumentative essays and the comprehension and analysis of readings. Satisfies the General Education requirement in written English for the AA and AS degrees and prepares transfer students for English B1a.

**Hours:** 72 lecture

**ENGL B1A Expository Composition**

*4 units*

**Prerequisites:** ENGL B50 with a grade of ‘C’ or Reading Level 6 - Transfer and English Level 6 - Transfer.

**Description:** Emphasizes the writing of expository and argumentative essays and the comprehension and analysis of readings. Satisfies the General Education requirement in written English for the AA and AS degrees and prepares transfer students for English B1a.

**Hours:** 72 lecture

**ENGL B1B Introduction to Types of Literature**

*3 units*

**Prerequisites:** Eligibility for ENGL B1a.

**Description:** Introductory course in literature, comprising critical analysis of notable works in prose fiction, drama, and poetry, with emphasis on evaluating the logical relationship between form and content and on formulating criteria for artistic judgment. Continued instruction in the communication skills of writing, listening, and discussing.

**Hours:** 54 lecture

**ENGL B2 Advanced Composition and Critical Thinking**

*5 units*

**Prerequisites:** ENGL B1a with a minimum grade of C.

**Description:** An interdisciplinary team-taught course. Expository writing, reading of expository and literary works; study of the most important ideas in great works in disciplines such as philosophy, natural science, literature, and the social and behavioral sciences; survey of methods of critical thinking and advanced composition.

**Hours:** 90 lecture

**ENGL B3 Argumentative Writing and Critical Thinking**
**Through Literature**

**4 units**

**Description:** This course offers instruction in argumentative, critical, and analytical writing, critical thinking, research strategies, information literacy, and proper documentation through the study of literary works from major genres, while developing students’ close reading skills and promoting an appreciation for the aesthetic qualities of literature.

**Hours:** 72

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**ENGL B5A Survey of English Literature**

**3 units**

**Prerequisites:** Satisfactory completion of ENGL B50 or ENSL B1 or ENSL B50 with a minimum grade of ‘C’ or English Level 6.

**Recommended:** ENGL B1b with a grade of C.

**Description:** A historical survey of English literature, emphasizing critical reading of representative works from Beowulf through the eighteenth century. Recommended for students whose major or minor is English and for students who desire to extend their knowledge of the literary tradition.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**ENGL B5B Survey of English Literature**

**3 units**

**Prerequisites:** Satisfactory completion of ENGL B50 or ENSL B50 with a minimum grade of ‘C’ or English Level 6.

**Recommended:** ENGL B1b.

**Description:** A historical survey of English literature, emphasizing critical reading of representative works from eighteenth century through the twenty-first century. Recommended for students whose major or minor is English and for students who desire to extend their knowledge of the literary tradition.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**ENGL B10 Introduction to Shakespeare**

**3 units**

**Prerequisites:** Satisfactory completion of ENGL B50 with minimum grades of ‘C’ or English Level 6.

**Description:** Course involves the study of the drama and sonnets of William Shakespeare. Historical information regarding Shakespeare and Elizabethan England will be covered in order to increase students appreciation of his accomplishments. Discussions and video presentations will highlight the relevance of Shakespeare’s work today.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**ENGL B20A Survey of World Literature**

**3 units**

**Prerequisites:** Satisfactory completion of ENGL B50 with a minimum grade of ‘C’ or English Level 6.

**Recommended:** ENGL B1b with a grade of C.

**Description:** A study of representative works of world literature in historical and cultural contexts, focusing on their aesthetic significance and the enduring human values which unite the different literary traditions. Covers antiquity to approximately 1650. Recommended for English and Comparative Literature majors and as an elective for majors in the humanities, history or education.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**ENGL B21 African-American Literature**

**3 units**

**Prerequisites:** Satisfactory completion of ENGL B50 with a minimum grade of ‘C’ or English Level 6.

**Description:** Major authors, their works, themes and movements in African-American literature in America from colonial times to the present.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**ENGL B24 Latino/a Literature**

**3 units**

**Prerequisites:** Satisfactory completion of ENGL B50 with a minimum grade of ‘C’ or English Level 6.

**Description:** This course will study works written by Latinos(as) in the United States and Latin American in order to discover the ways in which these works have interacted with specific cultures and contexts, from colonialism to the present.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**ENGL B27 The Bible as Literature**

**3 units**

**Prerequisites:** ENGL B50 with a minimum grade of ‘C’ or reading one level prior to transfer and English Level 6.

**Description:** Interpretation and analysis of Old and New Testament genres: Narrative, poetry, drama, epistles, didactics, wisdom, and prophecy.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**ENGL B28 Classical Mythology**

**3 units**

**Prerequisites:** Eligibility for ENGL B1a.

**Description:** A study of classical myth saga, and local legend, primarily Greek and Roman. Relates classical myths to historical and modern culture.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**ENGL B30A Survey of American Literature**

**3 units**

**Prerequisites:** Satisfactory completion of ENGL B50 with a minimum grade of ‘C’ or English Level 6.

**Recommended:** ENGL B1b with a grade of C.

**Description:** Study of the most notable American authors from the colonial period to the American Civil War with emphasis on the intrinsic value of the literature. Recommended as an elective for majors in the humanities, history or education.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**ENGL B30B Survey of American Literature**

**3 units**

**Prerequisites:** Satisfactory completion of ENGL B50 or ENSL B50 with a minimum grade of ‘C’ or English Level 6.

**Description:** Major authors, their works, themes and movements in American literature in America from colonial times to the present.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges
Prerequisites: Satisfactory completion of ENGL B50 with a minimum grade of 'C' or English Level 6.
Recommended: ENGL B1b with a grade of 'C' or higher.
Description: A study of the most notable American authors from the American Civil War to the present with emphasis on the intrinsic value of the literature. Recommended as an elective for majors in the humanities, history or education.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ENGL B34 Introduction to Library Research
1 unit
Prerequisites: Reading - one level prior to transfer. Writing - 1 Level prior to transfer.
Description: Lecture and hands-on research class which will develop a basic familiarity with libraries and information resources as a foundation for research needs. Students will learn about different types of information resources and different search methods in the library and online. Evaluation and ethical use of resources, both print and electronic, is emphasized.
Hours: 18 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ENGL B41a Introduction to Creative Writing
3 units
Prerequisites: Satisfactory completion of ENGL B50 or ENSL B1 or ENSL B50 with a minimum grade of 'C' or English Level 6.
Description: Creative writing of poetry, short plays and prose forms. Emphasizes creativity and control of language, sound, imagery, and sense in poetry; character, plot, theme, and point of view in fiction and drama. Covers basics of submitting manuscripts to publishers.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ENGL B41B Introduction to Creative Writing
3 units
Prerequisites: Satisfactory completion of ENGL B50 or ENSL B1 or ENSL B50 with a minimum grade of 'C' or English Level 6.
Description: Creative writing of poetry, short plays and prose forms. Emphasizes creativity and control of language, sound, imagery, and sense in poetry; character, plot, theme, and point of view in fiction and drama. Covers basics of submitting manuscripts to publishers.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ENGL B41C Introduction to Creative Writing
3 units
Prerequisites: Satisfactory completion of ENGL B50 or ENSL B1 or ENSL B50 with a minimum grade of 'C' or English Level 6.
Description: Creative writing of poetry, short plays and prose forms. Emphasizes creativity and control of language, sound, imagery, and sense in poetry; character, plot, theme, and point of view in fiction and drama. Covers basics of submitting manuscripts to publishers.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ENGL B41D Introduction to Creative Writing
3 units
Prerequisites: Satisfactory completion of ENGL B50 or ENSL B1 or ENSL B50 with a minimum grade of 'C' or English Level 6.
Description: Creative writing of poetry, short plays and prose forms. Emphasizes creativity and control of language, sound, imagery, and sense in poetry; character, plot, theme, and point of view in fiction and drama. Covers basics of submitting manuscripts to publishers.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ENGL B50 Introduction to College Composition
4 units
Prerequisites: ENGL B60 or ENSL B60 with a grade of 'C' or better or CR or English Level 5.
Description: Emphasizes the writing of expository and argumentative essays and the comprehension and analysis of readings. Prepares transfer students for English B1a.
Hours: 72 lecture
CCS: Pre-collegiate basic skills
Transferable: Not degree applicable. Not transferrable.

ENGL B53 Reading, Reasoning, and Writing
4 units
Prerequisites: ACDV B68/ACDV B65 or ENSL B70 with a minimum grade of 'C' or CR or English Level 4
Description: Emphasizes developing arguments and strengthening critical thinking, organizing, and reading and writing skills relevant to college work through a thematic approach. Prepares students for English B1a.
Hours: 72 lecture
CCS: Pre-collegiate basic skills
Transferable: Not degree applicable. Not transferrable.

ENGL B60 Basic Writing Skills
4 units
Prerequisites: ACDV B68/ACDV B65 or ENSL B70 with a minimum grade of 'C' or CR or English Level 4
Hours: 72 lecture
CCS: Pre-collegiate basic skills
Transferable: Not degree applicable. Not transferrable.

English as a Second Language Courses
ENSL B21 Intermediate Pronunciation and Listening
3 units
Recommended: Placement based on Bakersfield College English as a Second Language Placement Test or ENSL B71ab and ENSL B71cd.
Description: Advanced pronunciation class for foreign students who are basically fluent in English, with emphasis on dialect or accents. This may include bicultural American students and foreign-born students.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

ENSL B22 Advanced Academic Communication
3 units
Recommended: ENSL B21 with a grade of 'C' or better.
Description: Individual prescriptive training in listening pronunciation, pertaining to stress and intonation in spontaneous and formal speech samples.
### ENSL B31 Advanced Reading and Literature

**3 units**

**Prerequisites:** ENSL B51 with a minimum grade of ‘C’ or placement based on the Bakersfield College English as a Second Language Placement Test.

**Description:** Reading course for advanced foreign/bilingual students which refines critical reading skills and vocabulary of college-level material in fiction and non-fiction.

**Hours:** 72 lecture

**CCS:** Not degree applicable. Not transferrable.

**Transferable:** CSU and private colleges

### ENSL B50 Introduction to College Composition

**4 units**

**Prerequisites:** ENSL B60 or ENGL B60 with a minimum grade of ‘C’ or CR, or placement based on the Bakersfield College English as a Second Language Placement Test.

**Description:** Composition course for foreign/bilingual students which provides extensive practice in rhetorical modes of composition and persuasion as well as comprehension and analysis of reading. Stresses both organization and in-depth essay development. Prepares students for ENGL B1a.

**Hours:** 72 lecture

**CCS:** Pre-collegiate basic skills

**Transferable:** Not degree applicable. Not transferrable.

### ENSL B51 High-Intermediate Reading and Vocabulary

**4 units**

**Prerequisites:** ENSL B61 with a minimum grade of ‘C’, or placement based on the Bakersfield College English as a Second Language Placement Test.

**Description:** Recommended for international and multi-lingual students who need to improve reading comprehension and build vocabulary in English. Emphasis is on identifying main ideas, summarizing, making inferences, and developing vocabulary, using more complex academic reading selections than in ENSL B61.

**Hours:** 72 lecture

**CCS:** Pre-collegiate basic skills

**Transferable:** Not degree applicable. Not transferrable.

### ENSL B60 Basic Writing Skills

**4 units**

**Prerequisites:** ENSL B70 (formerly ENSL B3) or ACDV B68/ACDV B65 with a minimum grade of ‘C’, or placement based on the Bakersfield College English as a Second Language Placement Test.

**Description:** Writing course for international/multilingual students at the advanced level of English who require grammar and composition skills necessary to take essay exams, improve personal and professional writing, or prepare for ENSL B50 or ENGL B1a.

**Note:** Not open to students with credit in ENSL B2.

**Hours:** 72 lecture

**CCS:** Pre-collegiate basic skills

**Transferable:** Not degree applicable. Not transferrable.

### ENSL B61 Basic Reading and Vocabulary

**4 units**

**Prerequisites:** Placement based on the Bakersfield College English as a Second Language Placement Test.

**Description:** Recommended for international and multilingual students who need to improve reading comprehension and build their vocabulary in English. Emphasis is on looking for main ideas, summarizing, making inferences, developing vocabulary, and using academic language.

**Note:** Identical to the non-credit course ENSL B61N.

**Hours:** 72 lecture

**CCS:** Pre-collegiate basic skills

**Transferable:** Not degree applicable. Not transferrable.

### ENSL B61N Basic Reading and Vocabulary

**0 unit**

**Prerequisites:** Placement based on the Bakersfield College English as a Second Language Placement Test.

**Description:** Non-credit course identical to ENSL B61. Recommended for foreign and bicultural students who need to improve reading comprehension and build their vocabulary in English. Emphasis is on looking for main ideas, summarizing, making inferences, building vocabulary, and using correct patterns of grammar.

**Note:** Identical to the credit course ENSL B61.

**Hours:** 72 lecture

**Repeat:** unlimited

**Transferable:** Associate Degree only. Not transferrable.

### ENSL B70 Grammar and Composition

**4 units**

**Prerequisites:** ENSL B80 (formerly ENSL B55ab) with a minimum grade of ‘C’ or placement based on the Bakersfield College English as a Second Language Placement Test.

**Description:** Writing course for foreign/bilingual students at the high-intermediate level of English who require grammar and composition skills necessary to take essay exams, improve personal written communication, or prepare for ENSL B60.

**Note:** Not open to students who have taken ENSL B3.

**Hours:** 72 lecture

**CCS:** Pre-collegiate basic skills

**Transferable:** Not degree applicable. Not transferrable.

### ENSL B71A Basic Listening and Speaking I

**2 units**

**Recommended:** Placement based on the Bakersfield College English as a Second Language Placement Test.

**Description:** Guided practice for improvement of pronunciation, intonation patterns and aural comprehension of non-native English speakers.

**Hours:** 36 lecture

**Repeat:** 1

**CCS:** Pre-collegiate basic skills

**Transferable:** Not degree applicable. Not transferrable.

### ENSL B71AN Basic Listening and Speaking I

**0 unit**

**Recommended:** Placement based on the Bakersfield College English as a Foreign Language Placement Test.

**Description:** Non-credit course identical to ENSL B71ab. Guided practice for improvement of pronunciation, rhythm, stress, and intonation patterns and aural comprehension of non-native English speakers. Identical to ENSL B71a, B71b, or ENSL B71ab.

**Hours:** 72 lecture

**Repeat:** unlimited

**Transferable:** Associate Degree only. Not transferrable.

### ENSL B71CD Basic Listening and Speaking II

**4 units**

**Prerequisites:** ENSL B71ab (with minimum grade of C) or place-
ment based on the Bakersfield College English as a Second Language Placement Test.

Description: Improves the pronunciation, intonation, rhythm, and stress patterns of the non-native English speaking person. Aural comprehension in everyday conversational speech and classroom lectures will also be stressed.

Note: Identical to the non-credit course ENSL B17CN.

Hours: 72 lecture

Repeat: 1

CCS: Pre-collegiate basic skills

Transferable: Not degree applicable. Not transferrable.

ENSL B71CN Basic Listening and Speaking II

0 unit

Prerequisites: ENSL B71ab (with a grade of ‘C’ or better) or ENSL B71an, or placement based on the Bakersfield College English as a Second Language Placement Test.

Description: Non-credit course identical to ENSL B71 cd. Improves the pronunciation and intonation, rhythm, and stress patterns of the non-native English speaking person. Aural comprehension in everyday conversational speech and classroom lectures will also be stressed.

Note: Identical to ENSL B71c, B71d, or ENSL B71 cd

Hours: 72 lecture

Repeat: unlimited

Transferable: Associate Degree only. Not transferrable.

ENSL B80 Preparation for Academic Writing

4 units

Recommended: Placement based on the Bakersfield College English as a Second Language Placement Test.

Description: Development of control of grammar and usage for international and multilingual American students to advance to ENSL B70. Focuses on grammar review, extensive sentence and paragraph writing, and vocabulary development.

Note: Not open to students who have taken ENSL B55ab. Identical to the non-credit course ENSL B80N.

Hours: 72 lecture

Repeat: 1

CCS: Pre-collegiate basic skills

Transferable: Not degree applicable. Not transferrable.

ENSL B80N Preparation for Academic Writing

0 unit

Recommended: Placement based on the Bakersfield College English as a Second Language Placement Test.

Description: Development and control of grammar and usage for international and multilingual American students to advance to ENSL B70. Focuses on grammar review, extensive sentence and paragraph writing, and vocabulary development.

Note: Formerly ENSL B55ab. Identical to ENSL B80.

Hours: 72 lecture

Repeat: unlimited

CCS: Pre-collegiate basic skills

Transferable: Associate Degree only. Not transferrable.

Fire Technology Courses

FIRE B1 Fire Protection Organization

3 units

Prerequisites: FIRE B1

Description: This course will cover fire department organization, management, resources, and the use of those resources to control various types of emergencies. The course will also cover the incident command system, tactics, and strategies. This course also provides an introduction to the national incident management system.

Note: elective or degree credit.

Hours: 54 lecture

CCS: Occupational Education

Transferable: CSU and private colleges

FIRE B2 Personal Fire Safety and Emergency Action

3 units

Prerequisites: FIRE B1 with a grade of ‘C’ or better.

Description: This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

Hours: 54 lecture

CCS: Occupational Education

Transferable: CSU and private colleges

FIRE B3 Fire Command, Strategy, Tactics

3 units

Prerequisites: FIRE B1 with a grade of ‘C’ or better.

Description: 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 systems, fire investigation and fire safety education. Provides skills necessary for California Fire Service Training and Education System. Certified Firefighter I and Fire Inspector I.

Hours: 54 lecture

CCS: Occupational Education

Transferable: CSU and private colleges

FIRE B4 Fire Behavior and Combustion

3 units

Prerequisites: FIRE B1 with a grade of ‘C’ or better.

Description: 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. Field trips may be required.

Hours: 54 lecture

CCS: Occupational Education

Transferable: CSU and private colleges

FIRE B5 Fire Prevention Technology

3 units

Prerequisites: FIRE B1 with a grade of ‘C’ or better.

Description: 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 systems, fire investigation and fire safety education. Provides skills necessary for California Fire Service Training and Education System. Certified Firefighter I and Fire Inspector I.

Hours: 54 lecture

CCS: Occupational Education

Transferable: CSU and private colleges

FIRE B6 Fire Protection Equipment and Systems

3 units

Prerequisites: FIRE B1 with a grade of ‘C’ or better.

Description: 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. Field trips required.

Hours: 54 lecture

CCS: Occupational Education

Transferable: CSU and private colleges
FIRE B7 Building Construction for Fire Protection
3 units
Prerequisites: FIRE B1 with a grade of ‘C’ or better.
Description: The study of the components of building construction that relate to fire/life 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/collapse emergencies. The development and evolution of building and fire codes will be studied in relationship to past fires/collapses in residential, commercial, and industrial occupancies.
Note: elective credit only.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

FIRE B25A Wildland Fire Behavior
3 units
Description: Provides the knowledge to understand wildland fire behavior at the supervisory level in the Incident Command System. Conforms to curriculum requirements of the National Wildfire Coordinating Group. Includes, but is not limited to, the material contained in S-290 Intermediate Fire Behavior.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

FIRE B25B Wildland Firefighter Safety and Survival
3 units
Description: Study of factors that lead to unsafe working conditions in wildland firefighting and procedures to limit risk. Emphasis is placed on avoiding situations and conditions which have resulted in the fire shelter deployments, injuries, and fatalities. The Ten Standard Fire Orders and the Eighteen Situations that Shout Watch Out are studied in detail. Course meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

FIRE B25C Wildland Fire Operations
3 units
Description: Presents the command structure and operational process of ground and air operations in the control of wildland fires. Fixed wing aircraft and helicopters are discussed. Includes inter-agency relationships, mobilization, trainee assignments, and the incident assignment kit. Course meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

FIRE B25D Wildland Public Information Officer, Prevention, and Investigation
3 units
Description: Presents the information necessary to understand the roles and functions of the Wildland Fire Information Officer, Wildland Fire Prevention Officer, and Wildland Fire Investigation Officer.
Hours: 54 lecture
CCS: Occupational Education

Transferable: CSU and private colleges

FIRE B25E Wildland Fire Logistics, Finance, and Planning
3 units
Description: Explains the roles, responsibilities, and functions of the planning, logistics, and finance sections that are utilized during the control of wildland fires. Meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

FIRE B25F Wildland Firefighter
4 units
Description: Provides basic principles of wildland fire control. Prepares the student for entry level employment on a wildland hand tool fire crew. Meets the basic requirements for the U.S. Forest Service firefighter qualification system. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty with a municipal fire control agency.
Hours: 74 lecture, 16 laboratory
Repeat: unlimited
CCS: Occupational Education
Transferable: CSU and private colleges

FIRE B25G Wildland Engine Firefighter
3 units
Description: Prepares students to perform the duties of a wildland firefighter assigned to an engine company. Includes hose lays, types of attack with engines, backfiring equipment hand tools, self-contained breathing apparatus, map reading and communications.
Course includes National Wildfire Coordinating Group curriculum. Prepares students for employment with wildland fire management agencies and municipal fire departments.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

FIRE B25H Wildland Fire Dispatcher
3 units
Description: Prepares the student for entry level employment in an all risk emergency dispatch system. Coursework includes D-105 Entry Level Dispatcher, D-110 Dispatch Recorder, and D-310 Dispatch Supporter. Subjects covered include: communications, logs and filing, maps, resource status, dispatching aircraft, processing weather, first response/initial attack dispatching, support for initial attack, expanded dispatch, demobilization, accident/incident reporting, public information, resource order and process, forms and associated processes, and intelligence processing. Utilizes National Wildfire Coordinating Group curriculum. Prepares students for employment with wildland fire management agencies and municipal fire departments.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

FIRE B26A S-200 Initial Attack Incident Commander Type 4 (ICT 4)
1 unit
Description: Prepares the student to function as an initial attack incident commander at the ICT4 level in the incident Command System. Includes preparation, mobilization, size up, leading the initial
attack, and initial attack strategy. Meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments.

**Hours:** 18 lecture

**CSC:** Occupational Education

**Transferable:** CSU and private colleges

**FIRE B26D Interagency Incident Business Management**

**1 unit**

**Description:** Provides knowledge to perform the tasks of the position in the Incident Command System (ICS) for which basic incident business management is required. Provides policy and direction for incident business management. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty with a municipal fire control agency.

**Hours:** 16 lecture

**CSC:** Occupational Education

**Transferable:** CSU and private colleges

**FIRE B26E S-215 Fire Operations Interface**

**1.5 units**

**Description:** Designed to meet the training needs for incident commanders (Type 4), strike team leaders, and company officers confronting wildland fire that threatens life, property, and improvements in the wildland urban interface. Course meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments.

**Hours:** 32 lecture

**CSC:** Occupational Education

**Transferable:** CSU and private colleges

**FIRE B26G S-230 Crew Boss Single Resource**

**1.5 units**

**Description:** This is a classroom course designed to produce student proficiency in the performance of duties associated with the single resource boss position from initial dispatch through demobilization to the home unit. Topics include operational leadership, preparation and mobilization, assignment preparation, risk management, entrapment avoidance, safety and tactics, offline duties, demobilization, and post-incident responsibilities.

**Hours:** 27 lecture

**CSC:** Occupational Education

**Transferable:** CSU and private colleges

**FIRE B26K S-244 Field Observer**

**1 unit**

**Description:** Prepares the student to perform the duties of a Field Observer within the Incident Command System. Meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments.

**Hours:** 20 lecture

**CSC:** Occupational Education

**Transferable:** CSU and private colleges

**FIRE B26M S-245 Display Processor**

**0.5 unit**

**Description:** Prepares the student to perform the duties of the S-245 Display Processor within the Incident Command System. Meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildfire fire management agencies and municipal fire departments.

**Hours:** 8 lecture

**CSC:** Occupational Education

**Transferable:** CSU and private colleges

**FIRE B27A I-200 Basic Incident Command System**

**1 unit**

**Description:** Provides the basic features of the Incident Command System. Topics include orientation, principles and features, organization, incident fatalities, incident resources, and common responsibilities. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty with a municipal fire control agency.

**Hours:** 16 lecture

**CSC:** Occupational Education

**Transferable:** CSU and private colleges

**FIRE B27B 1-300 Incident Command System**

**1.5 units**

**Description:** Provides description and detail of the organization and operation of the ICS. Covers management of resources, duties of all positions including the Air Operations organization, and example of how the essential principles are used in incident and event planning. Meets the curriculum requirements of the National Wildfire Coordinating Group. Applicable to wildland fire management agencies and municipal fire departments.

**Hours:** 27 lecture

**CSC:** Occupational Education

**Transferable:** CSU and private colleges

**FIRE B28B Followership to Leadership**

**1 unit**

**Description:** Provides the student with leadership skills specific to wildland firefighting. Meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments. Includes classroom and field exercises.

**Hours:** 18 lecture

**CSC:** Occupational Education

**Transferable:** CSU and private colleges

**FIRE B29 Wildland Fire Chain Saws**

**2 units**

**Description:** Prepares students to become a wildfire power saw operator within the National Interagency Management System. Covers safety considerations, techniques of saw operation, maintenance, and repair. Wildland fire chain saws (S-212) is identified training in the National Wildfire Coordinating Group Suppression Curriculum. Intended for students to pursue a career with a wildland fire management agency or for a specialty with a municipal fire control agency.

**Hours:** 32 lecture

**Repeat:** unlimited

**CSC:** Occupational Education

**Transferable:** CSU and private colleges

**FIRE B50A Fire Command 2A-Command Tactics at Major Fires**

**2 units**

**Prerequisites:** FIRE B51b or FIRE B51c with grades of ‘C’ or better.

**Description:** Provides the student with leadership skills specific to wildfires. Topics include orientation, principles and features, organization, incident fatalities, incident resources, and common responsibilities. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty with a municipal fire control agency.

**Hours:** 32 lecture

**CSC:** Occupational Education

**Transferable:** CSU and private colleges

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Service Training and Education System (CFSTES) for Chief Officer certification.

**Hours:** 40 lecture

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**FIRE B50B Fire Command 2B-Scene Management at Major Incidents**

2 units

**Prerequisites:** FIRE B50A with a grade of 'C' or better or equivalent.

**Description:** Management techniques for Chief Officers to control major fire disasters. Techniques in developing and writing plans for fire disaster control and in managing local disasters. Accredited by the California Fire Service Training and Education System (CFSTES) for Chief Officer certification.

**Hours:** 40 lecture

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**FIRE B50C Fire Command 2C-High Rise Fire Tactics**

2 units

**Prerequisites:** FIRE B51b with a grade of 'C' or better.

**Description:** Command and control techniques used at the scene of an emergency by fire company officers. Emphasizes decision making, the act of commanding, personnel and organization structures and pre-planning for effective command performance particularly related to high-rise building emergencies. Includes a review of the Incident Command System instituted by the State of California Fire Services.

**Hours:** 27 lecture, 13 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**FIRE B50D Fire Command 2D-Management of Disasters**

2 units

**Prerequisites:** FIRE B50A with a grade of 'C' or better or equivalent.

**Description:** Essential management techniques for Chief Officers needed to control major disasters. Developing and writing plans for disaster control and managing local disasters emphasized. Accredited by the California Fire Service Training and Education System (CFSTES) for Chief Officer certification.

**Hours:** 40 lecture

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**FIRE B50E Fire Command 2E-Wildland Fire Tactics**

2 units

**Prerequisites:** Fire B50a with a grade of 'C' or better.

**Description:** California's wildland fire problem will be examined through wildland fire safety, weather effects, fuels, fire behavior, initial attack methods, using support equipment, including the use of topographic maps, strategy and tactics, and air attack operations. Accredited by the CFSTES Chief Officer certification requirements.

**Hours:** 36 lecture, 4 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**FIRE B50F Fire Management 2A-Organizational Development and Human Relations**

2 units

**Prerequisites:** FIRE B51A with a grade of 'C' or better.

**Description:** Provides sound management principles in preparation for Chief Officer. Includes internal and external influences: personal behavior of fire fighters; managing human relations through group dynamics; and problem solving techniques. Accredited by the California Fire Service Training and Education System (CFSTES) for Chief Officer Certification.

**Hours:** 36 lecture, 4 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**FIRE B50G Fire Management 2B-Fire Service Financial Management**

1 unit

**Description:** Provides insight into the cyclical nature of budgeting and financial management. Chief officers, company officers, staff officers, or other fire service managers will become familiar with essential elements of financial planning, budget preparation, budget justification, and budget controls.

**Hours:** 18 lecture, 22 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**FIRE B50I Fire Management 2D-Master Planning**

2 units

**Prerequisites:** FIRE B50f with a grade of 'C' or better.

**Description:** Essential management techniques for Chief Officers to control major fire disasters. Techniques in developing and writing plans for disaster control and managing local disasters emphasized. Accredited by the California Fire Service Training and Education System (CFSTES) for Chief Officer certification.

**Hours:** 36 lecture, 4 laboratory

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**FIRE B50J Fire Management 2E-Staff Assignments and Line Functions**

2 units

**Prerequisites:** FIRE B50f with a grade of 'C' or better.

**Description:** Relationships with legislative bodies, organizational techniques, goal setting, planning-organizing and controlling, production measurement, evaluation of program effectiveness, citizens of public safety services, public safety employees contractual system, development of department programs and municipal fire insurance programs. Accredited by the CFSTES for Chief Officer certification.

**Hours:** 40 lecture

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**FIRE B51A Fire Management 1A**

2 units

**Description:** Planning, operating and controlling the personnel functions necessary to become a company officer. Emphasizes training counseling, managing the development of a firefighter, participating in departmental grievance procedures, managing discipline, morale, safety standards and diversity in the workplace. Recommended: reading level 1 This course is one in a series of State Fire Marshal classes required for certification as a fire officer. This course is AA/AS degree applicable, but is not transferable to a four year college.

**Hours:** 40 lecture

**CCS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**FIRE B51B Fire Command 1A**

2 units

**Prerequisites:** FIRE B1 with a grade of 'C' or better or equivalent.

**Description:** Fundamental information and experience in command
FIRE B51C Fire Command 1B
2 units
Prerequisites: FIRE B51b with a grade of ‘C’ or better.
Description: Information and experience in command and control techniques used at the scene of hazardous material incidents. Emphasizes acts of commanding, the authority or right to command, the personnel organization or area under commander and the performance requirements for Fire Service Officers.
Hours: 40 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FIRE B51D Fire Prevention 1A
2 units
Description: Basic skills and knowledge necessary for Fire Prevention Officer Level I. Legal responsibilities and authority, Occupancy Classification and building construction, egress requirements, fire resistive assemblies, general fire safety provisions, and general principles procedures of fire inspections.
Hours: 40 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FIRE B51D Fire Prevention 1B
2 units
Recommended: FIRE B51d
Description: Basic fire prevention information for company officers so they may respond to a variety of fire prevention situations in a professional and effective manner. Meets NFPA 1031 Fire Inspection Professional Qualifications and California State Board of Fire Services Standards for Fire Prevention Officer 1B.
Hours: 40 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FIRE B51E Fire Prevention 1B
2 units
Prerequisites: FIRE B51b with a grade of ‘C’ or better.
Description: Information and experience in command and control techniques used at the scene of hazardous material incidents. Emphasizes acts of commanding, the authority or right to command, the personnel organization or area under commander and the performance requirements for Fire Service Officers.
Hours: 40 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FIRE B51F Fire Investigation 1A
2 units
Prerequisites: FIRE B62 with a grade of ‘C’ or better or equivalent.
Description: Arson investigators will successfully carry out their responsibilities in arson detection and explosives investigation. Emphasizes essential elements of fire and explosives behaviors, types and use of laboratory services, and investigative responsibilities of an investigator at location of arson and explosives incidents. Meets POST certification requirements.
Hours: 40 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FIRE B51G Fire Instructor 1A
2 units
Prerequisites: FIRE B50 with a grade of ‘C’ or better
Description: In-service training programs emphasizing occupational analysis, course outlines, concepts of learning, levels of instruction, behavioral objectives, lesson plans, the psychology of learning, evaluation of effectiveness and student teaching demonstrations are included.

FIRE B51H Fire Instructor 1B
2 units
Prerequisites: FIRE B51g with a grade of ‘C’ or better.
Description: Continuation of FIRE B51g. Emphasizes instructors roles and responsibilities, course outline development, lesson plan review, instructional aid development, fundamentals of testing and measurements, and student teaching demonstrations.
Hours: 36 lecture, 4 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FIRE B51I Fire Prevention 1C
2 units
Prerequisites: FIRE B51d with grades of ‘C’ or better.
Description: Special hazards associated with flammable and combustible liquids and gases. Topics include bulk storage and handling, transportation of flammable gases and liquids. Meets NFPA 1031 Fire Inspection Professional Qualifications and California State Board of Fire Services Standards for Fire Prevention Officer 1.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FIRE B51J Fire Investigation 1B
2 units
Prerequisites: FIRE B51f with a grade of ‘C’ or better.
Description: Continuation of FIRE B51f adds topics of discussion including the juvenile fire setter, report writing, evidence collection and preservation procedures. Course meets POST certification requirements.
Hours: 40 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FIRE B51K Fire Apparatus Driver Operator 1A
2 units
Prerequisite: California Class B drivers license, fire fighter restricted.
Description: This course provides the student with information on driver responsibilities, recognized standards, and related laws for fire apparatus reflecting current California Vehicle Code requirements and the 2009 NFPA 1002 Standards for Fire Apparatus Driver/Operator Professional Qualification. Topics include basic inspections, documentation, maintenance, and troubleshooting fire apparatus, and techniques on driving and positioning fire apparatus. Each student also has the opportunity to increase his or her driving skills during simulated driving conditions.
Hours: Non-standard 40
CCS: Occupational Education
Transferable: Associate Degree only

FIRE B59 Fire Service Hydraulics
2 units
Recommended: MATH B50 with a grade of ‘C’ or better, or equivalent.
Description: Assist fire fighters, pump operators and engineers in meeting the requirements for Fire Apparatus Driver/Operator certification. Content covers characteristics of water, friction loss, engine pressure, multiple lines, unequal layouts, pump and pumpers and...
field equations.

**Hours:** 36 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

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**FIRE B60 Driver/Operator Certification**  
3 units  
**Recommended:** FIRE B62 with a grade of ‘C’ or better.  
**Description:** Knowledge and skills in pump operations for fire engineers. Includes procedures on pumps, pumping principles, practical hydraulics, safe apparatus operation en route and at scenes of emergencies, principles of reading and interpreting gauges, hydrant operations and drafting procedures.  
**Hours:** 64 lecture, 64 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

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**FIRE B61 Fire Fighter Trainee Academy**  
3 units  
**Recommended:** Reading Level 4  
**Description:** Basic educational and practical training essential for firefighter trainees. Emphasizes organizational procedures, forcible-entry tools, protective breathing apparatus, emergency medical care, inspection procedures, fire protection equipment and systems; wildland fire control; fire behavior; and petroleum fire procedures.  
**Hours:** 54 lecture, 66 laboratory  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

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**FIRE B62 Fire Fighter I Academy**  
11 units  
**Recommended:** FIRE B1, B2, B3, B4, B5, B6 with grades of ‘C’ or better, or equivalent.  
**Description:** Basic educational and practical training essential for Fire Fighter I. Advanced study of organizational procedures; forcible entry tools; protective breathing apparatus; emergency medical care; inspection procedures; fire protection equipment and systems; wildland fire control; fire behavior; and petroleum fire procedures.  
**Hours:** 144 lecture, 178 laboratory  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

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**FIRE B63 Fire Fighter II Academy**  
6 units  
**Recommended:** FIRE B62 with a grade of ‘C’ or better, or equivalent.  
**Description:** Advanced academic and manipulative training essential for the achievement of job tasks specified for Fire Fighter II. Covers inspection and maintenance of equipment, fire protection surveys, fire prevention inspections, reports and plans and fire alarm features. Meets requirements for the California State Board of Fire Services, Fire Fighter II certification.  
**Hours:** 235 lecture/laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

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**FIRE B65 Fire Service Staff Development Training**  
3 units  
**Description:** Staff development training that provides students with contemporary firefighting techniques. Topics include the latest concepts involving: organizational development; fire services appliances; fire chemistry; automatic fire extinguisher and agents; fire prevention and enforcement; arson investigation; public safety; hazardous materials control and enforcement; mutual aid/joint powers agreement; communications; personal health issues; and emergency rescue techniques.  
**Hours:** 26 lecture, 52 laboratory  
**Repeat:** 3  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

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**FIRE B66 Fire Fighting and Emergency Medical Skills Training**  
8 units  
**Description:** Programs, workshops, seminars, and hose ladders, tools, salvage, chemistry, extinguisher and agents, fire control, prevention, arson, crowd and traffic control, manual aid, communications, fire and health safety, and emergency rescue techniques. Updates the skills of EMT 1 - non-ambulance certificate holders as prescribed by law.  
**Hours:** 52 lecture, 130 laboratory  
**Repeat:** unlimited  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

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**FIRE B67 Emergency Telecommunicator**  
3 units  
**Description:** Designed to provide students with a clearer understanding of being a professional Telecommunicator and help transfer that knowledge into positive actions that will assist callers and help bring each call to its best conclusion. Emphasizes decision-making, the act of dispatching, interacting with various types of public service agencies, personnel, and different organizational structures.  
**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

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**FIRE B68 Emergency Medical Dispatch**  
3 units  
**Description:** Designed to provide the dispatcher with information, training and experience in providing pre-arrival instructions over the telephone in medical emergency situations. Emphasizes decision-making in a non-visual environment, the act of working in concert with a reporting party to help mitigate a medical emergency until trained medical personnel arrive on scene. Instructs the student in the authority, personnel, organizational structure and their role in the emergency medical environment.  
**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

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**FIRE B70A Hazardous Materials for First Responders**  
0.5 unit  
**Recommended:** FIRE B1 with a grade of ‘C’ or better, or equivalent.  
**Description:** Mandated by law or called upon by necessity to assess, plan for, and initiate mitigation of incidents involving hazardous materials. Content covers the extent and nature of today’s hazardous materials problem, effects of weather, topography, and environmental conditions on the behavior of hazardous materials and the containment efforts these conditions require.  
**Hours:** 18 lecture, 18 laboratory  
**Repeat:**  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

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**FIRE B70B First Responder Operational-Decontamination**  
0.5 unit
Description: Provide members of a decontamination team at a hazardous materials incident with a primary understanding of the processes used in decontamination and knowledge to perform in a safe and competent manner to limit the spread of contamination.

Hours: 9 lecture
 CCS: Occupational Education
 Transferable: Not degree applicable. Not transferrable.

**FIRE B70C Hazardous Materials Incident Commander/Scene Manager**
1 unit
Description: Provide students with competencies needed to assume the role of an Incident Commander, as well as leadership skills for any other Command of Staff Incident Command System positions which are necessary during a hazardous materials incident. Content will also accentuate personnel safety and Occupational Education

Hours: 36 lecture
 CCS: Occupational Education
 Transferable: Not degree applicable. Not transferrable.

**FIRE B70D Hazardous Materials Tech/Spec 1A: Basic Chemistry**
1 unit
Description: Technical training in the physical and chemical terminology important to hazardous materials technicians/specialists and prevention officers, ability to determine properties of a chemical compound by name or formula. Includes study of important terms which describe properties, reactions with other materials, and the effects upon human beings, environment, and property. Applies to Hazardous Materials Technician/Specialist certification.

Hours: 18 lecture, 22 laboratory
 CCS: Occupational Education
 Transferable: Not degree applicable. Not transferrable.

**FIRE B70E Hazardous Materials Tech/Spec 1B: Applied Chemistry**
1 unit
Description: A review of the basic terminology and theory of chemistry as it relates to hazardous materials incident management. Content includes: hazard and risk management; behavior and effect of toxicant and the major biological systems affected by toxicant; as well as using monitoring equipment to detect hazardous atmospheres and unknown solids and liquids. Applies to Hazardous Materials Technician/Specialist I certification.

Hours: 18 lecture, 22 laboratory
 CCS: Occupational Education
 Transferable: Not degree applicable. Not transferrable.

**FIRE B70F Hazardous Materials Tech/Spec 1C: Incident Considerations**
1 unit
Description: Content covers hazardous materials data research; meteorological considerations that influence hazardous materials response activities; hazardous materials incidents command concepts associated with response activities; incident specific considerations that influence hazardous materials response activities; and legislative and regulatory policies that impact hazardous materials response activities. Applies to Hazardous Materials Technician/ Specialist certification.

Hours: 40 lecture
 CCS: Occupational Education
 Transferable: Not degree applicable. Not transferrable.

**FIRE B70G Hazardous Materials Tech/Spec 1D: Tactical Field Operations**
1 unit
Description: Information on confinement, including digging, dams and sorbent; awareness on plugging and patching; application of chemical protective clothing; preservation of evidence; and emergency medical considerations at a hazardous materials incident. Applies to Hazardous Materials Technician/Specialist certification.

Hours: 40 lecture
 CCS: Occupational Education
 Transferable: Not degree applicable. Not transferrable.

**FIRE B70H Hazardous Materials Tech/Spec 1E: Mitigation Techniques**

**FIRE B70I Hazardous Materials Tech/Spec 1F: Advanced Field Operations**
1 unit
Description: Practical application of methods and procedures to mitigate leaking containers; transferring hazardous materials between containers; classifying known and unknown chemicals participating as a member of hazardous materials team in simulated hazardous materials incidents; and exercising safe methods while operating at hazardous materials incidents. Applies to Hazardous Materials Technician/Specialist certification.

Hours: 40 lecture
 CCS: Occupational Education
 Transferable: Not degree applicable. Not transferrable.

**FIRE B71A Seasonal Firefighter Basic Training 1**
2 units
Description: This is the same information/course presented to all first year wildland firefighters. All of the federal fire agencies and many municipal fire departments recognize this course as the foundation to all subsequent fire training. This course will provide students with an understanding of wildland firefighting principals, tactics, organization, and fire line safety.

Hours: 40 lecture
 CCS: Occupational Education
 Transferable: Not degree applicable. Not transferrable.

**FIRE B71B Seasonal Firefighter Basic Training 2**
1 units
Recommended: Evaluation by instructor.
Description: Manipulative and technical training in the identification and operation of fire tools and equipment. Includes fire-line construction practices, physical fitness and water-handling equipment. Satisfies one-half of required training standards.

Hours: 9 lecture, 27 laboratory
 CCS: Occupational Education
 Repeat: 2
 Transferable: Not degree applicable. Not transferrable.
FIRE B71E Wildland Fire Behavior and Control  
0.5 unit  
**Description:** Basic watershed fire behavior. Environmental factors of fire behavior which start and spread watershed fires, and basic fire suppression methods applicable to breaking the fire triangle are emphasized. Meets National Interagency Incident Management System certification.  
**Hours:** 9 lecture  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

FIRE B72A Heavy Duty Rescue 1-2-3  
0.5 unit  
**Recommended:** FIRE B2, FIRE 72H with grades of ‘C’ or better, or equivalent.  
**Description:** Technical knowledge and practical skills necessary to successfully perform heavy duty rescue emergencies. Emphasizes methods and procedures for utilizing heavy duty rescue equipment, maintaining and storing of heavy duty rescue equipment, and recognizing basic types of building construction and their collapse characteristics resulting from various causes. Accredited by the California Fire Service Training and Education System.  
**Hours:** 18 supervised tutoring  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

FIRE B72B Heavy Duty Rescue 1-2-3  
0.5 unit  
**Recommended:** FIRE B2, FIRE 72H with grades of ‘C’ or better, or equivalent.  
**Description:** Technical knowledge and practical skills necessary to successfully perform heavy duty rescue emergencies. Emphasizes methods and procedures for utilizing heavy duty rescue equipment, maintaining and storing of heavy duty rescue equipment, and recognizing basic types of building construction and their collapse characteristics resulting from various causes. Accredited by the California Fire Service Training and Education System.  
**Hours:** 36 lecture/laboratory  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

FIRE B72C Heavy Duty Rescue 1-2-3  
1 unit  
**Recommended:** FIRE B2, FIRE 72H with grades of ‘C’ or better, or equivalent.  
**Description:** Technical knowledge and practical skills necessary to successfully perform heavy duty rescue emergencies. Emphasizes methods and procedures for utilizing heavy duty rescue equipment, maintaining and storing of heavy duty rescue equipment, and recognizing basic types of building construction and their collapse characteristics resulting from various causes. Accredited by the California Fire Service Training and Education System.  
**Hours:** 54 lecture/laboratory  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

FIRE B72D Swift Water Rescue  
1 unit  
**Description:** Basic techniques necessary to perform emergency rescue procedures involving swift water rivers. Emphasizes basic rescue knot practices, handling small rescue boats, emergency care, and controlling special hazard and problems in swift water emergencies.  
**Hours:** 18 lecture, 12 laboratory

FIRE B72E Advanced Swift Water Rescue  
1 unit  
**Recommended:** FIRE B72d with a grade of ‘C’ or better.  
**Description:** Refinement of skills in manipulating and controlling activities at heavy swift water rescue scenes. Includes advanced river crossing techniques, cross river strokes management, swift water search techniques, and team organizational requirements.  
**Hours:** 20 lecture/laboratory  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

FIRE B72F Auto Extrication  
0.5 unit  
**Description:** A systematic approach to vehicle rescue, and the use of mechanical and had tools used in the extrication process.  
**Hours:** 9 lecture, 9 laboratory  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

FIRE B72G Aircraft Fire Protection and Rescue Procedures  
1 unit  
**Recommended:** FIRE B62 with a grade of ‘C’ or better.  
**Description:** Information, methods and techniques necessary for providing crash fire rescue services at airports. Including utilizing conventional fire apparatus and specialized crash fire rescue apparatus, crash fire rescue, extinguishing agents, various types of aircraft and operations at crash scenes.  
**Hours:** 18 lecture, 18 laboratory  
**CCS:** Occupational Education  
**Repeat:** 3  
**Transferable:** Not degree applicable. Not transferrable.

FIRE B72H Emergency Medical Technician I  
5 units  
**Recommended:** FIRE B1 with a grade of ‘C’ or better.  
**Description:** Designed to certify students as California State Emergency Medical Technicians and gain employment as a Firefighter or ambulance driver or ambulance attendant or law enforcement officer. After successful completion of this course, students will be authorized to take the Kern County EMS, California State Fire Marshal and/or the National Registry EMT examinations. Topics discussed include pre-hospital care terminology, cardiovascular emergencies, pre-hospital childbirth, communicable disease, extrication tools and equipment, automatic external defibrillation and an understanding of the emergency medical system. Course content is based on the guidelines and authority of Title 22, Division 9 of the California Code of Regulations, as well as the U.S. Department of Transportation Emergency Medical Technician-Based Standard National Curriculum, National Registry EMT Examinations. Students must be 18 years of age and have a current CPR card (Title 22, Division 9 of the California Code of Regulations). Students are responsible for paying any certification fees.  
**Hours:** 68 lecture, 70 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

FIRE B72I Emergency Medical Technician I Refresher  
1 unit  
**Recommended:** Possession of a valid EMT 1 which is current in Kern County.
**FIRE B74 Petroleum Fire Procedures**  
*0.5 unit*  
**Recommended:** FIRE B50A with a grade of 'C' or better, or equivalent.  
**Description:** Practical experiences in various firefighting procedures involving flammable liquid fire emergencies, at/or near petroleum installations. Includes utilization of safety practices and extinguishment of various types of petroleum product fires. Certified by the California State Fire Service Training and Educational Program.  
**Hours:** 3 lecture, 6 laboratory  
**Repeat:** 1  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**FIRE B75 Fire Fighting Techniques**  
*0.5 unit*  
**Recommended:** FIRE B62 with a grade of 'C' or better.  
**Description:** Advanced techniques of fire control involving the utilization of personnel, equipment, and extinguishing agents in emergency situations.  
**Hours:** 9 to 27  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**FIRE B77 Advanced Structure Fire Training**  
*0.5 unit*  
**Recommended:** FIRE B62 with a grade of 'C' or better.  
**Description:** Latest techniques in structure fire control. Specialized firefighting techniques used to control residential, commercial and high-rise building fires.  
**Hours:** 9 to 36  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**FIRE B78 Advanced Officer Training**  
*0.5 unit*  
**Recommended:** FIRE B62 with a grade of 'C' or better.  
**Description:** Contemporary techniques of supervision, concentrating on supervision techniques identified by local fire service agencies.  
**Hours:** 9 to 36  
**Repeat:** 1  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**FIRE B79 Instructor Orientation**  
*0.5 unit*  
**Recommended:** FIRE B51G, FIRE B51H with grades of 'C' or better.  
**Description:** Assists fire technology instructors with information needed to properly administer classroom activities. State certification system, administrative procedures, curriculum development and organization, publication format and style, and teaching strategies for accredited regional courses are emphasized.  
**Hours:** 9 to 24  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**FIRE B81 Orientation to Fire Technology**  
*0.5 unit*  
**Recommended:** FIRE B51G, FIRE B51H with grades of 'C' or better.  
**Description:** Assists fire technology instructors with information needed to properly administer classroom activities. Includes information on the certification system, administrative procedures, curriculum development and organization, publication format and style, and teaching strategies for accredited regional courses.  
**Hours:** 9 to 24  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83A Wildfire Origin and Cause Determination**  
*0.5 unit*  
**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.  
**Hours:** 27 lecture  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83B Fire Operations in the Urban Interface**  
*0.5 unit*  
**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.  
**Hours:** 27 lecture  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83C Interagency Helicopter Training Guide**  
*0.5 unit*  
**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.  
**Hours:** 40 lecture  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83D Field Observer/Display Processor**  
*0.5 unit*  
**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.  
**Hours:** 32 lecture  
**CCS:** Occupational Education  
**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83F Firing Methods and Procedures**  
*0.5 unit*  
**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.  
**Hours:** 24 lecture
FIRE B83G Base/Camp Manager
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.
Hours: 32 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B83H Helibase Manager
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.
Hours: 24 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B83I Basic Air Operations
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.
Hours: 12 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B83J Intermediate Wildland Fire Behavior
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.
Hours: 32 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B83K Incident Commander, Multiple Resources
Extended Attack
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System.
Hours: 9 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B83L Fire Suppression Tactics
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.
Hours: 32 lecture

FIRE B83M Strike Team Leader/Crew
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.
Hours: 12 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B83N Strike Team Leader/Engine
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.
Hours: 12 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B83O Strike Team Leader/Dozer
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.
Hours: 12 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B83P Division/Group Supervisor
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.
Hours: 10 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B83Q Situation Unit Leader
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.
Hours: 24 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B83R Demobilization Unit Leader
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.
Hours: 32 lecture

agement System.

**FIRE B83S Resources Unit Leader**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.

**Hours:** 24 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83T Facilities Unit Leader**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.

**Hours:** 32 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83U Ground Support Unit Leader**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.

**Hours:** 9 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83V Supply Unit Leader**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.

**Hours:** 24 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83W Food Unit Leader**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.

**Hours:** 24 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83X Communications Unit Leader**

*1.5 units*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.

**Hours:** 36 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83Y Time Unit Leader**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.

**Hours:** 12 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B83Z Procurement Unit Leader**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System.

**Hours:** 12 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84A Helicopter Coordinator**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 12 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84B Air Support Supervisor**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 32 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84C Air Tanker Coordinator**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 12 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84D Air Attack Supervisor**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.
**FIRE B84E Incident Commander**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 32 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84F Safety Officer**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 32 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84G Information Officer**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 32 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84H Command and General Staff**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 32 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84I Operation Section Chief**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 32 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84j Planning Section Chief**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 32 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84k Logistics Section Chief**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 32 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84l Finance Section Chief**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 32 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84m Air Operations Branch Director**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 24 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**FIRE B84n Intermediate Air Operations**

*0.5 unit*

**Description:** Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.

**Hours:** 40 lecture

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.
FIRE B84P Advanced Wildland Fire Behavior Calculations
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.
Hours: 18 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B84Q Introduction to Wildland Fire Suppression for Rural Fire Departments
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.
Hours: 12 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B84R CWN (Call When Needed) Helicopter Module Leader
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.
Hours: 12 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B84T Dozer Boss
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.
Hours: 32 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B84U Strike Team/Task Force Leader
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.
Hours: 9 to 40
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B84V Crew Representative
0.5 unit
Description: Professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.
Hours: 9 to 40
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

FIRE B85 Special Topics
0.5 units
Description: Various mandated training topics required by California State Fire Marshal (CSFM).
Hours: 9 for each .5
Repeat: unlimited
CCS: Occupational Education
Transferable: Degree applicable

Food Service Courses

FDSV B50 Introduction to the Foodservice Industry
2 units
Recommended: Reading - one level prior to transfer.
Description: An introduction to the foodservice industry including history, trends, organization and job opportunities. Entry skills to be taught include communication techniques, terminology, work simplification, application of computational skills, safety procedures, time management, equipment identification and operation, and knife skills and cutting techniques. Provides career and educational planning. Satisfies the 0.5 unit counseling requirement for graduation from Bakersfield College. Field trips required.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FDSV B51 Food and Nutrition Orientation
0.5 unit
Recommended: Reading - one level prior to transfer.
Description: Provides a basic understanding of professional standards used in food service industry as well as orientation to the kitchen equipment, storage practices and the use of a recipe. Covers skills development for organizational skills, time management and goal setting. Preparations for the construction of student projects and portfolios are included in this course.
Hours: 9 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FDSV B52 Foodservice Sanitation and Safety
2 units
Recommended: Reading - one level prior to transfer.
Description: Basic principles of sanitation and safety standards set by regulatory agencies. Causes and prevention of food-borne illnesses. Application of food safety production and service, personal hygiene and facilities maintenance procedures. Food safety regulations and inspection including HACCP system are emphasized. Course meets minimum food safety certification requirements of California legislation effective January 1, 2000. Upon passing the required exam, course certificate of completion is awarded from the Education Foundation of the National Restaurant Association. Field trips may be required.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FDSV B55A Food Service Production Theory I

Associate Degree only. Not transferrable.
FDSV B55B Food Service Production Theory II

2.5 units
Recommended: Reading - one level prior to transfer.
Description: Basic principles and techniques involved in commercial and non-commercial food production. Emphasizes nutritional standards, equipment use and sanitation/safety principles. Cookery principles relating to stocks, sauces, soups, meats, vegetables, salads, potatoes, and starches.

Note: Field trips may be required.
Hours: 45 lecture
Repeat: 2
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FDSV B55C Food Service Production Lab I

2 units
Prerequisites: Completion of FDSV B55a or FDSV B55b with a grade of 'C' or better (may be taken concurrently).
Recommended: Reading - one level prior to transfer.
Description: Practical experiences in the preparation of foods typical to a dinner house / a la carte menu in the campus restaurant.
Work station rotations in kitchen and dining room with emphasis on professional skill development, work ethics and presentation skills for plate service. Uniforms are required. Field trips may be required.
Hours: 108 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FDSV B55D Food Service Production Lab II

2 units
Prerequisites: FDSV B55a or FDSV B55b with a grade of ‘C’ or better (may be taken concurrently).
Recommended: Reading - one level prior to transfer.
Description: Practical experiences in the preparation of buffets and garde manger in the campus restaurant. Work station rotations in the kitchen and dining room with emphasis on professional skill development, work ethics and presentation skills for buffet service. Uniforms are required. Field trips may be required.
Hours: 108 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FDSV B55E Advanced Food Service Practicum

3 units
Prerequisites: FDSV B52, B55a, B55b, B55c and B59 with minimum grades of 'C'.
Recommended: NUTR B10. Reading - one level prior to transfer.
Description: Practicum application of acquired knowledge, skills, work ethics, and technology in developing a broader understanding of production, service and management function in on-campus and off-campus foodservice operations. Uniforms are required. Transportation provided by the student. Practicum sites must be approved by their instructor.

FDSV B55F Fundamentals of Baking

2 units
Recommended: Reading - one level prior to transfer.
Description: Advanced baking experience in the production of cakes, basic creams, icings, dessert sauces, doughnuts, crepes, tarts, puff pastry, éclairs, meringues, petit fours and specialty cookies. Decorative work and display pieces, product presentation and marketing techniques demonstrated.

Hours: 108 laboratory
Repeat: 2
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FDSV B55I Food and Nutrition Internship

1 unit
Prerequisites: FDSV B52, B55a, B55b, B55c, B55d, and B59 with minimum grades of 'C' or better.
Recommended: NUTR B10. Reading - one level prior to transfer.
Description: Advanced practicum application of required knowledge, skills, work ethics and technology in developing a broader understanding of the food service industry. Off campus work internship under supervision of a food service professional. Practicum sites must be approved by the instructor. Course emphasizes integrating theory with practical food service applications. Participation criteria may vary among the participating food service professional organizations. Uniform is required. Transportation provided by the student.
Hours: 108 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FDSV B556 Special Projects

1 unit
Prerequisites: Completion of the first-year curriculum of the foods and nutrition program with a grade of 'B'.
Recommended: Reading - one level prior to transfer. Recommended by faculty member.
Description: Research and project development in special interest areas relating to the food service industry. Topics must extend study beyond the current curriculum and require departmental approval. A minimum of 18 hours for outside-of-class assignments is required.
Hours: 18 supervised tutoring
Repeat: 1
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

FDSV B559 Food Service Production Management

3 units
Prerequisites: FDSV B50, FDSV B52, and FDSV B55a, or FDSV B55b all with grades of 'C' or better, or may be taken concurrently.
Recommended: Reading - one level prior to transfer.
Description: Emphasizes basic knowledge of the first-line hospitality supervisor's roles and responsibilities. Principles of good people management are presented in how they apply to the job. Food purchasing activities for foodservice operations and product information from a management's perspective are discussed in relation to supervisory roles. Basic principles of cost control are discussed along with applications of basic accounting procedures to cost controls and profitability. Field trips may be required.
Hours: 54 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**FDSV B64A Dietetic Service Supervisor Practicum**  
2 units  
Prerequisites: NUTR B10 and NUTR B50 with grades of ‘C’ or better.  
Recommended: Reading - one level prior to transfer.  
Description: Role and responsibilities of the Dietetic Service Supervisor in health care and community foodservice operations. Application of standards, principles and techniques of basic nutrition, modified diets, nutrition education, data gathering and patient/staff communications. Course provides 120 hours directed unpaid clinical work experience in an approved health care facility. (50 hours may be in a facility in which the student is employed). Field trips may be required.  
Hours: 120 supervised tutoring  
CCS: Occupational Education  
Transferable: Associate Degree only. Not transferrable.

**FDSV B71 ServSafe Certification**  
0.5 unit  
Recommended: Reading - one level prior to transfer.  
Description: Basic principles and procedures of food safety training including prevention of food-related illnesses and the development and implementation of food safety systems in food facilities. Course is designed for managers and employees to meet/renew the minimum food safety certification requirements of California legislation effective January 1, 2000. Certificate of Sanitation is awarded from the Educational Foundation of the National Restaurant Association upon passing the required exam. Repeats: Unlimited.  
Hours: 9 lecture  
Repeat: unlimited  
CCS: Occupational Education  
Transferable: Not degree applicable. Not transferrable.

**Forestry Courses**

**FORE B1 Introduction to Forestry**  
3 units  
Recommended: Reading - one level prior to transfer.  
Description: The ecological, economic and sociological basis of forest management interrelated with the management of other resources. Topics include a history of forestry in America, the economics of forestry, forestry and national planning and forest uses.  
Hours: 54 lecture  
CCS: Occupational Education  
Transferable: UC, CSU and private colleges

**FORE B2 Natural Resources**  
3 units  
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.  
Description: Survey of our natural resources and the conservation of those uncaptured natural stores which are useful to humankind. Resources covered are water, soil, air, forests, grasslands, wildlife, oceans, minerals and energy. Ecology, waste management and human resources are also covered.  
Hours: 54 lecture  
CCS: Occupational Education  
Transferable: UC, CSU and private colleges

**FORE B3 Wildlife Management**  
3 units  
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.  
Description: The practice of wildlife management. Foundations of wildlife production. The identification, life histories and ecology of selected important wildlife species - mammals including fur bearers, water fowl and fish.  
Hours: 54 lecture  
CCS: Occupational Education  
Transferable: CSU and private colleges

**FORE B4 Wildlife Law Enforcement**  
3 units  
Recommended: Reading - one level prior to transfer.  
Description: A brief history of the development of wildlife law enforcement. State functions and jurisdiction; federal jurisdiction, federal wildlife laws, federal versus state jurisdiction; rights of the private citizen. Types of violations and the role of the law enforcement officer. The function of the officer, including arrests, preparation of evidence, interviewing and court appearances.  
Hours: 54 lecture  
CCS: Occupational Education  
Transferable: CSU and private colleges

**FORE B5 Identification of California Wildlife**  
3 units  
Recommended: Reading - one level prior to transfer.  
Description: A survey of game birds, fish, mammals of California and the Western United States. Characteristics of game animals and protected species. Practices identifying animals in their environment. Emphasizes protecting species which are in danger of extinction.  
Hours: 54 lecture  
CCS: Occupational Education  
Transferable: CSU and private colleges

**FORE B6 Forestry Skills**  
3 units  
Recommended: Reading - one level prior to transfer.  
Description: Survey of the forestry, wildlife and natural resources management industries. Careers, job requirements, terminology, employment opportunities and the identification and/or use of selected tools and equipment. Field trips required. Transfers as an Agriculture elective.  
Hours: 18 lecture, 108 laboratory  
CCS: Occupational Education  
Transferable: CSU and private colleges

**FORE B7 Wildland Fire Management**  
3 units  
Recommended: Reading - one level prior to transfer.  
Description: Covers the physical theories of wildland fire, the methodology of wildland fire suppression, pre-suppression, and post-fire suppression and equipment. The practice of fire ecology and the use of prescribed control burns to maintain and improve our nation's forests and rangelands. Field trips may be required.  
Hours: 54 lecture  
CCS: Occupational Education  
Transferable: CSU and private colleges

**French Courses**

**FREN B1 Elementary French**  
5 units  
Recommended: Reading - one level prior to transfer.  
Description: Introduction to French language and culture by means of a program that combines video, audio and print media into an integrated method of planned immersion. Emphasis is on communication in the language with special attention given to listening comprehension and pronunciation. Requires practice with audiotape
program outside of regular class time.

**Hours:** 90 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

### Geography Courses

#### GEOG B1 Physical Elements of Geography

3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** A study of the basic elements of physical geography and the world as a system. Important elements include the atmosphere, weather and climate, geomorphology, and Earth's structure. The main goal of the course is to provide students with a greater understanding and appreciation for their physical environment, with special attention given to terrestrial relationships.

**Hours:** 72 lecture

**Repeat:** 1

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

#### GEOG B1L Physical Geography Laboratory

1 unit

**Prerequisites:** GEOG B1 (with a grade of 'C' or better), may be taken concurrently.

**Recommended:** Reading - one level prior to transfer.

**Description:** Laboratory portion of Physical Geography is designed to demonstrate how material presented in Geography B1 can be applied in a working environment. Assignments are designed to help students understand and apply the concepts learned in the lecture to real world problems. Exercises include using an atlas, coordinate systems, earth-sun relationships, weather and climate analysis, and topographic map interpretation.

**Hours:** 54 laboratory

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

#### GEOG B2 Human Geography

3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** Human Geography is designed to demonstrate how people interact culturally with their environment. Special emphasis will be placed on concepts such as population, movement, cultures, and civilizations. Economic factors affecting people's lives and religion will also be emphasized.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

#### GEOG B3 Introduction to Weather and Climate

3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** Introduction to weather and climate focuses on changes in weather and climate patterns throughout the world. Special emphasis will be given to atmospheric phenomena such as El Nino, hurricanes, tornadoes, and weather mapping. In addition, atmospheric forces such as the pressure gradient and coriolis force will be discussed in detail.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

### Geology Courses

#### GEOL B10 Introduction to Geology

3 units

**Prerequisites:** Reading - one level prior to transfer.

**Description:** Introduction to the principles of geology with emphasis on the structure and origin of the earth, its present and past landscapes and the processes at work changing its surface. Students requiring laboratory experience should enroll in GEOL B10L concurrently with GEOL B10.

**Note:** At least one Saturday field trip or equivalent required. Not open to students who have taken GEOL B1A.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

#### GEOL B10L Introduction to Geology Laboratory

1 unit

**Prerequisites:** GEOL B10 (may be taken concurrently).

**Description:** Exercises planned to accompany the lectures of GEOL B10. Identification of rocks and minerals, topographic and geologic map exercises demonstrating the work of water, wind, ice and gravity and effects of volcanism and earthquakes. Field trips required.

**Hours:** 54 laboratory

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

#### GEOL B11 Historical Geology

3 units

**Prerequisites:** Reading - one level prior to transfer. At least one Saturday field trip or equivalent required.

**Description:** An introduction to the formation and development through time of the solid Earth, atmosphere and biosphere. Covers past movements and locations of the continents and interpretation of past environments as recorded in rock and fossil records, including the dinosaurs. Students requiring laboratory experience should enroll in GEOL B11L concurrently with GEOL B11.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

#### GEOL B11L Historical Geology Laboratory

1 unit

**Prerequisites:** GEOL B11 may be taken before the lab or it may be taken concurrently.

**Description:** Exercises planned to accompany the lectures of GEOL B11. Identification and description of sedimentary rocks and fossils. Stratigraphic section, relative dating, and geologic map exercises. Introduction to classification using cladistics.

**Hours:** 54 laboratory

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges
**GEOL B12 Geology of California**

3 units

**Prerequisites:** GEOL B1a, or GEOL B10, ERSC B10, with grades of ‘C’ or better. Reading - one level prior to transfer.

**Description:** An elementary course dealing with the geologic history, structure, topography and mineral resources of California and adjoining areas. One Saturday field trip or equivalent may also be required.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

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**GEOL B21 Topics in Geology**

1-3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** Introductory study of the various geological processes that shape the Earth. For each class offering students will focus on one particular area of geology, such as structures and earthquakes, rocks and minerals, geology of Sequoia National Park, geology of Joshua Tree National Park, geology of Death Valley, geology of Yosemite National Park, or other similar subjects. Students will learn about the processes and forces that created these areas and be able to apply their knowledge and understanding to other geological formations around the world.

**Note:** Field trips required.

**Hours:** 18 for each 1

**Repeat:** 3

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

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**GEOL B35A Rocks and Minerals**

1 unit

**Recommended:** Reading - one level prior to transfer. Field trip required.

**Description:** A study of rocks and minerals. Students will learn to identify the major rock-forming minerals and to recognize their relationships as components of the various classes of rocks. From the identification of rocks, recognition of the environmental conditions of deposition will follow. Field work will allow the examination of the field relationships of various rocks and the beginning of a collection of rock and mineral specimens.

**Hours:** 18 lecture

**CCS:** Liberal Arts/Science

**Transferable:** CSU and private colleges

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**GEOL B35B Geology of Kern County**

1 unit

**Recommended:** Reading - one level prior to transfer. Field trip required.

**Description:** A study of the geologic history and landforms of Kern County, and the geologic forces and processes that created them. As part of this course, students will learn about many of the different rocks and minerals of Kern County, tectonic activity and mountain building, volcanic activity, earthquakes and weathering. From materials presented, students will be able to understand the geologic forces that shaped Kern County. A field trip is required that will permit the examination and recognition of different geological environments.

**Hours:** 18 lecture

**CCS:** Liberal Arts/Science

**Transferable:** CSU and private colleges

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**HLED B1 Principles of Health Education**

3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** Health and health-related services. Includes emotional health, nutrition, drugs, marriage and family, physical disease, exercise and environmentally related health concerns.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

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**Health Education Courses**

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**HIST B1 World History from the Origins of Civilization to 1500**

3 units

**Recommended:** ENGL B50/ENSL B50. Reading - one level prior to transfer.

**Description:** Survey of the historical development of different world societies major economic, intellectual, political, religious, cultural and social ideas and institutions from Paleolithic humanity to the Early Modern Era.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

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**HIST B2 History of the World Since 1500**

3 units

**Recommended:** ENGL B50. Reading - one level prior to transfer.

**Description:** Interdisciplinary multimedia approach to the development of our interconnected and interdependent modern world since the 16th Century. Emphasis is on comparative history, world systems, modernization theory, cultural diffusion, and ecologies of core/periphery associations.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

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**HIST B3 Modern Global Societies**

3 units

**Recommended:** Eligibility for ENGL B1. Reading - one level prior to transfer.

**Description:** A comparative global history of the modern world through an examination of the different economic, intellectual, political, religious, cultural and social ideas and institutions of diverse world societies as they adapted to the modern world. This course includes critical thinking and evaluation skills development in analysis and interpretation of historical evidence.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

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**HIST B4A European Civilization**

3 units

**Recommended:** Eligibility for ENGL B50. Reading - one level prior to transfer.

**Description:** Survey of history of European civilization from its origin to 1650. Course will examine the different economic, intellectual, political, religious, cultural and social ideas and institutions of the different ethnic and national groups of Europe as they developed from its origin to 1650. Course includes critical thinking and evaluation skills development in analysis and interpretation of historical evidence.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science
**HIST B4B European Civilization**
3 units

**Recommended:** Reading - one level prior to transfer. Writing - one level below transfer.

**Description:** A survey history of the early and late modern eras in European History and its influence on other westernized nations. Course will examine the different economic, intellectual, political, religious, cultural and social ideas and institutions of the different ethnic and national groups of Europe as they developed from 1600 to the present. Course includes critical thinking and evaluation skills development in analysis and interpretation of historical evidence.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**HIST B15 Civilizations of the Middle East**
3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** An introduction to the history and culture of the Middle East from the rise of Islam in the 7th century to the present. Includes the study of government, family, social classes, religion, politics, and conflict in the region.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**HIST B17A History of the United States**
3 units

**Recommended:** English 50 or reading - one level prior to transfer and writing - one level prior to transfer

**Description:** Survey of the political, economic and cultural history of the United States from earliest colonial times to 1877. Includes a study of the U.S. Constitution and federal government. Partially satisfies the requirements in U.S. Constitution, American history and institutions. HIST B17A is not a prerequisite to HIST B17B.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**HIST B17B History of the United States Since 1870**
3 units

**Recommended:** English 50 or reading - one level prior to transfer and writing - one level prior to transfer

**Description:** Survey of the political, economic and cultural history of the United States from Reconstruction to the present. Includes a study of the U.S. Constitution and federal government. Partially satisfies the requirements in U.S. Constitution and American history and institutions. HIST B17A is not a prerequisite to HIST B17B.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**HIST B18 History of California**
3 units

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** The social, economic, and political development of California from its pre-European past to its post-industrial present. Examines the historical uniqueness of California’s environment, population, institutions, and economy. Emphasis placed on the influence of American political thought and institutions in the historical evolution of California’s state and local governments. Partially satisfies the requirements in U.S. Constitution, American history and institutions.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**HIST B20A African American History of the United States**
3 units

**Recommended:** ENGL B50. Reading - one level prior to transfer.

**Description:** Survey of the political, economic, and cultural history of the United States from earlier colonial times to reconstruction with emphasis on the role and contributions of African Americans. Includes a study of the U.S. Constitution and federal government. Partially satisfies the requirements in U.S. Constitution, American history and institutions. Meets the Multicultural Requirement.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**HIST B20B African American History of the United States**
3 units

**Recommended:** Reading and writing 1 level below transfer.

**Description:** Survey of the political, economic, and cultural history of the United States from reconstruction to the present with emphasis on the role and contributions of African Americans. Includes a study of the state and local government of California. Satisfies the requirements in U.S. Constitution, American history and institutions.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**HIST B25 Introduction to Women in American History**
3 units

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** Survey of the history of women in America from the pre-colonial period to 1900 to the present. Emphasis is on the social, economic, political, and multicultural facets of women’s history in the US and includes both the commonalities and diversities of women’s roles, the use of gender as an analytic category, and the specific significance of women in the evolution of the major contours of US history.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**HIST B30A Early Chicano History**
3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** A survey of the history of the peoples of the Mexican-American borderlands, from Pre-Columbian times until 1848. Examines the social, economic, and political evolution of the region with emphasis upon the inter-relationships between the histories of the United States and Mexico. Partially satisfies the requirements in U.S. Constitution, American history and institutions. Not open to students who have successfully completed CHST B30A.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

**Transferable:** UC, CSU and private colleges

**HIST B30B History of Chicanos in the Southwest (CHST B30B)**
**Human Services Courses**

**HMSV B5 Human Services Internship**  
*2 units*  
**Prerequisites:** HMSV B40 with a grade of 'C' or better. Student must attend a mandatory orientation and obtain the signature of the Human Services Program Coordinator before enrolling in HMSV B5.  
**Recommended:** Writing and Reading - one level prior to transfer.  
**Description:** Study of human services organizations; work internship under supervision in a human services field; emphasizes integrating theory with practical application; participation criteria may vary among the participating human services agencies. Signature of the Human Services Program Coordinator is required to register for this class. Eligible interns may take two units per semester until a total of 4 units (216 hours of field work) has been completed.  
**Repeat:** 1  
**Hours:** 18 lecture, 108 laboratory

**HMSV B40 Introduction to Human Services**  
*3 units*  
**Recommended:** Reading - one level prior to transfer.  
**Description:** Survey of helping institutions and social issues concerning human services, including target populations; survey of human services careers; historical, ethical, and theoretical perspectives of social and public policy; current controversies concerning human services; institutional and community-based services; diversity; models of service delivery; helping process techniques and skills.  
**Hours:** 54 lecture  
**Transferable:** CSU and private colleges

**Industrial Drawing Courses**

**INDR B10 Introduction to Industrial Drawing and Graphics**  
*1 unit*  
**Description:** Introductory course dealing with conventional drafting methods to obtain graphic solutions, design modifications, and delineations for industrial, architectural and engineering drawings. Emphasizes basic drafting skills.  
**Hours:** 9 lecture, 27 laboratory  
**Transferable:** CSU and private colleges

**INDR B11 Introduction to Computer Aided Drafting and Drawing (CAD)**  
*1 unit*  
**Description:** Introductory course utilizing a computer aided drafting and design (CAD) program to obtain graphic solutions, design modifications, and delineations for industrial, architectural, and engineering drawings. Emphasizes building skills necessary to function as a CAD operator in industry. (Transferable to CSU as an elective.)  
**Hours:** 9 lecture, 27 laboratory  
**Transferable:** CSU and private colleges

**INDR B12 Introduction to Drafting and CAD**  
*2 unit*  
**Description:** Introductory course dealing with conventional drafting and CAD skills.  
**Transferable:** CSU and private colleges

**INDR B20A Computer Aided Drafting and Design (CAD)**  
*3 units*  
**Prerequisites:** INDR B10 and INDR B11 with grades of 'C' or better, or equivalent experience to be evaluated by the instructor.  
**Description:** An intensive course utilizing a computer aided design (CAD) program to obtain graphic solutions, design refinements, modifications, and delineations in both 2D and 3D for industrial, architectural, and engineering drawings. Emphasizes technology skills that are necessary to function as an entry-level CAD operator.  
**Hours:** 27 lecture, 81 laboratory  
**Transferable:** CSU and private colleges
**INDR B20B Computer Aided Drafting and Design (CAD)**

3 units  
**Prerequisites:** INDR B20a with a grade of 'C' or better.  
**Description:** Continuation of the sequence utilizing a computer aided drafting (CAD) program to obtain graphic solutions, design refinements, modifications, and delineations in both 2D and 3D for industrial, architectural and engineering drawings. Emphasizes technology skills that are necessary to function as an entry-level CAD operator.  
**Hours:** 27 lecture, 81 laboratory  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

**INDR B40 Parametric Modeling Fundamentals**  
3 units  
**Description:** This class will introduce basic and advanced parametric modeling techniques. Three-dimensional models of mechanical objects will be used to generate two-dimensional drawings (including views, sections, details, dimensions, and assembly drawings). Emphasis on design and digital prototyping will run throughout the course. The course is project-based and will include the use of a 3D printer and the creation of animations to communicate design concepts.  
**Hours:** 27 lecture, 81 laboratory  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges, Associate Degree applicable.

**INDR B42 Introduction to Solidworks**  
2 units  
**Description:** A foundational course in the use of Solidworks mechanical design software. Students will utilize 3D solid modeling techniques to generate and edit parts, assemblies, and detail drawings.  
**Hours:** 27 lecture, 27 laboratory  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges. Associate Degree applicable.

**INDR B50 Process Piping**  
3 units  
**Prerequisites:** INDR B10 and INDR B11.  
**Description:** An intermediate-level CAD course that is structured to impart the foundation knowledge and essential technical skills required to succeed in the field of process pipe drafting. Areas of study include units on industry standards, delineation conventions, and the creation of piping plans, isometric drawings, and process flow diagrams.  
**Hours:** 27 lecture, 81 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**INDR B51 Electrical Design**  
3 units  
**Prerequisites:** INDR B10 and INDR B11 with minimum grade of C.  
**Description:** Introduces the student to the drawing and drafting techniques used in the preparation of electrical construction drawing in industry today. Emphasizes concepts of design to the student utilizing various national, state, and local rules and codes (e.g. 1987 National Electrical Code).  
**Hours:** 27 lecture, 81 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**INDR B52 Civil Drafting and Geographic Information**  
3 units  
**Prerequisites:** INDR B51 Electrical Design and Geographic Information techniques used in the preparation of electrical construction drawing in industry today. Emphasizes concepts of design to the student utilizing various national, state, and local rules and codes (e.g. 1987 National Electrical Code).  
**Description:** Introduces the student to the drawing and drafting techniques used in the preparation of electrical construction drawing in industry today. Emphasizes concepts of design to the student utilizing various national, state, and local rules and codes (e.g. 1987 National Electrical Code).  
**Hours:** 27 lecture, 81 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**Systems**  
3 units  
**Prerequisites:** INDR B20a with a grade of 'C' or better.  
**Description:** Modern Geographic Information Systems. Students will use CAD software to perform model-based infrastructure planning and development. Emphasis on solving problems in either Land Information Systems or Facilities Management Systems. Database Management will also be emphasized.  
**Hours:** 27 lecture, 81 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

### Industrial Technology Courses

**INDT B5 Architectural Woodworking and Design**  
1 unit  
**Prerequisites:** ARCH B6 (may be concurrently enrolled).  
**Description:** Students will complete an architectural woodworking project of their own design, including conceptual drawings of the design. Emphasis is on woodworking lab safety. Covers the incorporation of woodworking joinery.  
**Hours:** 9 lecture, 27 laboratory  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

**INDT B10 Occupational Readiness**  
3 units  
**Description:** Orientation to Bakersfield College and post-secondary education in California. Survey of various fields of industrial technology, career opportunities and requirements, development of a personal education plan. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. Elective credit only.  
**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

**INDT B271 Special Problems in Welding**  
2 units  
**Prerequisites:** WELD B1a or WELD B53a with a grade of 'C', or equivalent experience or evaluation by instructor. Completed Petition for Individual Study form.  
**Recommended:** Reading - one level prior to transfer. Enrollment is contingent on available lab space.  
**Description:** Provides individual students the opportunity to explore various segments of welding, such as various welding processes and codes, fabrication techniques, layout, and testing preparation for certification. Development and implementation of meaningful, self-directed studies in areas where student desires specific technical and related skills development necessary for enrichment or employment.  
**Hours:** 54  
**Repeat:** 2  
**CCS:** Occupational Education  
**Transferable:** Degree applicable

**INDT B272 Special Problems in Electronics**  
2-3 units  
**Prerequisites:** Completion of minimum of 9 units of electronics courses with a grade of 'C', or equivalent experience or evaluation by instructor. Completed Petition for Individual Study form.  
**Recommended:** Reading - one level prior to transfer. Enrollment is contingent on available lab space.  
**Description:** Provides individual students the opportunity to ex-
explore various segments of electronics. Development and implementation of meaningful, self-directed studies in areas where student desires specific technical and related skills development necessary for enrichment or employment.

**Hours:** for each 2

**Repeat:** none

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

### INDT B273 Special Problems in Machine Tool Metal Working

**Prerequisites:** Completion of minimum of 6 units of machine tool courses with a grade of "C" or equivalent experience or evaluation by instructor. Completed petition for Individual Study form.

**Recommended:** Reading - one level prior to transfer. Enrollment is contingent on available lab space.

**Description:** Provides individual students the opportunity to explore various segments of machine tool metal working. Development and implementation of meaningful, self-directed studies in areas where student desires specific technical and related skills development necessary for enrichment or employment.

**Hours:** for each 2

**Repeat:** none

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

### INDT B274 Special Problems in Woodworking

**Recommended:** Concurrent enrollment in a woodworking technology related course or previous woodworking and/or cabinetmaking experience.

**Description:** Intended to provide students the ability to, on an independent study basis, the opportunity to explore various segments of the woodworking and cabinetmaking industry. The primary intent of this course is to develop and implement meaningful, self-directed studies in areas where the student desires specific technical and/or skill development. Repeat 2 or until a limit of 6 units is reached.

**Hours:** 108

**Repeat:** none

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

### INDT B275 Special Problems in Automotive/Motorcycle

**Recommended:** Basic automotive knowledge.

**Description:** Provides the individual students the opportunity to explore various segments of automotive. Development and implementation of meaningful, self-directed studies in areas where the student desires specific technical and related skill development necessary for enrichment or employment.

**Note:** Enrollment is contingent on available lab space.

**Hours:** 108 for each 2

**Repeat:** none

**CCS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

## Japanese Courses

### JAPN B1 Elementary Japanese

**Recommended:** Reading - one level prior to transfer.

**Description:** Introduction to Japanese language and culture. Special emphasis on speaking and understanding Japanese along with mastering elementary grammar and compositions while learning the characters of Japanese alphabets. Requires practice with audiotape/CD program outside of class.

**Hours:** 90 lecture

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

### JAPN B2 Elementary Japanese

**Prerequisites:** JAPN B1 with a grade of 'C' or better.

**Description:** Continuing of elementary course introducing Japanese language and culture. Special emphasis on speaking and understanding Japanese along with mastering elementary grammar and composition while learning the characters of Japanese alphabets. Requires practice with audiotape/CD program outside of class.

**Hours:** 90 lecture

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

### JAPN B3 Elementary Japanese

**Prerequisites:** JAPN B2 with a grade of ‘C’ or better.

**Description:** Course provides the students with further knowledge and communication skills in Japanese in all 4 areas: speaking, listening, reading and writing. In addition to the polite/distal style, the course further develops oral communication skills in other speech styles such as direct style and honorific style. 100 new kanji (Chinese characters) are introduced in this course.

**Hours:** 90 lecture

**CCS:** Occupational Education

**Transferable:** CSU and private colleges

## Journalism Courses

### JRNL B1 Media and Society

**Recommended:** Writing - one level prior to transfer. Reading - one level prior to transfer. Field trips required.

**Description:** A study and evaluation of mass media and how it shapes societies and cultures. The focus provides the media consumer with a historical and a theoretical perspective on newspapers, magazines, books, Internet, television, radio, public relations, advertising, and motion pictures. Course content discusses media law and ethics, controversial topics as well as topics of current interest.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** UC, CSU and private colleges

### JRNL B2 Beginning Reporting

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** Introduction to journalism through the study of practical application of various techniques. Concentration on recognizing story ideas, gathering information from sources, news judgment, ethics, proper style and writing. Emphasizes news, features, sports and opinion writing. Prepares students for possible role on a student newspaper.

**Hours:** 54 lecture

**CCS:** Occupational Education

**Transferable:** CSU and private colleges

### JRNL B4 Introduction to Public Relations

**Recommended:** One level prior to transfer.
Recommended: JRNL B2 with a grade of ‘C’ or better. Writing - one level prior to transfer. Reading - one level prior to transfer.

Description: An introduction to public relations in today’s society, including history of public relations and study of definitions, processes and audiences of businesses as well as nonprofit organizations. Includes how to prepare, write and submit news releases to electronic and print media. Field trips required.

Hours: 54 lecture
CS: Occupational Education
Transferable: CSU and private colleges

JRNL B15 Press Photography
3 units

Recommended: Writing - one level prior to transfer. Reading - one level prior to transfer.

Important: Digital camera required.

Description: Study and application of digital photography as applied to journalism. Covers technical aspects of cameras, use of Photoshop, how to photograph assignments in the field and choosing photographs for print. Entry-level photojournalism course prepares students for enrollment in student newspaper.

Hours: 36 lecture, 54 laboratory
CS: Occupational Education
Transferable: CSU and private colleges

JRNL B16 Multimedia Reporting
3 units

Recommended: JRNL B15 with a grade of ‘C’ or better. Writing - one level prior to transfer. Reading - one level prior to transfer.

Description: Study and application of photography applied to emerging changes in the journalism landscape, specifically visual and audio communication through new media. Emphasizes the combined use of still cameras, audio recording equipment and video cameras to produce in-depth, content-rich reporting for journalism Web sites.

Hours: 36 lecture, 54 laboratory
CS: Occupational Education
Transferable: CSU and private colleges

JRNL B26 Newspaper Production/Editors
4 units

Recommended: JRNL B2 with a grade of ‘C’ or better. Writing - one level prior to transfer. Reading - one level prior to transfer.

Description: Designed for editors of the online and print editions of The Renegade Rip, Bakersfield College’s award-winning student-produced college newspaper. Teaches news content analysis, planning and evaluation using critical-thinking skills, story organization, intensive page design, planning and developing style and design of stories, photography, graphics, and art. Includes numerous discussions of ethics, collaboration with staff, and learning editorial leadership, with editors making all policy and content decisions for student-produced print and online media.

Hours: 18 lecture, 162 laboratory
Repeat: none
CS: Occupational Education
Transferable: CSU and private colleges

JRNL B27A Newspaper Production/Reporters
3 units

Recommended: JRNL B2 with a grade of ‘C’ or better. Writing - one level prior to transfer. Reading - one level prior to transfer.

Description: Production practicum for the print and online editions of The Renegade Rip, Bakersfield College’s award-winning student-produced newspaper. Offers experience in interviewing, research, news, feature, sports, and opinion reporting, design and production of editorial cartoons, headline writing, copyediting, proofreading, introduction to page design, graphics, and computer use. Students wishing to report stories, create editorial cartoons, or create graphics for the college newspaper should be enrolled.

Hours: 18 lecture, 108 laboratory
Repeat: none
CS: Occupational Education
Transferable: CSU and private colleges

Library Courses

LIBR B55 Information Competency
0 unit

Description: Variety of hour-long workshops that assist students in gaining proficiency in all aspects of information competency. Workshop topics include research strategies, searching the online catalog for books, finding periodical articles online, using advanced techniques with Internet searching, evaluating Internet resources, evaluating print resources, and examining ethics in research (plagiarism, fair use, and copyright).

Hours: 1 lecture
Repeat: none
CS: Liberal Arts/Science
Transferable: Associate Degree only. Not transferrable.

Manufacturing/Machine Technology Courses

MFGT B1AB Machine Tool Processes
3 units

Recommended: Reading - one level prior to transfer

Description: Machine tool technology including the use of precision measuring instruments, drilling machines, saws, lathes, and vertical milling machines.

Note: Elective credit only.

Hours: 27 lecture, 81 laboratory
CS: Occupational Education
Transferable: CSU and private colleges

MFGT B2 CNC Lathe Programming and Operation
3 units

Recommended: MFGT B1ab with a grade of ‘C’ or better, or evaluation by instructor of students machining skills. Reading - one level prior to transfer.

Description: Set-up, operation and programming of a computer numerical control lathe.
Mathematics Courses

MATH B1A Pre-calculus I
4 units
Prerequisites: MATH BD/MATH B70 or two years of high school algebra or equivalent with a grade of C.
Recommended: Reading - one level prior to transfer.
Description: Preparation for calculus; the algebraic and graphical analysis of polynomial, rational, logarithmic, and exponential functions and their applications; systems of linear and nonlinear equations, graphing, inequalities, absolute value, and complex numbers.
Formerly: MATH B1
Hours: 72 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B1B Pre-calculus II
4 units
Prerequisites: MATH B1a, with a minimum grade of ‘C’ or equivalent.
Description: Definitions of trigonometric functions, graphs of trigonometric functions, use of trigonometric functions in problem solving, derivation of trigonometric identities, verification of trigonometric identities, solution of conditional trigonometric equations, study of inverse trigonometric functions, trigonometric form of complex numbers and DeMoivres Theorem; analytic geometry, mathematical induction, and introduction to sequences and series.
Formerly: MATH BC
Hours: 72 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B2 Basic Functions and Calculus for Business
5 units
Prerequisites: MATH BD/MATH B70 or B200d or two years of high school algebra or equivalent with a grade of ‘C’.
Description: Modern concepts in mathematics emphasizing applications to business. Functions and the basic concepts of differential calculus with introductions to integral calculus and multivariable calculus.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B4A Mathematics for Elementary School Teaching I
5 units
Prerequisites: MATH BD/MATH B70 or equivalent with a grade of ‘C’.
Recommended: Reading - one level prior to transfer.
Description: Designed for prospective elementary school teachers. Development of real numbers including integers, rational and irrational numbers, computation, prime numbers and factorizations, and problem-solving strategies.
Hours: 90 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B6A Analytic Geometry and Calculus I
4 units
Prerequisites: MATH B1B or equivalent with a grade of ‘C’ or better.
Description: Transcendental functions, polar coordinates, sequences, infinite series and methods of integration. Further exposure to techniques and applications of differential and integral calculus.
Hours: 72 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B6B Analytic Geometry and Calculus II
4 units
Prerequisites: MATH B6A with a grade of ‘C’ or better.
Description: Transcendental functions, polar coordinates, sequences, infinite series and methods of integration. Further exposure to techniques and applications of differential and integral calculus.
Hours: 72 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B6C Calculus III
4 units
Prerequisites: 3, 4, or 5 on the AP-BC Test or MATH B6b or equivalent with a grade of ‘C’.
Description: Continuation of Calculus II. Vectors and parametric equations, vector-valued functions, partial differentiation, multiple integrals, vector analysis, including theorems of Green, Gauss and Stokes.
Hours: 72 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B6D Ordinary Differential Equations
3 units
Prerequisites: MATH B6c with a grade of ‘C’ or better.
Description: Vector spaces and linear transformations; elementary differential equations; Laplace transforms; series solutions and systems of differential equations; matrices and Eigen values.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges
MATH B6E Elementary Linear Algebra
3 units
Prerequisites: MATH B6C or equivalent with a grade of 'C'.
Description: Real and complex number fields, vector spaces, linear transformation, matrices, systems of equations and matrix inversion, determinants, eigenvalues and eigen vectors.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B21 Special Projects
1-2 units
Description: Individually directed work in mathematics, including advanced topics, research projects, special problems and applications of mathematics to specific subject areas. Interested students should talk with their math instructors for an evaluation of their math skills. Field trips may be required.
Hours: 18 for each 1
Repeat: 1
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B22 Elementary Probability and Statistics
5 units
Prerequisites: MATH BD/MATH B70 with grades of 'C' or higher, or equivalent Math course with a 'C' or better.
Description: Graphical methods of description of data, finite probability; discrete and continuous random variables; sampling distributions; hypothesis testing for large and small samples, analysis of variance, nonparametric statistics; linear regression and correlation.
Hours: 90 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B23 Finite Mathematics
3 units
Prerequisites: Math BD/MATH 70 with a grade of 'C' or better or Appropriate Math Placement.
Description: Solving equations and inequalities in one variable, relations and functions, matrices, linear inequalities in two variables, linear programming, mathematics of finance including simple and compound interest, annuities, sets and counting, and Venn Diagrams.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B50 Modern College Arithmetic and Pre-Algebra
4 units
Prerequisites: ACDV B77 or equivalent arithmetic course with a grade of 'C' or better or qualifying score on placement assessment.
Description: A general review of basic arithmetic including the fundamental operations of addition, subtraction, multiplication and division of whole numbers, fractions and decimals. Emphasis is placed on real life applications, including percent, ratios, proportions, exponents, averages, estimation, graphs and measurement. The introduction to algebra includes operations with signed numbers and solving simple equations. Not open to students with credit in MATH B251 and MATH B252.
Hours: 72 lecture
CCS: Pre-collegiate basic skills
Transferable: Not degree applicable. Not transferrable.

MATH B60 Beginning Algebra
5 units
Prerequisites: MATH B50 or Equivalent pre-algebra course with a grade of 'C' or better or Mathematics 2 levels prior to transfer.
Description: Fundamental concepts and mathematical processes first degree equations, polynomials, special products and factoring, rational expressions and equations, ratios, proportions, exponents, graphs, simultaneous linear equations.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MATH B70 Intermediate Algebra
5 units
Prerequisites: MATH B60/MATH BA or equivalent intro-algebra with a grade of 'C' or better: Mathematics - one level prior to transfer: Topics for the course are functions and operations on functions; system of linear equations, linear, and absolute value inequalities; linear, absolute value, and quadratic equations; radicals and operations with radicals; equations involving radicals; exponential and logarithmic equations; and conic sections.
Description: Topics for the course are functions and operations on functions; system of linear equations, linear, and absolute value inequalities; linear, absolute value, and quadratic equations; radicals and operations with radicals; equations involving radicals, exponential, and logarithmic equations; and conic sections.
Hours: 90 lecture
Transferable: Not degree applicable. Not transferrable.

MATH B255 Math Problem Solving
0.5 unit
Description: Designed for math students desiring additional assistance in specific problem solving areas. Students will work on problems for math courses in which they are concurrently enrolled.
Hours: 27 laboratory
Repeat: none
CCS: Liberal Arts/Science
Transferable: Not degree applicable. Not transferrable.

Medical Science Courses

MEDS B35 Lifespan Development
3 units
Recommended: Reading - one level prior to transfer.
Description: Study of normal human growth and development in prenatal, childhood, adolescent, adult and old age periods. Offers a balanced study of basic theories, research, applications; principles of physiological, cognitive, and psychosocial development are discussed. Related observations are required. Health maintenance and safety issues for all age levels are incorporated. Concepts of death and dying are considered.
Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

MEDS B52 Basic Life Support for Healthcare Providers
0.5 unit
Prerequisites: None.
Description: An initial and retraining course in Basic Life Support that provides basic knowledge and skills of Basic Life Support and AED use for victims of all ages. Skills learned in the class will enable the student to recognize emergencies and how to respond to them.
At the end of the course, the student will qualify for an American Heart Association Healthcare Provider BLS card.

Repeat: As needed for recertification.

Note: In addition to the scheduled hours students must arrange a total of 2 required class hours in which student must obtain materials from the college bookstore. Prior to the first class meeting student must read manual.

Hours: 9 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

Meds B60 Medical Terminology
3 units
Description: A study of basic medical terms related to the major body systems. Three units are required for radiologic technology, medical billing, and transcribers.

Hours: 54 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

Meds B66 Intravenous Therapy and Blood Withdrawal
2 units
Prerequisites: Healthcare provider.
Description: Principles of intravenous therapy and blood withdrawal. Designed to enable the Licensed Vocational Nurse to safely initiate and maintain intravenous therapy in a clinical setting. LVNs successfully completing the course will be certified by the California Board of Vocational Nurse Examiners to initiate and superimpose intravenous fluids.

Hours: 27 lecture, 9 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

Meds B68 Home Health Aide
1.5 units
Prerequisites: Meds B69
Description: This course follows the California Department of Public Health (CDPH) guidelines and builds upon the foundation of the nurse assistant training. The course is designed to prepare students to work with clients in the home setting and includes a minimum of 20 hours in the clinical setting. Skills competencies will be assessed utilizing objective, measurable criteria. Upon completion of the course the student will be eligible for the State of California Home Health Aide certification.

Hours: 18 lecture, 27 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

Meds B69 Nurse Assistant
6 units
Prerequisites: Program requirements. See Allied Health Department for specifics.
Recommended: Meds B60 with a grade of "C" or better.
Description: Course focus is to prepare the nurse assistant for certification by the State of California as an entry-level worker on a health care team. The curriculum is structured to provide theory and practical application on skills needed to function as a nurse assistant. Correlated laboratory experiences are provided with emphasis on providing basic nurse assistant care to residents in a long term care setting. Concepts presented in Meds B69 are applied in the laboratory and clinical setting. Formerly Meds B67 and Meds B67L.

Hours: 63 lecture, 135 laboratory
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

Music Courses

Meds B2 Basic Elements of Music
3 units
Description: Designed for the student with little or no previous experience in the reading and writing of music. Development of beginning skills in music notation and basic elements of music theory. Course also serves as pre-requisite for Music B4A Elementary Theory.

Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

Meds B4A Elementary Theory
3 units
Prerequisites: Meds B2 with a grade of "C" or better.
Recommended: Reading - one level prior to transfer. Concurrent enrollment in Meds B15a.
Description: A study of common practice harmony. Diatonic harmony including scales, key signatures, triad and seventh chord constructions and 4-part voice leading including phrase structure.

Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

Meds B4B Elementary Theory
3 units
Prerequisites: Meds B4a with a grade of "C" or better.
Recommended: Reading - one level prior to transfer. Concurrent enrollment in Meds B15 and Meds B230b.
Description: A study of common practice harmony. Chromatic harmony from secondary dominants through augmented sixth chords including simple form analysis and modulation.

Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

Meds B4C Intermediate Theory-Contemporary Materials
3 units
Prerequisites: Meds B4b with a grade of "C" or better.
Corequisite: Meds B15c must be taken concurrently.
Description: Study of compositional styles and practices of Western art music since the late 19th century, including practical application in composition. Covers advanced chromaticism, impressionism, serialism, basic set theory, and jazz harmony.

Note: Not open to students who have taken the equivalent course, Meds B4d. Formerly Meds B4d.

Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

Meds B5A Class Piano
1 unit
Recommended: Reading - one level prior to transfer. English Level 6.
Description: Beginning study of piano. Includes instruction in note reading, technical exercises, and repertoire study. Intended for students preparing to teach in the elementary grades and for music majors specializing in voice or instruments, other than the piano.

Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges
MUSC B5B Class Piano
1 unit
Prerequisites: Demonstrated by audition of piano skill of at least MUSC B5a level.
Recommended: MUSC B5a with a grade of 'C' or better or equivalent.
Description: Continuation of study of piano beyond beginning level (MUSC B5a). Includes instruction in elementary keyboard theory, technical exercises, and repertoire study. Intended for students preparing to teach in the elementary grades and for music majors specializing in voice or instruments, other than the piano.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B6A Class Voice
1 unit
Recommended: Basic understanding of music fundamentals.
Description: Elementary solo vocal training. Emphasizes breath control, tone placement, posture, diction, and interpretive concepts.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B6B Class Voice
1 unit
Prerequisites: Demonstration by audition of skill of at least MUSC B6a level.
Description: Solo voice training. Emphasizes repertoire and further technical development beyond the level of MUSC B6a.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B6C Class Voice
1 unit
Prerequisites: Demonstration by audition of skill of at least MUSC B6b level.
Description: Solo voice training. Emphasizes repertoire and further technical development beyond the level of MUSC B6b.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B6D Class Voice
1 unit
Prerequisites: Demonstration by audition of skill of at least MUSC B6c level.
Description: Solo vocal training. Emphasizes repertoire and further technical development beyond the level of MUSC B6c.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B9A Beginning Class Guitar
1 unit
Recommended: Reading - one level prior to transfer.
Description: A guitar course in sequence designed to teach the student how to play the guitar. Correct right and left hand technique, how to read guitar music, basic chords, finger-picking, scales, arpeggios, slurs, bar chords, and strumming. A suitable acoustic guitar is required.
Note: Music B9A is non-repeatable.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B9B Intermediate Class Guitar
1 unit
Prerequisites: MUSC B9a with a grade of 'C' or better or guitar playing ability of at least MUSC B9a level as determined by instructor.
Recommended: Reading - one level prior to transfer. A suitable acoustic guitar is required.
Description: Intermediate techniques of guitar playing. Emphasizes advanced chord positions, scales, arpeggios, slurs, and bar chords.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B10A Concert Band
1 unit
Prerequisites: Audition.
Description: Rehearsal and performance of standard band literature. Participation in public performances such as concerts, assemblies, and additional rehearsals are required.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B10B Concert Band
1 unit
Prerequisites: Limitation on enrollment, audition required.
Description: Rehearsal and performance of standard band literature. Participation in public performances such as concerts, assemblies, and additional rehearsals is required.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B10C Concert Band
1 unit
Prerequisites: Limitation on enrollment, audition required.
Description: Rehearsal and performance of standard band literature. Participation in public performances such as concerts, assemblies, and additional rehearsals is required.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B10D Concert Band
1 unit
Prerequisites: Limitation on enrollment, audition required.
Description: Rehearsal and performance of standard band literature. Participation in public performances such as concerts, assemblies, and additional rehearsals is required.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges
MUSC B12A College Orchestra
1 unit
Prerequisites: Limitation on enrollment, audition required.
Description: Performance of standard works from the orchestra literature. An audition and field trips are required for this course.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B12B College Orchestra
1 unit
Prerequisites: Limitation on enrollment, audition required.
Description: Performance of standard works from the orchestra literature. Field trips required.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B12C College Orchestra
1 unit
Prerequisites: Limitation on enrollment, audition required.
Description: Performance of standard works from the orchestra literature. Field trips required.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B12D College Orchestra
1 unit
Prerequisites: Limitation on enrollment, audition required.
Description: Performance of standard works from the orchestra literature. Field trips required.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B13A Jazz Ensemble
1 unit
Recommended: Reading - one level prior to transfer.
Description: Practical experience in organizing instrumental combinations. Training in standard dance band phrasing and improvisation with performances at various functions.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B13B Jazz Ensemble
1 unit
Recommended: Reading - one level prior to transfer. Field trips are required.
Description: Practical experience in organizing instrumental combinations. Training in standard dance band phrasing and improvisation with performances at various functions.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B13C Jazz Ensemble
1 unit
Recommended: Reading - one level prior to transfer.
Description: Practical experience in organizing instrumental combinations. Training in standard dance band phrasing and improvisation with performances at various functions.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B13D Jazz Ensemble
1 unit
Recommended: Reading - one level prior to transfer. Field trips are required.
Description: Practical experience in organizing instrumental combinations. Training in standard dance band phrasing and improvisation with performances at various functions.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B14A College Choir
1.5 units
Prerequisites: Limitation on enrollment, audition required.
Description: Study of major choral literature of all the historical periods. Public performance required for credit. Field trips for performances are required.
Hours: 81 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B14B College Choir
1.5 units
Prerequisites: Limitation on enrollment, audition required.
Description: Study of major choral literature of all the historical periods. Public performance required for credit. Field trips for performances are required.
Hours: 81 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B14C College Choir
1.5 units
Prerequisites: Limitation on enrollment, audition required.
Description: Study of major choral literature of all the historical periods. Public performance required for credit. Field trips for performances are required.
Hours: 81 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B14D College Choir
1.5 units
Prerequisites: Limitation on enrollment, audition required.
Description: Study of major choral literature of all the historical periods. Public performance required for credit. Field trips for performances are required.
Hours: 81 laboratory
### MUSC B15A Ear Training and Sight Singing

**1 unit**  
**Corequisite:** MUSC B230A and MUSC B4a.  
**Description:** Drill in the singing and recognition of intervals, scales, and melodies with solfège syllables using moveable do. Practice in conducting and performing rhythms.  
**Hours:** 54 laboratory  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

### MUSC B15B Ear Training and Sight Singing

**1 unit**  
**Prerequisites:** Concurrent enrollment in MUSC B4b.  
**Description:** Drill in the singing and recognition of intervals, scales, and melodies with solfège syllables using moveable do. Practice in conducting and performing rhythms. Increasing complex and difficult exercises commensurate with  
**Corequisite:** theory course level.  
**Hours:** 54 laboratory  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

### MUSC B15C Intermediate Ear Training and Sight Singing

**1 unit**  
**Corequisite:** MUSC B4c and MUSC B230c.  
**Description:** Aural skill training in chromatic, post-tonal, and jazz oriented materials including exercises in singing, keyboard, dictation (melodic, rhythmic, and harmonic), and scale/mode/chord aural recognition.  
**Hours:** 54 laboratory  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

### MUSC B17A Chamber Singers

**1.5 units**  
**Prerequisites:** Limitation on enrollment: Audition. Field trips for performances are required  
**Description:** A select choral group, specializing in rehearsal and performance of all choral literature for all historical periods. Public performance required for credit. Field trips for performances are required.  
**Hours:** 81 laboratory  
**Repeat:** 3  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

### MUSC B17B Chamber Singers

**1.5 units**  
**Prerequisites:** Limitation on enrollment: Audition.  
**Description:** A select choral group, specializing in rehearsal and performance of all choral literature for all historical periods. Public performance required for credit. Field trips for performances are required.  
**Hours:** 81 laboratory  
**Repeat:** 3  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

### MUSC B17C Chamber Singers

**1.5 units**  
**Prerequisites:** Limitation on enrollment: Audition.  
**Description:** A select choral group, specializing in rehearsal and performance of all choral literature for all historical periods. Public performance required for credit. Field trips for performances are required.  
**Hours:** 81 laboratory  
**Repeat:** 3  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

### MUSC B17D Chamber Singers

**1.5 units**  
**Prerequisites:** Limitation on enrollment: Audition.  
**Description:** A select choral group, specializing in rehearsal and performance of all choral literature for all historical periods. Public performance required for credit. Field trips for performances are required.  
**Hours:** 81 laboratory  
**Repeat:** 3  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

### MUSC B18A Drum Line

**1 unit**  
**Prerequisites:** Previous experience in a drum line or similar ensemble and evaluation of proficiency by instructor.  
**Description:** Rehearsal and performance of drum line literature suitable for field, parade, and competition. Field trips and performances required.  
**Note:** MUSC B18a, B18b, B18c and B18d, or any combination of these courses has a limit of 3 repeats.  
**Hours:** 54 laboratory  
**Repeat:** 3  
**CCS:** Liberal Arts/Science  
**Transferable:** Associate Degree only. Not transferrable.

### MUSC B18B Drum Line

**1 unit**  
**Prerequisites:** Previous experience in a drum line or similar ensemble and evaluation of proficiency by instructor.  
**Description:** Rehearsal and performance of drum line literature suitable for field, parade, and competition. Field trips and performances required.  
**Note:** MUSC B18a, B18b, B18c, and B18d, or any combination of these courses has a limit of 3 repeats.  
**Hours:** 54 laboratory  
**Repeat:** 3  
**CCS:** Liberal Arts/Science  
**Transferable:** Associate Degree only. Not transferrable.

### MUSC B18C Drum Line

**1 unit**  
**Prerequisites:** Previous experience in a drum line or similar ensemble and evaluation of proficiency by instructor.  
**Description:** Rehearsal and performance of drum line literature suitable for field, parade, and competition. Field trips and performances required.  
**Note:** MUSC B18a, B18b, B18c, and B18d, or any combination of these courses has a limit of 3 repeats.  
**Hours:** 54 laboratory  
**Repeat:** 3  
**CCS:** Liberal Arts/Science  
**Transferable:** Associate Degree only. Not transferrable.
MUSC B18D Drum Line
1 unit
Prerequisites: Previous experience in a drum line or similar ensemble and evaluation of proficiency by instructor.
Description: Rehearsal and performance of drum line literature suitable for field, parade, and competition. Field trips and performance required.
Note: MUSC B18a, B18b, B18c, and B18d, or any combination of these courses has a limit of 3 repeats.
Hours: 54 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: Associate Degree only. Not transferrable.

MUSC B21A History of Music
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Historical survey of western music from the Greco-early Christian era to the present. Uses recorded music and musical scores to study changing musical styles.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B21B History of Music
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Historical survey of western art music from the music of Beethoven to the present. Uses recorded music and musical scores to study changing musical styles.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B22 Music Appreciation
3 units
Recommended: Reading - one level prior to transfer.
Description: Introduction to appreciation of music with an emphasis on Western art music; historical development is surveyed with recordings, videos, multi-media computer presentations, and live performances as illustrations for directed listening as a basis for appreciation.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B23 Appreciation of Jazz
3 units
Recommended: Reading - one level prior to transfer.
Description: History and appreciation of jazz. Lectures, private listening, and concert attendance are required.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B24 A Survey of World Music
3 units
Description: An introductory course surveying the dominant musical cultures of the new non-western world with comparisons to western music. Emphasizes listening to and participation in world music through lecture, films, recording, live presentations, and class participation.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B27 History of Rock and Roll
3 units
Recommended: Reading - one level prior to transfer.
Description: Introduction to the historical and stylistic developments of rock music, with emphasis on its social, economic and political consequences.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

MUSC B54A College Chorale
1 unit
Prerequisites: Previous experience in a choral group and demonstrated proficiency.
Recommended: Reading - one level prior to transfer.
Description: Introduction to the historical and stylistic developments of rock music, with emphasis on its social, economic and political consequences.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: Not degree applicable. Not transferrable.

MUSC B54B College Chorale
1 unit
Prerequisites: Previous experience in a choral group and demonstrated proficiency.
Recommended: Reading - one level prior to transfer.
Description: Introduction to the historical and stylistic developments of rock music, with emphasis on its social, economic and political consequences.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: Not degree applicable. Not transferrable.

MUSC B54C College Chorale
1 unit
Prerequisites: Previous experience in a choral group and demonstrated proficiency.
Recommended: Reading - one level prior to transfer.
Description: Introduction to the historical and stylistic developments of rock music, with emphasis on its social, economic and political consequences.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: Not degree applicable. Not transferrable.

MUSC B54D College Chorale
1 unit
Prerequisites: Previous experience in a choral group and demonstrated proficiency.
Recommended: Reading - one level prior to transfer.
Description: Introduction to the historical and stylistic developments of rock music, with emphasis on its social, economic and political consequences.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: Not degree applicable. Not transferrable.
MUSC B230A Music Laboratory  
0.5 unit  
**Description:** A computer-based, positive attendance course featuring self-pacing programmed system instruction in one of two self-directed music technology areas: reading, transcribing, and performing rhythmic, harmonic, and melodic elements of music and/or generating, manipulating, editing, and producing digital audio content by gaining experience with digital audio workstations (DAWs). Offered on a Pass/No Pass basis.  
**Hours:** 27 laboratory  
**CCS:** Liberal Arts/Science  
**Transferable:** Not degree applicable. Not transferrable.

MUSC B230B Music Laboratory  
0.5 unit  
**Description:** A computer-based, positive attendance course featuring self-pacing programmed system instruction in one of two self-directed music technology areas: reading, transcribing, and performing rhythmic, harmonic, and melodic elements of music and/or generating, manipulating, editing, and producing digital audio content by gaining experience with digital audio workstations (DAWs).  
**Hours:** 27 laboratory  
**CCS:** Liberal Arts/Science  
**Transferable:** Not degree applicable. Not transferrable.

MUSC B230C Music Laboratory  
0.5 unit  
**Description:** A computer-based, positive attendance course featuring self-pacing programmed system instruction in one of two self-directed music technology areas: reading, transcribing, and performing rhythmic, harmonic, and melodic elements of music and/or generating, manipulating, editing, and producing digital audio content by gaining experience with digital audio workstations (DAWs).  
**Hours:** 27 laboratory  
**CCS:** Liberal Arts/Science  
**Transferable:** Not degree applicable. Not transferrable.

Nutrition Courses

NUTR B10 Elementary Nutrition  
3 units  
**Recommended:** Reading - one level prior to transfer  
**Description:** Basic concepts and principles of nutrition with application to current nutrition issues. Emphasizes improvement of personal health through proper eating habits.  
**Hours:** 54 lecture  
**CCS:** Occupational Education  
**Transferable:** UC, CSU and private colleges

NUTR B50 Modified Diets  
2 units  
**Prerequisites:** NUTR B10 with a grade of C.  
**Recommended:** Reading - one level prior to transfer  
**Description:** Nutrition care for acute illnesses and chronic diseases. Related normal and abnormal physiology, nutrition assessment and care plans and client education techniques are emphasized. Field trips may be required.  
**Hours:** 36 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

Ornamental Horticulture Courses

ORNH B1 Introduction to Ornamental Horticulture  
3 units  
**Description:** General course in environmental horticulture with emphasis on nursery operations, landscaping, turf management, and floral industries including; basic botany, cultural practices, propagation, structures and layout, pest management, planting, container gardening and houseplants, floral design, plant identification, turf grass installation and care, and survey of career opportunities. Laboratory required. Field trips required.  
**Hours:** 36 lecture, 54 laboratory  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

ORNH B2 Fundamentals of Nursery Management and Plant Production  
3 units  
**Recommended:** Reading - one level prior to transfer and Writing - one level prior to transfer  
**Description:** This is an introductory class in nursery business operations, skills, and processes appropriate to the horticulture industry in California. Emphasis will be placed on laws/regulations, record keeping, budgeting, computer skills, professional organizations, cooperatives, merchandising, salesmanship, and communications. Propagation media, nursery designs, propagation, structures, seedage, cuttage, plant structure, rooting aids, transplanting, stepping up, and potting will be covered.  
**Hours:** 36 lecture, 54 laboratory  
**CCS:** Occupational Education  
**Transferable:** CSU and private colleges

ORNH B3 Landscape Installation and Maintenance  
3 units  
**Recommended:** Reading - one level prior to transfer  
**Description:** Enhancing the function and aesthetic value of public and private landscapes by applying appropriate installation and maintenance techniques in Kern County and California. Topics include; sustainability, planting, pruning, watering, soil fertility, pest
management, weed control, and landscape maintenance business practices. Laboratory required.

**ORNH B4 Plant Propagation**

*3 units*

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** Principles of sexual propagation, seedage, and asexual propagation, budding, grafting, cuttings, layering, division and separation. Principles of tissue culture.

**Hours:** 36 lecture, 54 laboratory

**Transferable:** CSU and private colleges

**ORNH B5 Nursery Management**

*3 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** Commercial nursery operations. Propagation, propagation media, nursery design, propagation structures, plant structure, rooting aids, transplanting, stepping up and potting greenhouse and nursery plants.

**Hours:** 36 lecture, 54 laboratory

**Transferable:** CSU and private colleges

**ORNH B6 Ornamental Plant Identification-Ground Covers, Vines, and Dwarf Shrubs**

*3 units*

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** Identification, habits of growth, culture and landscape use of dwarf shrubs, vines, ground covers, annuals, and seasonal plants, adapted to the Central Valley of California and the surrounding regions. Covers those plants best observed and studied in the fall of the year. Plant materials from local regions will also be included.

**Hours:** 36 lecture, 54 laboratory

**Transferable:** UC, CSU and private colleges

**ORNH B7 Ornamental Plant Identification-Large Shrubs, Small Trees, Large Trees, and Palms**

*3 units*

**Description:** Identification, habits of growth, culture and landscape use of large shrubs, small trees, large trees and palms adapted to the Central Valley of California and the surrounding mountains. Field trips required.

**Hours:** 36 lecture, 54 laboratory

**Transferable:** UC, CSU and private colleges

**ORNH B8 Introduction to Landscape Design**

*3 units*

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** The study and implementation of the art and science of landscape design, including principles of design, the design process, drafting, graphics, and presentation methods. Project emphasis is placed upon residential and small commercial sites. Course includes introduction to computer landscape design software programs. Laboratory required.

**Hours:** 36 lecture, 54 laboratory

**Transferable:** CSU and private colleges

**ORNH B36 Beginning Floral Design**

*3 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** Introduction to the fundamentals of theory, techniques and skills currently practiced in the floral industry. Includes applied art principles, cut flower care, handling practices, proper use of florist tools and materials, pricing of floral products and use of current floral business technology. Includes constructing corsages, floral arrangements, and foliage plant items, which meet floral industry standards. Field trips may be required. Elective credit only.

**Hours:** 36 lecture, 54 laboratory

**Transferable:** CSU and private colleges

**Philosophy Courses**

**PHIL B6A Introduction to Philosophy**

*3 units*

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** A method, problems, multicultural and historical approach to philosophy. Epistemology (the study of knowledge), metaphysics (the study of reality), ethics (the study of morality), and philosophy of religion are covered from both traditional Western and non-Western sources.

**Hours:** 54 lecture

**Transferable:** UC, CSU and private colleges

**PHIL B7 Introduction to Logic**

*3 units*

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** Traditional basics of correct reasoning with an emphasis on their relationships to language, thought and argument.

**Hours:** 54 lecture

**Transferable:** UC, CSU and private colleges

**PHIL B9 Critical Thinking and Advanced Composition**

*4 units*

**Prerequisites:** ENGL B1A with a grade of ‘C’ or better. Writing - one level prior to transfer.

**Description:** Development of critical thinking skills necessary for evaluating and formulating argumentative/persuasive essays, and practice in applying those skills.

**Hours:** 72 lecture

**Transferable:** UC, CSU and private colleges

**PHIL B10 Introduction to Ethics**

*3 units*

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** Examination of the philosophical approach to morality. Study of the meaning of ethics and morality and methods used
in ethical theorizing and reasoning. Emphasizes major ethical issues and theories. Discusses how to set up an ethical system.

**Hours:** 54 lecture
**CCS:** Liberal Arts/Science
**Transferable:** UC, CSU and private colleges

**PHIL B12 Ethics of Living and Dying**

3 units

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** A philosophical yet practical approach to some of the major medical-ethical problems facing human beings today, such as: what patients should be told, the nature and importance of informed consent, the meaning and criteria for living, dying, and death including caring for the dying, and allowing to die, mercy killing. Permeating these problems will be a study of the basis for ethical relationships among human beings through a study of what morality is, consequentialist and nonconsequentialist theories of morality, and how to set up an ethical system. Special emphasis will be placed on the relationship of the professional and the well to the sick, dying, and bereaved.

**Hours:** 54 lecture
**CCS:** Liberal Arts/Science
**Transferable:** UC, CSU and private colleges

**PHIL B18 History of Ancient Philosophy**

3 units

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** A survey of the development of Western philosophy from the Pre-Socratic to the Hellenistic philosophers with particular emphasis on the philosophies of Plato and Aristotle. The focus throughout will be on analyzing and evaluating the central arguments of these philosophers as well as understanding how their views have contributed to the subsequent development of philosophy, science, art, and literature.

**Hours:** 54 lecture
**CCS:** Liberal Arts/Science
**Transferable:** UC, CSU and private colleges

**PHIL B32 World Religions: East**

3 units

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** Survey of two main Eastern religions-Hinduism and Buddhism, and study of other important Asian religions such as Jainism, Sikhism, Lamaism, Confucianism, Taoism, and Shinto. Topics include each religions history, sacred scriptures, geographic dispersion, primary theological concepts and spiritual practices, and its role in contemporary society. Emphasis will be placed on understanding the distinct belief and practice of an individual in each of these religious traditions.

**Hours:** 54 lecture
**CCS:** Liberal Arts/Science
**Transferable:** UC, CSU and private colleges

**PHIL B33 World Religions: West**

3 units

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** Survey of three western religions - Judaism, Christianity, and Islam - and background religions to these including Egyptian, Persian, and European. Topics include each religions history, sacred scriptures, geographic dispersion, primary theological concepts and spiritual practices, and its role in contemporary society. Emphasis will be placed on understanding the distinct belief and practice of an individual in each of these religious traditions. Field trips required.

**Hours:** 54 lecture
**CCS:** Liberal Arts/Science
**Transferable:** UC, CSU and private colleges

**PHIL B37 Introduction to World Religions**

3 units

**Recommended:** Reading - one level prior to transfer.

**Description:** A survey of three Western religions - Judaism, Christianity, and Islam, and three Eastern Religions - Confucianism, Hinduism and Buddhism. Examines each religions history, sacred scriptures, geographic dispersion, primary theological concepts and spiritual practices, and contemporary role. Emphasis on understanding the distinct belief and practice of an individual in each of these religious traditions.

**Hours:** 54 lecture
**CCS:** Liberal Arts/Science
**Transferable:** UC, CSU and private colleges

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**Physical Education Courses**

**PHED B2SB Aquatics: Beginning Swimming**

1 unit

**Description:** Course in beginning swimming in which the focus is on the knowledge and skill necessary to handle the body with ease in the water. Course covers basic mechanical, physiological and psychological concepts, fundamental safety skills and basic swimming strokes for the four competitive swimming strokes (Free, Back, Breast, and Fly).

**Note:** UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses.

**Hours:** 54 laboratory
**CCS:** Liberal Arts/Science
**Transferable:** UC, CSU and private colleges

**PHED B3ADP Adaptive Physical Education**

1 unit

**Description:** Individualized fitness class for the physically challenged with activities designed to emphasize resistive circuit training combined, when possible, with aerobic training.

**Note:** UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses.

**Hours:** 54 supervised tutoring
**Repeat:** Repetitions of adaptive physical education are allowed (beyond three) provided the student participates in at least one additional credit course that is not a physical education class and makes progress toward the stated educational goal as documented in the students educational plan and justification is documented by a DSPS counselor in the student’s educational plan for the current term. Intended for students with physical challenges.

**CCS:** Liberal Arts/Science
**Transferable:** UC, CSU and private colleges

**PHED B3ADS Adaptive Physical Education: Swimming**

1-3 units

**Description:** Individualized fitness programs for the physically challenged with emphasis on swimming. Includes group activities designed to involve everyone.

**Important:** Repetitions of adaptive physical education are allowed provided the student participates in at least one additional credit course that is not a physical education class and makes progress toward the stated educational goal as documented in the student's educational plan and justification is documented by a DSPS counselor in the student’s educational plan for the current term. Intended for students with physical challenges.

**CCS:** Liberal Arts/Science
**Transferable:** UC, CSU and private colleges
PHED B6A Coeducational and Individual Activity: Archery
1 unit
Description: Archery as a lifelong physiological and social activity. An elementary course in archery to include target archery and field archery.
Note: UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses. Repeat 3 times.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B6BB Coeducational and Individual Activity: Basketball
1 unit
Description: Basketball as a lifelong physiological, psychological and social activity. Skills, strategies, rules and etiquette of basketball.
Note: UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B6BLB Coeducational and Individual Activity: Beginning Ballet
1 unit
Description: Co-educational beginning ballet course. Includes warm-up exercises, technical skills and terminology.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B6FCX Coeducational and Individual Activity: Fitness Center
1 unit
Description: Circuit training with resistance machines (weights), supplemented with a variety of aerobic based equipment. Stresses the development of muscle mass/tone, endurance and cardiovascular fitness. Not recommended for competitive weight lifters.
Note: UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B6G Coeducational and Individual Activity: Golf
1 unit
Description: Includes instruction in techniques, tactics, and physical conditioning related to the sport of golf.
Note: UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B6JD Coeducational and Individual Activity: Jazz Dance (same as DANC B6jd)
1 unit
Description: Fundamental Jazz techniques and fundamental terminology of ballet as they relate to Jazz dancing. Including warm-up exercises for the preparation of the human body as an instrument for dance. Different styles and rhythms of jazz dance and music for Jazz dance will be introduced.
Note: Identical to DANC B6jd. UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B6SC Coeducational and Individual Activity: Soccer
1 unit
Description: Soccer as a lifelong physiological, psychological and social activity. Training in the fundamental skills of soccer; understanding of the rules of the game, safety and basic strategy of play.
Note: UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B6T Coeducational and Individual Activity: Tennis
1 unit
Description: Tennis as a lifelong physiological, psychological and social activity. Student will learn basic tennis skills, rules, strategies and etiquette.
Note: UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B6V Coeducational and Individual Activity: Beginning Volleyball
1 unit
An elementary course in volleyball to include instruction in techniques, tactics, and physical conditioning related to the sport of volleyball.
Note: UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B6WT Coeducational and Individual Activity: Weight Training
1 unit
Description: Coeducational course stressing correct application of weight training principles used with free weights. Instruction in the correct and safe use of free weights to develop strength, endurance, and general conditioning.
Note: UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses.
Hours: 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
<th>Hours</th>
<th>Repeat</th>
<th>CCS:</th>
<th>Transferable</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHED B6Y</td>
<td>Coeducational and Individual Activity: Yoga</td>
<td>1</td>
<td>Description: An introduction to basic yoga concepts such as poses, postures, breathing and meditation techniques. Also covers dance stretching techniques to increase flexibility.</td>
<td>54 laboratory</td>
<td>3</td>
<td>Liberal Arts/Science</td>
<td>CSU and private colleges</td>
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<td></td>
<td></td>
<td><strong>Athletic Code Eligibility Requirements</strong></td>
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<td>An athlete must be continuously enrolled in a minimum of 12 units during the season of competition. Students competing in a sport must successfully complete 24 units to be eligible for a second season of competition. A 2.0 grade point average must be maintained to be eligible to participate.</td>
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<td></td>
<td>NOTE: All intercollegiate sports may be substituted for physical education requirement for graduation. UC campuses give a maximum of four semester units of credit for appropriate physical education activity courses.</td>
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<tr>
<td>PHED B10</td>
<td>Intercollegiate Competition for Men: Football</td>
<td>2</td>
<td>Important: Must meet athletic code eligibility requirements. Field trips may be required.</td>
<td>180</td>
<td>3</td>
<td>Liberal Arts/Science</td>
<td>UC, CSU and private colleges</td>
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<td>Recommended: PHED B45.</td>
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<tr>
<td>PHED B11</td>
<td>Intercollegiate Competition for Men: Basketball</td>
<td>2</td>
<td>Important: Student must meet athletic code eligibility requirements.</td>
<td>54 laboratory for each 1</td>
<td>3</td>
<td>Liberal Arts/Science</td>
<td>UC, CSU and private colleges</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Description: Intercollegiate competition Men’s Basketball. Field trips required.</td>
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<tr>
<td>PHED B12</td>
<td>Intercollegiate Competition for Men: Track and Field</td>
<td>2</td>
<td>Important: Student must meet athletic code eligibility requirements.</td>
<td>180</td>
<td>3</td>
<td>Liberal Arts/Science</td>
<td>UC, CSU and private colleges</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Description: Intercollegiate competition for men in Track and Field. Field trips required.</td>
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<tr>
<td>PHED B13</td>
<td>Intercollegiate Competition for Men: Tennis</td>
<td>2</td>
<td>Important: Must meet athletic code eligibility requirements. Note: Field trips may be required.</td>
<td>180</td>
<td>3</td>
<td>Liberal Arts/Science</td>
<td>UC, CSU and private colleges</td>
</tr>
<tr>
<td>PHED B14</td>
<td>Intercollegiate Competition for Men: Baseball</td>
<td>2</td>
<td>Important: Must meet athletic code eligibility requirements. Description: Intercollegiate competition for Men’s Baseball. Field trips required.</td>
<td>180</td>
<td>3</td>
<td>Liberal Arts/Science</td>
<td>UC, CSU and private colleges</td>
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<tr>
<td>PHED B16</td>
<td>Intercollegiate Competition for Men: Golf</td>
<td>2</td>
<td>Important: Must meet athletic code eligibility requirements. Note: May be substituted for physical education requirement for graduation. Field trips may be required.</td>
<td>180</td>
<td>3</td>
<td>Liberal Arts/Science</td>
<td>UC, CSU and private colleges</td>
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<tr>
<td>PHED B17</td>
<td>Intercollegiate Competition for Men: Cross Country</td>
<td>2</td>
<td>Important: Must meet athletic code eligibility requirements. Description: Intercollegiate competition for men in Cross Country. Field trips required.</td>
<td>180</td>
<td>3</td>
<td>Liberal Arts/Science</td>
<td>UC, CSU and private colleges</td>
</tr>
<tr>
<td>PHED B20</td>
<td>Intercollegiate Competition for Men: Wrestling</td>
<td>2</td>
<td>Important: Must meet athletic code eligibility requirements. Description: Intercollegiate competition for men’s wrestling team. Field trips may be required.</td>
<td>180</td>
<td>3</td>
<td>Liberal Arts/Science</td>
<td>UC, CSU and private colleges</td>
</tr>
<tr>
<td>PHED B22</td>
<td>Intercollegiate Competition for Women: Tennis</td>
<td>2</td>
<td>Important: Must meet athletic code eligibility requirements. Note: May be substituted for physical education requirement for graduation. Field trips may be required.</td>
<td>180</td>
<td>3</td>
<td>Liberal Arts/Science</td>
<td>UC, CSU and private colleges</td>
</tr>
<tr>
<td>PHED B23</td>
<td>Intercollegiate Competition for Women: Soccer</td>
<td>2</td>
<td>Important: Must meet athletic code eligibility requirements. Description: Intercollegiate soccer for women. Field trips may be required.</td>
<td>180</td>
<td>3</td>
<td>Liberal Arts/Science</td>
<td>UC, CSU and private colleges</td>
</tr>
</tbody>
</table>
PHED B24 Intercollegiate Competition for Women: Golf
2 units
Important: Must meet athletic code eligibility code requirements. May be substituted for physical education requirement for graduation. Field trips may be required.
Hours: 180 laboratory
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B25 Intercollegiate Competition for Women: Volleyball
2 units
Important: Must meet athletic code eligibility requirements.
Description: Intercollegiate competition for Women’s Volleyball. Travel is required.
Hours: 180
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B26 Intercollegiate Competition for Women: Track and Field
2 units
Important: Must meet athletic code eligibility requirements.
Description: Intercollegiate competition for women in track and field. Travel is required.
Hours: 180
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B27 Intercollegiate Competition for Women: Cross Country
2 units
Important: Must meet athletic code eligibility requirements.
Description: Intercollegiate competition for women in cross country.
Note: Field trips may be required.
Hours: 180
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B28 Intercollegiate Competition for Women: Basketball
1-2 units
Important: Must meet athletic code eligibility requirements.
Description: Intercollegiate basketball competition for women. Specialized training in fundamental skills and team tactics of competitive basketball.
Note: Field trips may be required.
Hours: 90 per unit
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B29 Intercollegiate Competition for Women: Softball
2 units
Important: Must meet athletic code eligibility requirements.
Description: Intercollegiate competition for Women’s Softball. Field trips may be required.
Hours: 180
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B31 First Aid
1 unit
Description: Administering first aid in emergency and accident situations. Includes wounds and their care, shock, CPR, injuries, burns, effects of heat and cold and the transportation of the injured. Upon successful completion each student will qualify for an American Red Cross Standard First Aid Card.
Hours: 18 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B32 Shape Up
1-3 units
Description: An integration of physiological, psychological and sociological understandings of the human being in relationship to physical activity as a lifelong pursuit. Topics include physical fitness, stress reduction, socialization and individual differences in human behavior.
Note: UC campuses give a maximum of four semester units of credit for appropriate Physical Education activity courses.
Hours: 6 lecture, 30 participation for each 1 unit
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B33 Intercollegiate Swimming
2 units
Description: Intercollegiate coeducational competition.
Note: May be substituted for physical education requirement for graduation. (UC campuses give a maximum of four semester units of credit for appropriate Physical Education Activity courses.) BC GE E; CSU GE E. Field trips may be required.
Hours: 180
Repeat: 3
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B36 First Aid and CPR
3 units
Description: This course involves the theory and detailed demonstration of the first aid care of the injured. The student will learn to assess a victim’s condition and incorporate proper treatment. Standard first aid, CPR and AED certification(s) will be granted upon successful completion of requirements.
Hours: 54
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B39A Prevention and Care of Athletic Injuries
3 units
Description: An introduction to the field of sports medicine. Evaluation, rehabilitation and prevention of athletic injuries. Major emphasis will be on prevention of injuries and performance enhancement, through pre-screening for potential biomechanical deficiencies,
PHED B39B Advanced Athletic Training
3 units
Recommended: BIOL B34 and BIOL B33.
Description: Evaluation and rehabilitation of athletic injuries; exposure to various physical therapy modalities and prevention of injuries will be discussed. The athletic trainer will properly advise students who take this course of limitations and proper skills applications. Field trips required.
Hours: 36 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B40 Introduction to Physical Education
3 units
Recommended: Reading - one level prior to transfer.
Description: Exploring employment opportunities in the field of physical education, history and teaching of physical education and the contribution made to the mental, social, and physical well-being of society. Recommended for students pursuing a major or minor in Physical Education or Recreation.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B41 Recreation Leadership
3 units
Description: Survey of employment opportunities in the field of recreation. Students will learn the meaning and scope of recreation leadership, the problems of organization, types of activities and elements of leadership.
Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHED B42 Introduction to Kinesiology
3 units
Description: This course is an introduction to the interdisciplinary approach to the study of human movement. An overview of the importance of the subdisciplines in kinesiology will be discussed along with career opportunities in the areas of teaching, coaching, allied health, and fitness professions.
Hours: 54
CCS: Liberal Arts/Science
Transferable: CSU and private colleges

PHED B50 Intercollegiate Conditioning
1 unit
Description: Pre-season intercollegiate athletics. Enrollment is limited to athletic team candidates and includes, sport specific aerobic and anaerobic conditioning, drill technique, strength conditioning, speed development and game play. Students who repeat this course will improve skills and fitness through further instruction and practice.
Repeat: 3

PHYS B2A General Physics-Mechanics and Heat
4 units
Prerequisites: MATH BD/MATH B70, B1a (may be taken concurrently).
Recommended: Reading - one level prior to transfer.
Description: The properties of matter, mechanics and heat. Emphasizes understanding laws, principles, and theories. Required for most science, premedical, most other pre-professional and technical majors.
Hours: 54 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHYS B2B General Physics-Sound, Light, Electricity, Magnetism, Modern Physics
4 units
Prerequisites: MATH B1B/MATH BC and either PHYS B2a or high school physics with a 'C' or better.
Description: The properties of waves, sound, light, electricity, magnetism, atomic and nuclear physics. Emphasizes understanding laws, principles and theories. Required for most science, pre-medical, most other pre-professional and technical majors.
Hours: 54 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHYS B4A Mechanics and Wave Motion
4 units
Prerequisites: MATH B6a with a grade of 'C' or better.
Recommended: Reading - one level prior to transfer.
Description: First in a sequence of three semester courses required of physics, engineering, and other majors requiring a thorough physics background. Includes vectors, kinematics, dynamics, momentum, energy, rotation, gravitation, oscillations, fluids, and wave motion.
Hours: 54 lecture, 54 laboratory
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

PHYS B4B Heat, Electricity, and Magnetism
4 units
Prerequisites: PHYS B4A and MATH B6c with grades of 'C' or better. MATH B6c may be taken concurrently.
Description: Second in a three semester calculus-based physics sequence required of physics, engineering, and other majors requiring a thorough physics background. Includes thermodynamics, electric-
ity, magnetism, and electromagnetic oscillations and radiation. Emphasizes principles, laws and problem-solving.

**Hours:** 54 lecture, 54 laboratory

**CCS:** Liberal Arts/Science

Transferable: UC, CSU and private colleges

**PHYS B4c Optics and Modern Physics**

4 units

Prerequisites: PHYS B4b with a grade of ‘C’ or better.

Recommended: Concurrent enrollment in MATH B6d.

Description: Third in a three-semester calculus-based sequence of physics, engineering and other majors requiring a thorough physics background. Includes geometric optics, relativity, quantum physics, quantum mechanics, atomic and molecular physics, solid state physics, and nuclear physics. Emphasizes principles, laws, and problem solving.

**Hours:** 54 lecture, 54 laboratory

**CCS:** Liberal Arts/Science

Transferable: UC, CSU and private colleges

**Political Science Courses**

**POLS B1 American Government: National, State, and Local**

3 units

Recommended: Reading - one level prior to transfer. Writing - two levels prior to transfer.

Description: A study of American government with emphasis on the national government. Includes a comprehensive analysis of governmental structure, functions, principles and problems. Includes analysis of California state and local governments. Partially satisfies the requirements in U.S. Constitution, American history and institutions and California state and local government.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

Transferable: UC, CSU and private colleges

**POLS B2 Comparative Government**

3 units

Recommended: ENGL B50/ENSL B50 or Reading - one level prior to transfer.

Description: A comparative analysis of government structures and the underlying economic, social, and cultural systems of the principal nations of the industrial world: United States, United Kingdom, France, Federal Republic of Germany, Russia, and Japan. Additional emphasis on certain nations in sensitive geographic area or countries whose size and developing economics make them important, such as the People’s Republic of China, Brazil, Mexico, Iran, India and Nigeria.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

Transferable: UC, CSU and private colleges

**POLS B3 International Politics**

3 units

Recommended: ENGL B50/ENSL B50 or Reading - one level prior to transfer.

Description: Surveys the dynamics and ideologies of present-day international politics and rivalries. Development of the national state system and the evolution of the techniques and arts of diplomacy, and the causes of war.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

Transferable: UC, CSU and private colleges

**POLS B5 Current Issues in American Government**

1-2 units

Description: Study of special current events, such as elections, impeachment proceedings, public policies, or Constitutional revisions.

Note: Offered only as such events occur.

**Hours:** 18 for each 1 unit

**CCS:** Liberal Arts/Science

Transferable: UC, CSU and private colleges

**POLS B12 Contemporary Issues in California State and Local Government**

3 units

Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.

Description: Analysis of the role of state and local governments, with special emphasis directed to the history and development of these institutions; the state and local political environment; political parties, interest group, citizen and media inputs; current problems and changing functions affecting local governments. Partially satisfies the requirements in U.S. Constitution, American history and institutions.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

Transferable: CSU and private colleges

**POLS B16 Vital Political Problems**

3 units

Recommended: ENGL B50. Reading - one level prior to transfer.

Description: Examination of major political problems challenging the United States today. Emphasis on class discussion and individual analysis of controversial topics involving political policy in the context of the study of political science.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

Transferable: UC, CSU and private colleges

**Psychology Courses**

**PSYC B1A General Psychology**

3 units

Prerequisites: None.

Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.

Description: Emphasis is on the scientific process and research methods employed in psychology. Biological, developmental, cognitive, and sociocultural theories are covered to explain psychological phenomena. Psychological disorders and the evolving corresponding treatment protocols are applied to a diversity of individuals and groups.

**Hours:** 54 lecture

**CCS:** Liberal Arts/Science

Transferable: UC, CSU and private colleges

**PSYC B1B Biological Psychology**

3 units

Prerequisites: PSYC B1a with a grade of ‘C’ or better. Reading - one level prior to transfer. Writing - one level prior to transfer.

Description: Ethical standards and current research methodologies for studying brain behavior relationships and mental processes in all life forms; emphasis placed on using empirical analysis to understand and solve problems related to mechanisms underlying neural conduction and synaptic transmission, sensory and perceptual systems, plasticity, and brain damage, development, learning and
memory, hunger, sex, drug use, sleep, lateralization of function and psychological disorders. Designed for psychology majors planning for upper division work in psychology.

**Hours:** 54 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

**PSYC B2 Interpersonal and Group Process Skills**  
3 units  
**Recommended:** PSYC B1a. Reading - one level prior to transfer. Writing - one level prior to transfer.  
**Description:** Readings and practice in skills for effective functioning in interpersonal and group settings: including active listening, interviewing, group interaction, decision making and managing conflict. Emphasizes the development of skills and ethical considerations specific to human interaction, relating across differences of race, gender, ethnicity, sexual orientation, and social class.  
**Hours:** 54 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

**PSYC B5 Elementary Statistics for the Behavioral and Social Sciences**  
5 units  
**Prerequisites:** MATH BD/MATH B70 with a grade of 'C' or better. Completion of or concurrent enrollment in an introductory course: PSYC B1a, SOCI B1, ANTH B1, ECON B1, or POLS B1.  
**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.  
**Description:** Statistics as applied to the behavioral and social sciences. Introduces basic terminology and measurement scales associated with basic statistics used in behavioral and social science research. Emphasizes appropriate application and interpretation of measures of central tendency, variation, and correlation, in the use of parametric and nonparametric statistical hypothesis testing.  
**Note:** Not open to students who had taken and successfully completed the equivalent course, BEHS B5.  
**Hours:** 90 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

**PSYC B6 Research Methods for the Behavioral and Social Sciences**  
4 units  
**Prerequisites:** PSYC B1A and PSYC B5  
**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.  
**Description:** Emphasis is on behavioral and social science research processes and methods including: problem definition and hypothesis formation, research design, ethical treatment of participants, data collection and analysis, application of statistical software, and professional report writing. Students will collect and analyze data from both experimental and non-experimental research methods.  
**Hours:** 72 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

**PSYC B20 Social Psychology**  
3 units  
**Recommended:** SOCI B1 or PSYC B1a with a grade of 'C' or better. Reading - one level prior to transfer. Writing - one level prior to transfer.  
**Description:** Examines the effects of social influence on individual behavior: including the study of conformity, obedience, persuasion, attitude formation and attitude change. The role of social judgment, aggression, prejudice, prosocial behavior, attraction, and interpersonal relationships are also examined. The scientific method and research strategies in social psychology are employed. Not open to students who have taken the equivalent course, SOCI B20.  
**Hours:** 54 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

**PSYC B21 Special Projects**  
1 unit  
**Recommended:** PSYC B1a or PSYC B5 with a minimum grade of 'B', and evaluation by instructor.  
**Description:** Development of psychological research and/or preparation for teaching within the psychological field. Focus is on empirical methodology and/or assistance with data entry, development and assessment.  
**Note:** Enrollment limitations for students who have successfully completed PSYC B21a, 21b, 21c, and 21d.  
**Hours:** 54 laboratory  
**Repeat:** none  
**CCS:** Liberal Arts/Science  
**Transferable:** CSU and private colleges

**PSYC B30 Human Sexuality**  
3 units  
**Recommended:** PSYC B1a. Reading - one level prior to transfer. Writing - one level prior to transfer.  
**Description:** Emphasis on the biopsychosocial aspects of human sexuality from childhood to old age: Examination of the human sexual system, the sexual act, changing sexual attitudes and behavior, gender identity issues, sexual health, sexual orientation, sexual problems and their treatments, and sexual communication. Exploration of legal and ethical aspects of sexuality.  
**Hours:** 54 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

**PSYC B33 Psychology of Personal and Social Adjustment**  
3 units  
**Recommended:** PSYC B1a with a grade of 'C' or better. Reading - one level prior to transfer. Writing - one level prior to transfer.  
**Description:** Emphasis on the biopsychosocial aspects of personal growth and adjustment: Examination of different psychological perspectives and theoretical foundations and how these are applied across a person’s life taking into account the influence of culture, gender, ethnicity, historical, cohort, and social-economic status. Psychological disorders and their corresponding treatment protocols are explored.  
**Hours:** 54 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

**PSYC B40 Introduction to Lifespan Psychology**  
3 units  
**Recommended:** PSYC B1a with a grade of 'C' or higher. Reading - one level prior to transfer. Writing - one level prior to transfer.  
**Description:** Provides an overview, from a psychological perspective, of human development from conception through death, including biological and environmental influences. Biopsychosocial development and cognitive and physical changes are examined in light of historical and contemporary research and theory for the growing child, adolescent, and adult.
Registered Nursing Courses

NURS B2LV Clinical Lab Experience
6 units
Prerequisites: Appropriate standing in the VN Program.
Hours: 324 supervised tutoring
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

NURS B3LV Clinical Laboratory Experience
6 units
Prerequisites: Appropriate standing in the VN Program.
Hours: 324 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

NURS B20 Fundamentals of Nursing
4 units
Prerequisites: Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director.
Description: Level 1 course introduces the concepts of the professional nurse, nursing skills, beginning leadership, health care environment, growth and development across the lifespan, basic physiologic and human needs in health and illness, and providing a safe environment. Beginning critical thinking skills are emphasized, within the framework of the nursing process. Correlated clinical experiences are provided with adult patients who have basic health problems with predictable outcomes. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated in both the theory and the clinical components. Admission to the Associate Degree Nursing Program and appropriate standing in the Nursing Program are required.
Hours: 36 lecture, 108 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

NURS B21 Medical Surgical Nursing 1
5 units
Prerequisites: Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director.
Description: Level 1 course introduces medical surgical nursing concepts and practices as they relate to adult clients across the lifespan. Using the nursing process as the framework, the student will begin to recognize alterations in function or illness, and formulate age-appropriate nursing interventions. Correlated clinical experiences are provided with adult patients who have basic health problems with predictable outcomes. The roles of Provider of Care, Manager of Care, and Member of the Profession are introduced and integrated throughout the course.
Hours: 45 lecture, 135 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

NURS B22 Pharmacology
3 units
Prerequisites: Admission and appropriate standing in the Associate Degree Nursing Program.
Description: This Level 1 course provides the foundation knowledge base related to pharmacology in nursing, including both theoretical and mathematical aspects. Course uses the nursing process as the framework, and addresses the roles of provider of care, manager of care, and member of the profession. Fundamental principles of pharmacodynamics, pharmacokinetics, legal and ethical issues, and nursing responsibilities are covered. Information regarding intravenous drug administration is limited to pharmacokinetics. The drug classes most commonly used in clinical practice are presented. Additionally, information regarding basic mathematical calculations related to medication administration is introduced. Admission to the Associate Degree Nursing Program and appropriate standing in the Nursing Program are required.
Hours: 3 units
Transferable: UC, CSU and private colleges

NURS B23 Medical Surgical Nursing 2
4.5 units
Prerequisites: Appropriate standing in the Associate Degree Nursing Program or evaluation of skills by the Program Director.
Description: Level 2 course focuses on the development of the knowledge base and skills to care for patients across the lifespan, in various settings, who have higher acuity and more complex nursing needs. The nursing process is the framework for identification and treatment of health problems, and other concerns. Correlated clinical experiences emphasize clinical decision making, patient care management, including prioritization of care, and development of psychomotor skills. Leadership and management knowledge and skills are integrated in both the theory and clinical components. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated throughout the course.
Hours: 45 lecture, 108 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

NURS B24 Obstetrics - Maternity Nursing
3 units
Prerequisites: Admission and appropriate standing in the Associate Degree Nursing Program.
Description: This Level 2 course provides a foundation for theoretical and technical knowledge base while caring for the contemporary family centered childbirth. Parent/newborn issues are viewed from a nursing process approach for the antepartum, intrapartum, postpartum, and neonatal client. Correlated clinical experiences emphasize clinical decision making, patient care management, including prioritization of care, and development of psychomotor skills. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated in both the theory and clinical components. Admission and appropriate standing in the Associate Degree Nursing Program are required.
Hours: 27 lecture, 81 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

NURS B25 Mental Health Psychiatric Nursing
3.5 units
Prerequisites: Admission to the Associate Degree Nursing Program and appropriate standing in the Nursing Program.
Description: This Level 2 provides an introduction to Psychiatric Mental Health Nursing, using the nursing process as the framework to promote psychosocial integrity within the context of the health illness continuum across the life span. Emphasis is on therapeutic interactions and communications, bio-psychosocial rehabilitation and therapeutic use of self. Correlated clinical experiences will provide opportunities for students to participate in therapeutic activities in a variety of mental health settings. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated in both the theory and the clinical components. Admission to the Associate
Degree Nursing Program and appropriate standing in the Nursing Program are required.

**Hours:** 36 lecture, 81 laboratory
**CCS:** Occupational Education
**Transferable:** CSU and private colleges

### NURS B26 Medical Surgical Nursing 3

**5.5 units**

**Prerequisites:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director.

**Description:** Level 3 course focuses on the application of previously learned knowledge as well as the development of more in-depth knowledge for adult clients across the lifespan with more diverse and complex disease states. The nursing process is the framework used in this course to present topics, such as leadership, critical thinking, pharmacology and safety. Correlated clinical experiences are provided with adult patients who have increasingly complex outcomes. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated and analyzed throughout the didactic and clinical experiences.

**Hours:** 45 lecture, 162 laboratory
**CCS:** Occupational Education
**Transferable:** CSU and private colleges

### NURS B27 Pediatric Nursing

**3.5 units**

**Prerequisites:** Admission to the Associate Degree Nursing Program and appropriate standing in the Nursing Program.

**Description:** This Level 3 course provides a foundation for pediatric nursing using growth and development concepts as a framework for presenting problems and special concerns of the pediatric client. Communication, anticipatory guidance, response to hospitalization, legal and ethical issues and health care of pediatric clients are discussed. Correlated clinical experiences emphasize clinical decision making, patient care management, including prioritization of care, and development of psychomotor skills. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated in both the theory and the clinical components. Admission to the Associate Degree Nursing Program and appropriate standing in the Nursing Program are required.

**Hours:** 27 lecture, 108 laboratory
**CCS:** Occupational Education
**Transferable:** CSU and private colleges

### NURS B28 Medical Surgical Nursing 4

**7 units**

**Prerequisites:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director.

**Description:** This capstone course focuses on the integration of knowledge and skills, though analysis and synthesis. The nursing process is used as the framework for providing nursing care to clients who have critical and complex medical conditions. Correlated clinical experiences emphasize refinement of clinical decision-making, formulating and revising priorities of care; psychomotor skills and patient care management. The roles of Provider of Care, Manager of Care, and Member of Profession are integrated to promote success in transitioning from student to entry level Registered Nurse.

**Hours:** 54 lecture, 216 laboratory
**CCS:** Occupational Education
**Transferable:** CSU and private colleges

### NURS B29 Gerontology - Community Nursing

**2 units**

**Prerequisites:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director.

**Description:** Level 4 course integrates previous medical surgical knowledge and leadership skills as it applies to the aging adult. The Nursing process framework is used to explore the lifestyle and physical changes that occur with aging, apply the process of initiating health referrals and propose the outcome criteria for evaluating the aging individuals response to teaching/learning. Correlated clinical experiences will emphasize the application of interventions that will increase the older adults functional ability. The roles of Provider of Care, Manager of Care, and Member of Profession are integrated throughout the didactic and clinical experiences.

**Hours:** 18 lecture, 54 laboratory
**CCS:** Occupational Education
**Transferable:** CSU and private colleges

### NURS B31 Basic Pharmacology

**2 units**

**Prerequisites:** Enrollment in first semester of ADN/VN program or evaluation by program director for skills and knowledge, concurrent enrollment in NURS B1L/B1Lv.

**Description:** Advanced pharmacology is the development of the theoretical and technical knowledge base necessary in meeting advanced pharmacological needs of the client in a variety of settings. The course uses the nursing process as the framework and addresses the roles of provider of care manager of care, and member of the profession. Professional issues and concepts for nursing practice related to intravenous therapy are presented including techniques of intravenous therapy and intravenous drug administration. The student will apply the advanced pharmacology principles in the clinical setting in all nursing courses.

**Hours:** 27 lecture, 27 laboratory
**CCS:** Occupational Education, Credit - not degree applicable
**Transferable:** Not degree applicable. Not transferrable.

### NURS B33 Advanced Pharmacology

**2 units**

**Prerequisites:** Appropriate standing in the RN program.

**Description:** Advanced pharmacology is the development of the theoretical and technical knowledge base necessary in meeting advanced pharmacological needs of the client in a variety of settings. The course uses the nursing process as the framework and addresses the roles of provider of care manager of care, and member of the profession. Professional issues and concepts for nursing practice related to intravenous therapy are presented including techniques of intravenous therapy and intravenous drug administration. The student will apply the advanced pharmacology principles in the clinical setting in all nursing courses.

**Hours:** 27 lecture, 27 laboratory
**CCS:** Occupational Education, Credit - not degree applicable
**Transferable:** Not degree applicable. Not transferrable.

### NURS B50 Advanced Pharmacology

**1 unit**

**Prerequisites:** Appropriate standing in the VN Program and NURS B31ab with a C or better.

**Hours:** 18 lecture
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

### NURS B70 Role Transition: Bridging Nursing Theory to Practice

**2 units**

**Prerequisites:** LVN or RN licensure; or Nursing student with evaluation of skills and knowledge by the ADN Program Director.

**Description:** Level 3 course designed for the LVN who is pursing licensure as an RN or the RN who wants to update skills to re-enter the workforce. The focus is on the development of critical thinking skills, physical assessment, the nursing process, role transition, and clinical skill competencies. The roles of provider of care, manager of
NURS B100 Strategies for Success in a Nursing Program
2 units
Description: Designed to prepare students for successful completion of the nursing program. The students will be given an overview of the program requirements and expectations and they will acquire information and skills that facilitate student success once admitted into the program. Students will also explore nursing career options which will guide the development of their educational plan. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. Pass/No Pass grading only.
Hours: 36 lecture
Repeat: none
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

NURS B201A Learning Lab
1 unit
Prerequisites: Enrollment into the ADN or LVN program or nursing student with evaluation of skills and knowledge by the ADN Program Director.
Description: An on-campus laboratory designed for self-paced practice and mastery of nursing skills necessary for providing safe client care throughout the program. This level 1 course provides instructional guidelines to assist students to refine newly acquired skills and develop the competency level expected of entry level nurses. Multimedia and computer assisted instructional materials which support the semester learning objectives are available. Subsequent enrollment in additional semesters will offer the student an opportunity for additional skill and competency development within the subject matter.
Note: Offered credit/no credit grading only. Open entry/open exit. Formerly NURS B201L.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

NURS B201B Learning Lab
1 unit
Prerequisites: Enrollment into the ADN or LVN program or nursing student with evaluation of skills and knowledge by the ADN Program Director.
Description: An on-campus laboratory designed for self-paced practice and mastery of nursing skills necessary for providing safe client care throughout the program. This level 2 course builds upon content from level 1 curriculum and provides instructional guidance to assist students in refining newly acquired skills and develop the competency level expected of entry level nurses. Multimedia and computer assisted instructional materials which support the semester learning objectives are available. Subsequent enrollment in additional semesters will offer the student an opportunity for additional skill and competency development within the subject matter.
Note: Offered credit/no credit grading only. Open entry/open exit. Formerly NURS B201L.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

NURS B201C Learning Lab
1 unit
Prerequisites: Enrollment in the ADN or LVN program or nursing student with evaluation of skills and knowledge by the ADN Program Director.
Description: An on-campus laboratory designed for self-paced practice and mastery of nursing skills necessary for providing safe client care throughout the program. This level 3 course builds upon content from level 2 curriculum and provides instructional guidance to assist students to refine newly acquired skills and develop the competency level expected of entry level nurses. Multimedia and computer assisted instructional materials which support the semester learning objectives are available. Subsequent enrollment in additional semesters will offer the student an opportunity for additional skill and competency development within the subject matter.
Note: Offered credit/no credit grading only. Formerly NURS B201L.
Hours: 54 laboratory
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

Radiologic Technology Courses
RADT B1A Introduction to Radiologic Technology
2 units
Prerequisites: Enrollment into the Radiologic Technology Program and MATH BD/MATH B70.
Description: Orientation to the duties and responsibilities of the Radiologic Technologist. Emphasizes the medical use of radiation, interpersonal communication, ethics, radiation safety and protection, foundations and futures of medicine and radiology, hospital and departmental operations, professional development and quality assurance. Assistance in understanding program requirements.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Not degree applicable. Not transferrable.

RADT B1B Patient Care
2 units
Prerequisites: MEDS B52, Enrollment into the Radiologic Technology Program and BIOL B18.
Description: Introduction to the basic concepts of patient care in the field of radiography. Instruction and demonstration in aseptic and non-aseptic techniques, infection control, body mechanics, transfer and immobilization techniques, vital signs, oxygen therapy administration, medical emergencies, and contrast media.
Hours: 36 lecture
RADT B2A Radiographic Anatomy and Positioning 1
3 units
Prerequisites: RADT B1a, RADT B1b and RADT B4b with grades of ‘C’ or better.
Description: Instruction and laboratory practice in radiographic positioning of the chest, abdomen, lower and upper extremities, arthrography, bone surveys and bone densitometry with correlated film anatomy.
Hours: 36 lecture, 54 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B2B Radiographic Anatomy and Positioning 2
3 units
Prerequisites: RADT B2a, B3a, and B4b (courses equivalent to completion of the first fall semester of the Radiologic Technology Program).
Description: Instruction and laboratory practice in radiographic positioning of the vertebral column, bony thorax, gastrointestinal, biliary and urinary systems with correlated film anatomy.
Hours: 36 lecture, 54 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B2C Radiographic Anatomy and Positioning 3
3 units
Prerequisites: Completion of second summer session of Radiologic Technology Program.
Description: Instruction and laboratory practice in radiographic positioning of the head and skull with correlated film anatomy. Introduction to the principles of mammography, angiography and interventional imaging with correlated anatomy.
Hours: 36 lecture, 54 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B3A Radiographic Principles 1
3 units
Prerequisites: RADT B1a, B1b, B4a (courses equivalent to completion of the first summer session of the Radiologic Technology Program).
Description: Principles of x-ray tube construction, prime exposure factors, beam restriction and scatter radiation, grids, radiographic film, image receptors and intensifying screens, image processing, sensitometry and digital imaging.
Hours: 36 lecture, 54 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B3B Radiographic Principles 2
3 units
Prerequisites: RADT B2a, B3a, B4b, and B12 with grades of ‘C’ or better.
Description: Principles of radiographic image analysis including density, contrast, detail and distortion. Principles of exposure control systems, mobile radiography, and fluoroscopy.
Hours: 36 lecture, 54 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B4A Introduction to Clinical Education
1.5 units
Prerequisites: Acceptance into the Radiologic Technology Program.
Description: Orientation to clinical education including introduction to patient transportation techniques, image processing, patient registration and file room, equipment orientation, general patient care and safety training. Observation and introduction to basic radiographic procedures stressing radiation safety and protection.
Hours: 94 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B4B Clinical Education 1
4 units
Prerequisites: RADT B4A
Description: Supervised clinical experiences are provided to develop skills in basic radiographic procedures. Fundamentals of anatomy, positioning and technical factors for imaging quality, radiation safety and protection.
Hours: 256 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B5 Radiation Physics
3 units
Prerequisites: Enrollment in Radiologic Technology Program.
Description: Fundamentals of physics, radiologic quantities and units, the atom, electromagnetic radiation, electricity and magnetism, x-ray equipment, x-ray production, filtration, x-ray interaction with matter, radiation protection and quality assurance.
Hours: 72 lecture, 18 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B6 Clinical Education 2
4 units
Prerequisites: RADT B4b with a grade of ‘C’ or better.
Description: Supervised clinical experiences are provided to perfect skills in a variety of basic radiographic procedures. Case studies of radiographic procedures discussing anatomy, pathology, positioning and technical factors of image quality are analyzed on a case-by-case basis.
Hours: 18 lecture, 238 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B7 Clinical Education 3
6.5 units
Prerequisites: Completion of the first spring semester of the Radiologic Technology Program.
Description: Supervised clinical experiences are provided to perfect skills in a variety of radiographic procedures. Case studies of radiographic procedures discussing the fundamentals of anatomy, positioning and technical factors of film quality are analyzed on a case-by-case basis. Extension of radiographic procedures demonstrated in RADT B2a, B2b.
Hours: 18 lecture, 382 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B9A Sectional Anatomy for Medical Imaging
3 units
Prerequisites: Current enrollment in the Radiologic Technology Program or evaluation of students imaging skills.
Description: Sectional anatomy of the head, neck, spine, thorax,
abdomen and pelvis. Emphasis on computed tomography and magnetic resonance images and other imaging modalities using sectional
anatomy.

Hours: 54 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B10 Clinical Education 4
6.5 units
Prerequisites: Completion of second summer of Radiologic Technology Program.

Description: Supervised clinical experiences are provided in advanced radiographic and fluoroscopic procedures. Case studies of radiographic procedures discussing anatomy, pathology, positioning and technical factors of image quality are analyzed on a case-by-case basis. Correlated with RADT B2c.

Hours: 18 lecture, 366 laboratory
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B11 Radiographic Pathology
2 units
Prerequisites: Completion of second fall semester of Radiologic Technology Program.


Hours: 36 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B12 Radiobiology and Radiation Protection
2 units
Prerequisites: RADT B1a, B1b, B4a (courses equivalent to completion of the first summer session of the Radiologic Technology Program).

Description: Fundamental concepts of radiobiology including interactions of matter, biological effects on living cells and organ systems, radiation quantities and units, filtration, radiation monitoring, ALARA concepts and radiation protection for occupational and non-occupational populations. Review of current related California and Federal health and safety codes.

Hours: 36 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B13 Clinical Education 5
6 units
Prerequisites: RADT B10 with a grade of ‘C’ or better and successful completion of second fall semester of Radiologic Technology Program.

Description: Supervised clinical experiences are provided to perfect skills in advanced radiographic procedures. Designed to prepare the student for program completion and certification examinations.

Hours: 384 laboratory
Repeat: 2
CCS: Occupational Education
Transferable: CSU and private colleges

RADT B30 Principles of Venipuncture
1 unit
Prerequisites: Current Cardio pulmonary Resuscitation, Healthcare Provider card.

Description: Basic instruction, practice and competency of venipuncture methods and procedures for the administration of contrast agents. Routes of administration, safety, basic pharmacology, dosage calculations and emergency procedures. Course meets California Health and Safety Code, Section 106985, pertaining to Certified Radiologic Technologists performing venipuncture.

Hours: 18 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

Small Business Courses

SMBS B73 Establishing an Advertising Budget
0.5 unit
Recommended: Reading - one level prior to transfer
Hours: 9 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

Sociology Courses

SOCI B1 Introduction to Sociology
3 units
Recommended: Reading - one level prior to transfer; Writing - one level prior to transfer

Description: Scientific study of human social behavior: assumes that external forces shape individual behavior. Focus of this perspective is to identify, explain, and interpret these forces. As such, essential concepts, research methods, social institutions, and applications essential to the sociological perspective are examined.

Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

SOCI B2 Problems of Modern Society
3 units
Recommended: Reading - one level prior to transfer; Writing - one level prior to transfer

Description: Studies the social problems of modern society, especially in the United States, in order to arrive at alternate methods of identification and measurement of social problems. An attempt to gain understanding by judging the probable results of proposed changes. Problems include deviant behavior; including crime and delinquency, alcoholism, family violence, deviant subcultures, problems of man in industrial society, including the industrial workers and white collar workers and also stress and mental illness.

Hours: 54 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

SOCI B20 Social Psychology
3 units
Recommended: SOCI B1 or PSYC B1a with grades of ‘C’ or better.
Recommended: Reading - one level prior to transfer; Writing - one level prior to transfer

Description: Examines the effects of social influence on individual behavior: This includes the study of conformity, compliance, obedience, persuasion, attitude formation and attitude change. The role of social judgment, aggression, prejudice, prosocial behavior, attraction, and interpersonal relationships are also examined. The scientific method and research strategies in social psychology are employed. Not open to students who have taken the equivalent course, PSYC B20.
Soil Science Courses

SOIL B1 Introduction to Soil Science
3 units
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer. MATH BA/MATH B60 or B200a.
Note: Core agriculture course; required of all agriculture majors.
Description: Problems pertaining to the soil which are important in the profitable production of plants, including physical properties of soils, fertilizers, crop rotation, erosion and salt control, cultivation problems and irrigation.
Hours: 36 lecture, 54 laboratory
CCS: Occupational Education
Transferable: UC, CSU and private colleges

Spanish Courses

SPAN B1AB Elementary Spanish
5 units
Recommended: Reading - one level prior to transfer. SPAN B1a or equivalent taken prior to SPAN B1b.
Description: Introduction to the Spanish language and culture by means of a program that involves video, audio, and print media into an integrated method of planned immersion. Students will develop all language skills that include reading, writing, listening comprehension and oral production.
Hours: 90 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

SPAN B2AB Elementary Spanish
5 units
Recommended: Knowledge equivalent to SPAN B1ab with a grade of ‘C’ or better.
Description: Continues using the planned immersion approach begun in SPAN B1ab. Explores new tenses and moods of the language and continues vocabulary enhancement, development of oral production and writing, integrating aspects of the Spanish culture.
Hours: 90 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

SPAN B3 Intermediate Spanish
4 units
Prerequisite: SPAN B2
Recommended: Knowledge equivalent to SPAN B2ab with a minimum grade of ‘C’ or better. Students in this course should have studied the conjugations of the present indicative and the present subjunctive, the preterit and the imperfect, the direct and indirect object pronouns in addition to basic Spanish vocabulary and expressions.
Description: Intensive grammar review of the Spanish language, supplemented with reading selections of Spanish and Latin American authors with the purpose of nourishing an understanding of the Spanish culture.
Hours: 72 lecture
CCS: Liberal Arts/Science
Transferable: UC, CSU and private colleges

SPAN B4 Intermediate Spanish
4 units
Recommendation: SPAN B3 with a grade of ‘C’ or higher or knowledge equivalent to the completion of SPAN B3.
Description: Continued advanced readings from Spanish and Latin American authors, and continued intensive grammar review of the
Spanish language preparing students for upper division work in literature and language.

**SPAN B10 Spanish for Heritage Speakers**  
4 units  
**Recommended:** Native speaker or equivalent.  
**Description:** Designed for students whose native language is Spanish but need to improve their writing, grammar, vocabulary, and spelling skills. Strong emphasis will be placed on punctuation, accent rules, composition, grammar, vocabulary, and reading. Course taught entirely in Spanish.  
**Hours:** 72 lecture  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

**SPAN B35 Spanish for Heritage Speakers I**  
4 units  
**Description:** This course is designed for students whose native language is Spanish but need to improve their academic skills in language. This course will focus on advanced grammar concepts, subjunctive tenses, sequence of tenses, extensive writing, and reading. The writing and reading skills will be strengthened as well as vocabulary building. This course is taught entirely in Spanish.  
**Hours:** 72 lecture  
**Transferable:** UC, CSU and private colleges

**SPAN B36 Spanish for Heritage Speakers II**  
4 units  
**Description:** This course is a continuation of Spanish B35 for students whose native language is Spanish but need to improve their academic skills in language. This course will focus on advanced grammar concepts, subjunctive tenses, sequence of tenses, extensive writing, and reading. The writing and reading skills will be strengthened as well as vocabulary building. This course is taught entirely in Spanish.  
**Hours:** 72 lecture  
**Transferable:** UC, CSU and private colleges

**Special Studies Courses**

**SPST B48 Special Studies: Honors**  
0.5-2 units  
**Description:** Study and projects planned to provide an enriched academic experience for students not being served in regularly scheduled courses. It is planned to meet the needs of superior students whose background and interests indicate that they could profit from individual study in a subject area. The course will be designed according to the subject field studies, i.e. Special Studies/German. Field trips may be required.  
**Hours:** 9 hours for .5 unit  
**Repeat:** 3  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

**SPST B49 Special Studies: Honors**  
0.5-2 units  
**Description:** Seminars and/or individual conference by arrangement. Independent, individual study planned to provide an enriched academic experience for students not being served in regularly scheduled courses. Meets the needs of superior students whose background and interests indicate that they could profit from individual study in a subject area. The course will be designed according to the subject field studies.  
**Transferable:** UC, CSU and private colleges

**SPST B49L Special Studies Lab: Honors**  
1-2 units  
**Description:** Seminars and/or individual conference by arrangement. Independent, individual study planning to provide an enriched academic experience for students not being served in regularly scheduled courses. It is planned to meet the needs of superior students whose background and interests indicate that they could profit from individual study in a subject area. The course will be designated according to the subject field of studies, i.e. Special Studies/German. Field trips may be required.  
**Hours:** 54 hours for 1 unit  
**Repeat:** 1  
**CCS:** Liberal Arts/Science  
**Transferable:** UC, CSU and private colleges

**SPST B201 Special Projects and Studies**  
1-3 units  
**Description:** Special projects of studies in an area not being served by regularly scheduled courses. The student is required to meet regularly scheduled courses. The student is required to meet periodically with faculty advisor and/or department chair to review progress in the study program. Field trips may be required.  
**Hours:** 18 hours for 1 unit  
**Repeat:** 3  
**CCS:** Liberal Arts/Science  
**Transferable:** Not degree applicable. Not transferrable.

**SPST B201L Special Projects and Studies**  
1-3 units  
**Description:** Special projects of studies in an area not being served by regularly scheduled courses. The student is required to meet periodically with faculty advisor and/or department chair to review progress in the study program. Maximum 6 units. Field trips may be required.  
**Hours:** 54 hours for 1 unit  
**Repeat:** 3  
**CCS:** Liberal Arts/Science  
**Transferable:** Not degree applicable. Not transferrable.

**SPST B210 Independent Reading Program**  
1-2 units  
**Recommended:** Reading - one level prior to transfer  
**Description:** Independent reading of books in the social sciences, physical sciences and humanities under Library staff supervision.  
**Hours:** 54 hours for each 1 unit  
**Repeat:** 1  
**CCS:** Liberal Arts/Science  
**Transferable:** CSU and private colleges

**Student Development Courses**

**STDV B1 Educational Planning**  
0.5 unit  
**Recommended:** Reading - one level prior to transfer.
Description: Designed to assist students in understanding college requirements and to help them in making educational plans. Required for the associate degree. Satisfies the 0.5 units educational planning requirement for graduation from Bakersfield College.

Note: Required for both the AA and AS degrees.

Hours: 9 lecture

CCS: Liberal Arts/Science

Transferable: CSU and private colleges

STDV B2 Career Decision Making/Planning
1.5 units

Recommended: Reading - one level prior to transfer.

Description: An introduction to career search and strategies. Provides an overview of the career decision-making process including goal setting, decision making and research in the job market. Satisfies the 0.5 educational planning graduation requirement for Bakersfield College.

Hours: 27 lecture

CCS: Liberal Arts/Science

Transferable: CSU and private colleges

STDV B3 Career, Life, and Educational Planning
3 units

Recommended: Reading - one level prior to transfer.

Description: Assists students with self-exploration, career transitions and career-life planning in order to achieve success in a diverse society. Critical thinking skills will be utilized through a systematic approach to career development by examining values, interests, skills, life roles, personality type, personal self-management, decision making and goal-setting throughout the life span. Students will develop educational options, possible career pathways and majors, and a student educational plan. Job search strategies and resume writing will be introduced. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College.

Hours: 54 lecture

CCS: Liberal Arts/Science

Transferable: CSU and private colleges

STDV B4 International Student Orientation and Educational Planning
1 unit

Recommended: Reading - one level prior to transfer.

Description: Designed to give international students a practical training in studying effectively, the techniques for survival within the college setting, cultural adjustment cycle, immigration regulations and making their educational plan for college studies. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College.

Hours: 18 lecture

Repeat: 1

CCS: Liberal Arts/Science

Transferable: CSU and private colleges

STDV B6 Tools for College Survival
2 units

Recommended: Reading - one level prior to transfer.

Description: Integrates personal growth, learning techniques academic and career success, problem solving, critical, and creative thinking. Course focuses on the following topics: self-evaluation and assessment, goal setting, career decision making, educational planning, time and financial management techniques, instructor-student relationships, cultural diversity, stress management, campus resources, learning styles and strategies including lecture note-taking, test-taking, memory and concentration. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College. Effective credit only.

Hours: 36 lecture

CCS: Liberal Arts/Science

Transferable: CSU and private colleges

Technical Mathematics Courses

TECM B52 Introduction to Technical Mathematics
3 units

Description: Elementary course in mathematics intended primarily for technology, majors covering arithmetic processes, ratio, proportion, elementary algebra, geometric forms and construction, and elementary trigonometry.

Hours: 54 lecture

CCS: Occupational Education

Transferable: Not degree applicable. Not transferrable.

Theatre Arts Courses

THEA B1 Introduction to Acting
3 units

Recommended: Reading - one level prior to transfer.

Prerequisites: THEA B1 or By audition.

Description: This course is an exploration of theories and techniques used in preparation for the interpretation of drama through acting. The emphasis will be placed on deepening the understanding of the acting process as it relates to scripted materials such as monologues, scenes and full plays.

Hours: 54 lecture

CCS: Liberal Arts/Science

Transferable: UC, CSU and private colleges

THEA B2A Elements of Acting
3 units

Recommended: Reading - one level prior to transfer.

Prerequisites: THEA B1 or By audition.

Description: This course is an exploration of theories and techniques used in preparation for the interpretation of drama through acting. The emphasis will be placed on deepening the understanding of the acting process through scripted materials such as plays, scenes, and monologues.

Hours: 54 lecture

Transferable: UC, CSU and private colleges

THEA B2B Elements of Acting
3 units

Recommended: Reading - one level prior to transfer.

Prerequisites: THEA B1 and THEA B2A or by audition.

Description: This course is an exploration of theories and techniques used in preparation for the interpretation of drama through acting. The emphasis will be placed on deepening the understanding of the acting process through scripted materials such as plays, scenes, and monologues.

Hours: 54 lecture

Transferable: UC, CSU and private colleges

THEA B12A Introduction to Shakespeare
3 units

Recommended: Reading - one level prior to transfer.

Description: Examination of Shakespeare’s use of verse and prose, imagery, language, developing style, themes, and character development as applied to production concerns. Emphasis is the reading of four representative plays.

Hours: 54 lecture
CCS: Liberal Arts/Science  
Transferable: UC, CSU and private colleges

THEA B20 Theatre Appreciation  
3 units  
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.  
Description: This class introduces the student to the fundamental concepts and elements of theatre, drama and entertainment by exploring their origins, history, and functions in society as they are experienced and used by individuals.  
Hours: 54 lecture  
CCS: Liberal Arts/Science  
Transferable: UC, CSU and private colleges

THEA B27 Acting Theatre Laboratory  
1-3 units  
Prerequisites: Audition.  
Recommended: Reading - one level prior to transfer.  
Description: The rehearsal and production of both main stage and experimental theatre dramas. Theatre activity for the beginner or expert in acting.  
Hours: 54 hours for 1 unit  
Repeat: 3  
CCS: Liberal Arts/Science  
Transferable: UC, CSU and private colleges

THEA B28 Technical Theatre Laboratory  
1-3 units  
Prerequisites: Reading - one level prior to transfer.  
Recommended: Participation in set construction, lighting, make-up, costume, properties, or any other technical area of theatrical productions.  
Description: Participation in set construction, lighting, make-up, costume, properties, or any other technical area of theatrical productions.  
Hours: 54 hours for 1 unit  
Repeat: 3  
CCS: Liberal Arts/Science  
Transferable: UC, CSU and private colleges

THEA B31 Introduction to Film Studies  
3 units  
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.  
Description: Designed to give the student a heightened awareness and appreciation of films through viewing, discussing and writing about them. The critical viewing and discussion of film will provide the basis for the development of aesthetic appreciation.  
Hours: 54 lecture  
CCS: Liberal Arts/Science  
Transferable: UC, CSU and private colleges

THEA B32 Contemporary Film Studies  
3 units  
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.  
Description: Designed to give the student a heightened awareness and appreciation of genre film categories through viewing various genre films, discussing and writing about them.  
Hours: 54 lecture  
CCS: Liberal Arts/Science  
Transferable: UC, CSU and private colleges

Vocational Nursing Courses

VNRS B1 Nursing Fundamentals  
3 units  
Prerequisites: Admission to the Vocational Nursing Program.

Corequisite: VNRS B1LV  
Description: Provides a foundation of basic nursing arts and sciences necessary for the practice of nursing. Professional issues and trends of nursing are identified along with the development of an understanding of the nursing process. Concepts of the nurse, client and health care environment, professional nursing and nursing skills, growth and development of the adult, human needs in health and illness, basic physiological needs, and providing a safe environment are presented.  
Hours: 54 lecture  
CCS: Occupational Education  
Transferable: CSU and private colleges

VNRS B1G Gerontological Nursing  
1 unit  
Prerequisites: Admission to the Vocational Nursing Program.  
Corequisite: VNRS B1LV  
Description: Provides a foundation of basic gerontological nursing using demographics, theories of aging and growth and development concepts as a framework for presenting health problems and special concerns of the elderly. Legal and ethical issues, economics, and healthcare of older adults using a nursing process approach are discussed.  
Hours: 18 lecture  
CCS: Occupational Education  
Transferable: CSU and private colleges

VNRS B1LV Vocational Nursing Laboratory  
6 units  
Prerequisites: Admission to the Vocational Nursing Program and concurrent enrollment in VNRS B1 and VNRS B75 and VNRS B1G.  
Description: Laboratory course correlated with the first semester theory course in the Vocational Nursing Program. The major focus will be on learning fundamental nursing skills with application in geriatric and medical surgical settings. Incorporated is the nursing process which utilizes the skills of assessment, planning, intervention and evaluation providing a systemic approach to nursing practice.  
Hours: 324 laboratory  
CCS: Occupational Education  
Transferable: CSU and private colleges

VNRS B6 Pediatric Nursing  
1.5 units  
Prerequisites: Concurrent enrollment in VNRS B97LV.  
Description: Provides a foundation for pediatric nursing using growth and development concepts as a framework for presenting health problems and special concerns of the pediatric client. Communication, anticipatory guidance, response to hospitalization, legal and ethical issues and health care of pediatric clients are discussed. Appropriate standing in the VN Program and concurrent enrollment in VNRS B97LV are required.  
Hours: 27 lecture  
CCS: Occupational Education  
Transferable: CSU and private colleges

VNRS B7 Parent/Newborn Nursing  
1.5 units  
Prerequisites: Appropriate Standing in the Vocational Nursing Program  
Corequisite: VNRS B87LV. The Board of Vocational Nursing and Psychiatric Technicians requires this course to be offered as a corequisite.  
Description: This course provides an overview of contemporary family-centered childbirth, incorporating the self-care movement and changing roles of the nurse. Legal and ethical issues of mater-
nal/newborn nursing are discussed. Coverage of maternal/newborn nursing uses a nursing process approach for antepartum, intrapartum, postpartum, and neonatal care.

**Courses**

**VNRS B31A Basic Pharmacology**
1.5 units
Prerequisites: Entrance in the first semester of the ADN or VN Program or evaluation by program director or instructor for skills and knowledge.
Description: Provides a foundation for pharmacological nursing by assisting the student to acquire, comprehend, and apply essential knowledge related to drug therapy. Legal and ethical issues, nursing responsibilities, and client participation associated with medication administration are discussed. A nursing process approach is utilized throughout every aspect of drug study and administration.
Note: Not open to students with credit in NURS B31A, NURS B31AB, or VNRS B31AB.
Hours: 27 lecture
CCS: Liberal Arts/Science
Transferable: CSU and private colleges

**VNRS B31AB Basic Pharmacology**
2 units
Prerequisites: Admission to the Vocational Nursing Program.
Description: Provides a foundation for pharmacological nursing using concepts of growth and development throughout the life span, pharmacology and drug administration as a framework for presenting the problems and special concerns of the client using medications. Legal and ethical issues, nursing responsibilities and client participation associated with medication administration are discussed. A nursing process approach is utilized throughout every aspect of drug study and drug administration.
Hours: 36 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

**VNRS B31B Medication Calculations**
0.5 unit
Prerequisites: Entrance in the first semester of the ADN or VN Program or evaluation by program director or instructor for skills and knowledge.
Description: Provides a foundation for pharmacological calculations using the nursing process. Legal and ethical issues and nursing responsibilities associated with medication calculations are discussed.
Note: Not open to students with credit in NURS B31B, NURS B31AB, or VNRS B31AB.
Hours: 9 lecture
CCS: Occupational Education
Transferable: CSU and private colleges

**VNRS B50A Advanced Pharmacology, Part A**
0.5 unit
Prerequisites: Appropriate standing in the nursing program and VNRS B31ab with a grade of ‘C’ or better.
Description: Designed to prepare the vocational nurse to function safely when administering medications to a group of clients. Students will be administering medications to more complex clients in the laboratory setting. Expounds on principles learned in VNRS B31ab.
Hours: 9 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B50B Advanced Pharmacology, Part B**
0.5 unit
Prerequisites: Appropriate standing in the VN Program and VNRS B31AB.
Description: Designed to prepare the vocational nurse to function safely when administering medications to a group clients. Students will be administering medications to more complex clients in the laboratory setting. Expounds on principles learned in VNRS B31ab.
Hours: 9 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B54 Cardiovascular Nursing**
2 units
Prerequisites: Appropriate standing in VN Program.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B56 Gastrointestinal Nursing and Nutrition**
3 units
Prerequisites: Appropriate standing in the VN Program.
Hours: 54 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B57 Respiratory Nursing**
2 units
Prerequisites: Appropriate standing in the VN Program.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B58 Endocrine Nursing**
1 unit
Prerequisites: Appropriate standing in the VN Program.
Hours: 18 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B60 Musculoskeletal Nursing**
2 units
Prerequisites: Appropriate standing in the VN Program.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B61 Genitourinary Nursing**
2 units
Prerequisites: Appropriate standing in the VN Program.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B62 Neurosensory Nursing**
2 units
Prerequisites: Appropriate standing in the VN Program.
Hours: 36 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B63 Integumentary Nursing**
1 unit
Prerequisites: Appropriate standing in the VN Program.
Hours: 18 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B67 Principles of Pharmacology**

2 unit

Description: This course is designed to prepare the vocational nurse to function safely when administering medication. Using the nursing process as the framework, concepts of pharmacology, calculations, and nursing considerations that pertain to the safe administration of medication are presented.

Transferable: Associate Degree only. Not transferrable.

**VNRS B68 Basic Medical Surgical Nursing**

3 unit

Description: This Vocational Nursing theory course focuses on the application of the nursing process in common health/illness situations. Using the nursing process as a framework, emphasis is placed on the role of the vocational nurse as a provider of care in assisting the adult and geriatric patient with chronic disorders affecting the GI, GU endocrine, intergumentary systems. Topics in basic nutrition are also presented including an overview of basic nutrients, basic therapeutic diets, and patient education specific to chronic conditions. Basic mental health concepts are introduced. Concepts in this course are correlated with the clinical settings presented in Foundations for Vocational Nursing Practice Lab.

Hours: 54
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B69 Foundations for Vocational Nursing Practice**

3 unit

Description: This Vocational Nursing theory course begins with an introduction to the roles of the vocational nurse and provides a foundation of basic nursing arts and sciences necessary for the practice of nursing including concepts specific to the gerontological client. Using the nursing process as a framework, concepts of professionalism, growth and development, safety, and health concerns for the adult and geriatric population are discussed. Legal and ethical considerations, cultural diversity, the nursing process, and basic data collection are included as theory topics along with the presentation of basic mental health concepts applicable to the geriatric client. Fundamental nursing skills are discussed in detail with concurrent hands-on practice of skills.

Hours: 54
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B69L Foundations for Vocational Nursing Practice Lab**

6 unit

Description: This Vocational Nursing laboratory course focuses on the provider of care role of the vocational nurse in assisting the adult and geriatric patient to meet essential activities of daily living. A beginning knowledge of nursing techniques and medication administration with an understanding of the principles, rationales, and procedures for each technique is emphasized. Using the nursing process as a framework, students will provide basic care for adult and geriatric patients with various uncomplicated diseases and disorders who require nursing intervention to meet basic human needs. Basic communication techniques for the adult and geriatric client with mental health disorders are integrated throughout. This clinical course includes experiences primarily in long term care clinical settings.

Hours: 324 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B75 Medical Surgical Nursing I**

3.5 units

**Prerequisites:** Appropriate standing in VN Program.

**Corequisite:** VNRS B1LV. The Board of Vocational Nursing and Psychiatric Technicians requires this course to be offered as a corequisite.

Description: This course provides a study of etiology, pathophysiology, assessment, planning and evaluation of adult clients with gastrointestinal, skin, eye, ear, upper airway, nutritional genitourinary, and fluid and electrolyte disorders. Integrated into course are beginning concepts of the therapeutic, use of drugs, diet therapy, and the physiological and psychosocial problems. Students are required to initiate critical thinking skills when dealing with clients and families. Concepts and skills in course are correlated in laboratory settings presented in the corresponding VNRS B1LV.

Hours: 63 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B85 Medical Surgical Nursing II**

2.5 units

**Prerequisites:** Appropriate standing in the nursing program and concurrent enrollment in VNRS B85LV.

**Recommended:** Reading - one level prior to transfer.

Description: Provides a study of etiology, pathophysiology, assessment, planning and evaluation of adult clients with cardiovascular, peripheral vascular and respiratory disorders. Knowledge imparted builds on nursing theory from the previous medical surgical nursing course (VNRS B75). Emphasis will be placed on developing critical thinking skills. Concepts and skills in this course will be correlated in the various laboratory settings presented in the corresponding VNRS B85LV.

Note: Not open to students who have taken VNRS B80.

Hours: 45 lecture
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B85LV Medical Surgical Nursing 2 – Clinical Laboratory**

1.5 units

**Prerequisites:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B85.

Description: Lab course which is correlated with the corresponding medical surgical course in the Vocational Nursing Program. Focus of course is team leading, time management in caring for two clients, providing medications to a group of clients, and improving on skills learned in Medical Surgical Nursing I. Incorporated into this course is the utilization of intermediate assessment, planning, intervention and evaluation under clinical supervision.

Hours: 81 laboratory
CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

**VNRS B86 Medical Surgical Nursing III**

4 units

**Prerequisites:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B86LV.

Description: Provides a study of etiology, pathophysiology, assessment, planning and evaluation of adult clients with musculoskeletal,
connective tissue, and endocrine disorders. Knowledge imparted builds on nursing theory from the previous medical surgical nursing courses (VNRS B75, VNRS B85). Emphasis will be placed on developing critical thinking skills. Concepts and skills in this course will be correlated in the various laboratory settings presented in the corresponding VNRS B86LV.

**Hours:** 72 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**VNRS B86LV Medical Surgical Nursing 3 – Clinical Laboratory**  
**3 units**  
**Prerequisites:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B86.

**Description:** Laboratory course correlated with the corresponding medical surgical course in the Vocational Nursing Program. Focus is team leading, time management in caring for two clients, providing medications to a group of clients and in improving on skills learned in Medical Surgical Nursing II. Incorporated into course is the utilization of intermediate assessment, planning, intervention and evaluation under clinical supervision.

**Hours:** 162 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**VNRS B87LV Maternal Newborn - Clinical Laboratory**  
**1.5 units**  
**Prerequisites:** Appropriate standing in the Vocational Nursing Program.

**Corequisite:** VNRS B7. The Board of Vocational Nursing and Psychiatric Technicians requires this course to be offered as a corequisite.

**Description:** This laboratory course is correlated with the corresponding maternal-newborn course in the Vocational Nursing Program. Incorporated into course is the nursing process which utilizes the skills of assessment, planning, intervention, and evaluation providing a systemic approach to nursing practice.

**Hours:** 81 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**VNRS B95 Medical Surgical Nursing 4**  
**4 units**  
**Prerequisites:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B95LV.

**Description:** Provides a student of etiology, pathophysiology, assessment, planning and evaluation of adult clients with more complex and critical medical surgical problems and disease states, including multi-system involvement and trauma. Emphasis placed on advanced medical skills. Concepts and skills in this course will be correlated in the various clinical settings presented in the Medical-Surgical Laboratory.

**Hours:** 72 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**VNRS B95LV Medical Surgical Nursing 4 – Clinical Laboratory**  
**2.5 units**  
**Prerequisites:** Appropriate standing in VN Program and concurrent enrollment in VNRS B95.

**Description:** Laboratory course which is correlated with the corresponding medical surgical course in the Vocational Nursing Program. Focus is team leading, time management in caring for two clients, providing medications to a group of clients and improving on skills learned in Medical Surgical Nursing III. Also covers the utilization of intermediate assessment, planning, intervention and evaluation under clinical supervision.

**Hours:** 135 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**VNRS B96 Medical Surgical Nursing 5**  
**2 units**  
**Prerequisites:** Appropriate standing in the Vocational Nursing Program and concurrent enrollment in VNRS B96LV.

**Description:** Provides a study of etiology, pathophysiology, assessment, planning and evaluation of adult clients with more complex and critical medical surgical problems and disease states, including multi-system involvement and trauma. Emphasis placed on advanced medical skills. Concepts and skills in this course will be correlated in the various clinical settings presented in the Medical-Surgical Laboratory.

**Hours:** 36 lecture  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**VNRS B96LV Medical Surgical Nursing 5 – Clinical Laboratory**  
**2 units**  
**Prerequisites:** Appropriate standing in the Vocational Nursing Program and VNRS B96.

**Description:** Laboratory course which is correlated with the corresponding medical surgical course in the Vocational Nursing Program. Focus is team leading, time management in caring for two clients, providing medications to a group of clients and in improving on skills learned in Medical Surgical Nursing IV. Incorporated into course is the utilization of intermediate assessment, planning, intervention and evaluation under clinical supervision.

**Hours:** 108 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**VNRS B97LV Pediatrics – Clinical Laboratory**  
**1.5 units**  
**Prerequisites:** Appropriate standing in the VN Program and VNRS B6.

**Description:** Laboratory course which is correlated with the corresponding pediatric course in the Vocational Nursing Program. Focus is team leading, time management in caring for two clients, providing medications to a group of clients and in improving on skills learned in Medical Surgical Nursing IV. Incorporated into course is the utilization of intermediate assessment, planning, intervention and evaluation under clinical supervision.

**Hours:** 81 laboratory  
**CCS:** Occupational Education  
**Transferable:** Associate Degree only. Not transferrable.

**VNRS B97LV Pediatric Technicians requires** this course to be offered as a corequisite.

**WTRT B51 Basic Water Treatment**  
**3 units**  
**Description:** Prepares the beginning level student for the lower level California Department of Health Services (CA/DHS) Water Treatment Operator Certification (grades 1 and 2), and to inform the interested public in the science and technology involved in the purification of drinking water.

**Hours:** 54 lecture
**WELD B1A Introduction to Oxygen Acetylene Welding and Cutting**

*2 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** Properties and characteristics of metals, Safety, theory, and practical experience in oxy-acetylene welding, cutting, and joint design, codes and weld testing. Not open to students who have taken WELD B1ab.

**Note:** Elective credit only.

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**WELD B54A Blueprint Reading for Welders and Machinists**

*3 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** Principles of blueprint reading as applied to the welding and machine trades. Emphasis will be placed on the ability to visualize and interpret working drawings. Welding symbols and basic shop math are also included.

**Hours:** 54 lecture

**Transferable:** Associate Degree only. Not transferrable.
WELD B55A Structural Plate Certification
2 units
**Recommended:** WELD B53ab with a grade of ‘C’ or better, or three years work experience as a welder. Reading - one level prior to transfer.
**Description:** Safety, introduction to welding codes, welding discontinuities and practical welding. Experience on plate with SMAW (shielded metal arc welding or FCAW (Flux Core Arc Welding), based on the American Welding Society DI.1 structural code. Weld 3/8 plate in 1G, 2G, 3G, & 4G fixed position for certification.
**Hours:** 27 lecture, 27 laboratory
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

WELD B55B Structural Plate Certification
2 units
**Recommended:** WELD B53ab with a grade of ‘C’ or better, or three years work experience as a welder. Reading - one level prior to transfer.
**Description:** Safety, introduction to welding codes, welding discontinuities and practical welding. Experience on plate with SMAW (shielded metal arc welding or FCAW (Flux Core Arc Welding), based on the American Welding Society DI.1 structural code. Weld 1 plate in 1G, 2G, 3G, & 4G fixed position for certification.
**Hours:** 27 lecture, 27 laboratory
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

WELD B55C ASME Pipe Certification
2 units
**Prerequisites:** WELD B55a or WELD B55b with a grade of C or evaluation by instructor of students welding skills and knowledge.
**Recommended:** Reading - one level prior to transfer.
**Description:** Safety, welding pipe in the 5G rolled, 5G fixed and 6G fixed positions. An examination of the ASME Welding Code will also be covered.
**Hours:** 27 lecture, 27 laboratory
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

WELD B55D ASME Pipe Certification
2 units
**Prerequisites:** WELD B55a or WELD B55b with a grade of ‘C’, or evaluation by instructor of students welding skills and knowledge. Reading - one level prior to transfer.
**Description:** Safety, welding pipe in the 5G rolled, 5G fixed, and 6G fixed positions. An examination of the ASME Welding Code will also be covered.
**Hours:** 27 lecture, 27 laboratory

WELD B55F API/Related Certification Testing
2 units
**Prerequisites:** WELD B55c-B55d with a grade of ‘C’ or evaluation by instructor of students skills and knowledge equivalent to WELD B55cd.
**Recommended:** Reading - one level prior to transfer.
**Description:** Safety, and welding pipe in 5G rolled, 5G fixed and 6G fixed positions. The API 1104 pipe welding code will also be covered. Course prepares students for certification testing.
**Hours:** 27 lecture, 27 laboratory
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

WELD B55EF API/Related Certification Testing
3 units
**Prerequisites:** WELD B55c or B55d or WELD B55cd with a grades of ‘C’ or better, evaluation of students skills and knowledge equivalent to WELD B55cd.
**Recommended:** Reading - one level prior to transfer.
**Description:** Safety, and welding pipe in the 5G rolled, 5G fixed, and 6G fixed positions. The API 1104 pipe welding code will also be covered. Course prepares students for certification testing.
**Materials Fee:** $50 for project materials, (steel rods, welding resume for industry AWS certification).
**Hours:** 54 lecture, 54 laboratory
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

WELD B65A Welded Steel Structures
1.5 units
**Recommended:** Reading - one level prior to transfer. Previous class or experience in oxy-fuel cutting, shielded metal arc welding, and gas metal arc welding.
**Description:** Introduction to welded metal fabrication. Safety related to welding and fabrication tools and equipment. Emphasizes layout, cutting, shaping, forming and welding structures together. Calculating material and labor costs will be covered as well. Special Materials Fee per section for instructional material $25.00.
**Hours:** 18 lecture, 36 laboratory
**Repeat:** 1
**CCS:** Occupational Education
**Transferable:** Associate Degree only. Not transferrable.

WELD B65AB Welded Steel Structures
3 units
**Recommended:** Reading - one level prior to transfer. Previous class or experience in oxy-fuel cutting, shielded metal arc welding, and gas metal arc welding is also recommended.
**Description:** Introduction to welded metal fabrication. Safety related to welding and fabrication tools and equipment. Emphasizes
layout, cutting, shaping, forming and welding structures together. Calculating material and labor costs will be covered as well.

**WELD B85Bb Welded Steel Structures**

*1.5 units*

**Recommended:** Reading - one level prior to transfer. Previous class or experience in oxy-fuel cutting, shielded metal arc welding, and gas metal arc welding.

**Description:** Introduction to welded metal fabrication. Safety related to welding and fabrication tools and equipment. Emphasizes layout, cutting, shaping, forming and welding structures together. Calculating material and labor costs will be covered as well. Special Materials Fee per section for instructional material $25.00

**Hours:** 18 lecture, 36 laboratory

**Repeat:** 1

**CSS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**WELD B74A Intro to Gas Metal Arc Welding and Flux Core Arc Welding**

*2 units*

**Recommended:** WELD B1B or WELD B53A with grades of ‘C’ or better, or one year work experience as a welder. Reading - one level prior to transfer.

**Description:** Theory and application of GMAW (Gas, Metal Arc Welding) and FCAW (Flux Core Arc Welding) welding processes. Emphasizes safe and proper operation of these welding processes while welding on mild steel.

**Note:** Not open to students who have taken WELD B74AB.

**Materials Fee:** $25.00 will apply towards steel, welding rods and welding resume for industry AWS certification.

**Hours:** 27 lecture, 27 laboratory

**CSS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**WELD B74B Introduction to Gas Tungsten Arc Welding**

*2 units*

**Recommended:** WELD B1a or WELD B53a with grades of ‘C’ or better, or one year work experience as a welder. Reading - one level prior to transfer.

**Description:** Theory and application of GTAW (Gas Tungsten Arc Welding) welding processes. Emphasizes safe and proper operation of this welding process while welding on mild steel, aluminum, and stainless steel.

**Note:** Not open to students who have taken WELD B74AB.

**Materials Fee:** $25.00 will apply towards steel, welding rods and welding resume for industry AWS certification.

**Hours:** 27 lecture, 27 laboratory

**CSS:** Occupational Education

**Transferable:** Associate Degree only. Not transferrable.

**WELD B81 Introduction to Welding and Cutting**

*2 units*

**Description:** Properties and characteristics of metals. Safety, theory, and practical experience in oxy-acetylene cutting, plasma arc cutting, gas metal arc welding, flux cored arc welding, shielded metal arc welding, and use of shear and brake.

**Hours:** 27 lecture, 27 laboratory

**CSS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**WELD B90 General Welding**

*6 units*

**Description:** Entry-level welding skill development in modern welding and cutting processes, theory and practice.

**Hours:** 48 lecture, 144 laboratory

**CSS:** Occupational Education

**Transferable:** Not degree applicable. Not transferrable.

**Woodworking Courses**

**WOOD B1 Introduction to Woodworking Technologies**

*3 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** Basic woodworking processes related to industry technology processes to include use and care of machine and hand tools, safe machine and tool use, wood finishing, lathe operation and processes, lamination techniques, woodcarving and other specialized areas of woodworking technology. Students will create a scope of work for each eight week segment of the semester. May be transferable as an elective.

**Materials Fee:** $40.00 to cover cost of expendable materials ( abrasives, adhesives, millwork items, etc.)

**Hours:** 27 lecture, 81 laboratory

**CSS:** Occupational Education

**Transferable:** CSU and private colleges

**WOOD B2 Furniture and Cabinetmaking**

*3 units*

**Recommended:** Reading - one level prior to transfer.

**Description:** Skill development on the use and care of portable and stationary woodworking machines. The use of basic woodworking technology processes to include use and care of machine and hand tools, safe machine and tool use, wood finishing, lathe operation and processes, lamination techniques, woodcarving and other specialized areas of woodworking technology. Students will create a scope of work for each eight week segment of the semester. May be transferable as an elective.

**Materials Fee:** $40.00 for project materials (glue, hardware, dowels, biscuits, and finishing products, etc.)

**Hours:** 27 lecture, 81 laboratory

**CSS:** Occupational Education

**Transferable:** CSU and private colleges

**WOOD B5 Intermediate Cabinetmaking**

*3 units*

**Recommended:** WOOD B2 with a grade of ‘C’ or better, or evaluation by instructor of students woodworking skill sets.

**Description:** Machine woodworking for students with prior basic knowledge of woodworking machines and basic construction and assembly techniques. Emphasizes cabinet construction for industry, styles, and designs, materials and handling, and basic estimating skills.

**Materials Fee:** $40.00 for lumber, hardware (if applicable), and finishing products, etc.

**Hours:** 27 lecture, 81 laboratory

**CSS:** Occupational Education

**Transferable:** CSU and private colleges

**WOOD B65A Advanced Cabinetmaking**

*3 units*

**Prerequisites:** WOOD B5 with a grade of ‘C’ or better, or evaluation by instructor of students woodworking/cabinetmaking skill sets.

**Description:** Machine woodworking emphasizing new designs including modular as well as European cabinet construction, new materials and processes, Kortron, melamine, high density particle board, as well as others. Advanced bidding techniques are discussed.

**Materials Fee:** $40.00 for project materials (glue, hardware, dowels, biscuits, and finishing products. Excludes lumber).
Prerequisites: 1-8 units

Description: Machine and hand techniques necessary for top-end construction emphasized. Non-residential type cabinets studied. Economical use of solid lumber will be shown. Architecture millwork such as frame and panel, wainscot, bookcases, desks, bars, doors, skylights and windows demonstrated. Also included are commercial applications such as store fixtures, counters and reception desks.

Material Fee: $40.00 for project materials (glue, hardware, dowels, biscuits, and finishing products. Excludes lumber).

Hours: 27 lecture, 81 laboratory

CCS: Occupational Education
Transferable: Associate Degree only. Not transferrable.

The Work Experience Program offers variable unit classes. Students desiring to enroll in a Work Experience class must go online to the Bakersfield College website, select Program and Classes, click on Work Experience and begin the application process. The five (5) step process must be completed to ensure enrollment in the course. It is the responsibility of the student to complete all the steps in the application process. For more information, please contact the Work Experience Office at (661) 395-4580.

WEXP B248 Cooperative Work Experience Education - Paid

1-8 units

Prerequisites: Declared major or occupational goal and evaluation of student's qualifications and objectives. Work Experience orientation is mandatory. For information contact the Work Experience Office.

Description: College credit for learning experiences obtained on the job in accordance with a training plan developed cooperatively between the employer, college, and student.

Hours: Nonstandard, 75-600

Repeat: 3

CCS: Occupational Education
Transferable: CSU and private colleges

WEXP B249 Cooperative Work Experience Education - Unpaid

1-4 units

Prerequisites: Declared major or occupational goal, concurrent enrollment in seven or more units (including CWEE units, except summer school) and evaluation of student's qualifications and objectives.

Description: College credit for learning experiences obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student.

Registration Instructions: The Work Experience Program offers variable unit classes. Students desiring to enroll in a Work Experience class must go online to the Bakersfield College website, select Program and Classes, click on Work Experience and begin the application process. The five (5) step process must be completed to ensure enrollment in the course. It is the responsibility of the student to complete all the steps in the application process. For more information, please contact the Work Experience Office at (661) 395-4580.

Hours: Nonstandard

Repeat: 3

CCS: Occupational Education
Transferable: CSU and private colleges

WEXP B249 Cooperative Work Experience Education - Paid

1-4 units

Prerequisites: Declared major or occupational goal, concurrent enrollment in seven or more units (including CWEE units, except summer school) and evaluation by Work Experience department of student's qualifications and objectives. Paid status course. WEXP orientation is mandatory. For information contact the Work Experience Office.

Description: College credit for learning experiences obtained on the job in accordance with a training plan developed cooperatively between the employer, college, and student.

Hours: Nonstandard, 75-300

Repeat: 3

CCS: Occupational Education
Transferable: CSU and private colleges

WEXP B249 Cooperative Work Experience Education - Unpaid

1-4 units

Prerequisites: Declared major or occupational goal, concurrent enrollment in seven or more units (including CWEE units, except summer school) and evaluation by Work Experience department of student's qualifications and objectives. Unpaid status course. WEXP orientation is mandatory. For information contact the Work Experience Office.

Description: College credit for learning experiences obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student.

Hours: Nonstandard, 60-240

Repeat: 3

CCS: Occupational Education
Transferable: CSU and private colleges

**WEXP B250 General Work Experience Education**

1-3 units

Prerequisites: (a) pursue a planned work experience program (b) concurrent enrollment in seven or more units (including GWE units) except summer school, (c) evaluation of students planned work experience program, qualifications, and objectives.

Description: Offers students an opportunity to combine a planned occupational program with progressive on-the-job experience (OJT) and practical learning experience in the world of work.

Hours: Nonstandard

CCS: Occupational Education

Transferable: Associate Degree only. Not transferrable.

**WEXP B250 General Work Experience Education - Paid**

1-3 units

Prerequisites: (a) Pursue a planned work experience program, (b) concurrent enrollment in seven or more units (including GWE units) except summer school, (c) evaluation by Work Experience department of students planned work experience program, qualifications and objectives. Paid status course. WEXP orientation is mandatory. For information contact the Work Experience Office.

Description: Offers students an opportunity to combine a planned occupational program with progressive on-the-job experience (OJT) and practical learning experience in the world of work.

Hours: Nonstandard, 75-300

CCS: Occupational Education

Transferable: CSU and private colleges

**WEXP B250 General Work Experience Education - Unpaid**

1-3 units

Prerequisites: (a) Pursue a planned work experience program, (b) concurrent enrollment in seven or more units (including GWE units) except summer school, (c) evaluation by Work Experience department of students planned work experience program, qualifications and objectives. Unpaid status course. WEXP orientation is mandatory. For information contact the Work Experience Office.

Description: Offers students an opportunity to combine a planned occupational program with progressive on-the-job experience (OJT) and practical learning experience in the world of work.

Hours: Nonstandard, 60-240

CCS: Occupational Education

Transferable: CSU and private colleges
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Allen, Scott - Emergency Medical Technician
Andersen, Glen - Communication
Anhalt, Mary Jo - Mathematics
Ansolabehere, Paul - Animal Science
Armendariz, Bonnie - Computer Studies
Baker, Linda - Anthropology
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</tbody>
</table>
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Ackland, John R. - Biological Sciences
Allen, Anna K. - Sociology
Allison, Robert D. - Administration
Allsman, Ronald L. - Bacteriology, Biological Sciences
Anhalt, Mary Jo - Mathematics
Appel, Jacqueline - English
Aralian, Margaret - Health Careers
Benston, Carol - English
Benston, Richard - English
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Bowers, Sandra - Physical Education
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Boyce, Ferris A. - Health Careers
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Brailsford, Robert E. - Physical Science
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Clark, Orelie Louise - Business Management & Information Technology
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Copelin, Mary Helen - Speech
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