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](http://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

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](http://www.bakersfieldcollege.edu).

Acknowledgments

Bakersfield College would like to thank the following individuals who contributed to the development of this 2016-2017 Bakersfield College Catalog Addendum.

Sharon Bush, John Carpenter, Gregory Cook, Nan Gomez-Heitzeberg, Steven Hennon, Jennifer Johnson, Shannon Musser, Edie Nelson, Erinn Pozzi, Billie Jo Rice

Important Information

### Bakersfield College Academic Calendar

#### Fall Semester 2016 (August 22-December 12)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 20</td>
<td>Instruction Begins</td>
</tr>
<tr>
<td>September 2</td>
<td>Last Day for Refund for Semester-Length Classes*</td>
</tr>
<tr>
<td>September 5</td>
<td>Labor Day Holiday</td>
</tr>
<tr>
<td>September 5</td>
<td>Last Day to Drop From a Semester-Length Class Without Receiving a W*</td>
</tr>
<tr>
<td>September 6</td>
<td>Last Day to Add a Semester-Length Class with Approved Add Form</td>
</tr>
<tr>
<td>October 21</td>
<td>Last Day to Withdraw From a Semester-Length Class and Receive a W*</td>
</tr>
<tr>
<td>November 1</td>
<td>Last Day to File for Graduation</td>
</tr>
<tr>
<td>November 9</td>
<td>Early Web Registration for 2017</td>
</tr>
<tr>
<td>November 11</td>
<td>Veterans’ Day Holiday</td>
</tr>
<tr>
<td>November 26-27</td>
<td>Thanksgiving Holidays</td>
</tr>
<tr>
<td>Nov. 30 - Dec. 1</td>
<td>Open Web Registration for 2017</td>
</tr>
<tr>
<td>December 3-9</td>
<td>Final Exams</td>
</tr>
<tr>
<td>December 10</td>
<td>End of Fall Semester</td>
</tr>
</tbody>
</table>

#### Spring Semester 2017 (January 14-May 12)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 9</td>
<td>Early web registration begins</td>
</tr>
<tr>
<td>Nov. 30 - Dec. 1</td>
<td>Open web registration begins</td>
</tr>
<tr>
<td>January 14</td>
<td>Instruction Begins</td>
</tr>
<tr>
<td>January 16</td>
<td>Martin Luther King, Jr. Day Holiday</td>
</tr>
<tr>
<td>January 17</td>
<td>First day of classes not starting on Saturday</td>
</tr>
<tr>
<td>January 27</td>
<td>Last Day for a Refund for Semester-Length Classes*</td>
</tr>
<tr>
<td>January 29</td>
<td>Last Day to Drop From a Semester-Length Class Without Receiving a W*</td>
</tr>
<tr>
<td>January 29</td>
<td>Last Day to Add a Semester-Length Class with Approved Add Form</td>
</tr>
<tr>
<td>February 17</td>
<td>Lincoln Day Holiday</td>
</tr>
<tr>
<td>February 20</td>
<td>Washington Day Holiday</td>
</tr>
<tr>
<td>March 24</td>
<td>Last Day to Withdraw From a Semester-Length Class and Receive a W*</td>
</tr>
<tr>
<td>April 1</td>
<td>Last Day to File for Graduation</td>
</tr>
<tr>
<td>April 6</td>
<td>Early Web Registration for 2017</td>
</tr>
<tr>
<td>April 10-14</td>
<td>Spring Recess</td>
</tr>
<tr>
<td>April 20-22</td>
<td>Open Web Registration for 2017</td>
</tr>
<tr>
<td>May 6-12</td>
<td>Final Exams</td>
</tr>
<tr>
<td>May 12</td>
<td>Commencement</td>
</tr>
<tr>
<td>May 12</td>
<td>End of Spring Semester</td>
</tr>
</tbody>
</table>

*In courses other than semester length, the Office of Admissions and Records or the instructor should be consulted regarding drop, withdrawal, and refund deadlines.

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.
Graduation & General Education

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 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, B4, B8

A.2. Written Communication (3 units) ENGL B1A, B2, B3

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 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, B5, 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

B.2. Mathematics and Logic Analytical Thinking (3 units)
- COMM B5
- MATH B1A, B1B, B2, B4A, B6A, B6B, B6C, B22, B23, B70
- 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 help 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, B5, B10, B16, B17, B20, B24, B35, B36, B37*
- **ORNH** B36
- **SPAN** B1
- **THEA** B1, B2A, B2B, B12A, B20, B27, B31, B32

C.2. Humanities
- **ASL** B1, B2, B3, B4, B7
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 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*
- BSAD B20
- COMM B7
- CRIM B1, B5
- ECON B1, B2
- GEOG B2*
- 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 B17A*, B17B*, B18*, B20A*, B20B*, 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:
- COMM B2
- HLED B1
- NUTR B10
- MEDS B35, or completion of an approved Allied Health Program
- PHED B36
- PSYC B1A, B30, 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:

*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, B21
- GEOG B2
- 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
Baccalaureate Degree

Baccalaureate Degree Program in Industrial Automation

The Bachelor of Science Degree in Industrial Automation focuses on the application of electronics and computer technology to industrial automation systems, including instrumentation and control, industrial robotics, and process control systems. The program prepares students for careers in the design, operation, and management of industrial automation systems focusing on the local industries that utilize these technologies, such as petroleum production, food production, fabrication, and logistics. Significant emphasis is placed on project-based learning facilitated by significant laboratory work.

Mission

The Baccalaureate Program in Industrial Automation is designed to prepare individuals for technical management careers in industries that utilize automation, including the petroleum, manufacturing, logistics and agriculture industry sectors, in order to improve the regional economy.

Prerequisite Requirements

All prerequisite coursework must be completed with a "C" grade or higher:

- ENGL B1A (Expository Composition); 3 units at Bakersfield College or equivalent course at another accredited college.
- MATH B1A (Precalculus I), MATH B2 (Basic Functions and Calculus for Business), OR MATH B6A (Analytic Geometry/Calculus I); 4 units at Bakersfield College or equivalent course at another accredited college.
- PHYSICS B2A (General Physics-Mechanics and Heat) OR PHYSICS B4A (Mechanics and Wave Motion); 4 units at Bakersfield College or equivalent course at another accredited college.
- Critical Thinking (CSU GE Area A3) - PHIL B7, or B9, or ENGL B1B, or B2, or B3, or COMM B5; 3 units at Bakersfield College or equivalent course at another accredited college.
- Communication (CSU GE Area A1) - COMM B1, or B4 or B8; 3 units at Bakersfield College or equivalent course at another accredited college.
- Any five of the following six courses must be completed for admittance to the Baccalaureate Degree Program. However, all six lower division technical core courses must be completed prior to graduation. Demonstrated competency in lower division core courses may satisfy this requirement subject to evaluation by program faculty.
  1. ELET B1 (Basic Electronics) 4 units
  2. ELET B4 (Computer Integrated Manufacturing) 3 units
  3. ELET B5 (Programmable Logic Controllers) 3 units
  4. ELET B55A (Electric Motors - Controls) 3 units
  5. ELET B56 (Instrumentation and Process Control) 3 units
  6. ELET B70 (Mechanical Systems) 3 units

General Education

General Education courses meeting the CSU General Education Pattern are required to graduate with the BS in Industrial Automation from Bakersfield College. Thirty-five of the 41 CSU GE units must be completed for admittance to the Baccalaureate Degree Program. However, all 41 lower division GE units must be completed prior to graduation.

- A. English Language Communication and Critical Thinking (9 units)
  A.1 Oral Communication (3 units) COMM B1, OR B4 OR B8

Program Learning Outcomes

Upon successful completion, the student will:

- Apply critical and analytical thinking skills to industry related problems, related to safety, quality assurance and design of systems.
- Display effective communication skills, including presentation and technical writing skills.
- Demonstrate a broad understanding of the mathematical and scientific principles utilized in industrial automation and manufacturing.
- Demonstrate competency in industrial automation and instrumentation, including relevant hardware and software utilized in industry.
- Manage automation and manufacturing projects applying knowledge of budgetary and scheduling principles in an ethical environment.

Curriculum Overview

The first two years of the Baccalaureate Degree Program, students will be expected to satisfy the general education requirements outlined in the California State University General Education Breadth course list in addition to the existing electronics courses that comprise the technical core to prepare for upper division coursework.

Lower Division Curriculum:

CSU GE Breadth (41 units)

<table>
<thead>
<tr>
<th>CSU GE Breadth Designation</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1 Oral Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

B. Scientific Inquiry and Quantitative Reasoning (9 units)

- B.1 Physical Universe (4 units) PHYSICS B2A or higher (prerequisite course)
- B.2 Life Science
  Any course listed in Area B.2 of the CSU General Education Pattern in the Bakersfield College Catalog (Crop Science B10 recommended)
- B.3 Laboratory Activity
  PHYSICS B2A Lab or higher (prerequisite course)
- B.4 Mathematics/Quantitative Reasoning (4 units) MATH B1A or higher (prerequisite course)

C. Arts and Humanities (9 units)

- Any course as listed in Area C of the CSU General Education Pattern in the Bakersfield catalog. Note: At least one course must be taken from Arts and one from Humanities
  C.1 – Arts - one course (ART B4 recommended)
  C.2 – Humanities - one course; (PHIL B10 recommended)
  C.1 or C.2 – Any one course (SPAN B1 recommended)
- D. Social Science (9 units)
  Any three courses listed in Area D.1 – D.10 of the CSU General Education Pattern in the Bakersfield College Catalog. (ECON B1 or B2, HIST B17A or B17B, or POLS B1 recommended)
- E. Lifelong Understanding and Self-Development (3 unit)
  Any one, three unit course as listed in Area E of the CSU General Education Pattern in the Bakersfield College Catalog (PSYC B1A recommended)
A.2 Written Communication 3.0  
A.3 Critical Thinking 3.0  
B.1 Physical Universe (Physics B2A or higher required - satisfies B.3 Lab requirement)*  
*Or Physics B4A or higher 4.0  
B.2 Life Science 3.0  
B.3 Laboratory Activity  
B.2 Mathematics/Quantitative Reasoning (Math B1a required)*  
*Or Math B2, Math B6A or higher 4.0  
C. Arts and Humanities 9.0  
D. Social Sciences 9.0  
E. Lifelong Learning and Self-Development 3.0  

Lower Division Curriculum:  
Lower Division Technical Core (19 units)  

Course Number | Title                                      | Units |
--------------|-------------------------------------------|-------|
ELET B1       | Basic Electronics                          | 4.0   |
ELET B4       | Computer Integrated Manufacturing          | 3.0   |
ELET B5       | Programmable Logic Controllers             | 3.0   |
ELET B55A     | Electric Motors - Controls                 | 3.0   |
ELET B56      | Instrumentation and Process Control        | 3.0   |
ELET B70      | Mechanical Systems                         | 3.0   |

Upper Division Curriculum:  
Upper Division Technical Core (51 units)  

Course Number | Title                                      | Units |
--------------|-------------------------------------------|-------|
INDA B100     | Industrial Design Graphics I               | 3.0   |
INDA B101     | Industrial Design Graphics II              | 3.0   |
INDA B105     | Materials Science for the Technician       | 3.0   |
INDA B110     | IA Networks                                | 3.0   |
INDA B112     | IA Measurement                             | 3.0   |
INDA B114     | Industrial Safety Principles and Management| 3.0   |
INDA B120     | IA Systems                                 | 3.0   |
INDA B122     | Industrial Motion Control                  | 3.0   |
INDA B124     | Industry Sector Seminar: Applied Automation| 3.0   |
INDA B130     | Industrial Manufacturing Processes         | 3.0   |
INDA B132     | Project Management and Budgeting           | 3.0   |
INDA B140     | Industry Sector Seminar: Manufacturing and Production | 3.0 |
INDA B140     | Quality Management                         | 3.0   |
INDA B142     | Facilities Planning and Operations         | 3.0   |
INDA B144     | Leadership and Entrepreneurship            | 3.0   |
INDA B150     | Systems Design and Integration             | 3.0   |
INDA B151     | Systems Implementation                     | 3.0   |

Upper Division Curriculum:  
Upper Division General Education (9 units)  

Course Number | Title                                      | Units |
--------------|-------------------------------------------|-------|
ENGL B100     | Technical Writing                          | 3.0   |
PSYC B100     | Industrial and Organizational Psychology   | 3.0   |
PHIL B100     | Industry Ethics                            | 3.0   |

Transfer Degrees  
Associate in Science in Administration of Justice for Transfer  
The Associate in Science in Administration of Justice for Transfer degree (AS-T in Administration of Justice) is intended to prepare students to transfer to CSU campuses that offer bachelor’s degrees in Administration of Justice or Criminal Justice. Students who complete this degree will receive “priority admission with junior status to the California State University system”. This degree requires students to complete 60 CSU transferable units including completion of CSU GE or IGETC and 18-20 units in the major with a cumulative GPA of 2.0 or better. Title 5 requires that students earn a grade of ‘C’ or better in all major coursework. A ‘P’ (Pass) grade is not acceptable for courses in the major. There are no additional graduation requirements. Students should consult with a counselor when planning to complete the degree for more information on university admission and transfer requirements.

Program Learning Outcomes  
Upon successful completion of this program, students will be able to:  
- A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to identify, analyze, and apply the fundamental theories and concepts underlying the American Criminal Justice system.
- A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to identify and describe the operational elements of the major components comprising the American Justice system.
- A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to identify, analyze, and apply basic legal principles and rules to factual situations.
- A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to identify and implement the principles and procedures utilized in legitimate scientific and criminal investigation.
- A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to demonstrate multicultural awareness and respect for constitutional and human rights.
- A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to demonstrate respect for the dignity and humanity of victims, perpetrators, and wrongfuly convicted persons.

Required Core: (6 units)  

Course Number | Title                                      | Units |
--------------|-------------------------------------------|-------|
CRIM B1       | Introduction to Criminal Justice           | 3.0   |
CRIM B2       | Criminal Law                               | 3.0   |

List A Select two (6 units)  

Course Number | Title                                      | Units |
--------------|-------------------------------------------|-------|
CRIM B3       | Introduction to Evidence                   | 3.0   |
CRIM B4       | Constitutional Criminal Procedure          | 3.0   |
CRIM B5       | Community Relations                        | 3.0   |
CRIM B8       | Criminal Investigation                     | 3.0   |
CRIM B9       | The Juvenile Justice System                | 3.0   |
CRIM B12      | Forensic and Scientific Aspects of Evidence| 3.0   |
CRIM B21      | Introduction to Correctional Administration| 3.0   |

List B Select two (6-7 units)  

Course Number | Title                                      | Units |
--------------|-------------------------------------------|-------|
PSYC B5       | Elementary Statistics for the Behavioral   | 3.0   |
The Associate of Arts in Anthropology Degree for Transfer is designed to provide students a clear pathway to the CSU baccalaureate degree, to grant guaranteed admission to a CSU to a similar major, with junior standing, and the ability to complete their remaining requirements within 60 semester or 90 quarter units.

**Program Learning Outcomes**

Upon successful completion of this program, students will be able to:

- demonstrate an understanding of the biocultural nature of humanity through application of the core concepts, methods, and theories, in cultural anthropology, biological anthropology, and archaeology to explanations of human diversity.
- describe the origins and history of the discipline of American anthropology; its unique perspectives and approaches to the study of humanity; its ethical challenges; its dual nature as the humanistic/scientific study of humanity; and its uses and value in today’s world.
- critically evaluate information about human societies and origins without reliance on taken-for-granted assumptions, using a combination of skills, including the scientific method, qualitative social analysis, and reflective writing.

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, linguistic 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); and non-academic/research positions (e.g. government, NGOs). The objective of this program is to prepare students for a seamless transfer into the CSU system to complete a baccalaureate degree in Biology or similar major.

The following is required for the completion of all AA-T or AS-T degrees:

1. The completion of 60 semester units that are eligible for transfer to the California State University, including both of the following:
   - The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University – Breadth Requirements.
   - A minimum of 18 semester units in a major field of emphasis, as determined by the Kern Community College District Board of Trustees.
2. The attainment of a minimum grade point average of 2.0.

### Required Core - 9 Units

<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>Introduction to Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH B3</td>
<td>Introduction to Archaeology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### List A - Select at least one, 3-4 Units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH B5</td>
<td>North American Indians</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B6</td>
<td>Elementary Statistics for Behavioral and Social Sciences</td>
<td>4.0</td>
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</tbody>
</table>

### List B - Select at least one, 4 Units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC B6</td>
<td>Research Methods for Behavioral and Social Sciences</td>
<td>4.0</td>
</tr>
<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>ERSC B10</td>
<td>Introduction to Earth Science</td>
<td>3.0</td>
</tr>
<tr>
<td>ERSC B10L</td>
<td>Introduction to Earth Science Laboratory</td>
<td>1.0</td>
</tr>
</tbody>
</table>

### List C - Select at least one, 3 Units

<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>GEOG B2</td>
<td>Human Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSC B24</td>
<td>A Survey of World Music</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL B37</td>
<td>Introduction to World Religions</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Units in Major: 19-20

**Required Core - 9 Units**

**List A - Select at least one, 3-4 Units**

**List B - Select at least one, 4 Units**

**List C - Select at least one, 3 Units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC B5</td>
<td>Elementary Statistics for Behavioral and Social Sciences</td>
<td>4.0</td>
</tr>
</tbody>
</table>

PSYC B5 has been changed from 5 units to 4 units. This changes the required units from 18-20 to 18-19.

### Biology

**Associate of Science Degree for Transfer**

The Associate in Science in Biology for Transfer is designed to prepare students for a seamless transfer into the CSU system to complete a baccalaureate degree in Biology or similar major.

Additionally, the Associate in Science in Biology for Transfer allows students to learn the fundamental principles and practices of biology in order to create a solid foundation for their future personal, academic, or vocational endeavors. The Associate in Science in Biology for Transfer also provides solid preparation that is appropriate for a variety of scientific disciplines.

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 baccalaureate degree 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.

Program Learning Outcomes
Upon successful completion of this program, students will be able to:

- Students will be able to demonstrate proficiency using a microscope.
- Students will be able to research a topic, design experiments, synthesize and evaluate the information they find and will be able to justify and express their opinion on virtually any topic using the Scientific Method.

The following is required for the completion of all AA-T or AS-T degrees:

1. The completion of 60 semester units that are eligible for transfer to the California State University, including both of the following:
   - The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University – Breadth Requirements.
   - A minimum of 18 semester units in a major area of emphasis, as determined by the Kern Community College District Board of Trustees.

2. The obtainment of a minimum grade point average of 2.0.

3. The completion of all courses required for the major with a ‘C’ or better. ‘P’ (Pass) grade is not acceptable for courses in the major.

Required Core - 8-12 Units

<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>
<td>5.0</td>
</tr>
<tr>
<td>BIOL B3B</td>
<td>General Biology II</td>
<td>5.0</td>
</tr>
</tbody>
</table>

List A - 21-22 units

<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 II and Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH B6A</td>
<td>Analytic Geometry/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>PHYS B2B</td>
<td>General Physics - Sound, Light, Electricity, Magnetism, Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B4A</td>
<td>Mechanics and Wave Motion</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS B4B</td>
<td>Heat, Electricity and Magnetism</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Units in Major 32

Associate in Arts in Journalism for Transfer

The Associate in Arts in Journalism for Transfer degree is intended for those transfer-directed students who plan to complete an AA in Journalism 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 Journalism for Transfer, students must complete 60 required semester units of CSU-transferable coursework which includes CSU General Education or IGETC requirements with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the Associate of Arts in Journalism for Transfer will be required to complete no more than 60 units after transfer to earn a bachelor’s degree (unless the major is designated “high-unit” major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system.

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 following is required for the completion of all AA-T or AS-T degrees:

1. The completion of 60 semester units that are eligible for transfer to the California State University, including both of the following:
   - The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University – Breadth Requirements.
   - A minimum of 18 semester units in a major area of emphasis, as determined by the district.

2. The obtainment of a minimum grade point average of 2.0.

3. The completion of all courses required for the major with a ‘C’ or better. A ’P’ (Pass) grade is not acceptable for courses in the major.

Program Learning Outcomes
Upon successful completion, the student will be able to:

- demonstrate the ability - through learned skills, critical thinking and organization - to preform the function of reporter, photographer or editor on a print and online publication.
- demonstrate how to conduct the process of reporting.
- demonstrate how to conduct the process of photojournalism and multimedia.
- discuss various forms of media and how they relate to society through historical and current knowledge of mass communication.
- demonstrate an understanding of journalism ethics and standards.

Required Core Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>JRNL B27A</td>
<td>Newspaper Production for Reporters</td>
<td>3.0</td>
</tr>
</tbody>
</table>

List A (any one of the following courses)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRNL B15</td>
<td>Press Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>JRNL B16</td>
<td>Multimedia Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>JRNL B26</td>
<td>Newspaper Production/Editors</td>
<td>4.0</td>
</tr>
</tbody>
</table>

List B (any two of the following courses)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART B17</td>
<td>Black and White Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM B5*</td>
<td>Rhetoric and Argumentation</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON B1*</td>
<td>Principles of Economics-Macro</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 B22</td>
<td>Introduction to Statistics</td>
<td>4.0</td>
</tr>
<tr>
<td>POLS B2*</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
</tbody>
</table>
**Associate in Arts in Political Science for Transfer**

The Associate in Arts in Political Science for Transfer degree is designed for students interested in gaining an understanding of the structure and functions in governments. This degree provides a foundation for further study for students planning to transfer into a baccalaureate program in political science. Successful completion of the Associate in Arts in Political Science for Transfer degree guarantees the student acceptance to a California State University (but not to a particular campus) to pursue a baccalaureate degree in Political Science. This degree may not be the best option for students intending to transfer to a particular CSU campus or a 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 and transfer requirements. This degree eliminates the additional Bakersfield College graduation requirements.

The following is required for the completion of all AA-T or AS-T degrees:

1. The completion of 60 semester units that are eligible for transfer to the California State University, including both of the following:
   - The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University – Breadth Requirements.
   - A minimum of 18 semester units in a major area of emphasis, as determined by the district.
2. The attainment of a minimum grade point average of 2.0.
3. The completion of all courses required for the major with a ‘C’ or better. A ‘P’ (Pass) grade is not acceptable for courses in the major.

**Program Learning Outcomes**

Upon successful completion, the student will be able to:

- Students 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.
- Students will evaluate the power relationships between legislative, executive and judicial branches of government.
- Students will compare and contrast the factors that determine the emergence of republican or authoritarian systems of governance.
- Students will evaluate the influence of conflict and cooperation in the international bargaining process.

**Required Core 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>ECON B2</td>
<td>Principles of Economics-Macro</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B17A</td>
<td>History of the United States</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B17B</td>
<td>History of the United States since 1870</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B18</td>
<td>History of California</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON B2</td>
<td>Principles of Economics-Macro</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B5</td>
<td>Elementary Statistics for the Behavioral and Social Sciences</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**List A – select three courses (10 units)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS B2</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B22</td>
<td>Elementary Probability and Statistics</td>
<td>4.0</td>
</tr>
<tr>
<td>PSYC B5</td>
<td>Elementary Statistics for the Behavioral and Social Sciences</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**List B (select two of the following courses)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS B2</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B22</td>
<td>Elementary Probability and Statistics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total required units:** 18-20

**Administration of Justice**

**Associate in Science in Administration of Justice for Transfer**

The Associate in Science in Administration of Justice for Transfer degree (AS-T in Administration of Justice) is intended to prepare students to transfer to CSU campuses that offer bachelor’s degrees in Administration of Justice or Criminal Justice. Students who complete this degree will receive “priority admission with junior status to the California State University system”. This degree requires students to complete 60 CSU transferable units, including completion of CSU GE or IGETC and 18-20 units in the major with a cumulative GPA of 2.0 or better. Title 5 requires that students earn a grade of ‘C’ or better in all major coursework. A ‘P’ (Pass) grade is not acceptable for courses in the major. There are no additional graduation requirements. Students should consult with a counselor when planning to complete the degree for more information on university admission and transfer requirements.

**Program Learning Outcomes**

Upon successful completion of this program, students will be able to:

- A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to identify, analyze, and apply the fundamental theories and concepts underlying the American Criminal Justice system.
- A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to identify and describe the operational elements of the major components comprising the American Justice system.
- A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to identify, analyze, and apply basic legal principles and rules to factual situations.
- A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to demonstrate multicultural awareness and respect for constitutional and human rights.
- A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to identify, analyze, and apply the ethical components of discretionary decision-making in the three major components of the criminal justice system: police, courts, and corrections.
• A student who successfully completes the course requirements in Criminal Justice with a grade of C or better will be able to demonstrate respect for the dignity and humanity of victims, perpetrators, and wrongfully convicted persons.

**Required Core: (6 units)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM B1</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>
</tbody>
</table>

**List A Select two (6 units)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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 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>The Juvenile Justice System</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 B21</td>
<td>Introduction to Correctional Administration</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**List B select two (6-7 units)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC B5</td>
<td>Elementary Statistics for the Behavioral</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>and Social Sciences</td>
<td></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>

Total Required Units: 18-19

*PSYC B5 has been changed from 5 units to 4 units. This changes the required units fro 18-20 to 18-19.*

**Anthropology**

**Anthropology Associate of Arts Degree for Transfer**

The Associate of Arts in Anthropology Degree for Transfer is designed to provide students a clear pathway to the CSU anthropology major and completion of the anthropology baccalaureate degree, to grant guaranteed admission to a CSU to a similar major, with junior standing, and the ability to complete their remaining requirements within 60 semester or 90 quarter units.

**Program Learning Outcomes**

Upon successful completion of this program, students will be able to:

1. Demonstrate an understanding of the biocultural nature of humanity through application of the core concepts, methods, and theories, in cultural anthropology, biological anthropology, and archaeology to explanations of human diversity.
2. Describe the origins and history of the discipline of American anthropology; its unique perspectives and approaches to the study of humanity; its ethical challenges; its dual nature as the humanistic/scientific study of humanity; and its uses and value in today’s world.
3. Critically evaluate information about human societies and origins without reliance on taken-for-granted assumptions, using a combination of skills, including the scientific method, qualitative social analysis, and reflective writing.

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, linguistic 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); and non-academic/research positions (e.g., in business, medicine, cultural resource management, government and NGO’s). 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 a holistic perspective make it an excellent undergraduate major for a variety of fields and graduate programs.

The following is required for the completion of all AA-T or AS-T degrees:

1. The completion of 60 semester units that are eligible for transfer to the California State University, including both of the following:
   - The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University – Breadth Requirements.
   - A minimum of 18 semester units in a major area of emphasis, as determined by the Kern Community College District Board of Trustees.
2. The obtainment of a minimum grade point average of 2.0.
3. The completion of all courses required for the major with a ‘C’ or better. ‘P’ (Pass) grade is not acceptable for courses in the major.

**Required Core - 9 Units**

<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>Introduction to Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH B3</td>
<td>Introduction to Archeology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**List A - Select at least one, 3-4 Units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH B5</td>
<td>North American Indians</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC B5</td>
<td>Elementary Statistics for Behavioral and</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Social Sciences</td>
<td></td>
</tr>
</tbody>
</table>

**List B - Select at least one, 4 Units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC B6</td>
<td>Research Methods for the Behavioral and</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Social Sciences</td>
<td></td>
</tr>
<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>ERSC B10</td>
<td>Introduction to Earth Science</td>
<td>3.0</td>
</tr>
<tr>
<td>ERSC B10L</td>
<td>Introduction to Earth Science Laboratory</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**List C - Select at least one, 3 Units**

<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>GEOG B2</td>
<td>Human Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSC B24</td>
<td>A Survey of World Music</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Units in Major 19-20

 PSYC B5 changed from 5 units to 4 units. This changes the required units from 19-21 to 19-20.

Art

**Media Arts Certificate of Achievement**

The Bakersfield College Media Arts Program is designed to prepare students for entry-level positions in media arts. Visual communicators increasingly need media arts skills, and this program will provide entry-level competencies for a number of career paths, such as: videographer, photographer, motion graphics designer, animator, video editor, film editor, and filmmaker. This program is a logical extension of the photography and graphic design certificates currently offered in the Bakersfield College Art Department.

Program Learning Outcomes
Upon successful completion, the student will be able to:

- Students will produce a portfolio of original digital content, using industry standard software and hardware.
- Students will demonstrate an understanding of the visual principles and elements of as they pertain to media arts.
- Students will demonstrate the ability to think critically about their own work and the work of others.

**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 - Vector Art</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B24</td>
<td>Digital Art - Raster Art</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART B16</td>
<td>Digital Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B26</td>
<td>Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B43</td>
<td>Video Production</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B44</td>
<td>Motion Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>ART B45</td>
<td>Animation</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Photography

**Certificate of Achievement**

The program is designed to prepare students for entry level positions in photography.

The core learned disciplines are photography, photographic lighting, an understanding of the visual elements, exposure to art and design history, conceptual visual problem solving, and the production of a portfolio using industry-standard software and processes.

**To Achieve the Certificate of Achievement**

Upon completion of the following courses with at least a “C” grade in each course, a student will be awarded a Certificate of Achievement in Photography.

**Program Learning Outcomes**

- At the end of the program, students will demonstrate the ability to critique their own work, as well as the work of other students; and defend their creative choices verbally and in writing.
  Assessment: Projects, quizzes, tests, critiques
- At the end of the program, students will demonstrate an understanding of a portfolio or “body of work”.
  Assessment: Projects, quizzes, tests, critiques
- At the end of the program, students will demonstrate the ability to use industry standard raster imaging applications.
  Assessment: Projects, quizzes, tests, critiques
- At the end of the program, students will demonstrate the ability to use lighting equipment, cameras and industry standard photographic equipment.
  Assessment: Projects, quizzes, tests, critiques
- At the end of the program, students will demonstrate an understanding of historic and contemporary photographic practices.
  Assessment: Projects, quizzes, tests, critiques

**Total Units: 18**

**Required Courses**

<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</td>
</tr>
<tr>
<td>ART B20</td>
<td>Digital Art - Vector Art</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART B24</td>
<td>Digital Art - Raster Art</td>
<td>3</td>
</tr>
<tr>
<td>ART B17</td>
<td>Black and White Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART B46</td>
<td>Advanced Photography I</td>
<td>3</td>
</tr>
<tr>
<td>ART B47</td>
<td>Advanced Photography II</td>
<td>3</td>
</tr>
<tr>
<td>ART B48</td>
<td>Advanced Photography III</td>
<td>3</td>
</tr>
</tbody>
</table>

Construction

**Construction Technology Certificate of Achievement**

The requirements for the Construction Technology Certificate of Achievement are intended to provide students with the opportunity to develop skills and knowledge to enter into the diverse residential construction field. So each student can explore and design their respective career path, 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 Certificate of Achievement**

Upon completion of the following courses with at least a ‘C’ grade in each course, the student will be awarded a Construction Technology 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:

- 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: 27

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>
<tr>
<td>CNST B50A</td>
<td>Residential Construction</td>
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</tr>
<tr>
<td>CNST B50B</td>
<td>Residential Construction</td>
<td>7.0</td>
</tr>
<tr>
<td>INDT B10</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>

Electives

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH B56</td>
<td>Commercial Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>AUTO B1AB</td>
<td>Introduction to Automotive Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>INDR B20A</td>
<td>Computer Aided Drafting and CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B50</td>
<td>Modern College Arithmetic and Pre-Algebra</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD B1A</td>
<td>Introduction to Oxygen Acetylene</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD B1A</td>
<td>Welding and Cutting</td>
<td></td>
</tr>
</tbody>
</table>

Note: Students should consult with their counselors for best possible selections for their programs of study.

Fire Technology

Executive Chief Fire Officer Certificate of Achievement

Executive Chief Fire Officer Certificate of Achievement is designed to meet the training and educational requirements established by the State Fire Marshal’s Office for Fire Officer certification. The program will prepare students for the Company Officer, Chief Fire Officer, and Executive Chief Fire Officer exam and certification as a California State Executive Chief Fire Officer. After successful completion of this certificate, students will be able to take promotional exams for career advancement State wide.

Upon completion of the following courses with at least a “C” grade in each course, a student will be awarded a Certificate of Achievement for Executive Chief Fire Officer:

Program Learning Outcomes

Upon successful completion, the student will be able to:
• Identify the different levels of certification in the Executive Chief Fire Officer certification track, including Company Officer, Chief Fire Officer and Executive Chief Fire Officer.
• Describe administrative policies and procedures, including purchasing and budget processes.
• Identify methods to determine accident and injury prevention program effectiveness. Analyze data and accepted safety practices.
• Determine effective recruitment, selection, and placement of human resources according to the law and consistent with current best practices.

Total Units: 21.5

Required Core Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE B52A</td>
<td>Company Officer 2A</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE B52B</td>
<td>Company Officer 2B</td>
<td>1.0</td>
</tr>
<tr>
<td>FIRE B52C</td>
<td>Company Officer 2C</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE B52D</td>
<td>Company Officer 2D</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE B52E</td>
<td>Company Officer 2E</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE B52F</td>
<td>Chief Fire Officer 3A</td>
<td>1.5</td>
</tr>
<tr>
<td>FIRE B52G</td>
<td>Chief Fire Officer 3B</td>
<td>1.0</td>
</tr>
<tr>
<td>FIRE B52H</td>
<td>Chief Fire Officer 3C</td>
<td>1.0</td>
</tr>
<tr>
<td>FIRE B52I</td>
<td>Chief Fire Officer 3D</td>
<td>1.0</td>
</tr>
<tr>
<td>FIRE B52J</td>
<td>Executive Chief Fire Officer 4A</td>
<td>1.5</td>
</tr>
<tr>
<td>FIRE B52K</td>
<td>Executive Chief Fire Officer 4B</td>
<td>0.5</td>
</tr>
<tr>
<td>FIRE B52L</td>
<td>Executive Chief Fire Officer 4C</td>
<td>1.5</td>
</tr>
<tr>
<td>FIRE B52M</td>
<td>Executive Chief Fire Officer 4D</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE B52N</td>
<td>Executive Chief Fire Officer 4E</td>
<td>0.5</td>
</tr>
<tr>
<td>FIRE B52O</td>
<td>Fire Instructor</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Journalism

Associate in Arts in Journalism for Transfer

The Associate in Arts in Journalism for Transfer degree is intended for those transfer-directed students who plan to complete an AA in Journalism because it guarantees admission to the CSU system (but not to a particular campus or major). In order to earn the Associate of Arts in Journalism for Transfer, students must complete 60 required semester units of CSU-transferable coursework which includes CSU General Education or IGETC requirements with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the Associate of Arts in Journalism for Transfer will be required to complete no more than 60 units after transfer to earn a bachelor’s degree (unless the major is designated “high-unit” major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system.

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 following is required for the completion of all AA-T or AS-T degrees:

1. The completion of 60 semester units that are eligible for transfer to the California State University, including both of the following:
   • The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University – Breadth Requirements.
• A minimum of 18 semester units in a major area of emphasis, as determined by the district.
2. The obtaining of a minimum grade point average of 2.0.
3. The completion of all courses required for the major with a ‘C’ or better. A ‘P’ (Pass) grade is not acceptable for courses in the major.

Program Learning Outcomes
Upon successful completion, the student will be able to:
• demonstrate the ability - through learned skills, critical thinking and organization - to perform the function of reporter, photographer or editor on a print and online publication.
• demonstrate how to conduct the process of reporting.
• demonstrate how to conduct the process of photojournalism and multimedia.
• discuss various forms of media and how they relate to society through historical and current knowledge of mass communication.
• demonstrate an understanding of journalism ethics and standards.

Required Core Courses
Course Number Title Units
JRN B1* Media and Society 3.0
JRN B2* Beginning Reporting 3.0
JRN B27A Newspaper Production for Reporters 3.0

List A (any one of the following courses)
Course Number Title Units
JRN B15 Press Photography 3.0
JRN B16 Multimedia Reporting 3.0
JRN B26 Newspaper Production/Editors 4.0

List B (any two of the following courses)
Course Number Title Units
ART B17 Black and White Photography 3.0
COMM B5* Rhetoric and Argumentation 3.0
ECON B1* Principles of Economics-Micro 3.0
ECON B2* Principles of Economics-Macro 3.0
MATH B22 Introduction to Statistics 4.0
POLS B2* Comparative Government 3.0

Total required units: 18-20

Music
Commercial Music Certificate of Achievement
The Commercial Music Certificate of Achievement provides experience and exposure to key components of commercial music, allowing students to combine their passions for technology and music. Students will gain basic knowledge in technologies crucial to the modern recording studio, including use of popular digital audio workstations such as Logic and ProTools. Exposure to sound synthesis will provide perspective on the infrastructure of today’s music software. Experience with audio hardware and software, along with courses in music business and commercial music composition will provide skills necessary to pursue a career in audio engineering, production, performance, composition, promotion, publishing, and many other options.

Program Learning Outcomes
Upon successful completion, the student will be able to:
• The student will be able to identify and make use of pertinent components of audio recording systems, digital audio workstations, and other musical technologies affiliated with commercial music applications.
• The student will demonstrate knowledge and application of key concepts in music business. Concepts include digital marketing, contracts, publishing, royalties, and booking.
• The student will be able to identify and make use of relationships between audio hardware and software. Concepts include consoles, software synthesis, analog synthesis, microphone and microphone technique, signal processing, mixing, and mastering.
• The student will demonstrate knowledge and familiarity with commercial music composition. Concepts include composing within genres and styles relevant to commercial music, creating production music and jingles, creating composition reel

Required Core Courses
Course Number Title Units
MUSC B30 Intro to Music Technology 3.0
MUSC B31 Commercial Music Composition 3.0
MUSC B32 Sound Design and Synthesis 3.0
MUSC B33 Live Sound 3.0
MUSC B34 Recording Techniques I 3.0
MUSC B35 Recording Techniques II 3.0
MUSC B36 Music Business 3.0

Total required units: 21

Nursing
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:
1. 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 of 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)

2. 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.

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), 3 units at Bakersfield College or equivalent course at another accredited college.
- MATH BD/B70 (Intermediate Algebra) or higher, 3 units at Bakersfield College or an equivalent course at another accredited college.
- CHEM B11 (Introduction to General, Organic and Biochemistry) or 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.
- (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.
LVN-ADN Program Curriculum

Employment in a variety of healthcare facilities and settings.

Career Opportunities in Registered Nursing
Employment in a variety of healthcare facilities and settings.

Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS B25</td>
<td>Mental Health - Psychiatric Nursing</td>
<td>3.5</td>
</tr>
<tr>
<td>NURS B26</td>
<td>Medical Surgical Nursing 3</td>
<td>5.5</td>
</tr>
<tr>
<td>NURS B70</td>
<td>Role Transition: Bridging Nursing Theory to Practice</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS B28</td>
<td>Medical Surgical Nursing 4</td>
<td>7.0</td>
</tr>
<tr>
<td>NURS B29</td>
<td>Gerontology - Community Nursing</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.

Political Science

Associate in Arts in Political Science for Transfer

The Associate in Arts in Political Science for Transfer degree is designed for students interested in gaining an understanding of the structure and functions in governments. This degree provides a foundation for further study for students planning to transfer into a baccalaureate program in political science. Successful completion of the Associate in Arts in Political Science for Transfer degree guarantees the student acceptance to a California State University (but not to a particular campus) to pursue a baccalaureate degree in Political Science. This degree may not be the best option for students intending to transfer to a particular CSU campus or a 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 and transfer requirements. This degree eliminates the additional Bakersfield College graduation requirements.

The following is required for the completion of all AA-T or AS-T degrees:

1. The completion of 60 semester units that are eligible for transfer to the California State University, including both of the following:
   - The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University - Breadth Requirements.
   - A minimum of 18 semester units in a major area of emphasis, as determined by the district.
2. The attainment of a minimum grade point average of 2.0.
3. The completion of all courses required for the major with a 'C' or better. A 'P' (Pass) grade is not acceptable for courses in the major.

Program Learning Outcomes

Upon successful completion, the student will be able to:

- Students 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.
- Students will evaluate the power relationships between legislative, executive, and judicial branches of government.
- Students will compare and contrast the factors that determine the emergence of republican or authoritarian systems of governance.
- Students will evaluate the influence of conflict and cooperation in the international bargaining process.

### Required Core 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>
</tbody>
</table>

### List A select three courses (10 units)

- POLS B2  Comparative Government  3.0
- POLS B3  International Politics  3.0
- MATH B22  Elementary Probability and Statistics  4.0
- PSYC B5  Elementary Statistics for the Behavioral and Social Sciences  4.0

### List B (select two of the following courses)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS B12</td>
<td>Contemporary Issues in California State and Local Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS B16</td>
<td>Vital Political Problems</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B4A</td>
<td>European Civilization</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B4B</td>
<td>European Civilization</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B17A</td>
<td>History of the United States</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B17B</td>
<td>History of the United States since 1870</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST B18</td>
<td>History of California</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON B2</td>
<td>Principles of Economics-Macro</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total required units: 19

*PSYC B5 changed from 5 units to 4 units. This changes the required units from 19-20 to 19.*
Lower Division Courses

Administration of Justice Courses

ADMJ B60 Arrest and Control Techniques P.C. B32
2.5 units
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 B32 (PC B32), 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 (P.O.S.T) requirements.
Hours: 45 lecture
CCS: Credit Course
Transferable: Not transferable. Not degree applicable.

ADMJ B63 Power to Arrest (Security Guard Course)
0.5 units
Description: Provide students with the knowledge and skills to pass the State of California mandated exam for a Security Guard Card and to function at the entry level of the security profession. Class meets the certification requirements for the Bureau of Security and Investigative Services from the California State and Consumer Services Agency.
Hours: 9 lecture
CCS: Credit Course
Transferable: Not transferable. Not degree applicable.

American Sign Language Courses

ASL B7 American Sign Language Literature
3 units
Prerequisites: ASL B3 with a grade of ‘C’ or better.
Recommended: Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Exploration interpretation, and analysis of storytelling, folklore, poetry, and plays of the American Deaf community. Study and performance of ASL poetry, hand-shape and ABC stories. Study of Deaf folklore and other forms of “oral” storytelling traditions. Criticism and analysis of Deaf plays in written English.
Hours: 54 lecture
CCS: Credit Course
Transferable: UC, CSU and private colleges, BC GE C.2

Art Courses

ART B8 Figure Drawing I
3 units
Prerequisites: ART B2 with a grade of ‘C’ or better, or equivalent.
Description: An 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.
Hours: 27 lecture, 81 laboratory
CCS: Credit Course
C-ID: ARTS 200
Transferable: UC, CSU and private colleges

ART B25 Typography
3 units
Prerequisites: ART B20 and ART B24 with grades of ‘C’ or better.
Description: This course focuses on effective typographic usage in visual media. Students explore the evolution of type from ancient to contemporary, and create original typographic design solutions. Projects feature investigation 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
CCS: Credit Course
Transferable: UC, CSU and private colleges

ART B40 Digital Illustration
3 units
Prerequisites: ART B25 with a grade of ‘C’ or better.
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 as an integral element to illustration projects.
Materials Fee: $15.00 for toner and paper. Students receive a portfolio of printed work.
Hours: 27 lecture, 81 laboratory
CCS: Credit Course
Transferable: UC, CSU and private colleges

ART B47 Advanced Photography II
3 units
Prerequisites: ART B46 or equivalent with a grade of ‘C’ or better.
Description: Course is a 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.
Materials Fee: $15.00
Hours: 27 lecture, 81 laboratory
CCS: Credit Course
Transferable: Associate Degree applicable; UC Transferable

Chemistry Courses

CHEM B1A General Chemistry I
5 units
Prerequisites: Mathematics - one level prior to transfer; CHEM B2A with a grade of ‘C’ or better or high school chemistry. Reading - one level prior to transfer. Writing - one level prior to transfer. Student should be at a level equal to successfully completing Math B70, Intermediate Algebra
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: Credit Course
Transferable: UC, CSU and private colleges; IGETC 5.A; IGETC 5.C; CSU GE B.1; CSU GE B.3; BC GE B.1
Correctional Administration Courses

CADM B54 Corrections Officer Core Course
12 units
Description: This course is designed to meet the Corrections Standards Authority requirements for entry-level Corrections Officers in Adult Detention Facilities. This course covers various legal issues in dealing with incarcerated offenders as well as supervision of inmates. Transportation, report writing, blood borne pathogens, CPR, First Aid, receiving and releasing of inmates, weaponless defense, Fire and Life Safety.
Hours: 216 lecture
CCS: Credit Course
Transferable: Not degree applicable. Not transferable.

CADM B58 Supervisor Core Course
4.5 units
Description: This course teaches supervisory skills such as supervisory role identification, leadership styles, values, ethics, principles, assertive leadership, employee performance appraisals, liability issues and legal updates, discipline, employee counseling, planning and organization, communication, investigations, report review, and team building. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections (STC) Program (as described in Section 181, Title 15, CCR).
Hours: 81 lecture
CCS: Credit Course
Transferable: Not degree applicable. Not transferable.

CADM B70A Prisoner Transportation
0.5 units
Description: This course teaches skills associated with the transportation of prisoners and 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 Authority for counties participating in the Standards and Training for Corrections Program.
Hours: 9 lecture
CCS: Credit Course
Transferable: Not degree applicable. Not transferable.

CADM B70B Prison Gangs
0.5 units
Description: 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: 9 lecture
CCS: Credit Course
Transferable: Not degree applicable. Not transferable.

CADM B70C Escape Prevention
0.5 units
Description: Teaches escape prevention procedures that deal primarily with basic institutional security principles, accountability of inmates, human error, and techniques used for escape prevention. 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: 9 lecture
CCS: Credit Course
Transferable: Not degree applicable. Not transferable.

CADM B70D Suicide Prevention
0.5 units
Description: Covers identifying the potential for suicide, prevention techniques, intervention and responses including proper communication techniques during a crisis. 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: 9 lecture
CCS: Credit Course
Transferable: Not degree applicable. Not transferable.

CADM B70E Handling Aggressive and Assaultive Inmates
0.5 units
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. 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: 9 lecture
CCS: Credit Course
Transferable: Not degree applicable. Not transferable.

CADM B70F Sexual Harassment Prevention
0.5 units
Description: Identifies Sexual harassment from a legal, moral, and social concept. Provides advice and counsel on how to prevent sexual harassment in the workplace. 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: 9 lecture
CCS: Credit Course
Transferable: Not degree applicable. Not transferable.

CADM B70G Understanding Prejudice
0.5 units
Description: Teaches tolerance of others who are unlike oneself, to make for cultural differences, values and beliefs. Adjusts preconceptions and misconceptions, attitudes and encourages communication styles without implications of discrimination. 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: 9 lecture
CCS: Credit Course
Transferable: Not degree applicable. Not transferable.

CADM B70H Crime Scene Preservation and Investigation
0.5 units
Description: Provides the required competencies to identify a crime scene, preserve evidence, mark and collect physical, trace and transient evidence. 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: 9 lecture
CCS: Credit Course
Transferable: Not degree applicable. Not transferable.
as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**CADM B70L Anger Management**

**0.5 units**

**Description:** Designed to provide students with tools to control their own anger as well as provide a process to deal with angry people. 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70J Informant Development and Management**

**0.5 units**

**Description:** 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70K Anatomy of a Set-Up; Games Inmates Play**

**0.5 unit**

**Description:** Students will develop a greater understanding of criminal thinking & behavior. This course will provide the student with the knowledge and communication skills to prevent or stop a set-up. Students will be able to identify and recite the signs and behaviors that contribute and make employees receptive to a set-up and to attempts at "game playing" by inmates.

**Hours:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70L Use of Force and Civil Liabilities**

**0.5 units**

**Description:** 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 for Corrections Program.

**Hours:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70M Drug Recognition and Under the Influence**

**0.5 units**

**Description:** 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70O Positive Inmate Staff Relations Through Communication and Ethics**

**0.5 units**

**Description:** Develops practical communication and ethical skills toward a positive inmate/staff working relationship in a jail/institutional environment. This course meets the requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70R Inmate Work Incentive Program**

**0.5 units**

**Description:** Prepares students to supervise inmates in a correctional environment and provide a better understanding of prisoner programs. 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." 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70S Women in Corrections**

**0.5 units**

**Description:** 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 the female correctional staff. This course meets the training requirements as set forth by Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70T Blood Borne Pathogens, T.B. Awareness, Psychotic Inmates**

**0.5 units**

**Description:** 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70U Conflict Resolution and Hostage Survival**

**0.5 units**

**Description:** Covers Conflict Resolution: develop skills to defuse and de-escalate confrontational situations. Course includes: 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:** 9 lecture
**CADM B70V Facility and Inmate Searches**

*0.5 units*

**Description:** Develops and enhances the knowledge and skills of searching both inmates and facilities. This course covers: searching techniques, clothed and unclothed body searches, and the current trends of introduction of contraband into a Correctional 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.

**Hours:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70W Restraint Gear Application**

*0.5 units*

**Description:** Provides explanation and hands-on practice for the proper application and use of restraints gear. Explains how some gear can be slipped, picked, shimmed or broken. 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70X Cell Extraction**

*0.5 units*

**Description:** 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B70Z Inmate Classification/Disciplinary Process**

*0.5 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71A Basic Principles in Management**

*1 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:** 18 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71F Drug and Alcohol Awareness for Supervisors**

*0.5 units*

**Description:** This course introduces students to various modes of transportation of adult and juvenile inmates. Includes proper use of restraints and proper searching techniques. Covers risks and techniques to prevent escapes. 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71G Advanced Report Writing**

*0.5 units*

**Description:** This course is designed to provide advanced skills in report writing. Students will refresh and enhance the writing skills they developed in the basic course. 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71H Transportation and Escape Procedures**

*0.5 units*

**Description:** Intended for peace officers, correctional officers, juvenile institutions staff, and probation officers. Introduces students to various modes of transportation of adult and juvenile inmates. Includes proper use of restraints and proper searching techniques. Covers risks and techniques to prevent escapes. 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71I Violence in the Workplace**

*0.5 units*

**Description:** A discussion of fatal and nonfatal violence in the workplace to determine the focus needed for prevention. Emphasis made on changes to help minimize or remove the risk of workplace violence. Meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program.

**Hours:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71K Rights of Prisoners**

*0.5 unit*

**Description:** An introduction and discussion of the rights and privileges that inmates have while they are incarcerated. This course meets the training requirements as set forth by the Corrections Authority for counties participating in the Standards and Training for Corrections Program.
Standards Authority for counties participating in the Standards and Training for Corrections Program.

**CADM B71L Progressive Discipline**

*0.5 units*

**Description:** This course teaches methods 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. 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71M Stress in the Corrections Environment**

*0.5 units*

**Description:** Intended for people working in corrections. Course will identify and discuss what stress is, 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71N Positive Thinking in Corrections**

*0.5 units*

**Description:** This course 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71O Assertiveness Training for Corrections**

*0.5 units*

**Description:** This course 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71P Employee Post Trauma**

*0.5 units*

**Description:** This course covers basic assessment tools, methods of coping, as well as tools and skills to facilitate post traumatic recovery. 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71Q Liability Issues and Courtroom Demeanor**

*0.5 units*

**Description:** This course is 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B71R Prison Rape Elimination Act (PREA)**

*0.5 units*

**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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B72 Chemical Agents**

*0.5 units*

**Description:** This course 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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B73 Basic Baton Course**

*0.5 units*

**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:** 9 lecture

**CCS:** Credit Course

**Transferable:** Not degree applicable. Not transferable.

**CADM B74 Weaponless Defense and Control Tactics**

*0.5 units*

**Description:** This course provides training 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 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:** 9 lecture
**Communication Courses**

**COMM B2 Interpersonal Communication**  
3 units  
**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.  
**Description:** An introduction to interpersonal communication as it pertains to exploration of the individual's relationships to others and the broader society including romantic, friendship, family, and professional relationships at every age. Emphasis will be placed on social, physiological, and cultural influences such as social interaction, verbal communication, nonverbal communication, touch, human interaction, emotion, and shape. Personal identity, interpersonal relationships, ethical communication, and communication theory and research, and effective conflict resolution methods. Focus will be on experience and skills in interpersonal communication.  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**C-ID:** COMM 130  
**Transferable:** UC, CSU and private colleges; CSU GE E; BC GE E

**COMM B7 Organizational Communication**  
3 units  
**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.  
**Description:** Course concentrates on a global look at communication in an organizational setting and practice of communication in private and public organizations, interpersonal and group communication patterns within organizations, systems of ethical internal and external communication, leadership in the organization, organizational cultures, impact on communication, and the role of communication in achieving organizational goals. Course includes team projects that will require work outside of class and visits to a community location of your teams choosing.  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**Transferable:** UC, CSU and private colleges; CSU GE D.7; BC GE D.2

**Computer Science Courses**

**COMP B10 Introduction to Programming Methodologies using Python**  
3 units  
**Recommended:** Reading - one level prior to transfer.  
**Description:** This course is designed as a first course in software engineering for mixed-majors, with an emphasis on the Computer Science major. Students will use the object-oriented programming language Python to learn the fundamentals of programming. Topics include: variables, sequence, selection, iteration, the software lifecycle, as well as common programming algorithms such as sorting and searching.  
**Note:** Not open to students who have successfully completed COMS B10.  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**C-ID:** COMP 112  
**Transferable:** UC, CSU and private colleges

**COMP B13 Computer Architecture and Organization**  
3 units
**English Courses**

**ENGL B33 Children’s Literature**

3 units

**Prerequisite:** Writing - one level prior to transfer or ENGL B50 or ENGL B53 or ENSL B50 / EMLS B50 with a grade of ‘C’ or better.

**Recommended:** ENGL B1A.

**Description:** This course introduces major works and develops students’ reading and analytical writing skills while promoting an appreciation for the aesthetics, history, authors, genres, and themes of children’s literature. Readings will include folklore, oral tradition, contemporary stories, illustrated books, poetry, and juvenile novels from a variety of cultures and critical perspectives.

**Hours:** 54 lecture

**C-ID:** ENGL 133

**Transferable:** UC, CSU and private colleges; CSU GE C.2; GE C.2

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**Fire Technology Courses**

**FIRE B52B Company Officer 2B**

1 unit

**Description:** This course provides information on general administrative functions, the implementation of department policies and procedures, and addresses conveying the fire department’s role, image, and mission to the public.

**Hours:** 20 lecture

CCS: Credit Course

**Transferable:** Associate Degree only. Not transferable.

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**Crop Science Courses**

**CRPS B5 Plant Science**

3 units

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.

**Description:** This course is designed to provide the students with a working knowledge of the fundamental structures and processes of plants. Principles to be applied cover plant structures, physiology, heredity, environmental relationship to growth, adaptation, and management of crops. Techniques of research, exploration of plant growth, and identification of economical crops will be included.

**Hours:** 36 lecture, 54 laboratory

CCS: Credit Course

**C-ID:** AG-PS 104

**Transferable:** UC, CSU and private colleges; IGETC GE 5.B; GE B.2; B3; BC GE B.1

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**History Courses**

**HIST B2 History of the World (Since 1650)**

3 units

**Recommended:** Reading - one level prior to transfer. Writing - 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: Credit Course

**Transferable:** UC, CSU and private colleges; IGETC 3.B; IGETC 4; CSU GE C.2; GE D.6; BC GE D.2

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**HIST B4A European Civilization**

3 units

**Recommended:** Reading and Writing - 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: Credit Course

**Transferable:** UC, CSU and private colleges; IGETC 3.B; IGETC 4; CSU GE C.2; GE D.6; BC GE D.2

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**HIST B4B European Civilization**

3 units

**Recommended:** Reading and Writing - one level prior to 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: Credit Course

**C-ID:** HIST 180

**Transferable:** UC, CSU and private colleges; IGETC 3.B; IGETC 4; CSU GE C.2; GE D.6; BC GE D.2

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**HIST B33 Latin American History**

3 units

**Recommended:** Reading - one level prior to transfer. Writing - one level prior to transfer.
Description: Historical survey of the social, economic and political development of Latin America, including the formation of pre-Columbian civilization through establishments of the Spanish and Portuguese colonial systems to nation building of the modern era. Examines the impact of the United States’ foreign policy on the development of Latin America.

Note: Not open to students who have completed CHST B33.

Hours: 54 lecture

CS: Credit Course

Transferable: UC, CSU and private colleges; BC GE E

PHED B6SC Coeducational Team 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 activity

CS: Credit Course

Transferable: UC, CSU and private colleges; BC GE E

PHED B6WT Coeducational Team 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 Physical Education activity units.

Hours: 54 activity

Repeat: 1

CS: Credit Course

Transferable: UC, CSU and private colleges; BC GE E

Athletic Code Eligibility Requirements

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
PHED B10 Intercollegiate Competition for Men: Football
3 units
Prerequisite: Limitation on Enrollment, Students must meet athletic code eligibility requirements.
Description: Intercollegiate competition for Men's Football team. Student must meet athletic code eligibility requirements. Field trips may be required.
Note: UC Campuses give a maximum of four semester units of credit for Physical Education activity units.
Hours: 108 Activity
Repeat: 3
CCS: Credit Course
Transferable: UC, CSU and private colleges; CSU GE E; BC GE E

PHED B12 Intercollegiate Competition: Track and Field
3 units
Prerequisite: Limitation on Enrollment, Must meet Athletic Eligibility standards.
Description: Intercollegiate competition for the Track and Field team. Student must meet athletic code eligibility requirements. Field trips may be required.
Note: UC Campuses give a maximum of four semester units of credit for Physical Education activity units.
Hours: 108 Activity
Repeat: 3
CCS: Credit Course
Transferable: UC, CSU and private colleges; CSU GE E; BC GE E

PHED B13 Intercollegiate Competition for Men: Tennis
3 units
Prerequisite: Limitation on Enrollment, Students must meet athletic code eligibility requirements
Description: Intercollegiate competition for Men's Tennis team. Student must meet athletic code eligibility requirements. Field trips may be required.
Note: UC Campuses give a maximum of four semester units of credit for Physical Education activity units.
Hours: 108 Activity
Repeat: 3
CCS: Credit Course
Transferable: UC, CSU and private colleges; CSU GE E; BC GE E

PHED B16 Intercollegiate Competition for Men: Golf
3 units
Prerequisites: Limitation on Enrollment, Students must meet athletic code eligibility requirements
Description: Intercollegiate competition for Men's Golf team. Student must meet athletic code eligibility requirements. Field trips may be required.
Note: UC Campuses give a maximum of four semester units of credit for Physical Education activity units.
Hours: 108 Activity
Repeat: 3
CCS: Credit Course
Transferable: UC, CSU and private colleges; CSU GE E; BC GE E

PHED B22 Intercollegiate Competition for Women: Tennis
3 units
Description: Intercollegiate competition for Women's Tennis team. Student must meet athletic code eligibility requirements. Field trips may be required.
Note: UC Campuses give a maximum of four semester units of credit for Physical Education activity units.
Limitation on Enrollment (e.g. Performance tryout or audition): Students must meet athletic code eligibility requirements.
Hours: 162 activity
Repeat: 3
CCS: Credit Course
Transferable: UC, CSU and private colleges; CSU GE E; BC GE E

PHED B33M Intercollegiate Competition for Men Soccer
3 units
Description: Intercollegiate competition for Men's Soccer team. Student must meet athletic code eligibility requirements. Field trips may be required.
Limitation on Enrollment (e.g. Performance tryout or audition): Students must meet athletic code eligibility requirements.
Hours: 162 activity
Repeat: 3
Transferable: UC; CSU and private colleges; CSU GE E; BC GE E

PHED B34C Intercollegiate Conditioning
1 unit
Description: Intercollegiate athletics course emphasizing preseason conditioning. 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.
Note: UC Campuses give a maximum of four semester units of credit for Physical Education activity units.
Hours: 54 activity
Repeat: 3
CCS: Credit Course
Transferable: CSU and private colleges

Registered Nursing Courses
NURS B20 Fundamentals of Nursing
4 units
Prerequisites: Appropriate standing in the Associate Degree Nursing Program. Content Review/Content Review + Statistics
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 introduced and integrated throughout the course.
Hours: 36 lecture, 108 laboratory
CCS: Credit Course
Transferable: CSU and private colleges
Upper Division Courses

## English Courses

### ENGL B100 Technical Writing
3 units

**Description:** Study of the process of technical writing and written communication. Students review various formats and writing purposes and produce technical and business-related documents.

**Prerequisites:** Admissions to the Bachelor of Science, Industrial Automation Program

**Hours:** 54 lecture

**CCS:** Credit Course

**Transferable:** Bachelor’s Degree Applicable

## Industrial Automation Courses

### INDA B100 Industrial Design
3 units

**Description:** The application of two-dimensional industrial design techniques (sketching, drafting, and Computer Aided Drafting) taught within the context of automation and process design. Students will gain design and management skills while generating process flow diagrams (PFD's), piping & instrumentation diagrams (P&ID's), and control panel layouts.

**Prerequisites:** Admissions to the Bachelor of Science, Industrial Automation Program

**Hours:** 36 lecture, 54 laboratory

**CCS:** Credit Course

**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

### INDA B101 Industrial Design Graphics II
3 units

**Description:** The application of three-dimensional industrial design techniques taught within the context of automation and process design. Students will utilize mechanical Computer Aided Drafting software (SolidWorks/Inventor) to design weldments, piping/conduit systems, and sheet metal assemblies. Design projects will emphasize technical and project management skills.

**Prerequisites:** INDA B100 AND Admission to Industrial Automation Bachelor's Degree program

**Hours:** 36 lecture, 54 laboratory

**CCS:** Credit Course

**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

### INDA B105 Materials Science for the Technician
3 units

**Description:** An introduction to materials science for technicians and technologists. Topics to be presented include atomic structure of materials, electrical and mechanical properties, properties testing, basic metallurgy, corrosion and wear, and materials selection. Materials covered include ceramics, polymers and composites, steels, and nonferrous metal alloys. Students will also be introduced to processes including heat treatment, surface treatments, polymer manufacturing, and composite fabrication.

**Prerequisites:** (PHYS B2A OR PHYS B4A) AND (MATH B1A OR MATH B2 OR MATH B6A) AND Admission to Industrial Automation Bachelor’s Degree program

**Hours:** 36 lecture, 54 laboratory

**CCS:** Credit Course

### INDA B110 Industrial Automation Networks
3 units

**Description:** The basic theory and implementation of industrial automation networks, including digital data, industrial control networks, instrumentation and process control bus and network standards, SCADA (Supervisory Control and Data Acquisition) and DCS (Distributed Control Systems), and essentials of human-machine interface (HMI) panels connection, programming, and modification of programs and features.

**Prerequisites:** ELET B1 AND ELET B5 AND Admission to Industrial Automation Bachelor's Degree program

**Hours:** 36 lecture, 54 laboratory

**CCS:** Credit Course

**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

### INDA B112 Industrial Automation Measurement
3 units

**Description:** Advanced applications of industrial measurement and instrumentation, including instrumented process control based on a PLC. Topics include: instrumentation and process control review, instrumentation documents (process flow diagrams, P&ID's, loop diagrams, instrument and process equipment symbols, and instrument tags), instrument connections, instrument calibration and calibration programs, diagnostic strategies, continuous analytical measurement, machine vibration measurement, control valves (ranging, sizing, characterization, and problems), process dynamics and PID controller tuning, basic process control strategies, and process safety and instrumentation. This course continues the study of instrumentation from the ELET B56a course, and covers the approximately 40% of the remaining content of the International Society for Automation (ISA) Certified Control Systems Technician (CCST) certification, level 1.

**Prerequisites:** ELET B56 AND Admissions to the Bachelor of Science, Industrial Automation Program

**Hours:** 36 lecture, 54 laboratory

**CCS:** Credit Course

**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

### INDA B114 Industrial Safety Principles and Management
3 units

**Description:** An overview of components of successful safety and industry hygiene programs, best practices, OSHA reporting requirements, legal and ethical obligations of both employer and employee, principles of safety management, assessment of hazards associated with various industrial processes and facilities, and protective measures used to minimize hazards such as personal protective equipment, hazard management, education and training options, and incentive programs.

**Prerequisites:** Admission to Industrial Automation Bachelor's Degree program

**Hours:** 54 lecture

**CCS:** Credit Course

**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)
INDA B120 Industrial Automation Systems  
3 units  
**Description:** This course provides additional study and hands-on lab activities beyond the Computer Integrated Manufacturing course, and will cover industrial automation systems, including: principles of robotics, power supplies and movement systems, sensing and end-of-arm tooling, and control systems and maintenance.  
**Prerequisites:** ELET B4 AND Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 36 lecture, 54 laboratory  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

INDA B122 Industrial Motion Control  
3 units  
**Description:** Methods of implementing motion control utilizing VFD’s (Variable Frequency Drives) including general purpose drives and vector drives, servo controllers and drives, stepper controllers and drives, and other motion control devices. Utilization of test equipment for testing and troubleshooting will be covered, as well as an overview in maintenance program development and management. Lab activities will be provided with actual equipment and software used in industry.  
**Prerequisites:** ELET B55 OR ELET B55A AND Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 36 lecture, 54 laboratory  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

INDA B124 Industry Sector Seminar: Applied Automation  
3 units  
**Description:** A study of the specific automation processes related to the following industry sectors: Petroleum (the application of automation and process control in oilfield operations and processes, and commodities transport processes), logistics and distribution (the application of automation in distribution centers and warehousing), cogeneration and renewable energy, as well as automation support professions.  
**Prerequisites:** Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

INDA B130 Industrial Manufacturing Processes  
3 units  
**Description:** An overview of the specific processes used in manufacturing, including but not limited to: forming, casting, extrusion, blow-molding, material addition and removal, welding and joining, folding, pressing, and shearing operations, measurement and insertion of products into packaging, coating and sealing, and other processes used in manufacturing industries.  
**Prerequisites:** Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

INDA B132 Project Management and Budgeting  
3 units  
**Description:** This course provides hard information and skills to work successfully in a project environment and to accomplish project objectives. It will equip students by explaining concepts and techniques and by using numerous examples to show how they can be skillfully applied. Topics covered in this course include project management life cycle and processes; identifying and selecting projects; developing a project proposal; techniques for planning, scheduling, resource assignment, budgeting, and controlling project performance; project risks; project manager responsibilities and skills; project team development and effectiveness; project communication and documentation; and project management organizational structures. The concepts in the course support the project management knowledge areas of the Project Management Institute’s A Guide to the Project Management Body of Knowledge (PMBOK® Guide).  
**Prerequisites:** Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

INDA B134 Industry Sector Seminar: Manufacturing and Production  
3 units  
**Description:** A study of the specific automation processes related to the following industry sectors: petroleum (refining and materials processing of petroleum-related products including gasses, plastics and polystyrene foam), food and value-added agriculture processing (including processing, packaging, food safety, good manufacturing processes, quality assurance processes, and other topics of importance to the food processing industry), materials processing (including building materials, minerals, and other non-food products created from natural resources), as well as equipment, industrial manufacturing, and aerospace industries.  
**Prerequisites:** Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

INDA B140 Quality Management  
3 units  
**Description:** An overview of the various methods of quality assurance (the systematic process of determining whether products meet customers’ expectations), quality control (the systematic process of determining the quality and consistency of products), and efficient manufacturing processes (using techniques that determine the most efficient method of manufacturing and logistics). Strategies such as Six-Sigma, Lean Manufacturing, Failure Mode Analysis, ISO 9001, and various continuous improvement programs will be examined.  
**Prerequisites:** Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)
**INDA B142 Facilities Planning and Operations**  
3 units  
**Description:** An overview of the processes used in planning and operating an industrial facility, including but not limited to: efficient design of workflow, quality assurance, material handling, time and motion study, scheduling, inventory control, examining the application of automation through a cost-benefit analysis, organizing production and facilities operation, and structuring management operations efficiently.  
**Prerequisites:** Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

**INDA B144 Leadership and Entrepreneurship**  
3 units  
**Description:** Students strengthen personal and organizational leadership skills. The course increases understanding of and experience with decision making, problem solving, and communication. An investigation of the factors that determine leadership with special emphasis on the leader’s vision. The study and analysis of the issues and options which must be faced in developing a successful technological venture and on the creation of a winning business plan. Particular attention is directed to the identification of technology-based venture opportunities, evaluation of technical feasibility and commercial potential, and planning for successful commercialization.  
**Prerequisites:** Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

**INDA B150 Senior Problem I (Systems Design and Integration)**  
3 units  
**Description:** Students will work in teams to design, plan for production, and integrate various automation technologies into the production of a simple product. A working product prototype, a business plan, a facilities plan, and a production plan will also be developed.  
**Prerequisites:** INDA B132 (Project Management and Budgeting) AND INDA B140 (Quality Management) AND INDA B142 with a grade of “C” or better. (Facilities Planning and Operations) AND Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 9 lecture, 135 laboratory  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable; Career and Technical Education (CTE)

**INDA B151 Senior Problem II (Systems Implementation)**  
3 units  
**Description:** The product and processes designed in by the student teams in INDA B150 will be further refined to create a demonstration production run or simulated production process. The production plan will be refined according to the production run or simulation, and a final plan will be presented. Additionally a simple marketing plan will be included.  
**Prerequisites:** INDA B150 AND Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 9 lecture, 135 laboratory

**Philosophy Courses**

**PHIL B100 Industry Ethics**  
3 units  
**Description:** The main objective of this course is to stress analytical reasoning and emphasize clear thinking regarding the application of major ethical theories to specific workplace, organizational, and global business and technological issues that students are most likely to encounter once in the workforce. An examination of the responsibilities of the employee, manager, and organization within an industry context will take place, highlighting such issues such as whistleblowing, environment (e.g., asset disposal program), discrimination and harassment, risk, and safety. A key component of the class will also discuss the ethical importance of emerging technologies and their impact on society.  
**Prerequisites:** Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable

**Psychology Courses**

**PSYC B100 Industrial and Organizational Psychology**  
3 units  
**Description:** The application of psychological principles and theories to the workplace: This includes an introduction to the methods, practices, research, and theories necessary to the scientific study of the attitudes and behaviors of employees and employers; interpersonal relationships in the workplace; the structure of organizations and organizational policies; the complex processes of motivation and leadership; individual and organizational performance; and the match between people and jobs.  
**Prerequisites:** Admission to Industrial Automation Bachelor’s Degree program  
**Hours:** 54 lecture  
**CCS:** Credit Course  
**Transferable:** Bachelor’s Degree Applicable
Administration and Faculty

Bakersfield College Faculty

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Bakersfield College Retirees

Destefano, Peggy - Administration of Justice