Chapter 5 – Degrees and Certificates

Shasta College 2014-15
Associate Degree Requirements

The information provided below gives a brief description of the degrees offered at Shasta College. It **does not** outline all of the requirements to obtain an associate degree from Shasta College or all of the requirements to transfer to a four-year college or university. All students should schedule an appointment to speak with a counselor to ensure that they meet all of the degree and/or transfer requirements. Meeting with a counselor also helps ensure that the student is pursuing a degree that meets his or her educational and career goals.

## TRANSFER DEGREES

The following associate degrees for transfer are designed for the student who wishes to complete lower-division requirements in preparation for transfer to a four-year college or university.

### Associate Degrees for Transfer (ADT)

- **Associate of Arts – University Studies**
- **Associate of Arts (Music)**
- **Associate of Science (Ag – Ag Business, Ag – Environmental Horticulture, and Ag – Sustainable Ag)**

### Associate Degrees for Transfer (ADT):

**Designed for the student planning on transferring to the California State University (CSU) system.** Students complete the CSU or IGETC general education pattern and specific courses related to their major. Students who are awarded these degrees are guaranteed admission with junior standing somewhere in the CSU system and given priority admission consideration to their local CSU campus or to a program that is deemed similar to their community college major. **This priority does **not** guarantee admission to specific majors or campuses.** This degree requires a minimum of 60 transferrable units. The student completing this degree is not subject to specific community college graduation requirements.

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

Current and prospective community college students are encouraged to meet with a counselor to review their options for transfer and to develop an educational plan that best meets their goals and needs. Shasta College offers the following AA-T/AS-T degrees:

- Administration of Justice
- Business Administration
- Communication Studies
- Early Childhood Education
- English
- Kinesiology
- Music
- Philosophy
- Physics
- Psychology
- Sociology
- Studio Arts
- Theatre Arts
- Studio Arts
- Theatre Arts

### REQUIREMENTS:

1. **Unit Requirement:** Minimum of 60 California State University (CSU) transferrable semester units, courses numbered 1-99 at Shasta College.

2. **Scholarship Requirement:** An overall grade point average (GPA) of not less than 2.0 in all transferrable coursework. While a minimum of 2.0 is required for this degree, some majors or transfer universities may require a higher GPA. Please consult with a counselor for more information.

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

4. **Course Requirements:**
   a. **Major Field of Study:** Select an “AA-T” or “AS-T” major. All courses in the major must be completed with a grade of “C” or higher.
   b. **General Education:** Certified completion of the California State University General Education (CSU GE); OR the Intersegmental General Education Transfer Curriculum (IGETC). **Note:** If completing IGETC all courses must be completed with a grade of “C” or higher.
      i. Advanced Placement (AP) examination credit can be used to satisfy both CSU GE and IGETC.
      ii. Credit through the College Level Examination Program (CLEP) can be used to satisfy CSU GE. **Note:** The University of California does not accept credit awarded through CLEP.

5. **Competency Requirements:**
   Oral Communication, English Composition, Critical Thinking, and Quantitative Reasoning courses must be completed with a grade of “C” or higher.

6. **These degrees do not require completion of a multicultural course or demonstration of computer literacy for Shasta College graduation purposes.**

*Associate Degrees for Transfer start on next page….*
Administration of Justice

SC Program: AS-T.1003

PROGRAM DESCRIPTION: This course of study prepares students for transfer to complete work for a bachelor's degree in criminal justice or economic crime investigation. Students will be able to describe the individual functions and components of the modern criminal justice system; use introductory concepts of legal research to locate, analyze, and discuss the content of statutory and case law; and explain the underlying cause of antisocial and criminal behavior. Proper selection of curriculum electives further enables students to study other academic disciplines, such as political science, sociology, and public administration. This program is appropriate for students considering law school as well as certain careers in law enforcement.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. Identify and apply communication skills when interacting with all people.
2. Identify the need for understanding diverse populations in the criminal justice field and establish strategies for effectively communicating with those diverse populations.
3. Identify the cultural differences found in most communities and apply methods of effectively bridging those differences.
4. Demonstrate and apply critical thinking skills in dealing with ethical decision making within the criminal justice system.
5. Demonstrate the ability to locate resources which enable the resolution of problems within the community and the participants of the criminal justice system.
6. Recognize the major impact ethics and morality has on the citizens the law enforcement profession serves and the daily interaction with others within the criminal justice system.
7. Develop effective writing skills to properly document law enforcement priorities.
8. Demonstrate an understanding of the theory and application of law enforcement rules, regulations, and applicable laws.
9. Demonstrate the ability to make the correct decision during critical life-threatening situations.

REQUIREMENTS:

In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Science in Administration of Justice for Transfer Degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A "P" (Pass) grade is not an acceptable grade for courses in this major.

REQUIRED CORE:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 10*</td>
<td>Introduction to Administration of Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 15</td>
<td>Concepts of Criminal Law</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIST A (Choose two courses from the following):</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 16</td>
<td>Legal Aspects of Evidence (3)</td>
</tr>
<tr>
<td>ADJU 17</td>
<td>Principles/ Procedures of the Justice System (3)</td>
</tr>
<tr>
<td>ADJU 18</td>
<td>Community Relations (3)</td>
</tr>
<tr>
<td>ADJU 20</td>
<td>Principles of Investigation (3)</td>
</tr>
<tr>
<td>ADJU 22</td>
<td>Juvenile Procedures (3)</td>
</tr>
<tr>
<td>ADJU 40</td>
<td>Introduction to Corrections (3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIST B (Choose two courses from the following):</th>
<th>6-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 45</td>
<td>Criminal Street Gangs (3)</td>
</tr>
<tr>
<td>ADJU 46</td>
<td>Narcotic and Drug Abuse (3)</td>
</tr>
<tr>
<td>MATH 14*#</td>
<td>Introduction to Statistics (4)</td>
</tr>
<tr>
<td>PSYC 1A*#</td>
<td>General Psychology (3)</td>
</tr>
<tr>
<td>SOC 1*#</td>
<td>Introduction to Sociology (3)</td>
</tr>
</tbody>
</table>

Business Administration

Associate in Science for Transfer:

SC Program: AS-T.1001

PROGRAM DESCRIPTION: The Associate in Science in Business Administration for Transfer degree is designed to provide students with the common core of lower division courses required to transfer and pursue a baccalaureate degree in Business Administration. This includes business degrees with options such as accounting, finance, human resources management, international business, management, operations management, and marketing. The Associate in Science in Business Administration for Transfer degree aligns with the CSU Bachelor of Science in Business Administration.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. Express the accounting equation; identify and perform the processes of the accounting cycle; and prepare and interpret the basic financial statements for service and merchandising organizations in accordance with generally accepted accounting principles.
2. Identify and illustrate fundamental accounting concepts, classifications, cost systems, cost-volume-profit relationships, budgeting and profit planning to support planning, control and decision making activities of management.
3. Prepare and process payroll records and payroll tax returns in compliance with applicable federal and state laws and regulations.
4. Apply the Internal Revenue Code and related Treasury Regulations as they relate to individual, partnership and corporation income taxes; prepare simple individual income tax returns.
5. Utilize their ability to identify and apply business and finance concepts to advance into upper division coursework as business majors in the fields of accounting, finance, marketing, management and information technology and services.

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Chapter 5 – Degrees and Certificates

Business Administration AS-T Degree (continued):

REQUIREMENTS:
In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Science in Business Administration for Transfer degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A "P" (Pass) grade is not an acceptable grade for courses in this major.

REQUIRED CORE:

- ACCT 2  Introduction to Financial Accounting  4
- ACCT 4  Introduction to Managerial Accounting  4
- BUAD 6  Business Law I  3
- ECON 1A/#  Principles of Economics (Micro)  3
- ECON 1B/#  Principles of Economics (Macro)  3

LIST A:  (Choose one course from the following)  3-4
- MATH 8/#  Finite Mathematics (3)
- MATH 9/#  Survey of Calculus (4)
- MATH 14/#  Introduction to Statistics (4)

LIST B:  (Choose two course from the following)  6-8
- BUAD 10  Introduction to Business (3) OR
- BUAD 66  Business Communications (3)
- CIS 1  Computer Literacy Workshop (3)

*May be used to fulfill CSU General Education requirements. See a counselor.
#May be used to fulfill IGETC requirements. See a counselor.

ASSOCIATE IN SCIENCE IN BUSINESS ADMINISTRATION FOR TRANSFER DEGREE REQUIREMENTS:

- Major  26-28
- General Education  37-39*
- General Electives  2-6*

*Number will vary depending on units that double count.

COMMUNICATION STUDIES

Associate in Arts for Transfer:

SC Program:  AA-T.1001

PROGRAM DESCRIPTION: Communication classes provide students with skills that are essential for other classes and programs at Shasta College and beyond. The Associate in Arts in Communication Studies for Transfer program teaches communication theory and competencies that are crucial for success in both personal and business relationships. Students learn analytical and critical thinking skills that are essential life skills. Good oral communication skills have been documented by research to be an important factor in the health of personal relationships, and these skills have even been linked to one's physical and psychological health. Communication courses enable students to lead richer, more satisfying and productive lives by improving their grasp of core theories and practical skills. The results are often immediate and dramatic, improving both personal and professional relationships in both large and small groups. The Associate in Arts in Communication Studies for Transfer degree aligns with the CSU Bachelor of Arts in Communication Studies.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:

1. Identify the role communication plays in academic, social and professional endeavors.
2. Present well-designed, well-researched, well-developed and supported information and persuasive presentations.
3. Demonstrate the tools of advocacy for issues of justice and fairness, with integrity and civility.
4. Demonstrate the skills of critical thinking, recognize common fallacies of thought, demonstrate active listening, conflict management and win-win problem solving essential for both personal relationships and team work.
5. Identify crucial issues affecting intercultural communication, and the adaptations necessary for successful interactions between cultures.

REQUIREMENTS:
In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Arts in Communication Studies for Transfer Degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A "P" (Pass) grade is not an acceptable grade for courses in this major.

REQUIRED CORE:

- CMST 60/#  Public Speaking  3

LIST A (Choose six units from the following):  6
- CMST 10/#  Interpersonal Communication (3 units)
- CMST 40*  Argumentation and Debate (3 units)
- CMST 54/#  Small Group Communication (3 units)

LIST B (Choose six units from the following):  6
- Any List A course not used above
- CMST 20*  Intercultural Communication (3 units)
- CMST 30*  Oral Interpretation (3 units)
- CMST 75  Forensics Workshop (3 units)

LIST C (Choose three units from the following):  3
- Any List A or List B course not used above
- ANTH 2/#  Cultural Anthropology (3 units)
- JOUR 21*  Introduction to Mass Communications (3 units)
- PSYC 1A/#  General Psychology (3 units)
- SOC 1*#  Introduction to Sociology (3 units)

*May be used to fulfill CSU General Education requirements. See a counselor.
#May be used to fulfill IGETC requirements. See a counselor.

ASSOCIATE IN ARTS IN COMMUNICATION STUDIES FOR TRANSFER DEGREE REQUIREMENTS:

- Major  18
- General Education  37-39*
- General Electives  8-18*

*Number will vary depending on units that double count.

Early Childhood Education

Associate in Science for Transfer:

SC Program:  AS-T.1002

PROGRAM DESCRIPTION: The Associate of Science Early Childhood Education Transfer degree is designed to provide students with a common core of eight early childhood education courses (approved by the Curriculum Alignment Project) that permit students to transfer smoothly to participating CSU's to complete a Bachelor's degree in child development or early childhood education.

The degree is designed to facilitate students' successful transfer to certain California State University (CSU) campuses that prepare them for advanced study in a variety of graduate programs, as well as a variety of careers such as teaching, Child Development Specialist, Program Directors, and Child Life Specialists. With a BA in ECE/Child Development, students are eligible for the Master Teacher and Site Supervisor levels of the CA Child Development Permit, using the Alternative Qualifications category.

Continued on next page…
Early Childhood Education AS-T Degree (continued):

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:

1. Exhibit skill in identifying the needs, the characteristics and multiple influences on the development of children birth to age eight.
2. Design, execute and evaluate environments and activities that support positive developmental play and learning outcomes for young children.
3. Establish and maintain safe and healthy learning environments for young children.
4. Observe, document, and use authentic assessment tools as a vehicle for child and program assessment and curriculum design.
5. Utilize ethical standards and professional behaviors that deepen understanding, knowledge, and commitment regarding the ECE profession.
6. Build family and community relationships and understand and value the importance and complex characteristics of families and communities in young children’s development.
7. Evaluate developmentally effective approaches to create positive relationships and supportive interactions as the foundation in working with children and families from diverse societies.
8. Upon completion of a program of study in Early Childhood Education students will, through planned and sequenced field experiences, develop the knowledge, skills and professional dispositions necessary to promote the development and learning of young children across the entire developmental period of early childhood in multiple early childhood age groups and in the variety of settings that offer early care and education.

REQUIREMENTS:
In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Science in Early Childhood Education for Transfer degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A “P” (Pass) grade is not an acceptable grade for courses in this major.

REQUIRED CORE:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 2*</td>
<td>3</td>
</tr>
<tr>
<td>ECE 7</td>
<td>3</td>
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<tr>
<td>ECE 8</td>
<td>5</td>
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<tr>
<td>ECE 9*#</td>
<td>3</td>
</tr>
<tr>
<td>ECE 15</td>
<td>3</td>
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<td>ECE 17</td>
<td>3</td>
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<td>ECE 20</td>
<td>3</td>
</tr>
<tr>
<td>ECE 28</td>
<td>3</td>
</tr>
</tbody>
</table>

*May be used to fulfill CSU General Education requirements. See a counselor.

#May be used to fulfill IGETC requirements. See a counselor.

ASSOCIATE IN SCIENCE IN EARLY CHILDHOOD EDUCATION FOR TRANSFER DEGREE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>26</td>
</tr>
<tr>
<td>General Education</td>
<td>37-39*</td>
</tr>
<tr>
<td>General Electives</td>
<td>0-1</td>
</tr>
<tr>
<td><strong>Degree Total Will Not Exceed 60 Units</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Number will vary depending on units that double count.

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English

Associate in Arts for Transfer:

SC Program: AA-T.1007

PROGRAM DESCRIPTION: The Associate in Arts in English for Transfer degree introduces students to English or English Education study and preparation, including the appreciation and understanding of literary works through intellectual and cultural movements, such as Utilitarianism or the Aesthetic Movement, and historical and social changes. The Associate in Arts in English for Transfer degree is designed to provide students with a common core of lower division courses required to transfer and pursue a baccalaureate (4-year) degree in English in the CSU system.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:

1. Define basic critical reasoning concepts; identify literary genres; and write effective clear and well-organized analytical arguments or literary analyses.
2. Identify and discuss plot, conflict, setting, time frame, characters (protagonist and antagonist), dialogue, suspense, rising action, and denouement with works of literature in papers and on examinations.
3. Identify and write about or discuss diction, syntax, figurative language, sound and rhythm, irony, and various poetic forms.
4. Analyze and write about literature with an understanding of the historical and cultural contexts from which literary classics spring.
5. Apply a variety of approaches to the analysis of literary works, including but not limited to historical, thematic, and formal approaches.

REQUIREMENTS:
In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Arts in English for Transfer Degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A “P” (Pass) grade is not an acceptable grade for courses in this major.

REQUIRED CORE:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1B*#</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1C*#</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 10A*#</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 10B*#</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 11B*#</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 13A*#</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 13B*#</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST A (Choose two courses from the following): 6

- ENGL 10A*# World Literature to 1650 (3)
- ENGL 10B*# World Literature after 1650 (3)
- ENGL 11A*# Survey of American Lit., Pre-Colonial to 1860 (3)
- ENGL 11B*# Survey of American Literature, 1860-present (3)
- ENGL 13A*# Survey of English Literature (3)
- ENGL 13B*# Survey of English Literature (3)

LIST B (Choose one course from the following): 3

Any List A course not used above

- ENGL 14*# A Survey of Drama as Literature (3)
- ENGL 15*# Literature By and About Women (3)
- ENGL 16*# Poetry (3)
- ENGL 17*# Introduction to Shakespeare (3)
- ENGL 18*# African American Literature (3)
- ENGL 19*# A Survey of the Bible as Literature (3)
- ENGL 20*# World Mythology (3)
- ENGL 24*# Multicultural Perspectives in American Literature (3)
- ENGL 25*# Linguistics (3)
- ENGL 31*# Creative Writing (3)
- ENGL 33*# Film and Fiction (3)
- ENGL 36*# Children’s Literature (3)

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
ASSOCIATE IN ARTS IN ENGLISH FOR TRANSFER DEGREE REQUIREMENTS:

Major: 18-20
General Education: 37-39*
General Electives: 10-17*

Degree Total Will Not Exceed 60 Units

*Number will vary depending on units that double count.

Kinesiology

Associate in Arts for Transfer:

SC Program: AA-T.1003

PROGRAM DESCRIPTION: The Associates in Arts in Kinesiology for Transfer provides students with the opportunity to meet the requirements for transfer to the California State University system in the Kinesiology major. The degree is designed to prepare students for a variety of career options in the field of Kinesiology such as teaching, exercise science, sports medicine, and physical therapy. Current and prospective community college students are encouraged to meet with a counselor to develop an educational plan that best meets their goals and needs.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. Identify and apply the concepts, theoretical principles, and historical and current trends in the field of Kinesiology.
2. Understand how exercise in the form of physical activity contributes to the physiological responses and adaptations of the human body.
3. Apply critical thinking, writing, reading, oral communication, and quantitative and qualitative analysis to skill and movement-related concepts.
4. Identify and apply the scientific principles of movement, exercise, and sport including the knowledge and skill in the listed activity course families of fitness, aquatics, individual sport and team sport.
5. Transfer to the California State University level programs with a comprehensive foundation in Kinesiology courses.

ASSOCIATE IN ARTS IN ENGLISH FOR TRANSFER DEGREE REQUIREMENTS:

Major: 23-25
General Education: 37-39*
General Electives: 2-9*

Degree Total Will Not Exceed 60 Units

*Number will vary depending on units that double count.

REQUIREMENTS:

In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Arts in Kinesiology for Transfer Degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A "P" (Pass) grade is not an acceptable grade for courses in this major.

REQUISITED CORE:

ANAT 1*# Human Anatomy with Lab 5
KINES 1 Foundations of Kinesiology 3
PHY 1*# Physiology with Lab 5

Movement Based Courses: (minimum of 3)

Select a maximum of one course from any three of the following areas for a minimum of three units.

Aquatics:

PE 30A Beginning Swimming (1) OR
PE 30B Intermediate Swimming (1) OR
PE 31 Aqua Aerobics (1) OR
PE 32 Water Polo (1) OR
PE 37 Springboard Diving (1)

Combatives:

PE 60 Self Defense (1)

Team Sports:

PE 69 Football (1) OR
PE 70A Beginning Volleyball (1) OR
PE 70B Intermediate Volleyball (1) OR
PE 71 Softball (1) OR
PE 72 Baseball (1) OR
PE 74 Soccer (1) OR
PE 75 Basketball (1)

Individual Sports:

PE 51A Beginning Tennis (1) OR
PE 51B Intermediate Tennis (1) OR
PE 62 Golf (1) OR

LIST A (Choose two courses from the following): 7-9

CHEM 1A*# General Chemistry (5) OR
CHEM 2A*# Introduction to Chemistry (5)
KINES 2 Sports Emergency Care (3)
MATH 14*# Introduction to Statistics (4)
PHYS 2A*# General Physics (4)

*May be used to fulfill CSU General Education requirements. See a counselor.
#May be used to fulfill IGETC requirements. See a counselor.
Music

SC Program: AA-T.1008

PROGRAM DESCRIPTION: The Associate in Arts in Music for Transfer Degree is designed to prepare the student for transfer to four-year institutions of higher education and specifically intended to satisfy the lower division requirements for the Baccalaureate in Arts in Music at the California State University. This degree is designed to prepare students to demonstrate competence and discipline in the study of music theory, music analysis, music composition, and musicianship skills, and to demonstrate proficiency in ensemble skills and solo performance skills. Completion of this curriculum will demonstrate commitment to the serious study of Music in practice and in theory and provide comprehensive preparation for upper-division work.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. List and describe the major concepts, vocabulary, theoretical perspectives, and creative performance practices of music.
2. Demonstrate ensemble specific performance practices and professional standards of conduct expected of ensemble participants.
3. Perform solo literature with an accompanist (if appropriate) using stylistically accurate rhythm, pitch, diction (or articulation) and musical expression.
4. Demonstrate the ability to “audiate” a musical score by sight reading and performing complex rhythms and by sight-singing chromatic, modulating, and post-tonal melodies.
5. Demonstrate the ability to recognize patterns and musical function by aurally identifying and transcribing scales, modes, post-tonal melodies, and complex harmonic progressions. Analyze chromatic harmonic progressions that include modulation using 20th century techniques.

REQUIREMENTS:

In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Arts in Music for Transfer Degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A "P" (Pass) grade is not an acceptable grade for major courses.

REQUIRED CORE:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 2</td>
<td>Diatonic Harmony and Musicianship</td>
<td>4</td>
</tr>
<tr>
<td>MUS 3</td>
<td>Advanced Diatonic Harmony and Musicianship</td>
<td>4</td>
</tr>
<tr>
<td>MUS 4</td>
<td>Chromatic Harmony</td>
<td>4</td>
</tr>
<tr>
<td>MUS 5</td>
<td>20th Century Harmony</td>
<td>4</td>
</tr>
<tr>
<td>MUS 48</td>
<td>Applied Music (four semesters, 0.5 units each)</td>
<td>2</td>
</tr>
<tr>
<td>MUS 31</td>
<td>Chamber Choir (1)</td>
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</tr>
<tr>
<td>MUS 33</td>
<td>Jazz Ensemble (1)</td>
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<tr>
<td>MUS 35</td>
<td>Vocal Jazz Ensemble (1)</td>
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<tr>
<td>MUS 40</td>
<td>Concert Choir (1)</td>
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<tr>
<td>MUS 41</td>
<td>Shasta College Women’s Ensemble (1)</td>
<td></td>
</tr>
<tr>
<td>MUS 42</td>
<td>Shasta College Chorale (1)</td>
<td></td>
</tr>
<tr>
<td>MUS 43</td>
<td>Shasta College Symphony Orchestra (1)</td>
<td></td>
</tr>
<tr>
<td>MUS 44</td>
<td>Shasta College Youth Symphony (.5-1)</td>
<td></td>
</tr>
<tr>
<td>MUS 46</td>
<td>Shasta College Symphonic Band (1)</td>
<td></td>
</tr>
<tr>
<td>MUS 47</td>
<td>Shasta College Jazz Ensemble (1)</td>
<td></td>
</tr>
</tbody>
</table>

LIST A (Choose one course from the following):

- ENGL 1B*# Literature and Composition (3)
- MUS 15*# Conducting (3)
- PHIL 14*# Modern Western Philosophy (3)

LIST B (Choose two courses from the following):

- ADJU 15 Concepts of Criminal Law (3)
- BUAD 6 Business Law (3)
- ENGL 1B*# Literature and Composition (3)
- HIST 1A*# Western Civilization (3)
- HIST 1B*# Western Civilization (3)

LIST C (Choose one course)

- Any course from List A or B not already used

Music Major

ASSOCIATE IN ARTS IN MUSIC FOR TRANSFER DEGREE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>22</td>
</tr>
<tr>
<td>General Education</td>
<td>37-39</td>
</tr>
<tr>
<td>General Electives</td>
<td>0-1</td>
</tr>
<tr>
<td><strong>Degree Total Will Not Exceed 60 Units</strong></td>
<td></td>
</tr>
</tbody>
</table>

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.

Philosophy

SC Program: AA-T.1009

PROGRAM DESCRIPTION: This program introduces students to Philosophy. Philosophy is the study or logical analysis of the principles underlying conduct, reasoning, value, knowledge and the nature of the universe. Students will engage in the critical analysis of a number of theories defended by philosophers, who have attempted to answer a number of fundamental and puzzling questions about ourselves and the nature of the universe. The Associate in Arts in Philosophy for Transfer degree is designed to provide students with a common core of lower division courses required to transfer and pursue a baccalaureate (4-year) degree in Philosophy in the CSU system.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. Evaluate arguments to determine validity using two different methods.
2. State, explain and critically analyze competing theories in some of the following areas: Metaphysics, Epistemology, Political Philosophy, Philosophy of Religion, Aesthetics and Philosophy of Science.
3. State, explain and critically analyze the following two ethical theories: Kantianism and Utilitarianism.

REQUIREMENTS:

In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Arts in Philosophy for Transfer Degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A "P" (Pass) grade is not an acceptable grade for courses in this major.

REQUIRED CORE:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 8*#</td>
<td>Introduction to Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 6*#</td>
<td>Introduction to Philosophy OR</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 7*#</td>
<td>Introduction to Ethics</td>
<td></td>
</tr>
</tbody>
</table>

LIST A (Choose one course from the following):

- PHIL 14*# Modern Western Philosophy (3)
- Any course not selected from the List of Core courses above

LIST B (Choose two courses from the following):

- ADJU 15 Concepts of Criminal Law (3)
- BUAD 6 Business Law (3)
- ENGL 1B*# Literature and Composition (3)
- HIST 1A*# Western Civilization (3)
- HIST 1B*# Western Civilization (3)

Any course not selected from List A above

LIST C (Choose one course)

- Any course from List A or B not already used

*May be used to fulfill CSU General Education requirements. See a counselor.
#May be used to fulfill IGETC requirements. See a counselor.

ASSOCIATE IN ARTS IN PHILOSOPHY FOR TRANSFER DEGREE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>18</td>
</tr>
<tr>
<td>General Education</td>
<td>37-39*</td>
</tr>
<tr>
<td>General Electives</td>
<td>0-20*</td>
</tr>
<tr>
<td><strong>Degree Total Will Not Exceed 60 Units</strong></td>
<td></td>
</tr>
</tbody>
</table>

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Physics

Associate in Science for Transfer:

SC Program: AS-T.1004

PROGRAM DESCRIPTION: The Associate in Science in Physics for Transfer Degree (AS-T in Physics) provides students with the opportunity to meet the requirements for transfer to the California State University system in Physics or a similar major. In order to earn this degree a student must complete 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Completing this degree guarantees admission to the CSU system but not to a particular campus or major. The degree is designed to prepare students for upper division study in Physics and related fields. Physics graduates at the bachelor's level are qualified for employment by industry or government in a variety of technical positions. They also frequently enter graduate programs to pursue advanced degrees in Physics or related fields. Physics graduates are often well qualified for admission into professional programs in medicine or law. Those students interested in teaching at the high school level should know that the nation is experiencing a shortage of well qualified physics teachers. Current and prospective community college students interested in this degree are encouraged to meet with a Counselor to develop an educational plan that best meets their goals and needs.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Apply appropriate physical principles and use appropriate mathematical techniques to analyze a given real world physical problem.
2. Demonstrate basic experimental knowledge including experimental design, data analysis including error analysis, and interpretation of results.
3. Use computers and other technology as experimental and modeling tools.
4. Meet the requirements for transfer to a California State University with a major in Physics.

REQUIREMENTS:
In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Science in Physics for Transfer Degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A “P” (Pass) grade is not an acceptable grade for courses in this major.

REQURED CORE:
PHYS 4A# Physics (Mechanics) 4
PHYS 4B Physics (Electricity and Magnetism) 4
PHYS 4C Physics (Heat, Waves, Optics, and Modern Physics) 4
MATH 3A# Calculus 3A 4
MATH 3B# Calculus 3B 5
MATH 4A# Calculus 4A 4

Additional Recommended Preparation:
While these additional courses are not required for this degree, completing these courses will better prepare students for upper division coursework in physics. Some of these may be required for the Bachelor's degree. Check the catalog for the CSU campus to which you plan to transfer.

CHEM 1A/1B General Chemistry (10 units)
MATH 4B Differential Equations (4 units)
MATH 6 Linear Algebra (3 units)

*May be used to fulfill CSU General Education requirements. See a counselor.
#May be used to fulfill IGETC requirements. See a counselor.

ASSOCIATE IN SCIENCE IN PHYSICS FOR TRANSFER DEGREE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Major</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>37-39*</td>
</tr>
<tr>
<td>General Electives</td>
<td>3-4*</td>
</tr>
</tbody>
</table>

Degree Total Will Not Exceed 60 Units

*Number will vary depending on units that double count.

Psychology

Associate in Arts for Transfer:

SC Program: AA-T.1006

PROGRAM DESCRIPTION: This program introduces students to psychology as the scientific study of human behavior and mental processes and the practical application of psychology to personal and social issues. The Associate in Arts in Psychology for Transfer degree is designed to provide students with a common core of lower division courses required to transfer and pursue a baccalaureate (4-year) degree in psychology in the CSU system.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. List and describe the major concepts, vocabulary, theoretical perspectives, and empirical findings of psychology.
2. Describe and apply basic research methods in psychology.
3. Practice critical thinking to solve problems related to behavior and mental processes.
4. Link psychological concepts and principles to relevant practical applications.

REQUIREMENTS:
In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Arts in Psychology for Transfer Degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A “P” (Pass) grade is not an acceptable grade for courses in this major.

REQUIRED CORE:
MATH 14# Introduction to Statistics 4
PSYC 1A# General Psychology 3
PSYC 25 Introduction to Research Methods 3

LIST A (Choose one course from the following): 3-4
BIOL 1*# Principles of Biology (4) OR
BIOL 10 & 10L# Gen Biology and Gen Biology Lab (3/1)
BIOL 5*# Introduction to Human Biology (3)

LIST B (Choose one course from the following): 3-4
Any List A course not used above (3-4)
ECE 1*# Human Development (3)
ENGL 18* Literature and Composition (3) OR
ENGL 1C Critical Reasoning, Reading, and Writing (3)
PSYC 15# Social Psychology (3)
SOC 1*# Intro to Sociology (3)

Continued on next page...
Sociology

Associate in Arts for Transfer:

SC Program: AA-T.1002

PROGRAM DESCRIPTION: Sociology is the systematic and scientific study of society and social behavior. The sociologist looks beyond individual and unique events to the predictable broad patterns and regular occurrences of social life that influence individuals. Studies range from the profound impact of post-industrial societies on family life, crime, mass communications, gender, race, ethnicity, and intergenerational relations to the study of emotions and the values that govern daily social encounters.

The sociology major is designed to provide undergraduate preparation leading to careers in social work, politics, law, public administration, the nonprofit sector, international development, marketing, urban and environmental planning, public relations, personnel, criminal justice, counseling and other social service professions. The Associate in Arts in Sociology for Transfer degree will also prepare a student for advanced studies in several areas, including sociology, social work, environmental studies, education, public health and urban planning. This degree prepares students for a CSU Baccalaureate Degree in Sociology.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Articulate the sociological perspective on human behavior.
2. Compare and contrast the major theoretical orientations in sociology.
3. Articulate the role of theory and social research methods in sociology.
4. Describe research methodology and critically evaluate sociological data.
5. Integrate content knowledge and cognitive skills, i.e., logical thinking, problem-solving, and critical reasoning, when completing exams, term papers, and additional class assignments.
6. Apply sociological principles that contribute to the foundation for life-long personal growth, development of effective interpersonal and social skills, education, employment and everyday life.

REQUIREMENTS:
In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Arts in Sociology for Transfer Degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A "P" (Pass) grade is not an acceptable grade for courses in this major.

REQUIRED CORE:
- SOC 1*# Introduction to Sociology 3
- PSYC 15 Social Psychology (3 units)
- PSYC 25# Sociology of Gender (3 units)
- SOC 30# Sociology of Gender (3 units)
- LIST A (Choose two units from the following): 3
- LIST B (Choose four units from the following): 6
- PSYC 14*# Psychology of Personal/Social Adjustment (3 units)
- PSYC 17*# Abnormal Psychology (3 units)
- PSYC 20*# Cross-Cultural Psychology (3 units)
- PSYC 41 Cultural/Social Context of Childhood (3 units)
- PSYC 46*# Human Learning & Memory (3 units)
- PSYC 5*# Human Sexuality (3 units)
- PSYC 16* Health Psychology (3 units)
- PSYC 16* Social Psychology (3 units)
- PSYC 16* Health Psychology (3 units)
- PSYC 16* Psychology of Personal/Social Adjustment (3 units)
- PSYC 17*# Abnormal Psychology (3 units)
- PSYC 20*# Cross-Cultural Psychology (3 units)
- PSYC 41 Cultural/Social Context of Childhood (3 units)
- PSYC 46*# Human Learning & Memory (3 units)

ASSOCIATE IN ARTS IN PSYCHOLOGY FOR TRANSFER DEGREE REQUIREMENTS:

- Major: 19-21
- General Education: 37-39*
- General Electives: 18-20*

Degree Total Will Not Exceed 60 Units

*Number will vary depending on units that double count.

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
3. Investigate, develop and employ conceptual themes which clearly and consistently reflect the student's point of view.
4. Effectively identify and utilize resources for art history research.
5. Articulate in writing his/her objective and subjective understanding of two and three-dimensional works.
6. Orally evaluate the works of fellow students and implement suggestions made through the evaluation of his/her work by others.
7. Transfer to a California State University with a major in Studio Arts.

REQUIREMENTS:
In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Arts in Studio Arts for Transfer Degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A "P" (Pass) grade is not an acceptable grade for courses in this major.

REQUIRED CORE:
- ART 3 History of Western Arts Since 1400 (3)
- ART 12 Beginning Form, Design and Color (3)
- ART 15 Three Dimensional Design (3)
- ART 21A Beginning Freehand Drawing (3)

LIST A (Choose one course from the following) (3)
- ART 2 History of Western Art Through Gothic Period (3)
- ART 4 World Art (3)

LIST B (Choose three courses from the following) (9)
- ART 5 Intermediate Form, Design and Color (3)
- ART 6 Intermediate Freehand Drawing (3)
- ART 12 Beginning Form, Design and Color (3)
- ART 13 Intermediate Form, Design and Color (3)
- ART 35A Beginning Ceramics (3)
- ART 35B Intermediate Ceramics (3)
- ART 50A Beginning Printmaking (3)
- ART 50B Beginning Darkroom Photography (3)
- ART 50C Beginning Digital Photography (3)
- ART 80A Graphic Design (3)
- ART 35B Intermediate Ceramics (3)

*May be used to fulfill CSU General Education requirements. See a counselor.

ASSOCIATE IN ARTS IN Studio Arts FOR TRANSFER DEGREE REQUIREMENTS:

Major 24
General Education 37-39*
General Electives 6-8* 
Degree Total Will Not Exceed 60 Units

Number will vary depending on units that double count.

Theatre Arts

Associate in Arts for Transfer:

SC Program: AA-T.1004

PROGRAM DESCRIPTION: The Theatre Arts program is academically grounded in the liberal arts tradition of literature, performance, cultural studies, history, philosophy, and technical skills. It also provides a hands-on, learn-by-doing environment that gives students experiences and skills to complement many career paths. Employers find theatre trained applicants become valuable employees because they have developed excellent communication and problem-solving skills, confidence, and the ability to work cooperatively with a diverse team of people.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Describe the basic elements of dramatic structure and analyze the dramatic components in a theatrical production.
2. Select appropriate monologues and prepare them as audition pieces.
3. Investigate the themes and dramaturgy of the Greek, Roman, Medieval, Renaissance, Elizabethan, Jacobean and Restoration periods of Theatre history and compare and contrast those periods through discussion, papers, and performance analysis.
4. Identify and apply the major components of stagecraft in the implementation of scenery, lighting, costume, make-up, special effects, and production management.
5. Investigate the social, political, and spiritual objectives of theatrical performance through discussions and papers that deal with gender, politics, and religion.
6. Evaluate dramatic scripts relative to historical context and contemporary relevance.
7. Develop cooperation skills in working with people from diverse cultures.
8. Transfer to a California State University with a major in Theatre Arts.

REQUIREMENTS:
In addition to the 37-39 unit general education pattern for CSU or IGETC, students must complete the core courses listed below for the Associate in Arts in Theatre Arts for Transfer Degree. Students must also obtain a minimum grade point average of 2.0 and a C or better in each major course. A "P" (Pass) grade is not an acceptable grade for courses in this major.

REQUIRED CORE:

THTR 2 Introduction to Theatre Arts
THTR 4 History of World Theatre I
THTR 10 Acting I
THTR 16 Acting Lab
THTR 23 Mainstage Production I
THTR 26 Mainstage Production II
THTR 41 Theatre Lab
THTR 42 Technical Stage Production
THTR 50 Rehearsal and Performance
THTR 70 Repertory Theatre – I
THTR 74 Repertory Theatre – Technical

LIST A (Choose at least three courses for a 9 unit minimum) (9)
Note: There is a 3-unit maximum in Rehearsal and Performance courses, and if you used them in the core, then you cannot use them in List A. There is a 3-unit maximum in Technical Theatre Practicum courses, and if you used them in the core then you cannot use them in List A.

THTR 30 Stagecraft (3)
THTR 31 Introduction to Theatrical Design (3)
THTR 34 Makeup (2)
THTR 35 Makeup Lab (1)
THTR 81 Playwriting and Script Analysis (3)

Any Rehearsal and Performance or Technical Theatre Practicum course listed in Core but not used for Core requirements (1-3) 

*May be used to fulfill CSU General Education requirements. See a counselor.

ASSOCIATE IN ARTS IN THEATRE ARTS FOR TRANSFER DEGREE REQUIREMENTS:

Major 18
General Education 37-39*
General Electives 6-8*

Degree Total Will Not Exceed 60 Units

*Number will vary depending on units that double count.
Associate of Arts – University Studies Degree

Designed for students who plan on transferring to a four-year college or university. Students complete a General Education pattern, one emphasis area, and electives to total a minimum of 60 transferrable units for the AA degree.

Agriculture Sciences
Allied Health
Behavioral Science
Biological Sciences
Business Administration
Child Development
Criminal Justice
Earth System Science
Engineering
Geology
Humanities
Language Arts
Liberal Studies–Teaching Prep
Mathematics
Meteorology/Climatology
Multicultural Studies
Natural Sciences
Oceanography
Physical Education
Physical Sciences
Quantitative Reasoning
Science Teacher – Earth
Social Sciences
World Languages

REQUIREMENTS:

1. **Unit Requirement:** Minimum of 60 transferrable semester units, courses numbered 1-99 at Shasta College. *Note: Please see a counselor to ensure that all of your units are transferrable since there are some exceptions to this rule.*

2. **Scholarship Requirement:** An overall grade point average (GPA) of not less than 2.0 in all transferrable coursework. While a minimum of 2.0 is required for this degree, some majors or transfer institutions may require a higher GPA. Please consult with a counselor for more information.

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

4. **Course Requirements:**
   a. **Major Field of Study:** Select a University Studies emphasis area. All courses in the emphasis area must be completed with a grade of "C" or higher.
   b. **General Education:** Completion of one of three general education options. *Note: If completing Intersegmental General Education Transfer Curriculum (IGETC) all courses must be completed with a grade of "C" or higher.*
      i. Advanced Placement (AP) examination credit can be used to satisfy both California State University General Education (CSU GE) and IGETC.
      ii. Credit through the College Level Examination Program (CLEP) can be used to satisfy CSU GE. *Note: The University of California does not accept credit awarded through CLEP.*

5. **Competency Requirements:**
   a. English Composition, Critical Thinking, and Quantitative Reasoning courses must be completed with a grade of “C” or higher. *Note: If you are completing General Education options 2 or 3, an Oral Communication course is also required to be completed with a grade of “C” or higher.*
   b. **Multicultural Requirement:** Courses in the Multicultural requirement area contain perspectives on people from other cultures and backgrounds as well as an examination of the contributions of non-Western cultures, or the intersection of culture with race, ethnicity, gender, class or other important social categories, such as religion. After successful completion of a course from this area, a student will be able to summarize various ethnic, racial, religious, gender, traditions, class and other group perspectives as well as their similarities and differences.

   | ADJU 24 | CMST 20 | GERM 1, 2 | PSYC 20, 41 |
---|---|---|---|---|
| ANTH 2, 14, 25 | ECE 28 | HIST 2, 3, 25, 35, 36, 38 | SOC 25, 30 |
| ART 4 | ENGL 10A, 10B, 18, 20, 24 | JAPN 1, 2, 3, 4 | SPAN 1, 2, 3, 4 |
| ASL 1, 2, 3, 4 | FREN 1, 2, 3, 4 | MUS 14 |
| CHIN 1 | GEOG 1B, 7, 8 | POLS 20 |

   c. **Computer Literacy Competency Requirement:** To earn an associate degree at Shasta College students must demonstrate computer literacy in one of the following ways:
      - **CIS 1** Computer Literacy with a grade of C or better.
      - **AGNR 52** Computers in Agriculture and Natural Resources with a grade of C or better.
      - Pass the Shasta College computer literacy exam. Contact the Assessment Office for more information.
      - Receive credit for CIS 1 through an articulated high school course. Check with your high school or the Shasta College counseling center for more information.
      - Possess IC² certification.
      - Receive a score of 50 or higher on the CLEP Information Systems and Computer Applications exam.
      - Document completion of a computer literacy requirement at another college.
      - Minimum of three units to include the coursework options listed below with a grade of C or better:
         - OAS 91 (Word) or OAS 51 (Introduction to Keyboarding and Word); and any 2 units from the following: CIS 20 (Access), OAS 10 (Excel), OAS 80 (Outlook), or OAS 94 (PowerPoint).
         - Note: MOS or MCAS certification will substitute for the equivalent software class.

AA - University Studies Degree continued on next page…
Choose one GE Option, one Emphasis, and transferable electives to total 60 units for the AA degree.

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

  **OPTION 1: IGETC** (Intersegmental General Education Transfer Curriculum)
  Students who are planning to transfer to the **University of California** system or who are undecided about whether to transfer to a UC or CSU may satisfy general education requirements with IGETC.
  1. Complete the 33 – 37 unit IGETC pattern.
  2. Complete all IGETC courses with a grade of “C” or better.
  3. Complete additional courses from an emphasis to meet the lower division requirements in your major and then electives to reach 60 units. UC transfer students must select all 60 units from courses on the UC transferable course list. (See www.assist.org)
  4. Achieve a minimum grade point average of 2.0. [UC will require a minimum transfer GPA of 2.4. A higher GPA will be required for admission to most campuses and high demand majors.] All courses in the area of emphasis must be completed with a C or better.

  **OPTION 2: CSU GE** (California State Universities – General Education)
  Students who are planning to transfer to one of the 23 campuses of the **California State University** system may satisfy general education requirements with the CSU pattern.
  1. Complete the 39-unit CSU GE pattern.
  2. Complete Communication, English, Critical Thinking, and Math requirements (Area A1, A2, A3 and B4) each with a grade of “C” or better.
  3. Recommend completion of HIST 17A or 17B; and POLS 2 prior to transfer. These two courses are CSU graduation requirements and may be included as part of the 39-unit pattern.
  4. Complete additional courses from an emphasis to meet the lower division requirements in your major and then electives to reach 60 units.
  5. Achieve a minimum grade point average of 2.0. [A higher GPA will be required for admission to some campuses and for high demand and impacted majors.] All courses in the area of emphasis must be completed with a C or better.

  **OPTION 3: Independent, Out-of-state universities, and high unit/specialized majors**
  Complete 30 units to satisfy a GE-modified plan as indicated below:

  **CSU GE Pattern:**
  Select one course from each Category.
  - CATEGORY A1: Oral Communication
  - CATEGORY A2: English Composition
  - CATEGORY B1 or B2: Science course
  - CATEGORY B4: Transfer-level math course
  - CATEGORY C1 or C2: Arts or Humanities
  - CATEGORY D: Social, Political and Economic Institutions, and Behavior
  *Multicultural course
  Select additional courses from categories A3, B, C, D, or E from two different areas to total 30 or more GE units.
  * Note: Any student completing the IGETC or CSU General Education requirements with the inclusion of a multicultural course will also have met the general education requirements for the Shasta College associate degree.

  **IGETC GE Pattern:**
  Select one course from each Area.
  - AREA 1–GROUP A English Composition
  - AREA 1–GROUP C Oral Communication
  - AREA 2 Mathematical Concepts
  - AREA 3 Arts or Humanities
  - AREA 4 Social and Behavioral Sciences
  - AREA 5 Physical or Biological Sciences
  *Multicultural course
  Select additional courses from AREA 1B, 3, 4, or 5 from two different areas to total 30 or more GE units.

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

- **Multicultural requirement**

- **Computer competency requirement**

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

- **Course requirements:** All courses in the area of emphasis must be completed with a C or better.

*University Studies Areas of Emphasis continued on next page...
### Associate of Arts University Studies Areas of Emphasis:

#### University Studies: Agriculture Sciences – 18 units

**SC Program: AA.1491**

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

Choose 12 – 18 units (see a counselor to select the courses appropriate for your transfer university):

- **AGAB 51** Agriculture Accounting (3)
- **AGAB 54** Agriculture Economics (3)
- **AGAS 11** Livestock Feeding and Nutrition (3)
- **AGAS 19** Principles of Animal Science (3)
- **AGPS 20** Plant Science (4)
- **AGPS 24** Soils (3)
- **CHEM 2A** General Chemistry (5)

Choose the remaining 0 – 6 units from the following courses:

- **AG 1, 6, 9A, 58, 94**
- **AGAS 10, 11, 15, 19, 30**
- **AGEH 22,23,26,27,28, 29, 31, 31.1,31.2,31.3,33,34,35,36,37, 38, 39, 40, 41, 44, 45, 46, 60, 71, 72, 94**
- **AGEQ 12, 13, 14, 21**
- **AGMA 42, 44**
- **AGNR 1,6,11,12,50,51,52,53,55,60,61,64,65,66A,69,70,83,94**
- **AGPS 25**
- **AGSA 50, 56**
- **AGVET 16**
- **AGVIT 80, 81**
- **CHEM 2B**
- **MATH 14**

#### University Studies: Allied Health – 20 units

**SC Program: AA.1511**

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

Complete the following:

- **ANAT 1** Human Anatomy (5)
- **CHEM 2A** Introduction to Chemistry (5)
- **MICR 1** Microbiology (5)
- **PHY 1** Physiology (5)

#### University Studies: Behavioral Science – 19-21 units

**SC Program: AA.1499**

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

Complete the following 19-21 units:

- **ANTH 2** Cultural Anthropology (3)

Choose one of the following:

- **BIOL 1** Principles of Biology (4)
- **BIOL 5** Introduction to Human Biology (3)
- **BIOL 10** General Biology (3)
- **PHY 1** Physiology (5)

- **ECE 1** Human Development (3)
- **MATH 14** Statistics (4)
- **PSYC 1A** General Psychology (3)
- **SOC 1** Introduction to Sociology (3)

#### University Studies: Biological Sciences – 22 units

**SC Program: AA.1507**

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

Complete the following 22 units:

- **BIOL 1** Principles of Biology (4)
- **BOT 1** General Botany (4)
- **CHEM 1A** General Chemistry (5)
- **CHEM 1B** General Chemistry (5)
- **ZOOL 1** General Zoology (4)

#### University Studies: Business Administration – 20 – 21 units

**SC Program: AA.1492**

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

Complete the following 14 units:

- **ACCT 2** Financial Accounting (4)
- **ACCT 4** Managerial Accounting (4)
- **ECON 1A** Principles of Microeconomics (3)
- **ECON 1B** Principles of Macroeconomics (3)

Choose 6-7 additional units:

- **BUAD 6** Business Law (3)
- **BUAD10** Introduction to Business (3)
- **CIS 1** Computer Literacy Workshop (3)
- **MATH 14** Introduction to Statistics (4)

#### University Studies: Child Development – 18-20 units

**SC Program: AA.1495**

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

Complete the following 12 units:

- **ECE 1** Human Development (3) **OR**
- **ECE 9** Child Growth and Development (3)
- **ECE 2** Child, Family, and Community (3)
- **ECE 7** Early Childhood Observation and Assessment (3)
- **ECE 15** Child Health, Safety and Nutrition (3)

Choose 6-8 additional units from the following:

- **ECE 8** Teaching Practicum for Young Children (5)
- **ECE 17** Principles/Practices of Teaching Young Children (3)
- **ECE 20** Introduction to Curriculum (3)
- **ECE 26** The Child With Special Needs (3)
- **ECE 28** Teaching in a Diverse Society (3)
- **ECE 52** Guidance in Adult-Child Relations (3)
University Studies: Criminal Justice – 18 units
SC Program: AA.1500

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

Complete the following 6 units:
- ADJU 10 Intro to Administration of Justice (3)
- ADJU 15 Concepts of Criminal Law (3)

Choose 12 additional units:
- ADJU 11, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 30, 40, 41, 42 (3 units each)
- PSYC 1A General Psychology (3)
- SOC 1 Introduction to Sociology (3)
- SOC 2 Social Problems (3)

University Studies: Earth System Science – 22 units
SC Program: AA.1508

Earth System Sciences represents an emerging trend in the sciences and many universities offer a degree or option along this track (i.e. Earth Science, Planetary Science). This academic plan is intended to support the transfer student interested in the bachelor's degree as it includes courses that define major portions of the Earth System, including geosphere, hydrosphere, atmosphere, and biosphere focused courses, and Earth's position in space.

Complete the following course:
- ESCI 17 Earth System Science (3)

Choose at least 11 units from the following to include at least two courses that focus on different portions of the Earth System (geosphere, hydrosphere, atmosphere, and biosphere):
- AGNR 60 Environmental Science (3)
- ASTR 1 Astronomy (3)
- BIOL 1 Principles of Biology (4)
- BIOL 10 General Biology (3)
- ESCI 1 Physical Geology (4)
- ESCI 14 Meteorology (4)
- ESCI 15 Oceanography (4)
- ESCI 18 Global Climate Change: Past, Present and Future (3)

Choose the remaining units from the following courses:

Related Science courses:
- BIOL 11 Diversity of Life (3)
- BIOL 12 Field Biology (3)
- CHEM 1B General Chemistry (5)
- ESCI 2 Historical Geology (4)
- ESCI 6 Ancient Life (4)
- ESCI 10 Earthquakes/Volcanoes/Other Geologic Hazards (3)
- NHIS 15 Natural History (3)
- PHYS 2B General College Physics (4)

Courses from supporting disciplines:
- AGNR 1 Introduction to Natural Resources (3)
- AGNR 83 Introduction to Global Positioning Systems (1)
- CIS 1 Computer Literacy Workshop (3)
- GEOG 10 Introduction to Geographic Information Systems (3)
- MATH 3B Calculus 3B (5)
- MATH 14 Introduction to Statistics (4)

University Studies: Engineering – 27-30 units
SC Program: AA.1494

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

Complete the following 21 units:
- MATH 3A Calculus (4)
- MATH 3B Calculus (5)
- MATH 4A Calculus (4)
- PHYS 4A Physics (Mechanics) (4)
- PHYS 4B Physics (Electricity and Magnetism) (4)

Choose 6-9 additional units:
- CHEM 1A General Chemistry (5)
- CIS 61 C++ Language Programming (3)
- ENGR 17 Circuits and Devices (4)
- ENGR 35 Statics (3)
- ENGR 45 Properties of Materials (4)
- MATH 4B Differential Equations (4)
- PHYS 4C Physics (Heat, Waves, Optics and Modern Physics (4)

General Education units are modified for this major.

University Studies: Geology – 20 units
SC Program: AA.1497

Geology is a field-based study of earth materials, processes and history. All courses in this plan apply theory to field situations and the degree requires the completion of field-based classes. This approach should adequately prepare the transfer student for further and more intensive field experiences as they work to complete the bachelor's degree at a 4-year school.

Complete the following 8 units:
- ESCI 1 Physical Geology (4)
- ESCI 2 Historical Geology (4)
- ESCI 6 Ancient Life (4)

Select one combination of the following Earth Science field courses to total 3 units:
- Two 30-series ESCI courses: 32, 33, 34, 35, 36, 37, 38 (1.5 units each)
  OR
- Three 40-series ESCI courses: 42, 43, 44, 45, 46 (1 unit each)
  OR
- ESCI 26 OR ESCI 27 (2 units each)

AND
- One 40-series ESCI courses: 42, 43, 44, 45, 46 (1 unit each)

Choose 9 units from the following list to include at least one additional science course (identified with an *):

Geology Courses:
- *ESCI 3 Mineralogy and Crystal Optics (5)
- *ESCI 4 Rock Origins and Relationships (4)
- *ESCI 7 Introduction to the Geology of California (4)
- *ESCI 9 Earthquakes/Volcanoes/Other Geologic Hazards (3)
- *ESCI 10 Environmental Geology (4)
- *ESCI 11 Economic Geology (3)
- *ESCI 23 Introduction to Geology in the Field (2)

Supporting Disciplines:
- AGNR 1 Introduction to Natural Resources (3)
- AGNR 60 Environmental Science (3)
- AGNR 83 Introduction to Global Positioning Systems (1)
- *CHEM 1B General Chemistry (5)
- CIS 1 Computer Literacy Workshop (3)
- GEOG 10 Introduction to Geographic Information Systems (3)
- MATH 3B Calculus 3B (5)
- MATH 14 Introduction to Statistics (4)
- *NHIS 15 Natural History (3)
- *PHYS 2B General College Physics (4)
University Studies: Humanities – 18 units
SC Program: AA.1513

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

Choose 18 units from at least 3 of the following disciplines:

- ART 1, 2, 3, 4, 6, 12, 21A
- ENGL 1B, 10AB, 11AB, 12, 13AB, 14, 15, 16, 17, 18, 19, 20, 24, 25, 31, 33, 36, 91
- Foreign Languages: (American Sign Language, French, German, Japanese, Spanish)
- HUM 2, 4, 70
- MUS 1, 2, 3, 4, 5, 10, 11
- PHIL 6, 7, 8
- THTR 1, 5, 8, 9, 12, 13, 30, 31, 34
- CMST 30

(DAN (up to 3 units of Dance may apply to the emphasis)

University Studies: Language Arts – 18 units
SC Program: AA.1496

With careful planning, the Language Arts emphasis will satisfy the lower division major courses to transfer to a university and earn a Bachelor’s degree in the various fields of Language Arts.

Choose 18 units from at least two areas:

- CMST 10, 20, 30, 40, 54, 60
- ENGL 1B, 1C, 10AB, 11AB, 13AB, 14, 15, 16, 17, 18, 19, 20, 24, 25, 31, 33, 36,
- Foreign Languages: ASL 1, 1L, 2, 2L, 3, 4, FREN 1, 2, 3, 4, GERM 1, 2, JAPN 1, 2, 3, 4, 19, 20, SPAN 1, 2, 3, 4, 19, 20
- JOUR 21, 27, 29

University Studies: Liberal Studies – Teaching Prep – 29 units
SC Program: AA.1504

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

Complete the following 29 units:

- BIOL 10 General Biology (3)
- BIOL 10L General Biology Lab (1)
- CMST 54 Small Group Communication (3) **OR**
- CMST 60 Public Speaking (3)
- ECE 1 Human Development (3)
- EDUC 1 Introduction to Education and Teaching (3)
- ESCI 12 General Earth Science (4) **OR**
- ESCI 7 Physical Science Survey (4)
- HIST 2 World Civilization to 1500 C.E. (3) **OR**
- HIST 3 World Civilization: 1500 to Present (3)
- HIST 17A United States History (3) **OR**
- HIST 17B United States History (3)
- MATH 41A Concepts of Elementary Mathematics (3) **OR**
- MATH 41B Concepts of Elementary Mathematics (3)
- POLS 2 Introduction to American Government (3)

University Studies: Mathematics – 24 units
SC Program: AA.1509

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

Complete the following 24 units:

- MATH 3A Calculus 3A (4)
- MATH 3B Calculus 3B (5)
- MATH 4A Calculus 4A (4)
- MATH 4B Differential Equations (4)
- MATH 6 Linear Algebra (3)
- MATH 14 Introduction to Statistics (4)

University Studies: Meteorology/Climatology – 18 units
SC Program: AA.1506

Many universities offer an Atmospheric Science degree or option and this academic plan is intended to support the transfer student interested in that bachelor’s degree. Courses in this plan produce a foundation to transfer in such studies as weather and climate challenges that face society now and into the future.

Complete the following 10 units:

- ESCI 14 Meteorology (4)
- ESCI 17 Earth System Science (3)
- ESCI 18 Global Climate (3)

Choose the remaining 8 units from the following list to include at least one additional science course:

Related Science Courses:
- AGNR 60 Environmental Science (3)
- AGNR 61 Environmental Science Lab (1)
- ASTR 1 Astronomy (3)
- CHEM 1B General Chemistry (5)
- ESCI 10 Environmental Geology (4)
- ESCI 15 Oceanography (4)
- NHIS 15 Natural History (3)
- PHYS 2B General College Physics (4)

Courses from supporting disciplines:
- AGNR 1 Introduction to Natural Resources (3)
- AGNR 83 Introduction to Global Positioning Systems (1)
- CIS 1 Computer Literacy Workshop (3)
- GEOG 10 Introduction to Geographic Information Systems (3)
- MATH 3B Calculus 3A (5)
- MATH 14 Introduction to Statistics (4)

University Studies: Multicultural Studies – 18 units
SC Program: AA.1502

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

Choose 18 units from at least 3 different disciplines:

- ANTH 2, 14, 25
- ART 4
- CMST 20
- ENGL 10A, 10B, 18, 20, 24
- GEOG 1B, 5, 7, 8
- HIST 25, 35, 36, 38
- POLS 20, 25
- PSYC 20, 41
- SOC 25
Chapter 5 – Degrees and Certificates

University Studies: Natural Sciences – 18 units
SC Program: AA.1512
The Natural Sciences emphasis is designed to provide lower division major courses to transfer to a university and pursue baccalaureate degrees in life science and physical science areas.

Choose 18 transferable units from the following disciplines:
AGAS 19
AGEH 33
AGRN 60, 61
AGPS 20
ANAT 1
ASTR 1
BIOL 1, 5, 6, 10, 11, 12
BOT 1
CHEM 1A, 1B, 2A, 2B, 10, 11, 70A, 71, 71A
ESCI 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 17, 18
FSS 25
MICR 1
NHIS 15
PHSC 1
PHYS 2A, 2B, 4A, 4B, 4C
ZOOL 1

University Studies: Oceanography – 22 units
SC Program: AA.1498
This degree plan identifies courses needed for a student to transfer into any of the marine sciences. The associate degree emphasizes a multidisciplinary approach as a foundation that can then be applied to an Oceanography bachelor’s degree or a more specialized bachelor’s degree such as Marine Biology or Marine Fisheries.

Complete the following 14 units:
BIOL 1 Principles of Biology (4)
ESCI 1 Physical Geology (4)
ESCI 15 Oceanography (4)
ESCI 16 Coastal Oceanographic Field Studies (2)

Choose the remaining 8 units from the following transferable courses to include at least one additional science course:
AGNR 60 Environmental Science (3)
AGNR 61 Environmental Science Lab (1)
BIOL 12 Field Biology (3)
CHEM 1B General Chemistry (5)
ESCI 10 Environmental Geology (4)
ESCI 17 Earth System Science (3)
ESCI 37 Geology of the Northern California Coast (1.5)
ESCI 38 Geology of Point Reyes National Seashore (1.5)
NHIS 15 Natural History (3)
NHIS 65 Natural History of Patrick’s Point (1)
PHYS 2B General College Physics
Courses from supporting disciplines:
AGNR 1 Introduction to Natural Resources (3)
AGRN 83 Introduction to Global Positioning Systems (1)
CIS 1 Computer Literacy Workshop (3)
GEOG 10 Introduction to Geographic Information Systems (3)
MATH 3B Calculus 3B (5)
MATH 14 Introduction to Statistics (4)

University Studies: Physical Education – 18 units
SC Program: AA.1493
The Physical Education emphasis is designed to provide lower division major courses to transfer to a university and pursue baccalaureate degrees in Physical Education – teaching, kinesiology, and pre-physical therapy.

Choose 18 units from at least 3 areas:
ANAT 1
CHEM 1A, 1B, 2A, 2B
FSS 25
HLTH 1, 2, 3
KINES 1, 2
MATH 14 or 2
PE 4, 11, 12A, 12B, 12C, 15, 16, 17, 20, 23, 30A, 30B,
30C, 31, 32, 35, 37, 51A, 51B, 51C, 60, 62, 69, 70A,
70B, 70C, 71, 72, 73, 74, 75
PEAT 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20,
23, 24, 25, 26, 29, 30
PHY 1
PHYS 2A, 2B
PSYC 1A

University Studies: Physical Sciences – 22 units
SC Program: AA.1510
The Physical Sciences emphasis is designed to provide students with the lower division major courses to transfer to a university and pursue baccalaureate degrees in chemistry, geology, physics, and related areas. See a counselor for the complete list for your choice of transfer university and major.

Complete the following 22 units:
CHEM 1A General Chemistry (5)
CHEM 1B General Chemistry (5)
MATH 3A Calculus (4)

University Studies: Quantitative Reasoning – 18 units
SC Program: AA.1503
The quantitative reasoning emphasis is a flexibly designed option which, with proper counseling, provides transfer coursework toward majors in computer science and math.

Choose a minimum of 18 units from the following mathematics and computer science courses:
MATH 2, 3A, 3B, 4A, 4B, 6, 8, 9, 10, 13, 14
CIS 2, 60, 61, 62, 63, 72

University Studies: Science Teacher – Earth – 20 units
SC Program: AA.1505
This degree plan prepares the student to transfer as they prepare for a Single Subject Teaching Credential in Science, Earth Science Concentration. Courses in this plan are designed to develop breadth and to demonstrate multidisciplinary aspects across the Earth Sciences.

Complete the following 8 units:
ESCI 1 Physical Geology (4)
ESCI 2 Historical Geology (4) OR
ESCI 6 Ancient Life (4)

Continued on next page...
SC Program: AA.1501

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

Choose 21 units from at least three different disciplines:*  
ANTH 1, 2, 5, 14, 25  
ARCH 3, 4A  
ECE 1, 2, 9  
ECON 1A, 1B  
FSS 16, 18  
GEOG 1A, 1AL, 1B, 5, 7, 8  
HIST 1A, 1B, 2, 3, 17A, 17B, 25, 35, 36, 38, 40, 55, 57  
MATH 14*  
POLS 1, 2, 20, 25  
PSYC 1A, 5, 14, 15, 16, 17, 20, 25, 41, 46  
SOC 1, 2, 15, 22, 25, 30, 70

*Students can take MATH 14 as part of the 21 units, but it does not fulfill one of the three discipline requirements.

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In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
5. **Competency Requirements:**
   a. **English Composition, Critical Thinking, and Quantitative Reasoning courses** must be completed with a grade of “C” or higher. Note: If completing the CSU GE pattern you must also complete an Oral Communication course with a grade of “C” or higher.
   b. **Multicultural Requirement:** Courses in the Multicultural requirement area contain perspectives on people from other cultures and backgrounds as well as an examination of the contributions of non-Western cultures, or the intersection of culture with race, ethnicity, gender, class or other important social categories, such as religion. After successful completion of a course from this area, a student will be able to summarize various ethnic, racial, religious, gender, traditions, class and other group perspectives as well as their similarities and differences.

   - **ADJU 24**
   - **ANTH 2, 14, 25**
   - **ART 4**
   - **ASL 1, 2, 3, 4**
   - **CHIN 1**
   - **CMST 20**
   - **ECE 28**
   - **ENGL 10A, 10B, 18, 20, 24**
   - **FREN 1, 2, 3, 4**
   - **GEOG 1B, 7, 8**
   - **GERM 1, 2**
   - **HIST 2, 3, 25, 35, 36, 38**
   - **JAPN 1, 2, 3, 4**
   - **JST 1**
   - **MUS 14**
   - **POLS 10**
   - **POLS 20**
   - **PSYC 20, 41**
   - **SOC 25, 30**
   - **SPAN 1, 2, 3, 4**

   c. **Computer Literacy Competency Requirement:** To earn an associate degree at Shasta College students must demonstrate computer literacy in one of the following ways:
   - **CIS 1 Computer Literacy with a grade of C or better.**
   - **AGNR 52 Computers in Agriculture and Natural Resources with a grade of C or better.**
   - **Pass the Shasta College computer literacy exam.** Contact the Assessment Office for more information.
   - **Receive credit for CIS 1 through an articulated high school course.** Check with your high school or the Shasta College counseling center for more information.
   - **Possess IC3 certification.**
   - **Receive a score of 50 or higher on the CLEP Information Systems and Computer Applications exam.**
   - **Document completion of a computer literacy requirement at another college.**
   - **Minimum of three units to include the coursework options listed below with a grade of C or better:**
     - **OAS 91 (Introduction to Keyboarding and Word); and any 2 units from the following:**
     - **CIS 20 (Access), OAS 10 (Excel), OAS 80 (Outlook), or OAS 94 (PowerPoint).**
     - **Receive a score of 50 or higher on the CLEP Information Systems and Computer Applications exam.**
     - **Document completion of a computer literacy requirement at another college.**

   - **Note:** If California does not accept credit awarded through CLEP.

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**Associate of Science Degree** (See main Degree and Certificate listings later in this Chapter)

Designed for the student planning on transferring to a four-year college or university. Students complete the CSU or IGETC general education pattern and the “Core Courses” electives to total a minimum of 60 transferrable units. Shasta College offers the following AS Transfer Degrees:

| Agriculture – Ag Business | Agriculture – Environmental Horticulture | Agriculture – Sustainable Agriculture |

**REQUIREMENTS:**

1. **Unit Requirement:** Minimum of 60 transferrable semester units, courses numbered 1-99 at Shasta College.
2. **Scholarship Requirement:** An overall grade point average (GPA) of not less than 2.0 in all transferrable coursework. While a minimum of 2.0 is required for this degree, some majors or transfer institutions may require a higher GPA. Please consult with a counselor for more information.
3. **Residence Requirement:** The last twelve (12) semester units of the sixty (60) semester units must be completed in residence at Shasta College immediately prior to graduation or a minimum of forty-eight (48) semester units must have been completed in residence at Shasta College if the student is not in attendance at the time of qualification for graduation.
4. **Course Requirements:**
   a. **Major Field of Study:** All courses in the major must be completed with a grade of “C” or higher.
   b. **General Education:** Certified completion of the California State University General Education (CSU GE).
      i. **Advanced Placement (AP) examination credit** can be used to satisfy CSU GE.
      ii. **Credit through the College Level Examination Program (CLEP)** can be used to satisfy CSU GE. Note: The University of California does not accept credit awarded through CLEP.

5. **Competency Requirements:**
   a. **Oral Communication, English Composition, Critical Thinking, and Quantitative Reasoning courses** must be completed with a grade of “C” or higher.
   b. **Multicultural Requirement:** Courses in the Multicultural requirement area contain perspectives on people from other cultures and backgrounds as well as an examination of the contributions of non-Western cultures, or the intersection of culture with race, ethnicity, gender, class or other important social categories, such as religion. After successful completion of a course from this area, a student will be able to summarize various ethnic, racial, religious, gender, traditions, class and other group perspectives as well as their similarities and differences.

   - **ADJU 24**
   - **ANTH 2, 14, 25**
   - **ART 4**
   - **ASL 1, 2, 3, 4**
   - **CHIN 1**
   - **CMST 20**
   - **ECE 28**
   - **ENGL 10A, 10B, 18, 20, 24**
   - **FREN 1, 2, 3, 4**
   - **GEOG 1B, 7, 8**
   - **GERM 1, 2**
   - **HIST 2, 3, 25, 35, 36, 38**
   - **JAPN 1, 2, 3, 4**
   - **JST 1**
   - **MUS 14**
   - **POLS 10**
   - **POLS 20**
   - **PSYC 20, 41**
   - **SOC 25, 30**
   - **SPAN 1, 2, 3, 4**

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Associate of Arts Degree Requirements (continued):

c. Multicultural Requirement: Courses in the Multicultural requirement area contain perspectives on people from other cultures and backgrounds as well as an examination of the contributions of non-Western cultures, or the intersection of culture with race, ethnicity, gender, class or other important social categories, such as religion. After successful completion of a course from this area, a student will be able to summarize various ethnic, racial, religious, gender, traditions, class and other group perspectives as well as their similarities and differences.

ADJU 24
ANTH 2, 14, 25
ART 4
ASL 1, 2, 3, 4
CHIN 1
CMST 20
ECE 28
ENGL 10A, 10B, 18, 20, 24
FREN 1, 2, 3, 4
GEOG 1B, 7, 8
GERM 1, 2
HIST 2, 3, 25, 35, 36, 38
JAPN 1, 2, 3, 4
MUS 14
POLS 20
PSYC 20, 41
SOC 25, 30
SPAN 1, 2, 3, 4

d. Computer Literacy Competency Requirement: To earn an associate degree at Shasta College students must demonstrate computer literacy in one of the following ways:

- CIS 1 Computer Literacy with a grade of C or better.
- AGNR 52 Computers in Agriculture and Natural Resources with a grade of C or better.
- Pass the Shasta College computer literacy exam. Contact the Assessment Office for more information.
- Receive credit for CIS 1 through an articulated high school course. Check with your high school or the Shasta College counseling center for more information.
- Possess IC³ certification.
- Receive a score of 50 or higher on the CLEP Information Systems and Computer Applications exam.
- Document completion of a computer literacy requirement at another college.
- Minimum of three units to include the coursework options listed below with a grade of C or better:
  - OAS 91 (Word) or OAS 51 (Introduction to Keyboarding and Word); and any 2 units from the following:
  - CIS 20 (Access), OAS 10 (Excel), OAS 80 (Outlook), or OAS 94 (PowerPoint).
  - Note: MOS or MCAS certification will substitute for the equivalent software class.

Associate of Science General Studies Degree

Designed for students desiring a two-year degree to prepare to enter the workforce or continue in their current career. The choice of emphasis allows the student to explore an area of interest while providing sufficient depth in a field of knowledge to contribute to lifelong interest. Students complete the Associate Degree-General Education, one emphasis area, and electives to total a minimum of 60 units of coursework at the associate and transfer level.

Agricultural Trades: Health
Business – Basic Business: Human Development
Climatological/Meteorological Studies: Humanities
Coastal Oceanographic Studies: Industrial Technologies
EMS – Emergency Medical Response: Language Arts
Fire – Fire Investigation: Natural Sciences
Fire – Fire Service Command, Company Officer: Office and Computer Technologies
Fire – Wildland Fire Behavior: Public Safety and Services
Food/Beverage/Lodging Management: Social Sciences
Geologic Field Studies

REQUIREMENTS:

1. Unit Requirement: Minimum of 60 semester units, courses numbered 1-199 at Shasta College.
2. Scholarship Requirement: An overall grade point average (GPA) of not less than 2.0 based on all college work attempted.
3. Residence Requirement: The last twelve (12) semester units of the sixty (60) semester units must be completed in residence at Shasta College immediately prior to graduation or a minimum of forty-eight (48) semester units must have been completed in residence at Shasta College if the student is not in attendance at the time of qualification for graduation.
4. Course Requirements:

a. Major Field of Study: Select a General Studies emphasis area. All courses in the emphasis area must be completed with a grade of “C” or higher.

b. General Education: 21-39 units. Select Associate Degree General Education, California State University General Education (CSU GE), or Intersegmental General Education Transfer Curriculum (IGETC). Note: Any student completing the CSU GE or IGETC requirements will also have met the Associate Degree General Education requirements for this degree.

i. Advanced Placement (AP) examination credit can be used to satisfy Associate Degree General Educ., CSU GE, or IGETC.

ii. Credit through the College Level Examination Program (CLEP) can be used to satisfy Associate Degree General Education or CSU GE. Note: The University of California does not accept credit awarded through CLEP.

Continued on next page…
5. **Competency Requirements:**

a. Competence in reading and in written expression is demonstrated by a grade of "C" or higher in one of the following courses. *Note: Some degrees require completion of a specific course.*

   - ENGL 1A College Composition
   - BUAD 66 Business Communications

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

1. A grade of “C” or higher in one of the following courses or a mathematics course numbered from 1-99. *Note: Some degrees require completion of a specific course.*

   - MATH 102 Intermediate Algebra
   - MATH 110 Essential Math

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

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</tr>
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   - **Multicultural Requirement:** Courses in the Multicultural requirement area contain perspectives on people from other cultures and backgrounds as well as an examination of the contributions of non-Western cultures, or the intersection of culture with race, ethnicity, gender, class or other important social categories, such as religion. After successful completion of a course from this area, a student will be able to summarize various ethnic, racial, religious, gender, traditions, class and other group perspectives as well as their similarities and differences.

   - ADJU 24
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   - ASL 1, 2, 3, 4
   - CHIN 1
   - CMST 20
   - ECE 28
   - ENGL 10A, 10B, 18, 20, 24
   - GERM 1, 2
   - GEOG 1B, 7, 8
   - HIST 2, 3, 25, 35, 36, 38
   - JAPN 1, 2, 3, 4
   - MUS 14
   - POLS 20
   - PSYC 20, 41
   - SOC 25, 30
   - SPAN 1, 2, 3, 4

   - **Computer Literacy Competency Requirement:** To earn an associate degree at Shasta College students must demonstrate computer literacy in one of the following ways:

   - CIS 1 Computer Literacy with a grade of C or better.
   - AGNR 52 Computers in Agriculture and Natural Resources with a grade of C or better.
   - Pass the Shasta College computer literacy exam. Contact the Assessment Office for more information.
   - Receive credit for CIS 1 through an articulated high school course. Check with your high school or the Shasta College counseling center for more information.
   - Possess IC³ certification.
   - Receive a score of 50 or higher on the CLEP Information Systems and Computer Applications exam.
   - Document completion of a computer literacy requirement at another college.
   - Minimum of three units to include the coursework options listed below with a grade of C or better:

     - OAS 91 (Word) or OAS 51 (Introduction to Keyboarding and Word); and any 2 units from the following:
       - CIS 20 (Access), OAS 10 (Excel), OAS 80 (Outlook), or OAS 94 (PowerPoint).

     *Note: MOS or MCAS certification will substitute for the equivalent software class.*

### Associate of Science General Studies Areas of Emphasis:

<table>
<thead>
<tr>
<th><strong>General Studies:</strong> Agriculture Trades – 18 units</th>
<th><strong>AGMA</strong></th>
<th><strong>AGNR</strong></th>
<th><strong>AGPS</strong></th>
<th><strong>AGSA</strong></th>
<th><strong>AGVETT</strong></th>
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<tr>
<td>SC Program: AS.1496</td>
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<tr>
<td>The Agriculture emphasis allows students to explore all areas of agriculture, including animal science, agriculture business, horticulture, horse practices, sustainable or holistic agriculture, mechanical equipment, natural resources, veterinary practices, and viticulture.</td>
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<td>Choose 18 units from at least three of the following areas:</td>
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<tr>
<td>AG 1, 6, 9A, 58</td>
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<td>AGEH 22, 23, 26, 27, 28, 29, 31, 31.1, 31.2, 31.3, 33, 34, 35, 36, 38, 39, 40, 41, 44, 45, 46, 60, 71, 72, 122, 125, 130</td>
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<td>AGEQ 12, 13, 14, 21, 109, 111, 113</td>
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</tbody>
</table>
General Studies: Business – Basic Business – 18 units
SC Program: AS.1497
The Basic Business emphasis allows students to explore many areas of business, including accounting, business law, management, marketing, real estate, and specialized areas such as hospitality, and casino management.
Choose 3-4 units from the following:
ACCT 2 Introduction to Financial Accounting (4)
ACCT 101 Basic Accounting I (3)
Choose 9-14 units from the following:
BUAD 6 Business Law I (3)
BUAD 8 Business Law II (3)
BUAD 10 Introduction to Business (3)
BUAD 12 International Business (3)
BUAD 15 Business and Society (3)
BUAD 40 Entrepreneurship and Small Business (3)
BUAD 41 Leadership and Supervision (3)
BUAD 42 Financing a Small Business (3)
BUAD 44 Investments (3)
BUAD 45 Human Relations on the Job (3)
BUAD 66 Business Communications (3)
BUAD 71 Introduction to e-Commerce (1)
BUAD 72 e-Commerce Marketing (1)
BUAD 80 Principles of Customer Services (3)
BUAD 91 Principles of Management (3)
BUAD 106 Business Mathematics (3)
BUAD 120 Starting a Small Business – The Entrepreneur (1)
Choose the remaining 0-6 units from the following:
BUAD 76, 77, 176
CIS 1
DSS 10, 63
ECON 1A, 1B
HOSP 10, 20, 45, 50, 60, 65

General Studies: Climatological and Meteorological Studies – 18 units
SC Program: AS.1513
Many natural processes studied across a broad spectrum of scientific disciplines influence climate and weather on Earth. This degree plan reflects that fact by incorporating multidisciplinary courses such as Earth System Science and Oceanography while being centered on a core of physics, meteorology, and global climate. Electives in the plan can support spatial associations, environmental considerations, geologic and astronomical influences, as well as computer basics and statistics, depending on student interests. At least one chemistry and one physics course are recommended for the degree, as well as the completion of MATH 102 for the GE pattern.
Complete the following 10 units:
ESCI 14 Meteorology (4)
ESCI 17 Earth System Sciences (3)
ESCI 18 Global climate: Past, Present and Future (3)
Choose 4 units from the following:
AGNR 60 Environmental Science (3) AND
AGNR 61 Environmental Science Lab (1)
ESCI 10 Environmental Geology (4)
ESCI 15 Oceanography (4)
PHYS 2B General College Physics (4)
Choose 4 units from the following:
AGNR 1 Introduction to Natural Resources (3)
AGNR 83 Introduction to Global Positioning Systems (1)
ASTR 1 Astronomy (3)
CIS 1 Computer Literacy Workshop (3)
GEOG 10 Introduction to Geographic Information Systems (3)
MATH 14 Introduction to Statistics (4)

General Studies: EMS – Emergency Medical Response – 18 Units
SC Program: AS.1508
This degree is directed at students who will be working as Emergency Medical Technicians. Additionally, this degree could be used as a general preparation program for those students who will be attending a Paramedic certification program.
Complete the following course:
FAID 175 Emergency Medical Technician 1 Basic (5)
Choose at least 13 units from the list below:
ANAT 1 Human Anatomy (5)
BIOL 5 Introduction to Human Biology (3)
BIOL 6 Intro to Human Biology Laboratory (1)
FAID 132 Emergency Medical Responder (EMR) (2)
FAID 133 Certification CPR for the Professional Rescuer (.5)
FIRS 104 Firefighter I Academy (21)
FIRS 120 Incident Command System ICS-200 (1)
FSS 25 Nutrition (3)
MICR 1 Microbiology (5)
PHY 1 Physiology (5)

General Studies: Coastal Oceanographic Studies – 20 units
SC Program: AS.1512
This degree is designed to focus the student’s studies on coastal marine environments. The plan includes core and supporting classes that provide the background necessary to apply basic scientific principles in support of field- and lab-based coastal research including data collection and analysis, various scientific methodologies in the field and in the lab, relevant modern scientific theory, and scientific problem solving. At least one chemistry and one physics course are recommended for the degree, as well as the completion of MATH 102 for the GE pattern.
Complete the following 10 units:
ESCI 1 Physical Geology (4)
ESCI 15 Oceanography (4)
ESCI 16 Coastal Oceanographic Field Studies (2)
Choose 3 units from the following:
BIOL 10 General Biology (3)
BIOL 12 Field Biology (3)
ESCI 17 Earth System Science (3)
NHIS 15 Natural History (3)
Choose 4 units from the following:
AGNR 60 Environmental Science (3) AND
AGNR 61 Environmental Science Lab (1)
BIOL 1* Principles of Biology (4)
ESCI 10 Environmental Geology (4)
PHYS 2B General College Physics (4)
*Recommended
Choose 3 units from the following:
AGNR 1 Introduction to Natural Resources (3)
CIS 1 Computer Literacy Workshop (3)
GEOG 5 Digital Plant: GIS and Society (3)
GEOG 10 Introduction to Geographic Information Systems (3)
In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
General Studies: Geologic Field Studies Emphasis (continued):

Choose one combination of the following Earth Science field courses to total 4 units:

Two 30-series ESCI courses: 32, 33, 34, 35, 36, 37, 38 (1.5 units each) AND
One 40 series ESCI course: 42, 43, 44, 45, 47 (1 unit each)

OR

ESCI 26 or ESCI 27 AND
Two 40-series ESCI courses: 42, 43, 44, 45, 47 (1 unit each)

Choose 3 units from the following list:
AGNR 1 Introduction to Natural Resources (3)
CIS 1 Computer Literacy Workshop (3)
GEOG 5 Digital Planet: GIS and Society (3)
GEOG 10 Introduction to Geographic Information Systems (3)
NHIS 15 Natural History (3)

General Studies: Health – 18 units

SC Program: AS.1499

The Health emphasis allows students to explore health-related topics such as nutrition, physical fitness, substance abuse, wellness, and medical-related areas in medical terminology, first aid, EMT training.

Students who have completed LVN and CNA certificate programs can use this emphasis to complete an associate degree.

Choose 18 units from at least two areas*:
DAN (activity)* 10,15,20,21,30,31,40,41,50
FAID 130, 132, 133, 175, 178
FSS 25
HLTH 1, 2, 3
HEOC 10, 100, 130, 131, 160, 181
KINES 1, 2
OAS 110
PE 4, 35, 36
PEAT (activity)* 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 34, 41, 42, 50, 51, 52, 60, 70, 74, 81, 153
VOCN 160, 161, 162

*Limit of 6 units from Dance, PE activity, and Athletics courses combined.

General Studies: Human Development – 18 units

SC Program: AS.1501

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

Choose 18 units from at least two of the following areas:
ECE 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 14, 15, 16, 17, 20, 22, 24, 26, 27, 28, 30, 40, 50, 51, 52
EDUC 1
EDTE 51, 52, 61, 62, 71, 72, 73
FSS 10, 12, 16, 18, 25, 26, 27, 46, 60

General Studies: Humanities – 18 units

SC Program: AS.1515

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

Choose 18 units from at least three of the following areas (with no more than 9 units of foreign language):
ART 1, 2, 3, 4, 6, 12, 13, 15, 16, 17, 21A, 21B, 23, 26A, 26B, 29A, 29B, 31A, 31B, 35A, 35B, 45, 46, 50A, 55A, 55B, 57, 60A, 60B, 60C, 80A, 80B, 110, 121, 122, 123, 124, 125, 126
ASL 1, 1L, 2, 2L, 3, 4
CMST 10, 20, 30, 40, 54, 60
DAN (Up to 3 units of Dance courses may apply)
ENGL 1B, 1C, 10AB, 11AB, 12, 13AB, 14, 15, 16, 17, 18, 19, 20, 24, 25, 31, 33, 36, 91
FREN 1, 2, 3, 4
GERM 1, 2
HUM 2, 4, 70
JAPN 1, 2, 3, 4, 19, 20
JOUR 21, 24, 27, 29
MUS 1, 2, 3, 4, 5, 10, 11, 14, 21A, 22A, 22B, 25A, 29, 30, 31, 33, 35, 40, 41, 42, 43, 44, 46, 47
PHIL 6, 7, 8
SPAN 1, 2, 3, 4, 19, 20, 151
THTR 1, 5, 8, 9, 12, 13, 23, 26, 29, 30, 31, 34, 41, 42, 50, 51, 52, 60, 70, 74, 81, 153

General Studies: Industrial Technologies – 18 units

SC Program: AS.1500

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

Choose 18 units from at least three of the following areas:
AGMA 42, 44
AUTO 1, 10, 20, 21, 130, 131, 147, 150, 161, 162, 163, 180, 181
CONS 45, 46, 47, 48, 52, 53, 54, 55, 56, 84, 148, 149, 150, 160, 161, 178
DIES 48, 49, 158, 160, 161, 162, 164, 166, 170
ENER 50, 101, 102, 151
ENGR 1A, 1B, 2, 22, 24, 27, 29, 30, 31, 32, 33, 37, 38, 64, 120
INDE 1, 101, 102, 138
WELD 56, 70, 73, 118, 170, 171, 174, 175 176, 178, 182, 184, 186, 188
WTT 177, 180, 181, 183, 184, 186

General Studies: Language Arts – 18 units

SC Program: AS.1502

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

Choose 18 units from at least two areas:
CMST 10, 20, 30, 40, 54, 60
ENGL 1B, 1C, 10AB, 11AB, 12, 13AB, 14, 15, 16, 17, 18, 19, 20, 24, 25, 31, 33, 36, 91
JOUR 21, 24, 27, 29

Foreign Languages:
ASL 1, 1L, 2, 2L, 3, 4
FREN 1, 2, 3, 4
GERM 1, 2
JAPN 1, 2, 3, 4, 19, 20
SPAN 1, 2, 3, 4, 19, 20

Page 5-23
General Studies: Natural Sciences – 18 units
SC Program: AS.1514

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

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

Agriculture:
- AGAS 19
- AGEH 33
- AGNR 60
- AGPS 20
- ANAT 1
- ASTR 1
- BIOL 1, 5, 6, 11, 12, 16, 26, 70, 70A, 71, 71A, 105
- BOT 1, 50, 52
- CHEM 1A, 1B, 2A, 2B, 6, 10, 11, 16, 26, 70, 70A, 71, 71A, 10, 11, 12, 14, 15, 16, 17, 18, 23, 26, 27, 32, 33, 34, 35, 36, 37, 38, 42, 43, 44, 45, 46
- FSS 25
- GEOG 1A, 1AL, 1B, 21, 24, 25
- MICR 1
- NHIS 15, 65, 105
- PHY 1
- PHYS 2A, 2B, 4A, 4B, 4C
- ZOOL 1, 15, 63

General Studies: Office and Computer Technologies – 18 units
SC Program: AS.1498

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

Choose 12 – 18 units from the following areas:
- CIS 1, 2, 20, 21, 23, 31, 32, 33, 34, 39, 50, 51, 52, 53, 54, 55, 56, 60, 61, 62, 63, 64, 71, 72, 73, 83, 86, 90, 92
- OAS 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 31, 32, 33, 34, 39, 50, 51, 52, 53, 54, 55, 56, 60, 61, 62, 63, 64, 71, 72, 73, 83, 86, 90, 92

Choose 0 – 6 additional units:
- ACCT 101, 102, 103, 104
- BUAD 10, 45, 66, 71, 72

General Studies: Public Safety and Services – 18 units
SC Program: AS.1503

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

Complete the following course:
- ADJU 10 Introduction to Administration of Justice (3)

Choose the remaining 15 units from the following:
- ADJU 10, 11, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 30, 40, 41, 42, 100, 102, 106

General Studies: Social Sciences – 18 units
SC Program: AS.1516

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

Choose 18 units from at least three of the following areas:
- ANTH 1, 2, 5, 14, 25
- ARCH 3, 4A, 5A
- CCE 1, 2, 9
- ECON 1A, 1B
- FSS 16, 18
- GEOG 1A, 1AL, 1B, 2A, 2B, 5, 7, 8
- HIST 1A, 1B, 2, 3, 17A, 17B, 25, 35, 36, 38, 40, 55, 57
- POLS 1, 2, 20, 25
- PSYC 1A, 8, 14, 15, 16, 17, 20, 41, 46
- SOC 1, 2, 15, 22, 25, 70

Associate of Science Degree (See the main Degree and Certificate listings later in this Chapter)

The AS degree is primarily oriented to technical, science, and occupational programs. It is intended for the student who plans to enter the workforce after completion of the two-year degree. Students complete the Associate Degree-General Education, the courses in their major, and electives totaling a minimum of 60 units of coursework at the associate and transfer level.

Administration of Justice
Agriculture-Equine Science
Agriculture-Forest Science and Technology
Agriculture-Horticulture and Landscaping
Agriculture-Natural Resources
Applied Geographic Information Systems
Automotive Technology
Business Administration
Business Administration Accounting Concentration
Business Administration General Business Concentration
Computer and Information Systems
Computer and Information Systems Systems Management
Construction Management
Health Information Management
Hospitality Management
Hotel/Restaurant Management Concentration
Nursing – Associate Degree Nursing
Office Administration
Office Administration Administrative Office Professional
Office Administration Administrative Office Professional
Office Administration Administrative Office Professional
Office Administration Dental Hygiene
Office Administration Diesel Technology
Office Administration Early Childhood Education
Office Administration Family Studies
Office Administration Fire Technology
Office Administration Hospitality Management
Office Administration Culinary Arts Concentration
Office Administration Hotel/Restaurant Management Concentration
Office Administration Nursing – Associate Degree Nursing
Office Administration Office Administration
Office Administration Office Administration
Office Administration Office Administration
Office Administration Welding Technology

Continued on next page…
Chapter 5 – Degrees and Certificates 2014-15 Shasta College Catalog

Associate of Science Degree Requirements (continued):

REQUIREMENTS:

1. **Unit Requirement:** The majority of degrees require a minimum of 60 semester units of coursework, numbered 1-199 at Shasta College. Refer to your degree for the required number of units.

2. **Scholarship Requirement:** An overall grade point average (GPA) of not less than 2.0 based on all college work attempted.

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

4. **Course Requirements:**
   a. **Major Field of Study:** Select an Associate Degree major. All courses in the major must be completed with a grade of "C" or higher.
   b. **General Education:** 21-39 units. Select Associate Degree General Education, California State University General Education (CSU GE), or Intersegmental General Education Transfer Curriculum (IGETC). Note: Any student completing the CSU GE or IGETC requirements will also have met the Associate Degree General Education requirements for this degree.
      i. Advanced Placement (AP) examination credit can be used to satisfy Associate Degree General Education, CSU GE, or IGETC.
      ii. Credit through the College Level Examination Program (CLEP) can be used to satisfy Associate Degree General Education or CSU GE. Note: The University of California does not accept credit awarded through CLEP.

5. **Competency Requirements:**
   a. Competence in reading and in written expression is demonstrated by a grade of "C" or higher in one of the following courses. Note: Some degrees require completion of a specific course.

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

   1. A grade of "C" or higher in one of the following courses or a mathematics course numbered from 1-99. Note: Some degrees require completion of a specific course.

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   c. Multicultural Requirement: Courses in the Multicultural requirement area contain perspectives on people from other cultures and backgrounds as well as an examination of the contributions of non-Western cultures, or the intersection of culture with race, ethnicity, gender, class or other important social categories, such as religion. After successful completion of a course from this area, a student will be able to summarize various ethnic, racial, religious, gender, traditions, class and other group perspectives as well as their similarities and differences.

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   d. **Computer Literacy Competency Requirement:** To earn an associate degree at Shasta College students must demonstrate computer literacy in one of the following ways:

   - **CIS 1 Computer Literacy** with a grade of C or better.
   - **AGNR 52 Computers in Agriculture and Natural Resources** with a grade of C or better.
   - Pass the Shasta College computer literacy exam. Contact the Assessment Office for more information.
   - Receive credit for **CIS 1 through an articulated high school course.** Check with your high school or the Shasta College counseling center for more information.
   - Possess IC3 certification.
   - Receive a score of 50 or higher on the CLEP Information Systems and Computer Applications exam.
   - Document completion of a computer literacy requirement at another college.
   - Minimum of three units to include the coursework options listed below with a grade of C or better:

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<td>OAS 20 (Access), OAS 10 (Excel), OAS 80 (Outlook), or OAS 94 (PowerPoint)</td>
<td></td>
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<tr>
<td>UCD 20, 41</td>
<td></td>
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<tr>
<td>UCD 20, 41</td>
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</tr>
<tr>
<td>Note: MOS or MCAS certification will substitute for the equivalent software class.</td>
<td></td>
</tr>
</tbody>
</table>
SECOND DEGREE REQUIREMENTS: Check with Admissions and Records Office for specific criteria.

APPLYING FOR YOUR DEGREE: You must apply for your Degree in the Admissions & Records Office two months before the end of the semester in which you plan to complete it.

CATALOG RIGHTS: As long as you maintain continuous attendance at Shasta College, your catalog rights are protected according to the following regulations: You may elect to meet the graduation requirements in effect 1) at the time of initial enrollment or 2) at the semester of graduation, provided you have not had an interruption in attendance of more than two successive semesters. (Summer is not considered a successive semester when not enrolled but will be used to begin enrollment or maintain continuous attendance.) If you are following an earlier version of a program in which your department has discontinued or modified required courses, the department may authorize appropriate substitutions. It is advisable that you make contact with the department as soon as possible so you can accommodate any changes into your ed plan. If while enrolled you declare a new major, you should normally expect to follow the requirements in effect at the time you change your major or in effect when you file for graduation. Whether you choose option 1) or 2) concerning your major or emphasis, you may continue to follow the general education and graduation requirements listed in the catalog at the time of initial enrollment (provided you maintain catalog rights as defined above). While catalog rights hold degree requirements, they do not shield students from changes in prerequisites required in a given course. Prerequisite requirements which students must follow are those stated in course descriptions in the current catalog.

DOUBLE COUNTING: Courses may be double counted for the emphasis, the GE pattern, and/or the Multi-Cultural/Graduation requirement. For the General Studies major, the emphasis and GE pattern must total at least 36 units. For the University Studies major, the emphasis and GE must total at least 45 units.

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

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

0-99* Baccalaureate level course. Courses certified by Shasta College as meeting transfer requirements to the California State University System. The U.C. system publishes a list annually that indicates which Shasta College courses are accepted for admission. This list is available in the Transfer Center, Shasta College Admissions Office, and www.assist.org.

100-199 Courses, primarily vocational in nature, meeting Associate Degree graduation requirements. Generally not transferable to four-year institutions.

200-299 Basic skills courses designed to enable students to succeed in college level work, or pre-collegiate occupational preparation courses. These courses do not transfer or apply to an Associate Degree (Title 5, Section 55002).

300-399 Ungraded (adult education) courses designed to meet specific student needs. These courses carry no unit credit.

*Baccalaureate level courses are those commonly taught in a four-year college or university at the freshman & sophomore level.
Shasta College 2014-2015
Associate Degree – General Education

General Education - 21 units  (plus a major field of study = 60 units)
The goal of general education is a more well-rounded individual with a broad understanding of the physical universe, people as individuals and as members of society, artistic and cultural expression, written and oral communication, analytical thinking, multicultural environments, and perspectives of people from other cultures and backgrounds.

In order to complete the General Education requirements, a student must complete twenty-one (21) units of study. Three units must be completed in each of the following areas: 1, Natural Science; 2, Social and Behavioral Sciences; 3, Humanities; 4-a, Language and Rationality; 4-b, Oral Communication; 4c, Analytical Thinking, and 5, Multicultural/Living Skills. A course cannot be counted in more than one area of study with the exception of the #6 Multicultural requirement. A four (4) quarter unit course is 2-2/3 semester units and satisfies an area. Total units must equal 21 or more semester units. The course used to satisfy the Multicultural Requirement may also be used to satisfy one of the other areas if appropriate.

1. NATURAL SCIENCE:  Three (3) units required. Courses in the Natural Science GE area examine the physical universe, its life forms and its natural phenomena. After successful completion of a course from this area, a student will be able to use the scientific method to conduct basic experiments, collect, analyze, and evaluate data in a lab setting, or will be able to use scientific inquiry skills related to hypothesis, prediction, assumption, interpretation and evaluation.

AGAS 19 Prin of Animal Sci
AGHE 33 Envir Horticulture
AGNR 1 Intro to Nat Res
AGNR 60 Envir Science
AGNR 64 Watershed Mgmt
AGPS 20 Plant Science
AGPS 24 Soils
ANAT 1 Anatomy
ANTH 1 Phys Anthropology
ASTR 1 Astronomy
Biol 1 Principles of Biology
Biol 5 Human Biology
Biol 10 Gen Biology
Biol 12 Field Biology
Bot 1 Botany
Chem 1AB Gen Chemistry
Chem 6 Chemistry/Envir
Chem 10 Chemistry/Lib Art
CHEM 1 6 Chem Prob Solv
CHEM 1 7 Intro/Gen of Calif
CHEM 7 9 Earthquakes
CHEM 12 Gen Earth Science
CHEM 14 Meteorology
CHEM 15 Oceanography
PHY 1 1 Physiology

2. SOCIAL AND BEHAVIORAL SCIENCES:  Three (3) units required. Courses in the Social and Behavioral Sciences GE area focus on people as individuals and as members of society. After successful completion of a course from this area, a student will be able to describe, explain, compare, and critique methods of inquiry used by the social and behavioral sciences, or will be able to apply concepts from the social sciences in order to analyze, evaluate, classify, and explain human behavior, or will be able to identify and discuss how societies and social subgroups operate.

ADJU 10 Intro to AQJ
ADAG 54 Ag Economics
AGPS 25 Calif. Water
ANTH 2 Cultural Anth
ANTH 5 Human./Cult./Ecol
ANTH 14 Relig,Myth,Ritual
ANTH 25 Cult. Hist Indian
ARCH 3 Prin of Arch
ARCH 4A Beg Field Arch.
CMST 20 Intercul.Comm.
ECOE 2 Child/Family/Comm
ECOE 9 Child Growth & Dev.
ECON 1A/B Economics
FSS 16 Marriage Family
FSS 18 Adulthood/Aging
FSS 60 Life Management
GEOG 1B Cultural Geog
GEOG 5 Digital Planet
GEOG 7 Calif Geography
GEOG 8 World Reg Geog
HIST 1AB Western Civil
HIST 2/3 World Civilization
HIST 17AB US History
HIST 25 African Am. Hist
HIST 35 Hist/Mexican Amer
HIST 36 History Far East
HIST 38 Hist World Relig
HIST 40 Hist/Gov of CA
HIST 55 Hist/Amer/World
HIST 57 Russian History
HIST 17AB Western Civil
JOUR 21 Mass Commun
JOUR 22 Med & Journalism
JOUR 25 Holden Blvd
JOUR 28 World Journalism
PSY 1A Gen Psychology
PSY 1B Med/Psychology
PSY 2A Gen Psych
PSY 3A Human Psych
PSY 4A Health Psych
PSY 12 Child Psychology
PSY 18 Abnormal Psych

3. HUMANITIES: Three (3) units required. Courses in the Humanities GE area are those which study the cultural activities and artistic expressions of human beings. After successful completion of a course from this area, a student will be able to express verbally and in writing examples of how peoples of different times and cultures relate to their environments through individual artistic expression and shared cultural traditions, will be able to critically assess and discuss examples of artworks and cultural artifacts utilizing qualitative, contextual criteria, or will be able to describe, explain, evaluate, compare and contrast, theories that philosophers have used to understand the nature of reasoning, reality and value.

ART 1 Intro to Art
ART 2 History of Art
ART 3 Western Art
ART 4 World Art
ART 6 History/Modern Art
ASL 1 Am. Sign Lang 1
ASL 2 Am. Sign Lang 2
ASL 3 Am. Sign Lang 3
ASL 4 Am. Sign Lang 4
CHIN 1 Mandarin Chinese
CMST 30 Oral Interprept
ENGL 1B Lit & Comp
ENGL 10AB World Lit*
ENGL 11A/B Survey/Am. Lit
ENGL 13A/B Survey Eng Lit
ENGL 14 Drama as Lit
ENGL 15 Lit Women
ENGL 16 Poetry
ENGL 17 Shakespeare
ENGL 18 African Amer Lit
ENGL 19 Bible as Literature
ENGL 24 Multicult Persp*
ENGL 25 Linguistics
ENGL 31 Creative Writ
ENGL 32 Multicult Persp
ENGL 37 Intro to Drama
ENGL 38 World Lit
ENGL 39 Lit of Women
ENGL 40 Collected Poems
ENGL 41 World Mythology*
ENGL 42 Med & Modern Drama
ENGL 43 World Drama
ENGL 44 20th Cent Theatre
ENGL 45 Shakespeare
ENGL 46 Modern Drama
ENGL 47 20th Cent Theatre
ENGL 48 World Mythology
ENGL 49 World Mythology
ENGL 50 World Mythology*
ENGL 51 20th Cent Theatre
ENGL 52 World Mythology
ENGL 53 20th Cent Theatre
ENGL 54 World Mythology
ENGL 55 World Mythology
ENGL 56 World Mythology
ENGL 57 World Mythology
ENGL 58 World Mythology
ENGL 59 World Mythology
ENGL 60 World Mythology
ENGL 61 World Mythology
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ENGL 86 World Mythology
ENGL 87 World Mythology
ENGL 88 World Mythology
ENGL 89 World Mythology
ENGL 90 World Mythology
ENGL 91 World Mythology
ENGL 92 World Mythology
ENGL 93 World Mythology
ENGL 94 World Mythology
ENGL 95 World Mythology
ENGL 96 World Mythology
ENGL 97 World Mythology
ENGL 98 World Mythology
ENGL 99 World Mythology

4. LANGUAGE AND RATIONALITY: Courses in the Language and Rationality GE Area are those which study the principles and applications of language toward logical thought, clear and precise expression and critical evaluation or communication in whatever symbol system the student uses.

a. English Composition: Three (3) units required. Courses fulfilling the written composition requirement are designed to include both expository and argumentative writing. After successful completion of a course from this area, a student will be able to write clear, logically organized essays using expository and argumentative modes and applying conventions of documentation when appropriate.

ENGL 1A College Composition
BUAD 66 Business Communication
b. **Oral Communication:** Three (3) units required. Courses fulfilling the oral communication requirement are designed to emphasize the psychological, cultural and linguistic factors which affect human communication, including how communication operates in various situations. Course content includes an emphasis on the ability to speak and listen effectively, as well as verbal and non-verbal communication. After successful completion of a course from this area, a student will be able to identify and discuss the role oral communication plays in academic, social, and professional endeavors; and will be able to demonstrate oral competency by constructing messages appropriate to particular communication situations covered in their particular courses.

**See Math Competency Requirement listed below**

### AS Level Math:
- MATH 9 Survey of Calculus
- MATH 10 Plane Trigonometry
- MATH 11 Patterns of Math
- MATH 13 College Algebra/Liberal Arts
- MATH 14 Statistics
- MATH 17 Calculus for Soc/Life Science
- MATH 41AB Conc./Elem Math
- MATH 8 Finite Mathematics

### Other Math Courses:
- MATH 2 Precalculus
- MATH 2AB Precal/Alg Trigonometry
- MATH 3AB Calculus
- MATH 8 Finite Mathematics

### Other Math Courses:
- MATH 102 Intermediate Algebra
- MATH 110 Essential Math
- CIS 10 Interpersonal Communication
- CMST 30 Oral Interpretation
- CMST 40 Argument/Debate
- CMST 54 Small Group Comm.
- CMST 20 Interpersonal Communication
- CMST 40 Argument/Debate
- CMST 54 Small Group Comm.

### 5. MULTICULTURAL/LIVING SKILLS:
— Three (3) units required, from either area. Courses in the Multicultural/Living Skills GE area prepare students to live and work in an increasingly multicultural environment or encourage development as integrated physiological, social, and psychological beings. After successful completion of a course from this area, a student will be able to compare and contrast perspectives of various cultural groups as defined by religion, ethnicity, race, gender, class or other important social categories; or identify “at risk” patterns of physical or academic or social or emotional or financial behavior and apply their knowledge and skills to assess these patterns and make recommendations for altering them; or develop the criteria for personal or professional success in a given area and then create a specific action plan that targets the criteria — along with a timeline for accountability and evaluation.

### MULTICULTURAL COURSES:
- ANTH 2 Cultural Anthropology*
- ANTH 14 Religion/Myth/Ritual*
- ANTH 25 Cult/Hist North Am Indian*
- ART 4 World Art
- CMST 20 Intercultural Comm.*
- ENGL 10A/B World Lit*

### 6. MULTICULTURAL REQUIREMENT – Three (3) units required. (Note: A course in this area may be double-counted to also satisfy one of the other areas numbered 1-5. Courses which can be double-counted are marked with an asterisk.) Courses in the Multicultural Requirement area contain perspectives on people from other cultures and backgrounds as well as an examination of the contributions of non-Western cultures, or the intersection of culture with race, ethnicity, gender, class or other important social categories, such as religion. After successful completion of a course from this area, a student will be able to compare and contrast perspectives of various cultural groups as defined by religion, ethnicity, race, gender, class or other important social categories.

### LIVING SKILLS:
- AGNR 11 Environ. Ethics
- BUAD 10 Intro to Business
- BUAD 45 Human Relations/Job
- ECE 1 Human Development
- ECE 2 Child/Family/Community
- ECE 9 Child Growth & Dev.
- FSS 16 Marriage and Family
- FSS 18 Adulthood/Aging

### 7. COMPUTER LITERACY REQUIREMENT
To earn an associate degree at Shasta College students must demonstrate computer literacy in one of the following ways:
- CIS 1 Computer Literacy with a grade of C or better.
- AGNR 52 Computers in Agriculture and Natural Resources with a grade of C or better.
- Pass the Shasta College computer literacy exam. Contact the Assessment Office for more information.
- Receive credit for CIS 1 through an articulated high school course. Check with your high school or the Shasta College counseling center for more information.
- Possess IC3 certification.
- Receive a score of 50 or higher on the CLEP Information Systems and Computer Applications exam.
- Document completion of a computer literacy requirement at another college.
- Minimum of three units to include the coursework options listed below with a grade of C or better:
  - OAS 18 Adaptability
  - OAS 20 (Access), OAS 10 (Excel), OAS 80 (Outlook), or OAS 94 (PowerPoint).
- Note: MOS or MCAS certification will substitute for the equivalent software class.

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In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
Shasta College 2014-2015
California State Universities – General Education

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

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

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>CMST 54: Small Group Communication</td>
<td>CMST 60: Public Speaking</td>
<td>CMST 10: Argumentation and Debate</td>
</tr>
<tr>
<td>ENGL 1A: College Composition</td>
<td>PHIL 8: Logic</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>B1/B3: Physical Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 1: Astronomy</td>
</tr>
<tr>
<td>AGPS 24: Soils</td>
</tr>
<tr>
<td>CHEM 1A: General Chemistry</td>
</tr>
<tr>
<td>CHEM 1B: General Chemistry</td>
</tr>
<tr>
<td>CHEM 2A: Introduction to Chemistry</td>
</tr>
<tr>
<td>CHEM 2B: Intro to Organic &amp; Bio Chemistry</td>
</tr>
<tr>
<td>CHEM 6: Intro. Chemistry Applied to Envir.</td>
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<tr>
<td>CHEM 10: Chemistry for Liberal Arts</td>
</tr>
<tr>
<td>CHEM 16: Chemical Problem Solving</td>
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</tbody>
</table>

**B2/B3: Life Sciences**

<table>
<thead>
<tr>
<th>B4: Mathematical Concepts and Quantitative Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAS 19: Principles of Animal Science</td>
</tr>
<tr>
<td>AGNR 60: Environmental Science</td>
</tr>
<tr>
<td>AGNR 61: Environmental Science Lab</td>
</tr>
<tr>
<td>AGPS 20: Plant Science</td>
</tr>
<tr>
<td>ANAT 1: Human Anatomy</td>
</tr>
<tr>
<td>ANTH 1: Physical Anthropology</td>
</tr>
<tr>
<td><strong>MATH 2: Precalculus Mathematics</strong></td>
</tr>
<tr>
<td>MATH 2A: Precalculus College Algebra</td>
</tr>
<tr>
<td>MATH 2B: Precalculus Trigonometry</td>
</tr>
<tr>
<td>MATH 3A: 3B, 4A: Calculus</td>
</tr>
<tr>
<td>MATH 4B: Differential Equations</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>C1: Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1: Introduction to Art</td>
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<tr>
<td>ART 2: History of Western Art</td>
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<tr>
<td>ART 3: Western Art, Renaissance to Cont.</td>
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<tr>
<td><strong>ART 4: World Art</strong></td>
</tr>
<tr>
<td>ART 6: History of Modern Art</td>
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<tr>
<td>CMST 30: Oral Interpretation</td>
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</tbody>
</table>

**C2: Humanities**

<table>
<thead>
<tr>
<th>C2: Humanities</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 1 American Sign Language 1</td>
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<tr>
<td>ASL 2 American Sign Language 2</td>
</tr>
<tr>
<td>ASL 3 American Sign Language 3</td>
</tr>
<tr>
<td>ASL 4 American Sign Language 4</td>
</tr>
<tr>
<td>ENGL 1B: Literature &amp; Composition</td>
</tr>
<tr>
<td><strong>ENGL 10A: World Literature to 1650</strong></td>
</tr>
<tr>
<td><strong>ENGL 10B: World Literature after 1650</strong></td>
</tr>
<tr>
<td>ENGL 11A, 11B: Survey of American Lit.</td>
</tr>
<tr>
<td>ENGL 13A, 13B: Survey of English Lit.</td>
</tr>
<tr>
<td>ENGL 14: Drama as Lit</td>
</tr>
<tr>
<td>ENGL 15: Lit. By/About Women</td>
</tr>
<tr>
<td>ENGL 16: Poetry</td>
</tr>
<tr>
<td>ENGL 17: Intro to Shakespeare</td>
</tr>
</tbody>
</table>
**Shasta College 2014-15 California State Universities – General Education (continued)**

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

**D1: Anthropology and Archaeology**
- **ANTH 2:** Cultural Anthropology
- **ANTH 5:** Humanity, Culture & Ecology
- **ANTH 14:** Religion, Myth, and Ritual
- **ANTH 25:** Culture & History/No. Am. Indian
- **ARCH 3:** Principles of Archaeology
- **ANTH 14:** Religion, Myth, and Ritual
- **ARCH 3:** Principles of Archaeology

**D2: Economics**
- **AGAB 54:** Agricultural Economics
- **ECEN 1A, 1B:** Principles of Economics

**D3: Ethnic Studies**
- **ANTH 25:** Culture & Hist/North Am. Indian
- **GEOG 7:** California Geography
- **HIST 25:** African American History
- **HIST 35:** History of Mexican Americans
- **PSYC 20:** Cross-cultural Psychology
- **SOC 25:** Sociology of Minorities

**D4: Gender Studies**
- **ANTH 2:** Cultural Anthropology
- **ANTH 14:** Religion, Myth, and Ritual
- **ANTH 25:** Culture & History/No. Am. Indian
- **SOC 25:** Sociology of Minorities

**D5: Geography**
- **GEOG 1B:** Cultural Geography
- **GEOG 7:** California Geography
- **GEOG 8:** World Regional Geography

**D6: History**
- **HIST 1A, 1B:** History of Western Civ.
- **HIST 2:** World Civilization to 1500 C.E.
- **HIST 3:** World Civilization 1500 to Present
- **HIST 17A, 17B:** U.S. History
- **HIST 25:** African American History
- **HIST 35:** History of Mexican Americans
- **HIST 36:** History of the Far East
- **HIST 38:** History of World Religion
- **HIST 40:** History & Govern. California
- **HIST 55:** History of American West
- **HIST 57:** Russian History

**D7: Interdisciplinary Social or Behavioral Science**
- **AGNR 11:** Environmental Ethics
- **AGPS 25:** California Water
- **CMST 10:** Interpersonal Communication
- **ECE 1:** Human Development
- **ECE 9:** Child Growth & Development
- **JOUR 21:** Intro. to Mass Communications
- **PSYC 5:** Human Sexuality
- **PSYC 14:** Personal/Social Adjustment
- **PSYC 16:** Health Psychology
- **PSYC 20:** Cross-Cultural Psychology
- **PSYC 46:** Human Memory and Learning

**D8: Political Science, Government, and Legal Institutions**
- **ADJU 10:** Intro to AOJ
- **POLS 1:** Intro. to Political Science
- **POLS 2:** Intro. to Amer. Government
- **POLS 25:** Global Politics

**D9: Psychology**
- **PSYC 1A:** General Psychology
- **PSYC 14:** Personal/Social Adjustment
- **PSYC 15:** Social Psychology
- **PSYC 16:** Health Psychology
- **PSYC 17:** Abnormal Psychology
- **PSYC 20:** Cross-Cultural Psychology
- **PSYC 46:** Human Memory and Learning

**D10: Sociology and Criminology**
- **SOC 1:** Introduction to Sociology
- **SOC 2:** Social Problems
- **SOC 15:** Sociology of Mass Media
- **SOC 22:** Sociology of Aging
- **SOC 25:** Sociology of Minorities
- **SOC 30:** Sociology of Gender
- **SOC 70:** Social Welfare

**AMERICAN HISTORY AND GOVERNMENT REQUIREMENTS FOR GRADUATION FROM A CSU CAMPUS**

Completion of a course in American History and a course in American Government is a requirement to graduate from any of the 23 CSU universities. At Shasta College, HIST 1A, HIST 1B, and HIST 2, and POLS 2 will satisfy the requirement.

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

**E1:**
- **ECE 1:** Human Development
- **ECE 2:** Child, Family, Community
- **ECE 9:** Child Growth & Development
- **FSS 16:** Marriage and Family
- **FSS 18:** Adulthood and Aging
- **FSS 25:** Nutrition
- **FSS 60:** Life Management
- **HLTH 1:** Health and Wellness
- **HLTH 2:** Nutrition and Fitness
- **HLTH 3:** Substance Abuse Awareness
- **STU 1:** College Success
- **PSYC 1A:** General Psychology

**CHICO STATE** requires two courses to satisfy the U.S. Diversity & Global Cultures requirement. Both courses may be part of the 39-unit General Education requirement.

a. Courses with one asterisk (*) meet the U.S. Diversity requirement and are “concerned primarily with the aspirations and history of ethnic subcultures”. They are ANTH 25, CMST 20, ENGL 18, ENGL 24, GEOG 7, HIST 25, HIST 35, PSYC 20, PSYC 41, and SOC 25.

b. Courses with two asterisks (**) meet the Global Cultures requirement and are “concerned primarily with cultures and societies outside Western Heritage”. They are ANTH 2, ANTH 14, ARCH 3, ART 4, ENGL 10A, ENGL 10B, ENGL 20, GEOG 18, GEOG 8, HIST 36, HIST 38, MUS 14, and POLS 20.

Courses taken for CSU General Education are applied to categories based on the General Education list for the year they are completed. This is the approved list for courses taken Fall 2014 through Summer 2015. See www.assist.org for prior years.

5/19/14
IGETC courses must be completed with a "C" grade or better (P is acceptable).

### AREA 1 - ENGLISH COMMUNICATION

<table>
<thead>
<tr>
<th>Group A: English Composition (one course)</th>
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<tbody>
<tr>
<td>ENGL 1A: College Composition</td>
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</table>

<table>
<thead>
<tr>
<th>Group B: Critical Thinking/English Composition (one course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1B: Literature and Composition</td>
</tr>
<tr>
<td>ENGL 1C: Critical Reasoning, Reading and Writing</td>
</tr>
</tbody>
</table>

### FOR CSU ONLY:

<table>
<thead>
<tr>
<th>Group C: Oral Communication (one course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMST 54: Group Communication</td>
</tr>
<tr>
<td>CMST 60: Public Speaking</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MATH 2: Pre-Calculus</th>
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</thead>
<tbody>
<tr>
<td>MATH 3A: Calculus+</td>
</tr>
<tr>
<td>MATH 3B: Calculus</td>
</tr>
<tr>
<td>MATH 4A/4B: Calculus/Diff. Equations</td>
</tr>
</tbody>
</table>

| MATH 6: Linear Algebra                  |
| MATH 8: Finite Math                     |
| MATH 9: Survey of Calculus+             |
| MATH 13: College Algebra for Liberal Arts |
| MATH 14: Intro to Statistics            |
| MATH 17: Calc. for Social/Life Sciences |

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

#### ARTS:

<table>
<thead>
<tr>
<th>ART 1: Introduction to Art</th>
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</thead>
<tbody>
<tr>
<td>ART 2: History of Western Art</td>
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<table>
<thead>
<tr>
<th>ART 6: History of Modern Art</th>
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</thead>
<tbody>
<tr>
<td>ART 8: History of World Theatre I</td>
</tr>
<tr>
<td>ART 9: History of World Theatre II</td>
</tr>
</tbody>
</table>

#### HUMANITIES:

<table>
<thead>
<tr>
<th>ASL 2 American Sign Language 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 3 American Sign Language 3</td>
</tr>
<tr>
<td>ASL 4 American Sign Language 4</td>
</tr>
<tr>
<td>ENGL 11A/B: Survey of American Lit.</td>
</tr>
<tr>
<td>ENGL 13A/B: Survey of English Lit.</td>
</tr>
<tr>
<td>ENGL 14: Survey of Drama as Lit</td>
</tr>
<tr>
<td>ENGL 15: Lit. By and About Women</td>
</tr>
<tr>
<td>ENGL 16: Poetry</td>
</tr>
<tr>
<td>ENGL 17: Intro to Shakespeare</td>
</tr>
<tr>
<td>ENGL 18: African American Literature</td>
</tr>
<tr>
<td>ENGL 19: Survey of the Bible as Literature</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ENGL 20: World Mythology</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 24: Multicult. Perspectives in Amer Lit</td>
</tr>
<tr>
<td>ENGL 25: Linguistics</td>
</tr>
<tr>
<td>ENGL 33: Fiction and Film</td>
</tr>
<tr>
<td>ENGL 36: Children's Lit</td>
</tr>
<tr>
<td>FREN 2: Elementary French</td>
</tr>
<tr>
<td>FREN 3/4: Intermediate French</td>
</tr>
<tr>
<td>GERM 2: Elementary German</td>
</tr>
<tr>
<td>HIST 2: World Civilization to 1500 C.E.</td>
</tr>
<tr>
<td>HIST 3: World Civilization 1500 to Present</td>
</tr>
<tr>
<td>HIST 25: African American History</td>
</tr>
<tr>
<td>HIST 36: History of the Far East</td>
</tr>
<tr>
<td>HIST 38: History of World Religions</td>
</tr>
<tr>
<td>HUM 2: Exploring Humanities</td>
</tr>
<tr>
<td>HUM 4: Humanities Through the Film</td>
</tr>
<tr>
<td>HUM 70: Exploring Contemporary TV</td>
</tr>
<tr>
<td>JAPN 2: Elementary Japanese</td>
</tr>
<tr>
<td>JAPN 3/4: Intermediate Japanese</td>
</tr>
<tr>
<td>PHIL 6: Intro. to Philosophy</td>
</tr>
<tr>
<td>PHIL 7: Ethics: Understand Right/Wrong</td>
</tr>
<tr>
<td>SPAN 2: Elementary Spanish</td>
</tr>
<tr>
<td>SPAN 3/4: Intermediate Spanish</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>ANTH 2: Cultural Anthropology</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 5: Humanity, Culture and Ecology</td>
</tr>
<tr>
<td>ANTH 14: Religion, Myth, and Ritual</td>
</tr>
<tr>
<td>ANTH 25: Culture/History of N. Amer. Indian+</td>
</tr>
<tr>
<td>ARCH 3: Principles of Archaeology</td>
</tr>
<tr>
<td>CMST 10: Interpersonal Communication</td>
</tr>
<tr>
<td>ECE 1: Human Development</td>
</tr>
<tr>
<td>ECE 9: Child Growth and Development</td>
</tr>
<tr>
<td>ECON 1A: Principles of Economics (Micro)</td>
</tr>
<tr>
<td>ECON 1B: Principles of Economics (Macro)</td>
</tr>
<tr>
<td>GEOG 1A: Physical Geography</td>
</tr>
<tr>
<td>GEOG 1B: Cultural Geography</td>
</tr>
<tr>
<td>GEOG 7: California Geography</td>
</tr>
<tr>
<td>GEOG 8: World Geography</td>
</tr>
<tr>
<td>HIST 1A: History of Western Civilization</td>
</tr>
<tr>
<td>HIST 1B: History of Western Civilization</td>
</tr>
<tr>
<td>HIST 17A: U.S. History and Government</td>
</tr>
<tr>
<td>HIST 17B: U.S. History and Government</td>
</tr>
<tr>
<td>HIST 25: African American History</td>
</tr>
<tr>
<td>HIST 35: History of Mexican Americans</td>
</tr>
<tr>
<td>HIST 36: History of the Far East</td>
</tr>
<tr>
<td>HIST 38: History of World Religions</td>
</tr>
<tr>
<td>PSYC 5: Human Sexuality</td>
</tr>
<tr>
<td>PSYC 10: Social Psychology</td>
</tr>
<tr>
<td>PSYC 14: Personal/Social Adjustment</td>
</tr>
<tr>
<td>PSYC 15: Social Psychology</td>
</tr>
<tr>
<td>PSYC 17: Abnormal Psychology</td>
</tr>
<tr>
<td>PSYC 20: Cross-cultural Psychology</td>
</tr>
<tr>
<td>PSYC 41: Cultural/Soc Context-Childhood</td>
</tr>
<tr>
<td>PSYC 46: Human Memory &amp; Learning</td>
</tr>
<tr>
<td>SOC 1: Introduction to Sociology</td>
</tr>
<tr>
<td>SOC 2: Social Problems</td>
</tr>
<tr>
<td>SOC 15: Sociology of Media Mass</td>
</tr>
<tr>
<td>SOC 22: Sociology of Aging</td>
</tr>
<tr>
<td>SOC 25: Sociology of Minorities</td>
</tr>
<tr>
<td>SOC 30: Sociology of Gender</td>
</tr>
</tbody>
</table>

+Transfer credit may be limited by either UC or CSU or both (usually due to duplication of content). Students should consult with a counselor for additional information.
AREA 5 - PHYSICAL AND BIOLOGICAL SCIENCES (two courses, one Physical Science and one Biological Science for a minimum of 7 units; at least one course must include a laboratory (underlined)).

PHYSICAL SCIENCES:
- ASTR 1: Astronomy
- CHEM 1A: General Chemistry
- CHEM 1B: General Chemistry
- CHEM 2A: Intro to Chemistry +
- CHEM 2B: Intro to Org & Bio Chemistry+
- CHEM 6: Intro to Chem Applied Environment
- CHEM 10: Chemistry for Liberal Arts+
- CHEM 11: Chemistry Lab/Liberal Arts+
- CHEM 16: Chemical Problem Solving
- CHEM 70, 71: Organic Chemistry
- ESCI 1: Physical Geology

PHYSICAL SCIENCES:
- CHEM 3: Mineralogy & Crystal Optics
- CHEM 4: Rock Origins & Relationships
- CHEM 5: Introduction to Geology+
- CHEM 6: Ancient Life
- CHEM 7: Intro to Geology of California
- CHEM 8: Planetary Geology
- CHEM 9: Earthquakes, Volcanoes
- CHEM 10: Environmental Geology
- CHEM 12: Earth Science Survey+
- CHEM 14: Meteorology

BIOLOGICAL SCIENCES:
- AGNR 60: Environmental Science
- AGNR 61: Environmental Science Lab
- AGPS 20: Plant Science
- ANAT 1: Human Anatomy
- ANTH 1: Physical Anthropology

BIOLOGICAL SCIENCES:
- BIOL 1: Principles of Biology
- BIOL 5: Intro to Human Biology+
- BIOL 6: Intro to Human Biology Lab+
- BIOL 10: General Biology+
- BIOL 10L: General Biology Lab
- BOT 1: General Botany
- MICR 1: Microbiology
- NHIS 15: Natural History
- PHY 1: Physiology
- ZOOL 1: General Zoology

AREA 6 - LANGUAGE OTHER THAN ENGLISH
Proficiency is required by UC. CSU transfers do not need to meet this requirement. Proficiency is defined as two years of high school study in the same language with a "C" grade or better. If you have not satisfied this requirement in high school, you must take one of these courses:

- ASL 1 American Sign Language 1
- CHIN 1: Mandarin Chinese
- FREN 1: Elementary French
- GER 1: Elementary German
- JAPN 1: Elementary Japanese
- SPAN 1: Elementary Spanish

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

GROUP 1:
- HIST 17A: U.S. History
- HIST 17B: U.S. History

GROUP 2:
- POLS 2: Introduction to American Government

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

This is the approved list for courses taken Fall 2014 through Summer 2015. See www.assist.org for prior years.

4/23/14
Shasta College 2014-15 Certificates

Accounting Clerk/Bookkeeper
Agriculture – Equine Science
Agriculture – Equipment Operations and Maintenance
Agriculture – Horticulture
   Horticulture and Landscaping Program
   Irrigation
   Landscape and Turf Management
Retail Nursery Sales
Agriculture – Livestock Quality Assurance
Agriculture – Natural Resources
Agriculture – Pest Control Advisor Preparation
Agriculture – Sustainable Practices
Applied Geographic Information Systems
Automotive Technology
Automotive Chassis
Automotive Electrical-Electronics
Automotive Engine Performance
Automotive Heating-Air Conditioning
Automotive Powertrain
Business Administration – Business Entrepreneurship
Business Retailing
Computer & Information Systems
   Cisco Networking
   Network Administration
   Web Design
   Windows Server
Computer Maintenance
Construction Technology
CSU - General Education
Customer Service Academy
Diesel Technology
Dietary Service Supervisor
Early Childhood Education
ECE-Family Childcare
Firefighter 1 Certificate
Firefighter 2 Certificate
Fire Tech-Wildland Firefighter 1 Academy
Hospitality
   Baking – Culinary Arts Emphasis
   Bartender – Culinary Arts Emphasis
   Dining Room Management – Culinary Arts Emphasis
   Dining Room Staff – Culinary Arts Emphasis
   Line Cook – Culinary Arts Emphasis
   Winemaking and Marketing
Hospitality Management
   Culinary Arts Concentration
   Hotel/Restaurant Management Concentration
Industrial Technology
IGETC – General Education
Life Management
Music
Nurse Aide/Home Health Aide
Nursing-Vocational Nursing
Office Administration
   Administrative Office Assistant
   Administrative Office Professional
Health Information Management
Transition Certificate for Students with Disabilities
Watershed Restoration
Water/Wastewater Treatment
Welding

4/15/2014
Accounting Clerk/Bookkeeper

Certificate:

SC Program: CT.3060

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

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:

1. Express the accounting equation; identify and perform the processes of the accounting cycle; and prepare and interpret the basic financial statements for service and merchandising organizations in accordance with generally accepted accounting principles.
2. Use integrated accounting software in performing the processes of the accounting cycle and preparing the basic financial statements for service and merchandising organizations in accordance with generally accepted accounting principles.
3. Prepare and process payroll records and payroll tax returns in compliance with applicable federal and state laws and regulations.
4. Demonstrate the use of skills relevant for problem solving, decision making and solving ethical dilemmas in the business environment including critical thinking, effective written and oral communication, working effectively in teams and the proficient use of computers for information search, retrieval, problem solving and communication.
5. Identify and explain the current economic indicators regarding inflation, unemployment, monetary and fiscal policy and their effects on consumers and small businesses.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_acct_gainful_employment/.

CERTIFICATE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Basic Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 102</td>
<td>Basic Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 103</td>
<td>PC Accounting</td>
<td>2</td>
</tr>
<tr>
<td>ACCT 104</td>
<td>Payroll Accounting</td>
<td>2</td>
</tr>
<tr>
<td>BUAD 10</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 66</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 106</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 166</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>OAS 10</td>
<td>Excel for Windows-I</td>
<td>1</td>
</tr>
<tr>
<td>OAS 51</td>
<td>Introduction to Keyboarding and Word</td>
<td>3</td>
</tr>
<tr>
<td>OAS 64</td>
<td>Computerized Ten-Key</td>
<td>.5</td>
</tr>
<tr>
<td>OAS 166</td>
<td>Records Management</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE 28.5

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

Administration of Justice

Associate in Science:

SC Program: AS.1001

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

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:

1. Demonstrate their knowledge of the evolution of the justice system, its objectives, role and trends through discussion and examinations.
2. Demonstrate their knowledge of the basics of California criminal law and the core principles that drive the police and course, through discussion and examinations.
3. Demonstrate their knowledge of the basics of evidence collection, chain of evidence and submission of evidence and legal requirements for the handling of evidence through discussion and examinations.
4. Demonstrate their knowledge of the California Court Criminal System; law enforcement report writing and court testimony through examination and discussion.
5. Demonstrate their knowledge in the basics of criminal investigation and how the process leads to submission to the District Attorney, court system and corrections, through examination and discussion.
6. Demonstrate their knowledge of how policy/community relations intertwine into community relations through examination and discussion.

DEGREE REQUIREMENTS:

CORE COURSES:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 10</td>
<td>Introduction to Administration of Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 15</td>
<td>Concepts of Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 16</td>
<td>Legal Aspects of Evidence</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 17</td>
<td>Principles and Procedures of the Justice System</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 18</td>
<td>Community Relations</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 20</td>
<td>Principles of Investigation</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 23</td>
<td>Career Planning for Administration of Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 26</td>
<td>Courtroom Testimony/Report Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

REMITTED ELECTIVES: (Choose six units) 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 11</td>
<td>Traffic Control and Investigation</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 21</td>
<td>Police Field Operations</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 22</td>
<td>Juvenile Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 24</td>
<td>Multi-Cultural Issues/Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 25</td>
<td>Substantive Law</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 30</td>
<td>Wildlife Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 40</td>
<td>Introduction to Corrections</td>
<td>3</td>
</tr>
</tbody>
</table>

Restricted Electives continued on next page…
Chapter 5 – Degrees and Certificates

Administration of Justice Degree Restricted Electives (continued):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 41</td>
<td>Fundamentals of Crime and Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 42</td>
<td>Interviewing and Counseling</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 45</td>
<td>Criminal Street Gangs</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 46</td>
<td>Narcotic and Drug Use</td>
<td>3</td>
</tr>
<tr>
<td>CIS 1</td>
<td>Computer Literacy Workshop</td>
<td>3</td>
</tr>
</tbody>
</table>

*May be used to fulfill General Education requirements. See a counselor.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>30</td>
</tr>
<tr>
<td>Additional General Education</td>
<td>18</td>
</tr>
<tr>
<td>General Electives</td>
<td>12</td>
</tr>
<tr>
<td>Degree Total</td>
<td>60*</td>
</tr>
</tbody>
</table>

Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Agriculture – Agricultural Business

Associate in Science:

SC Program: AS.1518

PROGRAM DESCRIPTION: The Agricultural-Business major is designed for students interested in working in the area of agricultural-related business. Career opportunities in agricultural business may include careers with the U.S. Department of Agriculture or Resource Conservation Service or a career in ranch or farm management, banking, agricultural credit, agricultural insurance, consulting firms, or agricultural product distribution and sales. The employment opportunities are many. "Agri" Business is the largest business sector in the world as statistics show that it takes at least 16 people to keep one farmer in business. These people are involved in all phases of agriculture from the production and marketing of everything from the fertilizer and seed, equipment and machinery to the crops, feed, production loans, and crop insurance and so on. In the state of California, agriculture is the #1 commodity which further increases our student's employment opportunities. This degree is designed to give students a broad understanding of the agriculture industry, as it is much easier for a student who has solid foundation in agriculture to be successful in the vegetable or agricultural business as "agri" business differs from other business sectors as much of the time the commodities that are marketed and sold are perishable.

This program also prepares students for transfer to an Agriculture Business program at a four-year university. Students who plan to transfer should talk to a counselor or advisor to select appropriate general education and elective courses that will meet the requirements of the chosen university program.

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

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. Demonstrate proficiency in accounting procedures using a double-entry bookkeeping system.

2. Organize and prepare reports, presentations, and other information pertaining to managerial procedures.

3. Describe the economic significance of California Agriculture and its relationship to the global economy.

4. Explain supply and demand as it relates to local and regional agriculture business industries.

5. Demonstrate the ability to make logical business decisions based on the analysis of business trends locally, regionally, and globally.

6. Demonstrate proficiency using computers, the Internet, and other technology as they relate to agri-business.

7. Recognize world markets and describe their effect on local agriculture economies.
Agriculture – Environmental Horticulture

Also see Agriculture-Horticulture for other Degree/Certificates

Associate in Science:

SC Program: AS.1493

PROGRAM DESCRIPTION: The Environmental Horticulture Degree is designed to prepare students to complete lower division coursework at Shasta College for transfer to a B.S. degree in Agriculture with an option in crops/horticulture and land resource management at CSU Chico. This degree would also prepare students to transfer to other CSUs but students should consult with Ag faculty or counselor regarding specific transfer requirements. Students interested in more details about this degree should contact the Horticulture Department at 242-2210.

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

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. Demonstrate safe and efficient use of both nursery and landscape tools, equipment and supplies.
2. Demonstrate the ability to communicate with clients, assess landscape for ecological and economic sustainability, measure and analyze a property, draft a landscape and a residential irrigation design, develop management schedules, and implement practices based on client needs.
3. Design and implement a nursery operation, select and make production schedules for greenhouse crops, and propagate, grow and market nursery crops.
4. Identify 150 landscape trees, shrubs and ground covers and select species suitable for different landscape situations.
5. Describe and implement both conventional and sustainable methods for use in the landscape relating to cultural practices, weed control, soil amendments, plant selection and care.
6. Obtain all course work necessary for transfer to a 4-year degree program in horticulture or related field.
7. Explain and apply basic principles of botany to horticulture practices.
8. Safely conduct landscape construction activities in the correct construction sequence. Including the proper installation of: a landscape sprinkler system, a low-volume (drip) irrigation system, concrete and brick pavers and landscape plants and sod.
9. Explain and apply the concepts of job estimating and laws as they pertain to landscape construction and maintenance.
10. Demonstrate landscape maintenance activities and equipment operation in a safe manner. Including the ability to test and evaluate soil fertility, select and apply fertilizers at the proper rate. Recognize common turf grass species and select proper maintenance techniques for each type of turf grass and to prune landscape trees and shrubs.

DEGREE REQUIREMENTS:

CORE COURSES:

AG 6  Career Placement – Ag and Natural Resources  1
AGEH 22  Nursery Practices and Plant Propagation  2
AGEH 23  Nursery Practices and Management  2
AGEH 27, 28 & 29  Plant Identification and Taxonomy  3
AGEH 33*  Environmental Horticulture OR  3
AGPS 20*  Plant Science  3
AGEH 35  Landscape Design  3
AGAB 54*  Agriculture Economics  3
AGEH 38  Landscape and Turf Management  3
AGMA 44  Intro. to Construction Skills for Ag/Nat Res.  3
AGPS 24*  Soils  3
CHEM 2A*  Introduction to Chemistry  5
CMST 54* or A1*  Small Group Communication  3
ENG 1A*  College Composition  4
HIST 17A* or 17B*  U.S. History and Government  4
MATH 14*  Introduction to Statistics  4
POLS 2*  Introduction to American Government  3
SPAN 1* or C2*  Elementary Spanish  3-5

RECOMMENDED COURSES (Not Required):

AGAS 19  Principles of Animal Science (3)
AGEH 31  Landscape Irrigation (3)
AGNR 52  Computers in Ag and Natural Resources (3)
CHEM 2B  Introduction to Organic and Biochemistry (5)

Students planning to transfer to a four-year college or university should consult a counselor or Ag faculty regarding transfer requirements. TRANSFER REQUIREMENTS MAY BE DIFFERENT FROM AS DEGREE REQUIREMENTS.

*May be used to fulfill General Education requirements. See a counselor.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

Major  51-53
Additional General Education  9-12**
General Electives  0
Degree Total  63-65*

**CSU Chico does not require Area C for high unit program.

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Agriculture – Equine Science

Associate in Science:

SC Program: AS.1221

PROGRAM DESCRIPTION: This curriculum is designed to provide training in a wide variety of jobs available in the Equine industry; jobs including horse training, horse grooming and care, horse packing, stable management, and others. Classes for this major will mainly be offered working in this industry as well as gaining practical experience.

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

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

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

Continued on next page…

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.

Page 5-36
Ag – Equine Science A.S. Degree (continued):

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Describe the processes involved and outline major events in the evolution and domestication of the horse.
2. Describe career opportunities and requirements for successful employment in the equine industry.
3. Relate basic genetic principles to techniques in breeding selection and mating programs.
4. Develop a ranch plan for an equine facility, incorporating legal requirements and regulations.
5. Demonstrate basic handling of the horse including catching, haltering, leading and tying.

DEGREE REQUIREMENTS:
CORE COURSES:
AG 1 Career Planning for Agriculture 2
AG 6 Career Placement – Ag and Natural Resources 1
AG 9A Agriculture and Natural Resources Leadership I 1
AG 94 Worksite Learning 3
AGAB 51 Agriculture Accounting 3
AGAB 54 Agriculture Economics 3
AGAS 11 Livestock Feeding and Nutrition 3
AGEQ 12 Horse Ownership and Basic Handling 3
AGEQ 13 Horse Husbandry 3
AGEQ 14 Horse Management 3
AGEQ 151 Handling Problem Horses 3
AGAS 11 Intro. to Const. Skills for Ag and Nat. Resources 3
AGNR 52 Computers in Agriculture/Natural Resources 3
AGPS 20 Plant Science 4
AGPS 24 Soils 3
AGVETT 16 Veterinary Practices 2

*May be used to fulfill General Education requirements. See a counselor.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:
Major 43
Additional General Education 15
General Electives 2
Degree Total 60*

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Ag – Equine Science Certificate:
SC Program: CT.3160

PROGRAM DESCRIPTION: Completion of the Equine Certificate Program will prepare students for entry level positions in stable management, horse transportation and handling, equine care, feed and health care sales.

This certificate is approved through the California Community College Chancellor's Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this certificate.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Describe the processes involved and outline major events in the evolution and domestication of the horse.
2. Describe career opportunities and requirements for successful employment in the equine industry.
3. Relate basic genetic principles to techniques in breeding selection and mating programs.
4. Develop a ranch plan for an equine facility, incorporating legal requirements and regulations.
5. Demonstrate basic handling of the horse including catching, haltering, leading and tying.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait ag gainful employment/.

CERTIFICATE REQUIREMENTS:
CORE COURSES:
AG 1 Career Planning for Agriculture 2
AG 6 Career Placement – Ag and Natural Resources 1
AG 94 Worksite Learning 3
AGAS 11 Livestock Feeding and Nutrition 3
AGEQ 12 Horse Husbandry 3
AGEQ 14 Western Riding and Training 3
AGEQ 21 Horse Management 3
AGEQ 111 Handling Problem Horses 3
AGEQ 113 Horse Ownership and Basic Handling 3
AGMA 44 Intro. to Const. Skills for Ag/ Natural Resources 3

TOTAL UNITS FOR CERTIFICATE 30

Agriculture – Equipment Operations & Maintenance

Ag – Equipment Operations & Maintenance Certificate:
SC Program: CL.3425

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

This certificate is approved through the California Community College Chancellor's Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this certificate.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student will:
1. Understand and demonstrate safe heavy equipment operational and maintenance practices.
2. Be able to use heavy equipment to move soil to grade.
3. Be able to perform basic equipment inspections and maintenance procedures.
4. Demonstrate the knowledge and skills to survey, layout and set grade on a construction project.
5. Be able to operate and maintain heavy equipment resulting in minimum impact to the watershed and use appropriate Best Management Practices to control erosion.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait haop gainful employment

Continued on next page...
**Ag – Equipment Operations and Maintenance Certificate (continued):**

<table>
<thead>
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<th>COURSE CODE</th>
<th>COURSE NAME</th>
<th>UNITS</th>
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<tbody>
<tr>
<td>AGMA 44</td>
<td>Intro to Const. Skills for Ag and Nat. Res.</td>
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<tr>
<td>WELD 70</td>
<td>Beginning Welding</td>
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<tr>
<td>AGNR 66A</td>
<td>Watershed Restoration Practicum I</td>
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Take two of the following courses: 6 – 6.5

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<tr>
<td>AGPS 24</td>
<td>Soils (3)</td>
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<tr>
<td>CONS 149</td>
<td>Class A &amp; B License Training (3)</td>
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<tr>
<td>DIES 48</td>
<td>Hydraulics (3.5)</td>
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<td>WELD 73</td>
<td>Structural Steel Metal Fabrication (3)</td>
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<td>Career Planning/Leadership for Heavy Equip.</td>
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<td>CONS 46</td>
<td>Equipment Operations and Maintenance</td>
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<td>CONS 47</td>
<td>Project Construction for Equipment Operators</td>
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<tr>
<td>CONS 48</td>
<td>Surveying for Equipment Operators</td>
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Take 1 – 4 units of the following courses: 1 – 4

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<td>CONS 55B</td>
<td>Equipment Operations Pad Construction (1)</td>
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<td>CONS 55C</td>
<td>Equipment Ops Roadway Construction (1)</td>
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<td>CONS 55D</td>
<td>Equipment Ops Global Satellite System (1)</td>
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<td>CONS 94</td>
<td>Worksite Learning for Construction Tech (1-4)</td>
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</table>

**MATH 100* Technical Applications of Mathematics 3**

**TOTAL UNITS FOR CERTIFICATE 24 – 27.5**

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

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**Ag – Forest Science & Technology**

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

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

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

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**Program Learning Outcomes:**

Upon successful completion of this certificate, the student will:

1. Have the appropriate coursework and field experience to pursue seasonal Forestry Technician jobs or to transfer to a University in a Forestry-related field.
2. Be able to properly identify all common species of trees and shrubs native to the Western US by their scientific and common names and to discuss general uses, site characteristics, and geographic distributions of these species.
3. Be able to apply knowledge of the Silvicultural treatments used to regulate stand, Composition, regenerate stands, increase growth rates, and improve timber quality.
4. Be able to apply skills in the safe use and maintenance of tools and equipment.
5. Be able to apply computer skills using Forestry-related software.
6. Be able to select and implement an appropriate protocol following the scientific method to collect, statistically analyze, evaluate, and document original research data.
7. Be able to accurately navigate in the field using maps, compass, a Global Positioning System (GPS). Students will also be able to use GPS for field data collection and Geographic Information Systems (GIS) for data mapping and display.
8. Be able to evaluate basic theory, concepts, and ecological principles as they apply to Forestry, Wildlife, Water Resources, and Ecosystem Restoration and will use his/her cumulative skills to think critically and to work out possible solutions to address problems facing Natural Resources managers today and in the future.
9. Be able to apply fundamentals of Wildland fire ecology, behavior, and suppression techniques.

**DEGREE REQUIREMENTS:**

**Core Courses:**

<table>
<thead>
<tr>
<th>COURSE CODE</th>
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<tr>
<td>AGNR 1*</td>
<td>Introduction to Natural Resources</td>
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<tr>
<td>AGNR 6</td>
<td>Native Plant Identification</td>
<td>3</td>
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<tr>
<td>AGNR 50</td>
<td>Natural Resources Measurements</td>
<td>4</td>
</tr>
<tr>
<td>AGNR 52</td>
<td>Computers in Agriculture/Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 53</td>
<td>Forest Protection and Health</td>
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<tr>
<td>AGNR 65</td>
<td>Forest Ecology</td>
<td>3</td>
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<tr>
<td>AGNR 94</td>
<td>Natural Resources Worksite Learning</td>
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<td>AGPS 24</td>
<td>Soils</td>
<td>3</td>
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<tr>
<td>BOT 4</td>
<td>General Botany</td>
<td>4</td>
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<tr>
<td>FIRS 118</td>
<td>Introduction to Wildland Fire Fighting</td>
<td>1.5</td>
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<tr>
<td>GEOG 9</td>
<td>Map and Geospatial Principles</td>
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*May be used to fulfill General Education requirements. See a counselor.

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**ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:**

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*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.
Agriculture – Horticulture and Landscaping
Also see Ag-Environmental Horticulture for Transfer Degree information

Associate in Science:

SC Program: AS.1492

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

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of the certificate, the student will be able to:

1. Demonstrate safe and efficient use of both nursery and landscape tools, equipment and supplies
2. Demonstrate the ability to communicate with clients, assess landscape for ecological and economic sustainability, measure and analyze a property, draft a landscape and a residential irrigation design, develop management schedules, and implement practices based on client needs.
3. Design and implement a nursery operation, select and make production schedules for greenhouse crops, and propagate, grow and market nursery crops.
4. Identify 150 landscape trees, shrubs and ground covers and select species suitable for different landscape situations.
5. Demonstrate skills to assess site or plant cultural issues and make recommendations for enhancing the health of the landscape planting or nursery plants using integrated pest management.
6. Describe and implement both conventional and sustainable methods for use in the landscape relating to cultural practices, weed control, soil amendments, plant selection and care.
7. Be prepared to take the California Pesticide Applicators Certificate Exam with the California Department of Pesticide Regulation.
8. Explain and apply basic principles of botany to horticulture practices.
9. Safely conduct landscape construction activities in the correct construction sequence: Including the proper installation of: a landscape sprinkler system, a low-volume (drip) irrigation system, concrete and brick pavers and landscape plants and sod.
10. Explain and apply the concepts of job estimating and laws as they pertain to landscape construction and maintenance.
11. Demonstrate landscape maintenance activities and equipment operation in a safe manner. Including the ability to test and evaluate soil fertility, select and apply fertilizers at the proper rate. Recognize common turf grass species and select proper maintenance techniques for each type of turf grass and to prune landscape trees and shrubs.
12. Demonstrate a strong work and personal ethic.
13. Demonstrate skills needed to take the Landscape Industries Certified Technician Exam.

DEGREE REQUIREMENTS:

Some of these classes require math skills. Students are encouraged to begin taking math classes early in the program.

CORE COURSES:

AG 6 Career Placement – Ag and Natural Resources 1
AGEH 22 Nursery Practices and Plant Propagation 2
AGEH 23 Nursery Practices and Management 2
AGEH 26 Integrated Pest Management in Environ. Hort. 3
AGEH 27 Plant Identification and Taxonomy 1
AGEH 28 Plant Identification and Taxonomy 1
AGEH 29 Plant Identification and Taxonomy 1
AGEH 31.1 Landscape Irrigation - Design 1
AGEH 31.2 Landscape Irrigation - Installation 1
AGEH 31.3 Landscape Irrigation – Troubleshooting/ Schedule 1
AGEH 33* Environmental Horticulture 3
AGEH 35 Landscape Design 3
AGEH 38 Landscape and Turf Management 3
AGEH 94 Horticulture Website Learning 3
AGMA 44 Introduction to Const. Skills for Ag and Nat. Res. 3
AGNR 52 Computers in Agriculture/Natural Resources 3
AGNR 66A Watershed Restoration Practicum I 1
AGNR 66B Watershed Restoration Practicum II 1
AGRN 83 Introduction to GPS 1
AGPS 24* Soils 3
CHEM 2A* Introduction to Chemistry 5

*May be used to fulfill General Education requirements. See a counselor.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

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<tr>
<th>Major</th>
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*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Ag – Horticulture and Landscaping Certificate:

SC Program: CT.3441

PROGRAM DESCRIPTION: The Green Industry is a huge industry with many different career opportunities. Nursery sales exceed $55 billion nationally. California sells $13.26 billion in nursery and floral products annually and the Landscape Industry continues to grow rapidly as population increases both statewide and locally. This certificate will prepare students for jobs in both landscape and nursery areas. Career choices include city and county parks; state and federal organizations; garden centers, independent, local and national chains; landscape maintenance business; floral design and arrangement; landscape design and installation and nursery and landscape management positions. Courses include directed practical experience in a modern horticulture facility that includes a floral lab room, 7,000 square feet of greenhouses and 20,000 square feet of landscaping. Many landscaping operations are also done on the beautiful 300-acre college campus.

Continued on next page...
Ag – Horticulture and Landscaping Certificate (continued):

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

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of the certificate, the student should be able to:

1. Demonstrate safe and efficient use of both nursery and landscape tools, equipment and supplies
2. Demonstrate the ability to communicate with clients, assess landscape for ecological and economic sustainability, measure and analyze a property, draft a landscape and a residential irrigation design, develop management schedules, and implement practices based on client needs.
3. Design and implement a nursery operation, select and make production schedules for greenhouse crops, and propagate, grow and market nursery crops.
4. Identify 150 landscape trees, shrubs and ground covers and select species suitable for different landscape situations.
5. Demonstrate skills to assess site or plant cultural issues and make recommendations for enhancing the health of the landscape planting or nursery plants using integrated pest management.
6. Describe and implement both conventional and sustainable methods for use in the landscape relating to cultural practices, weed control, soil amendments, plant selection and care.
7. Be prepared to take the California Pesticide Applicators Certificate Exam with the California Department of Pesticide Regulation.
8. Explain and apply basic principles of botany to horticulture practices.
9. Safely conduct landscape construction activities in the correct construction sequence: Including the proper installation of: a landscape sprinkler system, a low-volume (drip) irrigation system, concrete and brick pavers and landscape plants and sod.
10. Explain and apply the concepts of job estimating and laws as they pertain to landscape construction and maintenance.
11. Demonstrate landscape maintenance activities and equipment operation in a safe manner. Including the ability to test and evaluate soil fertility, select and apply fertilizers at the proper rate. Recognize common turf grass species and select proper maintenance techniques for each type of turf grass and to prune landscape trees and shrubs.
12. Demonstrate a strong work and personal ethic.
13. Demonstrate skills needed to take the Landscape Industries Certified Technician Exam

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_hort_gainful_employment

CERTIFICATE REQUIREMENTS:

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<td>AGEH 22</td>
<td>Nursery Practices and Plant Propagation</td>
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<tr>
<td>AGEH 23</td>
<td>Nursery Practices and Management</td>
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<td>AGEH 26</td>
<td>Integrated Pest Management in Environ. Hort.</td>
<td>3</td>
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<td>AGEH 27, 28, 29</td>
<td>Plant Identification and Taxonomy</td>
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<td>AGEH 31</td>
<td>Landscape Irrigation – Design</td>
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<td>AGEH 31.2</td>
<td>Landscape Irrigation – Installation</td>
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<td>Landscape Irrigation – Troubleshoot/Schedule</td>
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<td>AGEH 33</td>
<td>Environmental Horticulture</td>
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<td>AGEH 35</td>
<td>Landscape Design</td>
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<td>AGEH 38</td>
<td>Landscape and Turf Management</td>
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<tr>
<td>AGEH 94</td>
<td>Horticulture Worksite Learning</td>
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AGMA 44 Intro. to Const. Skills for Ag & Natural Res. 3
AGNR 52 Computers in Agriculture/Natural Resources 3
AGNR 66A Watershed Restoration Practicum I 1
AGNR 66B Watershed Restoration Practicum II 1
AGNR 83 Intro to Global Positioning Systems (GPS) 1
AGPS 24 Soils 3
ENGL 190 Reading & Writing II **(see below for alternative)** 4
MATH 100 Tech. App. of Math or Math Placement Level 3 3

TOTAL UNITS FOR CERTIFICATE 45

**Students may choose one of the following alternatives: ENGL 190 OR BUAD 166 OR a combination of ENGL 191, and two units selected from the following courses: ENGL 192, ENGL 193 or ENGL 194 for a total of 4 units.**

Agriculture – Horticulture – Irrigation Certificate:

SC Program: CL.3426

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

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of the certificate, the student should be able to:

1. Demonstrate the ability to communicate with clients, measure and analyze a property, draft a landscape and a residential irrigation design, develop water management schedules, and implement practices based on client needs.
2. Demonstrate safe and efficient use of landscape tools, equipment and supplies.
3. Safely conduct landscape construction activities in the correct construction sequence: Including the proper installation of: a landscape sprinkler system, a low-volume (drip) irrigation system, concrete and brick pavers and landscape plants and sod.
4. Explain and apply the concepts of job estimating and laws as they pertain to landscape construction and maintenance.
5. Demonstrate a strong work and personal ethic.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_hort_gainful_employment

CERTIFICATE REQUIREMENTS:

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<td>AGEH 35</td>
<td>Landscape Design</td>
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<td>AGPS 24</td>
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<tr>
<td>AGPS 25</td>
<td>California Water</td>
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</table>

Continued on next page…
Agriculture – Horticulture –
Landscape & Turf Management

Certificate:
SC Program: CL.2424

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

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of the certificate, the student should be able to:
1. Demonstrate the ability to communicate with clients, assess landscape for ecological and economic sustainability, measure and analyze a property, draft a landscape and a residential irrigation design, develop management schedules, and implement practices based on client needs.
2. Demonstrate safe and efficient use of landscape tools, equipment, and supplies
3. Demonstrate landscape maintenance activities and equipment operation in a safe manner. Including the ability to test and evaluate soil fertility, select and apply fertilizers at the proper rate. Recognize common turf grass species and select proper maintenance techniques for each type of turf grass and to prune landscape trees and shrubs.
4. Explain and apply the concepts of job estimating and laws as they pertain to landscape maintenance and utilize this information to calculate job costs.
5. Demonstrate a strong work and personal ethic.
6. Be prepared to take the California Pesticide Applicators Certificate Exam with the California Department of Pesticide Regulation.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_hort_gainful_employment/.

REQUIREMENTS FOR CERTIFICATE:

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</tr>
</thead>
<tbody>
<tr>
<td>AGEH 23</td>
<td>Nursery Practices &amp; Management</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AGEH 26</td>
<td>Integrated Pest Management in Environ. Hort.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AGEH 27</td>
<td>Plant Identification and Taxonomy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AGEH 28</td>
<td>Plant Identification and Taxonomy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AGEH 29</td>
<td>Plant Identification and Taxonomy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AGEH 35</td>
<td>Landscape Design</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AGEH 38</td>
<td>Landscape and Turf Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AGEH 94</td>
<td>Horticulture Worksite Learning</td>
<td>1-3</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE: 15 – 17
**Agriculture – Livestock Quality Assurance Certificate:**

**SC Program: CL.3446**

**PROGRAM DESCRIPTION:** This certificate prepares the student for working in the Food (livestock) Animal Industry. The certificate would include training in beef, pork, lamb and goat quality assurances for food quality and safety. The student will learn laws and regulations involved in the meat and livestock industries. This certificate covers the basic skills of “Food Animal Production,” including proper handling, vaccination, and medication protocols.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and [application for completion of the certificate to Admissions and Records](#), the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of the certificate, the student should be able to:

1. Choose and demonstrate proper vaccination protocols given a specific species of livestock and medication options.

**REQUIREMENTS FOR CERTIFICATE:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 11</td>
<td>Career Planning for Agriculture</td>
<td>2</td>
</tr>
<tr>
<td>AGAS 11</td>
<td>Livestock Feeding and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>AGAS 19</td>
<td>Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>AGAS 30</td>
<td>Livestock Production</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE:** 11

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**Agriculture – Natural Resources Associate in Science:**

**SC Program: AS.1495**

**PROGRAM DESCRIPTION:** This curriculum is designed to provide technician-level training for students interested in working in such areas as wildlife, forestry, range, and outdoor recreation. Typical employers include local, county, and U.S. Government agencies, as well as private companies. Particular attention should be paid to course prerequisites and to whether a class is taught during the fall or spring semester, or both.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and [application for graduation with Admissions and Records](#), the student’s transcript will reflect completion of this degree.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of this degree, the student will:

1. Have sufficient coursework and field experience to pursue seasonal technician jobs or to transfer to a University in a Natural Resources-related field.
2. Be able to use a taxonomic key or field guide to correctly identify unknown species of plants, birds, mammals, and aquatic invertebrates to the level of genus.
3. Be able to select and use an appropriate protocol following the scientific method to collect, statistically analyze, evaluate, and document original research data.
4. Be able to accurately navigate in the field using maps, compass, a Global Positioning System (GPS). Students will also be able to use GPS for field data collection and Geographic Information Systems (GIS) for data mapping and display.
5. Be able to evaluate basic theory, concepts, and ecological principles as they apply to Forestry, Wildlife, Water Resources, and Ecosystem Restoration and will use his/her cumulative skills to think critically and to work out possible solutions to address problems facing Natural Resources managers today and in the future.

**DEGREE REQUIREMENTS:**

**CORE COURSES:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNR 1</td>
<td>Introduction to Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 6</td>
<td>Native Plant Identification</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 12</td>
<td>Environmental Policy and Law</td>
<td>2</td>
</tr>
<tr>
<td>AGNR 50</td>
<td>Natural Resource Measurements</td>
<td>4</td>
</tr>
<tr>
<td>AGNR 52</td>
<td>Computers in Agriculture/Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 60*</td>
<td>Environmental Science (GE-Natural Science)</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 64*</td>
<td>Watershed Management and Ecology</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 65</td>
<td>Forest Ecology</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 66A</td>
<td>Watershed Restoration Practicum</td>
<td>1</td>
</tr>
<tr>
<td>AGNR 70</td>
<td>Wildlife Management and Conservation</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 94</td>
<td>Natural Resources Worksite Learning</td>
<td>1</td>
</tr>
<tr>
<td>AGMA 44</td>
<td>Intro. to Const. Skills for Ag/Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>AGPS 24*</td>
<td>Soils</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 9</td>
<td>Map and Geospatial Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

*May be used to fulfill General Education requirements. See a counselor.

**ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>38</td>
</tr>
<tr>
<td>Additional General Education</td>
<td>18</td>
</tr>
<tr>
<td>General Electives</td>
<td>4</td>
</tr>
<tr>
<td>Degree Total</td>
<td>60*</td>
</tr>
</tbody>
</table>

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

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**Ag – Natural Resources Certificate:**

**SC Program: CT.3442**

**PROGRAM DESCRIPTION:** The Natural Resources curriculum is designed to meet the demand for trained personnel in a broad range of Natural Resource/Environmental Science fields in addition to numerous private organizations.

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and [application for graduation with Admissions and Records](#), the student’s transcript will reflect completion of this degree.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of this certificate, the student will:

1. Be qualified to pursue seasonal job employment with the Federal Government, a State Agency, or a Private company in a field related to Forestry & Natural Resources.
2. Be able to use a specified protocol following the scientific method to collect, analyze, evaluate, and document original research data.
3. Be able to accurately navigate in the field using maps, compass, a Global Positioning System (GPS). Students will also be able to use GPS for field data collection and Geographic Information Systems (GIS) for data mapping and display.
4. Be able to evaluate basic theory, concepts, and ecological principles as they apply to Forestry, Wildlife, Water Resources, and Ecosystem Restoration and will use his/her cumulative skills to think critically and to work out possible solutions to address problems facing Natural Resources managers today and in the future.

Continued on next page...
Chapter 5 – Degrees and Certificates

**Ag – Natural Resources Certificate (continued):**

**GAINFUL EMPLOYMENT INFORMATION:** For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_nr/gainful_employment/.

**CERTIFICATE REQUIREMENTS:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNR 1</td>
<td>Introduction to Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 6</td>
<td>Native Plant Identification</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 50**</td>
<td>Natural Resources Measurements</td>
<td>4</td>
</tr>
<tr>
<td>AGNR 66A**</td>
<td>Watershed Restoration Practicum I</td>
<td>1</td>
</tr>
<tr>
<td>AGNR 70</td>
<td>Wildlife Conservation and Management</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 9</td>
<td>Map and Geospatial Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE** 17

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

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**Agriculture – Pest Control Advisor Preparation**

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**Agriculture – Pest Control Advisor Preparation Certificate:**

**SC Program: CT.3450**

**PROGRAM DESCRIPTION:** Pest Control Advisors (PCAs) are licensed professional production consultants who serve California agriculture, natural resource and horticulture producers. PCAs specialize in pest management, but they are also an important resource to producers in a wide range of production concerns related to plant health. This certificate satisfies the core-course requirements specified for option "3. b" in preparing to take the Pest Control Advisor’s exam with the California Department of Pesticide Regulation. The following courses need to be completed with a 2.0 grade point average or better. Note: In addition to completing the course work, the Department of Pesticide Regulation requires PCA exam applicants to have completed 24 months of technical work experience before taking the exam.

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfaction completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of the certificate, the student should be able to:

1. Demonstrate the ability to communicate with clients, assess pest damage for ecological and economic sustainability, determine thresholds and implement IPM practices based on client/crop needs.
2. Explain and apply basic principles of soils, cation exchange capacity, entomology and botany to horticulture practices and pesticide mode of action.
3. Be prepared to take the California Pesticide Applicators Certificate Exam with the California Department of Pesticide Regulation.
4. Demonstrate application of pesticides in a safe manner, include selecting proper PPE, mixing, calibration and application.

**REQUIREMENTS FOR CERTIFICATE:**

To prepare for the PCA exam, students will need to complete 42 units of the required curriculum specified in the core-curricula areas below with a 2.0 grade point or better in each course.

**CATEGORY 1: PHYSICAL AND BIOLOGICAL SCIENCES:**

Choose 12 units from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNR 60</td>
<td>Environmental Science (3)</td>
<td></td>
</tr>
<tr>
<td>AGNR 65</td>
<td>Forest Ecology (3)</td>
<td></td>
</tr>
<tr>
<td>AGPS 20</td>
<td>Plant Science (4)</td>
<td></td>
</tr>
<tr>
<td>BIOL 1#</td>
<td>Principles of Biology (4)</td>
<td></td>
</tr>
<tr>
<td>BIOL 10</td>
<td>General Biology Lecture (3)</td>
<td></td>
</tr>
<tr>
<td>BIOL 10L</td>
<td>General Biology Lab (1)</td>
<td></td>
</tr>
<tr>
<td>CHEM 2B#</td>
<td>Intro to Organic Chemistry and Biochemistry (5)</td>
<td></td>
</tr>
<tr>
<td>CHEM 6</td>
<td>Intro to Chemistry Applied to the Environment (4)</td>
<td></td>
</tr>
<tr>
<td>CHEM 26</td>
<td>Fundamentals of Gen, Organic, and Biochem (4)</td>
<td></td>
</tr>
<tr>
<td>CHEM 70 or 71#</td>
<td>Organic Chemistry (4)</td>
<td></td>
</tr>
<tr>
<td>MCR 1#</td>
<td>Microbiology (5)</td>
<td></td>
</tr>
<tr>
<td>ZOOL 1#</td>
<td>General Zoology</td>
<td></td>
</tr>
</tbody>
</table>

**CATEGORIE 2: CROP HEALTH:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEH 31#</td>
<td>Landscape Irrigation</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 70</td>
<td>Wildlife Conservation and Management</td>
<td>3</td>
</tr>
<tr>
<td>AGPS 24</td>
<td>Soils</td>
<td>3</td>
</tr>
</tbody>
</table>

**CATEGORIE 3: PEST MANAGEMENT AND METHODS:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEH 26</td>
<td>Integrated Pest Management</td>
<td>3</td>
</tr>
<tr>
<td>AGEH 61</td>
<td>Plant Protection Materials</td>
<td>3</td>
</tr>
</tbody>
</table>

**CATEGORIE 4: PRODUCTION SYSTEMS:**

Choose 6 units from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAS 11</td>
<td>Livestock Feeding and Nutrition (3)</td>
<td></td>
</tr>
<tr>
<td>AGAS 19</td>
<td>Principles of Animal Science (3)</td>
<td></td>
</tr>
<tr>
<td>AGAS 30</td>
<td>Livestock Production (3)</td>
<td></td>
</tr>
<tr>
<td>AGEH 22</td>
<td>Nursery Practices and Plant Propagation (2)</td>
<td></td>
</tr>
<tr>
<td>AGEH 27, 28, 29</td>
<td>Plant Identification (1 each for a total of 3)</td>
<td></td>
</tr>
<tr>
<td>AGEH 33</td>
<td>Environmental Horticulture (3)</td>
<td></td>
</tr>
<tr>
<td>AGEH 38</td>
<td>Landscape and Turf Management (3)</td>
<td></td>
</tr>
<tr>
<td>AGEH 60</td>
<td>Master Gardener Training (3)</td>
<td></td>
</tr>
<tr>
<td>AGEH 71/72</td>
<td>Organic Gardening (1 each)</td>
<td></td>
</tr>
<tr>
<td>AGNR 4</td>
<td>Introduction to Range Sciences (3)</td>
<td></td>
</tr>
<tr>
<td>AGNR 53</td>
<td>Forest Protection and Restoration (3)</td>
<td></td>
</tr>
<tr>
<td>AGNR 55</td>
<td>Introduction to Forest Operations (3)</td>
<td></td>
</tr>
<tr>
<td>AGVIT 81</td>
<td>Vineyard Care (1)</td>
<td></td>
</tr>
</tbody>
</table>

**REJECTED ELECTIVES:** 9

Complete an additional 9 units from Categories 2-4 above

#Indicates at least one prerequisite is required.

**TOTAL UNITS FOR CERTIFICATE:** 42

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**Agriculture – Sustainable Agriculture Science**

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**Associate in Science:**

**SC Program: AS.1519**

**PROGRAM DESCRIPTION:** The Sustainable Agriculture Science Degree at Shasta College provides training for ranching, farming, agriculture production and related careers in vocational education, sales, services and distribution of agriculture-related products. In the core courses, students will receive a broad-based knowledge of agriculture, agri-business management, and both sustainable and traditional agricultural production practices. A hands-on approach provides students with realistic training and education in livestock husbandry, crop production, farm and land management and equipment operations and repair.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of this degree, the student should be able to:

1. Describe the development and dissemination of modern agricultural technologies and land use practices.

Continued on next page...
Ag – Sustainable Ag Science Degree

Program Learning Outcomes (continued):

2. Explain the principles of crop rotation and demonstrate the ability to develop a simple crop rotation plan.
3. To frame problems and ask critical questions concerning agricultural sustainability.
4. Address complex agricultural problems by using systems thinking and other approaches.
5. Describe the principles and practices used to enhance and maintain biological diversity in an agricultural environment.
6. Evaluate the role of soil fertility in an ecological production system.

DEGREE REQUIREMENTS:

CORE COURSES:

AG 1 Career Planning for Agriculture 2
AG 6 Career Placement – Ag and Natural Resources 1
AG 9A Agriculture and Natural Resources Leadership I 1
AG 94 Worksite Learning OR 1
AG 58 Student Enterprise Projects

AGAB 53 Introduction to Agriculture Business 3
AGAS 11 Livestock Feeding and Nutrition 3
AGAS 19* Principles of Animal Science 3
AGMA 44 Intro. to Cons. Skills for Ag/Natural Resources 3
AGPS 20* Plant Science 4
AGPS 24* Soils 3
AGSA 56 Intro. to Sustainable Ag and Farm Management 3

TOTAL UNITS FOR CORE 27

OPTION 1 – General Agri Science Concentration (Choose 8 units)

AGAB 51 Agriculture Accounting (3)
AGAB 54* Agriculture Economics (3)
AGMA 42 Farm Power and Machinery (3)
CHEM 2A* Introduction to Chemistry (required) (5)
CHEM 2B* Introduction to Organic and Biochemistry (5)
CONS 46 Equipment Operations and Maintenance (3)

OPTION 2 – Agriculture Education Concentration (Choose 9 units)

AGAS 30 Livestock Production (3)
AGEH 22 Nursery Practices and Plant Propagation (2)
AGEH 23 Nursery Practices and Management (2)
AGEH 26 Integrated Pest Management in Envir. Hort.(3)
AGEQ 13 Horse Husbandry (3) OR
AGEQ 21 Horse Management (3)
AGMA 42 Farm Power and Machinery (3)
CONS 46 Equipment Operations and Maintenance (3)
WELD 73 Structural Steel Metal Fabrication (3)

OPTION 3 – Farm, Ranch, and Wildland Management Concentration (Choose a total of 9 units with at least one course from each area)

(Area 1) WILDLAND MANAGEMENT CURRICULUM

AGNR 4 Introduction to Wildland and Range Ecology (3)
AGNR 12 Environmental Policy and Law (2)
AGNR 64* Watershed Management and Ecology (3)
AGNR 65 Forest Ecology (3)
AGNR 70 Wildlife Conservation and Management (3)

(Area 2) FARM AND RANCH MANAGEMENT CURRICULUM

AGAB 51 Agriculture Accounting (3)
AGAS 30 Livestock Production (3)
AGEH 26 Integrated Pest Management in Envir. Hort. (3)

AGEH 31 Landscape Irrigation (3) OR
AGPS 25* California Water (3)
AGES 33* Environmental Horticulture (3)
AGEQ 21 Horse Management (3)
AGMA 42 Farm Power and Machinery (3)
AGVIT 80 Vineyard Design and Construction (1)
AGVIT 81 Vineyard Care (1)
WELD 73 Structural Steel Metal Fabrication (3)

Additional General Education Required for A.S. Degree:

ENGL 1A* College Composition 4
CMST 60* Public Speaking (3) OR
CMST 54* Small Group Communication (3)
MATH 102* Intermediate Algebra (5) OR
MATH 13* College Algebra for Liberal Arts (3) OR
MATH 14* Introduction to Statistics (4)

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

Major 45-51
Additional General Education 6-9
General Electives 0-9
Degree Total 60*

Certificate:

SC Program: CL.3447

PROGRAM DESCRIPTION: This certificate covers the basic skills of the Sustainable Agriculture and Ranching methods. The certificate would include training in both plant (crop) and livestock sustainable practices. Courses will include exploration of current sustainable practices and case studies of area farms and ranches. This certificate is a good avenue for students seeking an industry accepted certification, employment in the sustainable plant or livestock related industries, or anyone interested in sustainable agriculture practices.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of the certificate, the student should be able to:

1. Identify sustainable agricultural practices, within both the plant (crop) and livestock industries.

REQUIREMENTS FOR CERTIFICATE:

AGAS 30 Livestock Production 3
AGEH 26 Integrated Pest Management 3
AGPS 20 Plant Science 4
AGPS 24 Soils 3
AGSA 56 Sustainable Ag and Farm Management 3

TOTAL UNITS FOR CERTIFICATE: 16

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
**Applied Geographic Information Systems**

**Associate in Science:**

SC Program: AS.1520

**PROGRAM DESCRIPTION:** The Associate of Science degree in Applied Geographic Information Systems (AGIS) provides students with skills, knowledge and experience in the application of GIS. Students complete courses in the technical aspects of GIS and information technologies, along with courses in fields to which GIS is commonly applied, including earth and social sciences, natural resources and engineering. Students gain knowledge of maps, geographic data, and imagery, while developing skills in data collection, analysis and map creation. As students progress through the program the applied field courses provide direction for learning about the application of GIS, which gives direction to GIS project work. Worksite learning allows students to gain GIS workplace experience in their chosen field and to develop contacts among the community of GIS professionals. Successful students will have strong computer and critical thinking skills. Refer to [http://www.shastacollege.edu/gis](http://www.shastacollege.edu/gis) for more information.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of this degree, the student should be able to:

1. Explain and summarize key GIS concepts, applications and societal implications.
2. Perform GIS data acquisition, capture, editing, and attributing.
3. Manage GIS data through file management, database design, georeferencing and conversion.
4. Perform GIS analysis using queries, overlay functions, and models.
5. Produces a portfolio of maps demonstrating effective communication, design aesthetics, application of GIS tools and use of cartographic standards.
6. Employs best practices for GIS project design, planning, and implementation.
7. Effectively engages with community through projects, volunteer activities, user meetings and worksite learning.
8. Articulates key opportunities and challenges related to the application of GIS for a chosen application discipline.
9. Performs customization of GIS applications through programming and web map services.
10. Demonstrates effective written and oral communication as it pertains to a chosen application discipline.

**DEGREE REQUIREMENTS:**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 5*</td>
<td>Digital Planet: GIS and Society</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 9</td>
<td>Map and Geospatial Principles</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 10</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 12</td>
<td>GIS Data Design and Capture</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 13</td>
<td>GIS Spatial Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 14</td>
<td>GIS Cartography and Visualization</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 15</td>
<td>Intro to Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 25</td>
<td>GIS Projects</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 94</td>
<td>GIS Worksite Learning</td>
<td>2</td>
</tr>
</tbody>
</table>

**INFORMATION TECHNOLOGIES:**

Choose 6 units from the following courses: 6

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 2*</td>
<td>Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CIS 20</td>
<td>Access for Windows I (1)</td>
<td>1</td>
</tr>
<tr>
<td>CIS 21</td>
<td>Access for Windows II (1)</td>
<td>1</td>
</tr>
<tr>
<td>CIS 23</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 52</td>
<td>Install and Configure Server 2012 (1)</td>
<td>1</td>
</tr>
<tr>
<td>CIS 53</td>
<td>Administering Server 2012 (1)</td>
<td>1</td>
</tr>
<tr>
<td>CIS 54</td>
<td>Configure Advanced Server 2012 Services (1)</td>
<td>1</td>
</tr>
<tr>
<td>CIS 61*</td>
<td>C++ Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 62*</td>
<td>Java Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 64</td>
<td>Web Programming using Java/ PHP/Flash</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 21</td>
<td>GIS-CAD Integration (1)</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 24</td>
<td>Customizing GIS</td>
<td>1</td>
</tr>
</tbody>
</table>

**APPLICATION DISCIPLINES:**

Choose 6 to 8 units from the following courses: 6-8

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNR 1*</td>
<td>Intro to Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>AGNR 50</td>
<td>Natural Resource Measurements</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 1A</td>
<td>Measurements and Plane Surveying</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 27</td>
<td>Map and Computer-aided Drafting</td>
<td>3</td>
</tr>
<tr>
<td>ESCI 5*</td>
<td>Introduction to Geology</td>
<td>4</td>
</tr>
<tr>
<td>ESCI 10*</td>
<td>Environmental Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 1A^1AL</td>
<td>Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1B*</td>
<td>Cultural Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

*May be used to fulfill General Education requirements. See a counselor.

**ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:**

<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
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<tr>
<td>Additional General Education</td>
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<tr>
<td>General Electives</td>
<td>4-6</td>
</tr>
<tr>
<td>Degree Total</td>
<td>60*</td>
</tr>
</tbody>
</table>

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

**Applied Geographic Information Systems Certificate:**

SC Program: CT.3449

**PROGRAM DESCRIPTION:** The Geographic Information Systems (GIS) Certificate at Shasta College provides students with the knowledge and skills needed to apply principles, methods and tools of geographic information systems (GIS). Students develop foundation principles of maps, geographically referenced data, imagery and global positioning systems. GIS fundamentals are taught, both in conceptual and practical terms. Students learn the design of geographic databases and the capture of data using global positioning systems (GPS) and remotely sensed imagery. Spatial analysis skills are developed, from basic geographic inquiry through more complex analysis using GIS overlays and models. Students learn the principles and practice of remote sensing and image processing for integration with GIS and GPS. Maps are designed and implemented for output in hardcopy and digital formats. Worksite learning allows students to gain GIS workplace experience and to develop contacts among the community of GIS professionals. Successful students will have strong computer and critical thinking skills. Refer to [http://www.shastacollege.edu/gis](http://www.shastacollege.edu/gis) for more information.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

Continued on next page…
PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Explain and summarize key GIS concepts, applications and societal implications.
2. Perform GIS data acquisition, capture, editing, and attributing.
3. Manage GIS data through file management, database design, georeferencing and conversion.
4. Perform GIS analysis using queries, overlay functions, and models.
5. Produce a portfolio of maps demonstrating effective communication, design aesthetics, application of GIS tools and use of cartographic standards.
6. Employ best practices for GIS project design, planning, and implementation.
7. Effectively engage with community through projects, volunteer activities, user meetings and worksite learning.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/gis_gainful_employment.

CERTIFICATE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 5</td>
<td>Digital Plant: GIS and Society</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 9</td>
<td>Map and Geospatial Principles</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 10</td>
<td>Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 12</td>
<td>GIS Data Design and Capture</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 13</td>
<td>GIS Spatial Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 14</td>
<td>GIS Cartography and Visualization</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 15</td>
<td>Introduction to Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 25</td>
<td>GIS Projects</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 94</td>
<td>GIS Worksite Learning</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE 24

Art

Associate in Arts:
SC Program: AA.1040

PROGRAM DESCRIPTION: This curriculum qualifies the student for the AA degree in Art. Students interested in transferring should check course requirements with counselors or the transfer college.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Describe and successfully apply the elements and principles of art and design to two-dimensional compositions or three dimensional forms.
2. Select appropriate tools and techniques in dealing with a variety of media that demonstrate informed, skilled and sensitive handling in the execution of two-dimensional imagery and three-dimensional forms.
3. Investigate, develop and employ conceptual themes which clearly and consistently reflect the student’s point of view.
4. Effectively identify and utilize resources for art historical research.

5. Articulate his/her (objective and subjective) understanding of two and three dimensional works in writing.
6. Orally evaluate the works of fellow students and implement suggestions made through the evaluation of his/her work by others.

DEGREE REQUIREMENTS:

CORE COURSES:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 5</td>
<td>History of Western Art Through Gothic Period</td>
<td>3</td>
</tr>
<tr>
<td>ART 6</td>
<td>Western Art, Renaissance to Contemporary</td>
<td>3</td>
</tr>
<tr>
<td>ART 12</td>
<td>Beginning Form, Design and Color</td>
<td>3</td>
</tr>
<tr>
<td>ART 13</td>
<td>Intermediate Form, Design and Color</td>
<td>3</td>
</tr>
<tr>
<td>ART 21A</td>
<td>Beginning Freehand Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 21B</td>
<td>Intermediate Freehand Drawing</td>
<td>3</td>
</tr>
</tbody>
</table>

*May be used to fulfill General Education requirements.

RESTRICTED ELECTIVES: (Choose nine units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 15</td>
<td>Three Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 17</td>
<td>Shades, Shadows and Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>ART 26A</td>
<td>Beginning Watercolor</td>
<td>3</td>
</tr>
<tr>
<td>ART 26B</td>
<td>Intermediate Watercolor</td>
<td>3</td>
</tr>
<tr>
<td>ART 26C</td>
<td>Advanced Intermediate Watercolor</td>
<td>3</td>
</tr>
<tr>
<td>ART 26D</td>
<td>Advanced Watercolor</td>
<td>3</td>
</tr>
<tr>
<td>ART 29A</td>
<td>Beginning Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART 29B</td>
<td>Intermediate Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART 29C</td>
<td>Advanced Intermediate Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART 29D</td>
<td>Advanced Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART 31A</td>
<td>Beginning Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 31B</td>
<td>Intermediate Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 31C</td>
<td>Advanced Intermediate Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 31D</td>
<td>Advanced Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 35A</td>
<td>Beginning Ceramics</td>
<td>3</td>
</tr>
<tr>
<td>ART 35B</td>
<td>Intermediate Ceramics</td>
<td>3</td>
</tr>
<tr>
<td>ART 45</td>
<td>Beginning Glass</td>
<td>3</td>
</tr>
<tr>
<td>ART 46</td>
<td>Glass Blowing</td>
<td>3</td>
</tr>
<tr>
<td>ART 50A</td>
<td>Beginning Printmaking</td>
<td>3</td>
</tr>
<tr>
<td>ART 50B</td>
<td>Intermediate Printmaking</td>
<td>3</td>
</tr>
<tr>
<td>ART 50C</td>
<td>Advanced Printmaking</td>
<td>3</td>
</tr>
<tr>
<td>ART 55A</td>
<td>Beginning Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>ART 55B</td>
<td>Intermediate Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>ART 55C</td>
<td>Advanced Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>ART 57</td>
<td>Sculptural Glass</td>
<td>3</td>
</tr>
<tr>
<td>ART 60A</td>
<td>Beginning Darkroom Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 60B</td>
<td>Intermediate Darkroom Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 60C</td>
<td>Advanced Intermediate Darkroom Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 60D</td>
<td>Advanced Darkroom Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 70A</td>
<td>Beginning Digital Photography</td>
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<tr>
<td>ART 70B</td>
<td>Intermediate Digital Photography</td>
<td>3</td>
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<tr>
<td>ART 70C</td>
<td>Advanced Intermediate Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 70D</td>
<td>Advanced Digital Photography</td>
<td>3</td>
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</table>

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
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<tr>
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<tr>
<td>General Electives</td>
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<tr>
<td>Degree Total</td>
<td>60*</td>
</tr>
</tbody>
</table>

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
Automotive Technology

Associate in Science:

SC Program: AS.1050

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

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Inspect, diagnose, disassemble, repair, replace and service components/systems in student’s area of specialization.
2. Work safely and responsibly within all shop safety and environmental guidelines and standards.
3. Demonstrate competency in accessing and applying technical service information.

DEGREE REQUIREMENTS:

CORE COURSES:
AUTO 1 Vehicle Electrical Systems 3
AUTO 10 Automotive Electronics 3
AUTO 20 Engine Performance 4
AUTO 21 Advanced Engine Performance 3
AUTO 94 Automotive Worksite Learning 2
AUTO 130 Automotive Steering & Suspension 3
AUTO 131 Automotive Wheel Alignment 2
AUTO 147 Automotive Braking Systems 3
AUTO 150 Introduction to Engine Machining 5
AUTO 161 Manual Drive Trains & Axles 3
AUTO 162 Automotive Transmissions and Transaxles 4
AUTO 163 Automotive Heating & Air Conditioning 3
ENGL 1A* College Composition 4
ENDE 1 Career Planning for Industrial Technology 1
MATH 110* Essential Math 3

*May be used to fulfill General Education requirements. See a counselor.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

Major 46
Additional General Education 15
General Electives 0
Degree Total 61*

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Automotive Technology Certificate:

SC Program: CT.3010

PROGRAM DESCRIPTION: The objective is to allow the student to gain entry level skills specific to the automotive industry.

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Inspect, diagnose, disassemble, repair, replace and service components/systems in student’s area of specialization.
2. Work safely and responsibly within all shop safety and environmental guidelines and standards.
3. Demonstrate competency in accessing and applying technical service information.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_auto_gainful_employment/.

CERTIFICATE REQUIREMENTS:

AUTO 1 Vehicle Electrical Systems 3
AUTO 10 Automotive Electronics 3
AUTO 20 Engine Performance 4
AUTO 21 Advanced Engine Performance 3
AUTO 94 Automotive Worksite Learning 2
AUTO 130 Automotive Steering & Suspension 3
AUTO 131 Automotive Wheel Alignment 2
AUTO 147 Automotive Braking Systems 3
AUTO 150 Introduction to Engine Machining 5
AUTO 161 Manual Drive Trains & Axles 3
AUTO 162 Automotive Transmissions and Transaxles 4
AUTO 163 Automotive Heating & Air Conditioning 3
ENDE 1 Career Planning for Industrial Technology 1

TOTAL UNITS FOR CERTIFICATE 39 40

Continued on next page…
Automotive Technology – Automotive Chassis Certificate (continued):

**PROGRAM LEARNING OUTCOMES:**
Upon successful completion of this certificate, the student should be able to:
1. Perform undercar inspections and repair suspension, hydraulic, and active braking systems.
2. Diagnose vehicle alignment concerns.
3. Identify the basic electrical circuits and diagnose automotive electrical systems.
4. Apply the basic principles of physics as they work in the automotive industry.

**CERTIFICATE REQUIREMENTS:**
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 1</td>
<td>Vehicle Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 130</td>
<td>Automotive Steering &amp; Suspension</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 131</td>
<td>Automotive Wheel Alignment</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 147</td>
<td>Automotive Braking Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE** 11

Automotive Technology – Automotive Electrical-Electronics Certificate:

**SC Program:** CL.3436

**PROGRAM DESCRIPTION:** A study of basic electrical theory and the function, diagnosis, and repair of modern automotive electrical systems. Emphasis is placed on the use of instrumentation in the diagnosis of electrical circuits and component failures.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

**PROGRAM LEARNING OUTCOMES:**
Upon successful completion of this certificate, the student should be able to:
1. Identify the basic electrical circuits and diagnose automotive electrical systems.
2. Apply the basic principles of physics as they work in the automotive industry.

**CERTIFICATE REQUIREMENTS:**
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 1</td>
<td>Vehicle Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 10</td>
<td>Automotive Electronics</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 20</td>
<td>Engine Performance</td>
<td>4</td>
</tr>
<tr>
<td>AUTO 21</td>
<td>Advanced Engine Performance</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE** 6

Automotive Technology – Automotive Engine Performance Certificate:

**SC Program:** CL.3437

**PROGRAM DESCRIPTION:** This certificate prepares a student to be successful as an entry-level technician in vehicle electrical systems repairs.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

**PROGRAM LEARNING OUTCOMES:**
Upon successful completion of this certificate, the student should be able to:
1. Identify the basic electrical circuits and diagnose automotive electrical systems.
2. Apply the basic principles of physics as they work in the automotive industry.
3. Demonstrate an understanding of automotive HVAC systems and approved air-conditioning service practices.
4. Utilize appropriate diagnostic equipment, documentation, and troubleshooting principles on automotive HVAC systems.

**CERTIFICATE REQUIREMENTS:**
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 1</td>
<td>Vehicle Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 10</td>
<td>Automotive Electronics</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 163</td>
<td>Automotive Heating &amp; Air Conditioning</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE** 9
Automotive Technology – Automotive Powertrain

Certificate:
SC Program: CL.3440


This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Demonstrate knowledge of the overall operation of an automotive
2. Transmission and differential.
3. Utilize appropriate diagnostic equipment, documentation, and troubleshooting principles on various power train systems.
4. Diagnose vehicle power train concerns.
5. Identify the basic electrical circuits and diagnose automotive electrical systems.
6. Apply the basic principles of physics as they work in the automotive industry.

CERTIFICATE REQUIREMENTS:
| AUTO 161 | Manual Drive Trains & Axles | 3 |
| AUTO 162 | Automatic Transmissions and Transaxles | 4 |
| **TOTAL UNITS FOR CERTIFICATE** | | 7 |

Business

Associate in Science:
SC Program: AS.1085

PROGRAM DESCRIPTION: This degree prepares you to enter the workforce and have the skills you need to move up the career ladder. Your beginning career opportunities include entry-level marketing, management, entrepreneur, customer service representative and retail sales. The courses offered in this degree teach the skills necessary to be successful in business. Many courses are offered during the day and evening at one of our extended education campuses, and online.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Explain the criteria for the formation and enforcement of business and consumer contracts, including the specialty areas of sales and agency.
2. Demonstrate the use of skills relevant for problem-solving, decision-making, and resolving ethical dilemmas in the business environment including critical thinking, effective written and oral communication, working effectively in teams and the proficient use of computers for information search, retrieval, problem solving and communication.
3. Identify and explain the current economic indicators regarding inflation, unemployment, monetary and fiscal policy and their effects on consumers and small businesses.
4. Express the accounting equation; identify and perform the processes of the accounting cycle; and prepare and interpret the basic financial statements for service and merchandising organizations in accordance with generally accepted accounting principles.
5. Utilize their ability to identify and apply business and finance concepts to advance into upper division course work as business majors in the fields of accounting, finance, marketing, management and information technology and services.

DEGREE REQUIREMENTS:
CORE COURSES:
| ACCT 101 | Basic Accounting I | 3 |
| ACCT 102 | Basic Accounting II | 3 |
| ACCT 103 | PC Accounting | 2 |
| BUAD 6 | Business Law I OR | 3 |
| BUAD 8 | Business Law II | 3 |
| BUAD 10* | Introduction to Business | 3 |
| BUAD 12 | International Business | 3 |
| BUAD 40 | Entrepreneurship and Small Business OR | 3 |
| BUAD 176 | Principles of Retailing | 3 |
| BUAD 41 | Supervision and Leadership | 3 |
| BUAD 45* | Human Relations on the Job | 3 |
| BUAD 66* | Business Communications | 3 |
| BUAD 71 | Introduction to e-Commerce | 1 |
| BUAD 76 | Sales OR | 3 |
| BUAD 77 | Principles of Marketing | 3 |

| BUAD 106 | Business Mathematics | 3 |
| CIS 1 | Computer Literacy Workshop | 3 |
| ECON 1B* | Principles of Economics (MACRO) | 3 |
| OAS 10 | Excel for Windows – I | 1 |

*May be used to fulfill General Education requirements. See a counselor.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:
| Major | 43 |
| Additional General Education | 12 |
| General Electives | 5 |
| Degree Total | 60* |

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Business Administration – Accounting Concentration

Associate in Science:
SC Program: AS.1081

PROGRAM DESCRIPTION: This degree prepares you to enter the workforce in an entry level accounting, bookkeeping, or clerk position with many private sector and government organizations. This degree also provides an excellent knowledge base for those planning to pursue an advanced degree in accounting, business, economics, or law (ACCT 2 and ACCT 4 are recommended for these students).

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

Continued on next page...
DEGREE REQUIREMENTS:

CORE COURSES:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Basic Accounting I (3)</td>
<td>6</td>
</tr>
<tr>
<td>OR ACCT 102</td>
<td>Basic Accounting II (3)</td>
<td></td>
</tr>
<tr>
<td>OR ACCT 2</td>
<td>Introduction to Financial Accounting (4) AND</td>
<td></td>
</tr>
<tr>
<td>OR ACCT 4</td>
<td>Introduction to Managerial Accounting (4)</td>
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</tr>
<tr>
<td>ACCT 103</td>
<td>PC Accounting</td>
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<tr>
<td>ACCT 104</td>
<td>Payroll Accounting</td>
<td>2</td>
</tr>
<tr>
<td>ACCT 194</td>
<td>Income Tax</td>
<td>3</td>
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<tr>
<td>BUAD 6</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 10*</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 15</td>
<td>Business and Society</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 45*</td>
<td>Human Relations on the Job</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 66*</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>CIS 1</td>
<td>Computer Literacy Workshop</td>
<td>3</td>
</tr>
<tr>
<td>CIS 20</td>
<td>Access for Windows-I (1) OR</td>
<td>1-3</td>
</tr>
<tr>
<td>CIS 23</td>
<td>Fundamentals of SQL (3)</td>
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<tr>
<td>OAS 10</td>
<td>Excel for Windows I</td>
<td>1</td>
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<tr>
<td>OAS 11</td>
<td>Excel for Windows II</td>
<td>1</td>
</tr>
<tr>
<td>OAS 51</td>
<td>Introduction to Keyboarding and Word</td>
<td>3</td>
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<tr>
<td>OAS 64</td>
<td>Computerized Ten-Key</td>
<td>0.5</td>
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</table>

*May be used to fulfill General Education requirements. See a counselor.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>Major</td>
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<td>Additional General Education</td>
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<td>General Electives</td>
<td>3.5 – 7.5</td>
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<td>Degree Total</td>
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*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.
**Degree Total** 60*

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

---

### Computer and Information Systems – Cisco Networking

#### Certificate:

SC Program: CL.3441

**PROGRAM DESCRIPTION:** This certificate program is awarded to students who have successfully completed the Introduction to Computer Science course and the CCNA sequence of courses. Students learn entry level networking skills that will help prepare them for a career in the Information Technology (IT) field. The program prepares students to take the Cisco CCNA certification exam.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of this certificate, the student should be able to:

1. Demonstrate competence in the area of Cisco Networking. To demonstrate competence in this area the student will be able to:
   - Demonstrate knowledge of Cisco Networking concepts
   - Construct and troubleshoot networks using Cisco IOS
   - Configure and manage Cisco devices

2. Given a set of requirements design, develop, and debug a computer program that satisfies the requirements.

3. Demonstrate competence using office software including database, spreadsheet, and word processing.

4. Given a set of requirements design and build a web page that meets the requirements.

5. Build and troubleshoot a computer network involving three computers, an ethernet switch, and IP addressing.

**DEGREE REQUIREMENTS:**

**CORE COURSES:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 66</td>
<td>HTML 3</td>
</tr>
<tr>
<td>CIS 92</td>
<td>Computer Security 3</td>
</tr>
<tr>
<td>OAS 10</td>
<td>Excel for Windows – 1 1</td>
</tr>
</tbody>
</table>

*May be used to fulfill General Education requirements. See a counselor.

**ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:**

<table>
<thead>
<tr>
<th>Major</th>
<th>41</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional General Education</td>
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<tr>
<td>General Electives</td>
<td>4</td>
</tr>
<tr>
<td><strong>Degree Total</strong></td>
<td>60*</td>
</tr>
</tbody>
</table>

---

**TOTAL UNITS FOR CERTIFICATE** 16
Demonstrate competence in the area of Microsoft Networking.

Demonstrate competence in the area of human relations and interpersonal skills.

Demonstrate competence in the area of basic electronics.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. Demonstrate competence in the area of Cisco Networking. To demonstrate competence in this area the student will be able to build networks with the following features: three computers on a LAN using a switch; a router with passwords, interfaces, routing protocol configured; a switch with two VLANs and STP protocol; PPP encapsulation and PAP/CHAP authentication protocols between two routers connected with a serial link.

2. Demonstrate competence in the area of A+ computer maintenance. To demonstrate competence in this area the student will be able to: accurately identify and explain the function of the CPU, harddrive, RAM, CDROM drive, and video card of a PC.

3. Demonstrate competence in the area of Microsoft Networking. To demonstrate competence in this area the student will be able to: Install Windows Seven Professional; to Manage Users, Computers, and Groups in Windows 2008 Server; to Implement, Manage and Maintain Name Resolution; to Plan and Implement Server Roles and Server Security; to Plan and Implement an Active Directory Infrastructure; to Create the Logical Design for an Active Directory Infrastructure; to Create the Logical Design for Network Infrastructure Security.

4. Demonstrate competence in the area of human relations and presentation skills. To demonstrate competence in these areas the student will effectively work with other students in a team setting and effectively present a team network design project to a design review committee consisting of other students.

5. Demonstrate competence in the area of web page design and development. To demonstrate competence in these areas the student will develop and publish a 3-page web site to a server. The site must include the following elements: (1) appropriate overall design elements; (2) working hyperlinks among pages, to an outside site(s), and to an e-mail address; (3) a table; and (4) a form.

6. Demonstrate competence in the area of basic electronics. To demonstrate competence in this area the student will accurately test electronic components such as LED, 7Segment display, pushbutton, speaker and photo sensor, and correctly build circuits with the electronic components and program a microcontroller to manipulate the built circuits.

DEGREE REQUIREMENTS:

CORE COURSES:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUAD 41*</td>
<td>Leadership and Supervision</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 45 *</td>
<td>Human Relations on the Job</td>
<td>3</td>
</tr>
<tr>
<td>CIS 2 *</td>
<td>Introduction to Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CIS 23</td>
<td>Fundamentals of SQL</td>
<td>3</td>
</tr>
<tr>
<td>CIS 31</td>
<td>Cisco CCNA 1</td>
<td>3</td>
</tr>
<tr>
<td>CIS 32</td>
<td>Cisco CCNA 2</td>
<td>3</td>
</tr>
<tr>
<td>CIS 33</td>
<td>Cisco CCNA 3</td>
<td>3</td>
</tr>
<tr>
<td>CIS 34</td>
<td>Cisco CCNA 4</td>
<td>3</td>
</tr>
<tr>
<td>CIS 50</td>
<td>Windows 8 – Configuration</td>
<td>1</td>
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<tr>
<td>CIS 51</td>
<td>Managing and Maintaining Windows 8</td>
<td>1</td>
</tr>
<tr>
<td>CIS 52</td>
<td>Install and Configure Server 2012</td>
<td>1</td>
</tr>
<tr>
<td>CIS 53</td>
<td>Administering Server 2012</td>
<td>1</td>
</tr>
<tr>
<td>CIS 54</td>
<td>Configure Advanced Server 2012 Server</td>
<td>1</td>
</tr>
<tr>
<td>CIS 55</td>
<td>Exchange Server 2010, Configuring</td>
<td>1</td>
</tr>
<tr>
<td>CIS 72</td>
<td>Fundamentals of Linux</td>
<td>3</td>
</tr>
<tr>
<td>CIS 90</td>
<td>A+ Certification Prep/Cisco IT Essentials I</td>
<td>4</td>
</tr>
<tr>
<td>CIS 92</td>
<td>Computer Security</td>
<td>3</td>
</tr>
<tr>
<td>INDE 138</td>
<td>Fundamentals of Electronics</td>
<td>3</td>
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</table>

*May be used to fulfill General Education requirements. See a counselor.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Type</th>
<th>Units</th>
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<tr>
<td>Major</td>
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<tr>
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<td>62*</td>
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</table>

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

CIS – Network Administration Certificate:

PROGRAM DESCRIPTION: This certificate program is very similar to the CIS degree program with the CCNA option. The primary difference is that the general education classes are not required as part of the certificate program. In addition the elective courses for the degree program are not required in the certificate program. These omissions will result in a narrower skill set for completers of this program versus the CIS degree program. However, the essential skills to prepare students for a career in the IT field as a computer and network technician are still taught as part of this program.

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. Demonstrate competence in the area of Cisco Networking. To demonstrate competence in this area the student will be able to build networks with the following features: three computers on a LAN using a switch; a router with passwords, interfaces, routing protocol configured; a switch with two VLANs and STP protocol; PPP encapsulation and PAP/CHAP authentication protocols between two routers connected with a serial link.

Continued on next page...
Chapter 5 – Degrees and Certificates

CIS – Network Administration Certificate
Program Learning Outcomes (continued):

2. Demonstrate competence in the area of A+ computer maintenance. To demonstrate competence in this area the student will be able to: accurately identify and explain the function of the CPU, harddrive, RAM, CDROM drive, and video card of a PC.

3. Demonstrate competence in the area of Microsoft Networking. To demonstrate competence in this area the student will be able to: Install Windows Seven Professional; to Manage Users, Computers and Groups in Windows 2008 Server; to Implement, Manage and Maintain Name Resolution; to Plan and Implement Server Roles and Server Security; to Plan and Implement an Active Directory Infrastructure; to Create the Logical Design for an Active Directory Infrastructure; to Create the Logical Design for Network Infrastructure Security.

4. Demonstrate competence in the area of web page design and development. To demonstrate competence in these areas the student will develop and publish a 3-page web site to a server. The site must include the following elements: (1) appropriate overall design elements; (2) working hyperlinks among pages, to an outside site(s), and to an e-mail address; (3) a table; and (4) a form.

5. Demonstrate competence in the area of basic electronics. To demonstrate competence in this area the student will accurately test electronic components such as LED, 7Segment display, pushbutton, speaker and photo sensor, and correctly build circuits with the electronic components and program a microcontroller to manipulate the built circuits.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_cis_gainful_employment/.

CERTIFICATE REQUIREMENTS:

<table>
<thead>
<tr>
<th>SC Program:  CL.3115</th>
<th>Certificate:</th>
<th>Windows Server</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 2 Introduction to Computer Science</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CIS 31 Cisco CCNA 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CIS 32 Cisco CCNA 2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CIS 33 Cisco CCNA 3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CIS 34 Cisco CCNA 4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CIS 50 Windows 8 – Configuration</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CIS 51 Managing and Maintaining Windows 8</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CIS 52 Install and Configure Server 2012</td>
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<tr>
<td>CIS 53 Administering Server 2012</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CIS 54 Configure Advanced Server 2012 Server</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CIS 55 Exchange Server 2010, Configuring</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CIS 90 A+ Certification Prep/Cisco IT Essentials I</td>
<td>4</td>
<td></td>
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<tr>
<td>CIS 92 Computer Safety</td>
<td>3</td>
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<tr>
<td>INDE 138 Fundamentals of Electronics</td>
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<tr>
<td><strong>TOTAL UNITS FOR CERTIFICATE</strong></td>
<td><strong>35</strong></td>
<td><strong>17</strong></td>
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</tbody>
</table>

Computer and Information Systems – Web Design

Certificate:

SC Program:  CL.3115

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

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:

1. Plan an effective Windows Server Active Directory deployment.

CERTIFICATE REQUIREMENTS:

<table>
<thead>
<tr>
<th>SC Program:  CL.3444</th>
<th>Certificate:</th>
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<td>BUAD 45 Human Relations</td>
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<td>CIS 2 Introduction to Computer Science</td>
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<td></td>
</tr>
<tr>
<td>CIS 31 Cisco CCNA 1</td>
<td>3</td>
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<td>CIS 32 Cisco CCNA 2</td>
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<td>CIS 34 Cisco CCNA 4</td>
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</tr>
<tr>
<td>CIS 50 Windows 8 – Configuration</td>
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<tr>
<td>CIS 51 Managing and Maintaining Windows 8</td>
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<td>CIS 52 Install and Configure Server 2012</td>
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<tr>
<td>CIS 54 Configure Advanced Server 2012 Server</td>
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<td></td>
</tr>
<tr>
<td>CIS 55 Exchange Server 2010, Configuring</td>
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</tr>
<tr>
<td>CIS 90 A+ Certification Prep/Cisco IT Essentials I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CIS 92 Computer Safety</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>INDE 138 Fundamentals of Electronics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL UNITS FOR CERTIFICATE</strong></td>
<td><strong>13</strong></td>
<td><strong>17</strong></td>
</tr>
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</table>
Computer Maintenance
Certificate:
SC Program: CL.3429

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

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor's Office; therefore, completion of the certificate will not be listed on the student's transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Identify and troubleshoot common problems with computer parts and how to solve the associated problems.
2. Describe the different types of memory, how each operate and installation procedure.
3. Install a Microsoft operating system and configure the computer as a typical workstation.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_cis_gainful_employment/.

CERTIFICATE REQUIREMENTS:
BUAD 45 Human Relations on the Job 3
CIS 2 Introduction to Computer Science 4
CIS 31 Cisco CCNA 1 3
CIS 90 A+ Certification Prep/Cisco IT Essentials I 4
INDE 138 Fundamentals of Electronics 3

TOTAL UNITS FOR CERTIFICATE 17

Construction Technology
Associate in Science:
SC Program: AS.1165

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

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Explain and demonstrate the use of appropriate personal protective equipment.
2. Identify other construction hazards on your job site, including hazardous material exposures, environmental elements, welding and cutting hazards, confined spaces, and fires.
3. Perform construction math with and without a calculator including adding, subtraction, multiply and divide whole numbers, fractions, percentages as well as decimals in the field.
4. Identify power tools commonly used in the construction trades.
5. Recognize relate and identify basic construction drawing terms, components, symbols and different classifications of construction drawings.
6. Calculate the quantities of lumber and wood products using industry-standard methods.

DEGREE REQUIREMENTS:

<table>
<thead>
<tr>
<th>ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
</tr>
<tr>
<td>Additional General Education</td>
</tr>
<tr>
<td>General Electives</td>
</tr>
<tr>
<td>Degree Total</td>
</tr>
</tbody>
</table>

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Construction Technology
Certificate:
SC Program: CT.3125

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

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Explain and demonstrate the use of appropriate personal protective equipment.
2. Identify other construction hazards on your job site, including hazardous material exposures, environmental elements, welding and cutting hazards, confined spaces, and fires.
3. Perform construction math with and without a calculator including adding, subtraction, multiply and divide whole numbers, fractions, percentages as well as decimals in the field.

Continued on next page...
Construction Technology Certificate (continued):

4. Identify power tools commonly used in the construction trades.
5. Recognize relate and identify basic construction drawing terms, components, symbols and different classifications of construction drawings.
6. Calculate the quantities of lumber and wood products using industry-standard methods.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_cons_gainful_employment/.

CERTIFICATE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CONS 52</td>
<td>Residential Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CONS 54</td>
<td>Survey of the Building Industry</td>
<td>3</td>
</tr>
<tr>
<td>CONS 56</td>
<td>Essentials of Construction</td>
<td>3</td>
</tr>
<tr>
<td>CONS 84</td>
<td>Analysis of Construction Drawings/Specs</td>
<td>3</td>
</tr>
<tr>
<td>CONS 160</td>
<td>Carpentry Practices</td>
<td>5</td>
</tr>
<tr>
<td>CONS 161</td>
<td>Electrical, Plumbing and Mechanical Systems</td>
<td>5</td>
</tr>
<tr>
<td>CONS 178</td>
<td>Building Codes and Standards</td>
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<tr>
<td>MATH 100</td>
<td>Technical Applications of Mathematics</td>
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</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE 28

Customer Service Academy Certificate:

SC Program: CL.3133

PROGRAM DESCRIPTION: The Customer Service Academy will equip you with the ability to manage or improve workplace issues that, if addressed, will lead to improved business productivity. The topics range from conflict resolution to team-building to communicating with people (both employees and customers). This is a short list of the ten (10) topics included in the academy. You can register for one or all of the academy topics, depending on the challenging issues you face either personally or professionally. Each course topic requires 9 hours of study and awards .5 units of elective academic credit.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

1. Students must have a high school diploma or its equivalent.
2. The “Prerequisite Science” courses listed below must be completed in a minimum science 2.5 GPA.
3. Prerequisites must be completed upon application. No in-progress courses will be accepted.
4. The “Prerequisite Science” courses listed below must be completed with a grade of C or higher in each course and a minimum science 2.5 GPA.
5. Students must meet all the following requirements for application:
   1. Students must have a high school diploma or its equivalent.
   2. The “Prerequisite Science” courses listed below must be completed with a grade of C or higher in each course and a minimum science 2.5 GPA.
   3. Prerequisites must be completed upon application. No in-progress courses will be accepted.

Continued on next page…
Dental Hygiene A.S. Degree (continued):

PREREQUISITE COURSES:

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

*May be used to fulfill General Education requirements.

** ONLY if completed with a grade of C or higher during or prior to Spring 2014.

TOTAL PREREQUISITE UNITS 41

HEALTH & SAFETY CLINICAL CLEARANCE:

Upon acceptance for enrollment, students must meet additional clinical requirements. All students participating in clinical experiences must submit proof of immunity of specific immunizations or serum titers, cleared criminal background check, negative drug screen, current physical examination and negative TB screening, and provide current valid Basic Life Support-Health Care Provider card (CPR) which includes adult, child & infant resuscitation with two person rescue and AED training. Students are financially responsible for meeting these requirements according to established program rescue and AED training). Students are financially responsible for meeting these requirements according to established program process. Specific information is available on the Health and Safety Requirements tab on the website or students may call the Division Office (530-339-3600).

GRADUATION REQUIREMENTS:

Students must graduate from the Dental Hygiene Program to be eligible to take the state licensing examination. Due to the time commitments of the program, it is strongly recommended that students complete the following additional requirements for graduation before beginning dental hygiene courses:

- Completion of the Humanities requirement.
- Completion of competence in mathematics. MATH 102 Intermediate Algebra or MATH 110 Essential Math are the advised courses for meeting this requirement.
- Completion of the multi-cultural awareness requirement.
- Completion of computer literacy.

DEGREE REQUIREMENTS:

Students must be enrolled in the Dental Hygiene Program in order to take the courses listed below. Students must show competence in all semester courses (with a grade of C or better) in order to progress through the curriculum. A failing grade in any theory or clinical course within a semester will require withdrawal or result in failure from the program.

CORE COURSES:

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

TOTAL MAJOR UNITS: 56

*May be used to fulfill General Education requirements.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

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*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Diesel Technology

Associate in Science:

SC Program: AS.1175

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

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. With an emphasis on general education, explain the basic theory of the subject matter or system for the course of instruction based on industry standards.
2. With an emphasis on general education, analyze a scenario based upon an equipment system failure / problem / complaint.
3. With an emphasis on general education, employ a systematic approach to troubleshooting a system malfunction and prepare a solution.
4. With an emphasis on general education, demonstrate the correct tools/supplies required to diagnose/repair a malfunction.
5. With an emphasis on general education, verify if the path of repair was correct by testing and/or completing a work order/report.

Continued on next page…
Chapter 5 – Degrees and Certificates

Diesel Technology A.S. Degree (continued):

**DEGREE REQUIREMENTS:**

**CORE COURSES:**
- DIES 48 Hydraulics 3.5
- DIES 49 Advanced Hydraulics 3
- DIES 94 Worksite Learning For Diesel Technology 1
- DIES 160 Diesel Engine Electronic Control 4
- DIES 161 Diesel Technology Field Training 2
- DIES 162 Heavy Duty Power Train 4
- DIES 164 Diesel Performance Analysis 4
- DIES 166 Diesel Engines 6
- DIES 170 Heavy Duty Braking Systems 4
- ENGL 1A* College Composition 4
- INDE 1 Career Planning for Industrial Tech. 1
- MATH 110* Essential Math 3
- WELD 70 Beginning Welding 3
- WELD 73, 170, 171, 174, 175 or 178 3

*May be used to fulfill General Education requirements. See a counselor.

**ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:**

<table>
<thead>
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<th>Requirement</th>
<th>Units</th>
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*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

**CERTIFICATE REQUIREMENTS:**

- DIES 48 Hydraulics 3.5
- DIES 49 Advanced Hydraulics 3
- DIES 94 Worksite Learning For Diesel Technology 1-4
- DIES 160 Diesel Engine Electronic Control 4
- DIES 161* Diesel Technology Field Training 2
- DIES 162 Heavy Duty Power Train 4
- DIES 164 Diesel Performance Analysis 4
- DIES 166* Diesel Engines 6
- DIES 170 Heavy Duty Braking Systems 4
- ENGL 190 Reading & Writing II 4
- INDE 1 Career Planning for Industrial Tech. 1
- MATH 100 Technical Applications of Mathematics 3
- WELD 70 Beginning Welding 3
- WELD 73, 170, 171, 174, 175 or 178 3

**TOTAL UNITS FOR CERTIFICATE** 45.5 – 48.5

**Dietary Service Supervisor**

**Certificate:**

SC Program: CL.3431

**Students interested in this certificate should contact the Health Sciences Division Dean at (530) 339-3609.**

**PROGRAM DESCRIPTION:** The Dietary Service Supervisor program is designed to prepare students to work in a supervisory role in the food and nutrition services area of the healthcare industry. Graduates of the Shasta College DSS program can lawfully use the title of Dietary Service Supervisor, as described in CA State Law, Title 22.

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

**PROGRAM LEARNING OUTCOMES:**

1. Identify the location of applicable laws and regulations and determine compliance to regulatory requirements (state and federal). Determine acceptable standards of care in dietary services. Includes but not limited to California Code of Regulations, Title 22; Federal Code of Regulations; Business and Professions Code of Dietitians and Dietetic Technicians, Registered; and Food and Drug Administration Food Code.
2. Identify the role and limitations (no scope of practice) of the Dietary Service Supervisor under law (Title 22) for the Operation of Food Service.
3. Participate with the Registered Dietitian in the timely review and revision of the facility’s policies and procedures to ensure that they are in compliance with regulations and standards of practice. Identify location of Diet Manuals.
4. Assist in the orientation of new employees. Assist in the ongoing, planned staff development of seasoned employees to ensure that they are competent to carry out the functions of the dietary service and trained in approved policies.
5. Assist in the development of Quality Assurance Programs to monitor staff practices for compliance, to determine training needs, and to evaluate resident/patient satisfaction.
6. Assist in the development of planned menu (and disaster menus) to meet the nutritional needs of resident/patients in accordance with the recommended dietary allowances. Ensure that therapeutic menus and standardized recipes are followed, as approved by R.D.

**GAINFUL EMPLOYMENT INFORMATION:** For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_dies_gainful_employment/.

Continued on next page…
**DEGREE REQUIREMENTS:**

<table>
<thead>
<tr>
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<th>Units</th>
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<td>ECE 1 *</td>
<td>Human Development <strong>OR</strong></td>
<td>3</td>
</tr>
<tr>
<td>ECE 9 *</td>
<td>Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(ECE 9 is recommended for students planning to transfer to a 4-year program for a degree in Early Childhood Education or Child Development)</td>
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**REQUIREMENTS FOR CERTIFICATE:**

<table>
<thead>
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<tr>
<td>CULA 50</td>
<td>Sanitation and Safety</td>
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<tr>
<td>DSS 10</td>
<td>Food Production Management</td>
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<td>DSS 63</td>
<td>DSS Operations and Management</td>
<td>3</td>
</tr>
<tr>
<td>DSS 94</td>
<td>DSS Certificate Worksite Learning</td>
<td>3</td>
</tr>
<tr>
<td>FSS 25</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>FSS 27</td>
<td>Nutrition and Disease</td>
<td>2</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE** 16

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**Early Childhood Education**

**Associate in Science:**

SC Program: A.S.1190

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

The Shasta College Early Childhood Education Program is participating in a statewide Curriculum Alignment Project between California Community Colleges and participating CSU and UC systems. A twenty-four unit core of eight specific Early Childhood Education courses will articulate with participating four year degree programs in Child Development and Early Childhood Education.

There are a minimum of 44 units in the major required for the Associate Science Degree in Early Childhood Education. Students need to complete core-required courses (38 units) and an additional 6 units of restricted elective courses. Twenty-one (21) General Education units will complete the Associate of Science degree in Early Childhood Education. All courses applied to the ECE A.S. Degree must be completed with a “C” grade or better.

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This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of this degree, the student should be able to:

1. Apply an understanding of principles of child development in planning inclusive and developmentally appropriate curriculum and environments.
2. Exhibit skill in observation and documentation as a vehicle for child and program assessment and curriculum design.
3. Create environments that are healthy, respectful and supportive to children and their families.
4. Utilize positive guidance of young children based on an understanding of cognitive, physical, and social and emotional development of children.
5. Identify professional standards and expectations as based upon NA EYC’S Code of Ethical Conduct.
6. Discuss current trends and issues in the field of Early Childhood Education.
7. Perform common tasks online and access resources and information in regard to current best practices in early education.
8. Identify and exhibit the ability to interact successfully with children and adults from an ever changing society.

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**Dietary Service Supervisor Certificate**

**Program Learning Outcomes (continued):**

7. Ensure that food is served by methods that conserve nutritive value, flavor and appearance. Ensure that food is prepared in a form designed to meet individual needs and substitutions are of similar nutritive value.

8. Ensure that residents/patients receive and consume foods in the appropriate form as prescribed by the physician who is lawfully authorized to prescribe. Ensure that there is accommodation of food preferences, maintenance of current profile cards are maintained, and provide assistive devices as needed.

9. Ensure that food is stored, prepared, distributed, and served under sanitary conditions to prevent food borne illness. This includes the sanitation oversight of areas assigned to other departments such as the cleaning & sanitizing of internal components of the ice machine & nurse pantry refrigerators, trash disposal systems.

10. Ensure that the department runs smoothly (including the food ordering and storage according to applicable state requirements), staffing schedules, employee health, labor relations, safety programs and other duties as assigned by administration.

**GAINFUL EMPLOYMENT INFORMATION:** For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at www.shastacollege.edu/specs_dss_ga_fnalemployment.

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In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
Early Childhood Education A.S. Degree (continued):

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

INFANT/TODDLER TEACHING SPECIALIZATION

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<td>Infant-Toddler Learning</td>
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<tr>
<td>ECE 22</td>
<td>E.C. Curriculum: Infant/Toddler Care</td>
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SCHOOL-AGE TEACHING SPECIALIZATION

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<tbody>
<tr>
<td>ECE 14</td>
<td>School-Age and Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE 24</td>
<td>E.C. Curriculum: School-Age Care</td>
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SPECIAL NEEDS IN EARLY CHILDHOOD EDUCATION/EARLY INTERVENTION SPECIALIZATION

<table>
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<th>Course Code</th>
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<tr>
<td>ECE 26</td>
<td>The Child with Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>ECE 27</td>
<td>Teaching Children with Special Needs</td>
<td>3</td>
</tr>
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*May be used to fulfill General Education requirements.

**ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS**

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<td>60*</td>
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*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Early Childhood Education Certificate:

SC Program: CT.3451

**PROGRAM DESCRIPTION:** The Early Childhood Education Certificate will offer students initial training to work with young children. After completion of the 26-unit certificate requirements, the student will qualify for employment as an entry-level teacher in private child care settings licensed through the Department of Social Services. The Early Childhood Education Certificate course work also meets the training requirements for the Child Development Associate Teacher Permit issued by the California Commission on Teacher Credentialing. All certificate requirements must be completed with a “C” grade or better.

This 26 unit certificate is intended to fulfill the ECE requirement of a lower-division program of study that can transfer to the CSU system. With additional coursework, both at lower-division and upper-division levels, it prepares the student for in-depth coursework toward higher degree attainment. When the 26-unit certificate is combined with 16 General Education units, it qualifies the student for a Child Development Permit issued by the Office of Teacher Credentialing, at the Teacher level.

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and **filing an application for graduation with Admissions and Records**, the student’s transcript will reflect completion of this certificate.

**GAINFUL EMPLOYMENT INFORMATION:** For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at www.shastacollege.edu/specs_ece_ececert_gainfulemployment/.

**PRESENT EMPLOYMENT INFORMATION:**

- ECE 2 Child, Family, Community 3
- ECE 7 Early Childhood Observation and Assessment 3
- ECE 8 Teaching Practicum for Young Children 5
- ECE 9 Child, Growth and Development 3
- ECE 15 Child Health, Safety and Nutrition 3
- ECE 17 Principles/Practices of Teaching Young Children 3
- ECE 20 Introduction to Curriculum 3
- ECE 28 Teaching in a Diverse Society 3

**TOTAL UNITS FOR CERTIFICATE** 26

Early Childhood Education – Family Childcare Certificate:

SC Program: CL.3154

**PROGRAM DESCRIPTION:** The Early Childhood Education Family Childcare Certificate offers students initial training for employment as a family childcare provider. After completion of the 17-unit certification program, the student will be prepared to seek a family childcare provider position or family childcare licensure (assuming ability to pass Community Care Licensing [Social Services Dept.] requirements related to physical site).

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and **application for completion of the certificate to Admissions and Records**, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of the certificate, the student should be able to:

1. Apply principles of child development in planning inclusive and developmentally appropriate curriculum and environments.

Continued on next page...
Family Studies

Associate in Science:

SC Program: AS.1225

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

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. Identify the impact of the context (historical, cultural, societal, and/or familial) on individuals as they develop, as well as the reciprocal influences, and apply this understanding when analyzing human behavior.
2. Integrate the perspectives of continuity and change, multidirectional pathways, and resiliency when evaluating the process of personal and interpersonal development throughout the lifespan.
3. Identify crucial elements of various systems perspectives and apply these concepts in the analysis of specific situations.
4. Reflect a critical awareness of current issues and valid scientific research in the field of Family Studies/Human Services.
5. Create a comprehensive action plan that reflects both personal and interpersonal effectiveness within the physical, mental, financial and psychosocial domains.
6. Differentiate between personal values and professional guidelines/ethics established within the field of Human Services.
7. Complete at least one semester of guided, practical experience in the workplace that integrates classroom experience with professional training.

DEGREE REQUIREMENTS:

The student must complete the Core Courses listed below, required General Education, and electives to total 60 units to complete the A.S. Degree requirements. Some major courses may be double counted toward the General Education unit requirement. Students planning to transfer to a Social Work Baccalaureate Program should consider utilizing available General Education units and elective units to complete the specific lower division requirements of the transfer school of their choice. It is imperative to consult the catalog of that institution.

Continued on next page…
**Firefighter 1 Certificate:**

**SC Program: CT.3444**

**PROGRAM DESCRIPTION:** Firefighter 1 includes everything necessary to: learn the essential skills, obtain the required knowledge and abilities to perform at the entry level in a volunteer or paid fire department as a firefighter in the State of California. This Academy adheres to the curriculum as required by the California State Fire Marshal’s Office (CAL-FIRE) for certification by their office as a “Certified Firefighter 1”. Certification is obtained only after successful completion of the Firefighter 1 Academy, and a minimum of six months full time employment with an organized, paid fire department, or twelve months of part time employment with an organized volunteer fire department. Upon successful completion of the Academy and the required work time, the Chief of the department in which the student works verifies successful work completion and the student makes application for their California State Firefighter 1 Certificate.

The Firefighter 1 Academy is an intense program including rigorous physical conditioning, English designed for firefighters as well as classroom and field training with the same tools and appliances used by the fire service. During the later portion of the academy students earn a State Fire Marshal Certificate for “Fire Control Three” as part of their Live Fire Training. The course also includes Emergency Medical Responder in which the students earn certification from the California Emergency Medical Authority.

**Note:** No college in California certifies individuals as Firefighter 1 or Firefighter 2. All certifications are issued by the California State Fire Marshal. However, if students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

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**Family Studies A.S. Degree Core Courses (continued):**

**CORE COURSES:**

- CMST 10*: Interpersonal Communication 3
- ECE 1*: Human Development 3
- ECE 2*: Child, Family and Community 3
- FSS 10: Introduction to Human Services 3
- FSS 12: Standards and Practices in Human Services 3
- FSS 14: Human Services 3
- FSS 16*: Marriage & Family 3
- FSS 18*: Adulthood and Aging 3
- FSS 25*: Nutrition OR 3
- BIOL 5*: Introduction to Human Biology
- FSS 46*: Personal Finance OR 3
- ECON 1A*: Principles of Economics (MICRO) OR 3
- ECON 1B*: Principles of Economics (MACRO)
- FSS 60*: Life Management 3
- FSS 94: Family Studies & Services Worksite Learning 1-4
- PSYC 1A*: General Psychology 3
- PSYC 41*: Cultural/Social Context of Childhood 3
- SOC 1*: Introduction to Sociology 3
- SOC 70*: Social Work 3

*May be used to fulfill General Education requirements. See a counselor.

**ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:**

- Major 46-49
- Additional General Education 9
- General Electives 2-5
- Degree Total 60*

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

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**ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:**

- Major 37
- Additional General Education 12
- General Electives 11
- Degree Total 60*

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**DEGREE REQUIREMENTS:**

**CORE COURSES:**

- BIOL 5*: Introduction to Human Biology 3
- CMST*: CMST 10, 20, 54 or 60 3
- FAID 175: EMT IA Basic 5
- FIRS 70: Fire Protection Organization 3
- FIRS 71: Fire Behavior and Combustion 3
- FIRS 72: Fire Prevention Technology 3
- FIRS 74: Fire Protection Equipment and Systems 3
- FIRS 79: Fundamentals of Personal Fire Safety 3
- FIRS 85: Fire Command IA 2
- FIRS 86: Building Construction for Fire Protection 3
- FIRS 101: Career Placement 1
- FIRS 189: Fire Investigation I 2
- FSS 25*: Nutrition 3

*May be used to fulfill General Education requirements.
Firefighter 1 Certificate (continued):

This certificate is approved through the California Community College Chancellor's Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this certificate.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:

1. Demonstrate the basic knowledge, skills and abilities to safely perform the tasks required to become an entry level firefighter.

CERTIFICATE REQUIREMENTS:
FIRS 104 Firefighter I Academy 21

TOTAL UNITS FOR CERTIFICATE 21

Students wishing to apply for California State Fire Marshal's Office Firefighter I or II certification must meet the following criteria:

- Complete the required coursework as outlined by the State Fire Marshal's Office.
- Work a minimum of either six months as a paid full-time firefighter or 12 months as a volunteer.
- A recommendation and signature on appropriate form from the Fire Chief of the department that a student works for or volunteers at is a mandatory requirement.

Note: No college in California certifies individuals as Firefighter 1 or Firefighter 2. All certifications are approved by the California State Fire Marshal's Office.

Firefighter 2 Certificate:

SC Program: CT.3445

PROGRAM DESCRIPTION: The Firefighter 2 certification entails advanced knowledge, skills and abilities gained only after the completion of the Firefighter 1 Academy and the required employment interval with an organized volunteer or paid fire department in the state of California. These advanced skills, knowledge and abilities are presented during the Firefighter 2 academy at Shasta College. The successful completion of this Firefighter 2 academy allows the student to operate at a "journeyman level" as a firefighter.

Note: No college in California certifies individuals as Firefighter 1 or Firefighter 2. All certifications are issued by the California State Fire Marshal's Office.

This certificate is approved through the California Community College Chancellor's Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this certificate.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:

1. Demonstrate advanced knowledge, skills and abilities to safely perform the tasks required to become an advanced firefighter.

CERTIFICATE REQUIREMENTS:
FIRS 104 Firefighter I Academy 21
FIRS 108 Firefighter II Academy 5

TOTAL UNITS FOR CERTIFICATE 26

Students wishing to apply for California State Fire Marshal's Office Firefighter I or II certification must meet the following criteria:

- Complete the required coursework as outlined by the State Fire Marshal's Office.
- Work a minimum of either six months as a paid full-time firefighter or 12 months as a volunteer.
- A recommendation and signature on appropriate form from the Fire Chief of the department that a student works for or volunteers at is a mandatory requirement.

Note: No college in California certifies individuals as Firefighter 1 or Firefighter 2. All certifications are approved by the California State Fire Marshal's Office.

Fire Technology – Wildland Firefighter 1 Academy

Certificate:

SC Program: CL.3434

PROGRAM DESCRIPTION: Students completing this certificate will have the basic firefighting training as required by the U.S. Forest Service and California Department of Forestry for seasonal or permanent employment in fire fighting. This Academy provides the students with all the required knowledge, skills and abilities as required and dictated by the United States Forest Service (USFS) and the California Department of Forestry and Fire Protection (CDF or Cal-Fire) for a certificate required by those two wildland fire agencies for seasonal wildland firefighter employment. The focus of this academy is wildland fire control and safety in the wildland fire environment. Students who successfully complete this academy obtain the very basic skills, knowledge, and abilities to perform at the entry level as a wildland firefighter. More advanced wildland courses are contained in the Shasta College Course Catalog. Both the State and Federal wildland Fire Agencies provide their own more advance training once employment is obtained. Note; Successful completion of the Wildland Firefighter 1 Academy does not assure employment with the USFS or CALFIRE.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:

1. Demonstrate the basic knowledge, skills and abilities to safely perform the tasks required by the United States Forest Service and the California Department of Forestry and Fire Protection (CAL Fire) as an entry level wildland firefighter.

CERTIFICATE REQUIREMENTS:
FIRS 73 Wildland Firefighter I Academy 4

TOTAL UNITS FOR CERTIFICATE 4

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
Hospitality – Baking – Culinary Arts Emphasis
Certificate:

SC Program: CL.3245

PROGRAM DESCRIPTION: This certificate provides a foundation in business mathematics, safety and sanitation principles and practices for personal and institutional application, and fundamental baking skills for students who intend to specialize in baking and pastry making for commercial production. Production of yeast and quick breads, cakes, cookies, pies, and pastries, as well as decorating and icings are undertaken. This certificate provides a base for students interested in basic baking techniques and who are also interested in moving forward with additional skills in the Culinary Arts field.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Explain and apply sanitation guidelines related to food handling.
2. Problem-solve recipe calculations associated with baked goods and pastry production.
3. Define and describe classic cooking terminology associated with baking.
4. Demonstrate health and safety and hand tool usage.
5. Demonstrate usage of a calculator to determine accurate recipe costing of baked goods.

CERTIFICATE REQUIREMENTS:
BUAD 106 Business Math or Math Placement Level 3 or higher 3
CULA 50 Safety and Sanitation 2
CULA 172 Baking 2

TOTAL UNITS FOR CERTIFICATE 6

Hospitality – Bartender – Culinary Arts Emphasis
Certificate:

SC Program: CL.3246

PROGRAM DESCRIPTION: Students completing this certificate will be able to apply safety and sanitation principles and practices for a beverage operation, describe service skills for wine, beer, and spirits products, and identify wines from the wine districts of California, France, Germany, and Italy. This certification will provide knowledge and skills for hose entering a new position and for those interested in sharpening their skills in a current position. Limitation on enrollment: Students must be 21 years of age or older to complete this certificate.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Describe commonly used beverages and their recipes used in the hospitality industry.
2. Define the differences between spirits, wines, fortified wines, and liquors.
3. Describe the winemaking and beer-making process.
4. List and describe the major winemaking regions of the United States and Europe.
5. Explain and apply sanitation guidelines related to beverage handling in an hospitality organization.

CERTIFICATE REQUIREMENTS:
BUAD 106 Business Math or Math Placement Level 3 or higher 3
CULA 50 Safety and Sanitation 2
CULA 60 Beverage Management 2
CULA 73 Introduction to Wine 2

TOTAL UNITS FOR CERTIFICATE 12 – 15

Hospitality – Dining Room Management – Culinary Arts Emphasis
Certificate:

SC Program: CL.3248

PROGRAM DESCRIPTION: This certificate provides a foundation for students interested in entry level dining room management. In addition to an overview of the hospitality industry, areas of focus will include legal aspects of hospitality operations, principles of safety and sanitation, skills for delivery of effective service in a dining room environment, theory of wine sales and service, and business mathematics.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Describe the flow of service between a dining room and kitchen in a restaurant environment.
2. Assess staffing needs based upon levels of projected business.
3. Illustrate safety and sanitation practices in food and beverage handling.
4. Describe wine sales and service techniques in a dining room.
5. Plan an effective dining room layout design for staffing and service.

CERTIFICATE REQUIREMENTS:
BUAD 106 Business Math or Math Placement Level 3 or higher 3
CULA 50 Safety and Sanitation 2
CULA 65 Dining Room Service 3
CULA 73 Introduction to Wine 2
HOSP 10 Introduction to Hospitality 3
HOSP 45 Restaurants, Hotels, and Lawful Management 2

TOTAL UNITS FOR CERTIFICATE 6
Hospitality – Dining Room Staff – Culinary Arts Emphasis

Certificate:

SC Program: CL.3249

PROGRAM DESCRIPTION: Students completing this certificate will have practiced and demonstrated basic skills for front-of-the-house service in a live food and beverage operation. Additionally, students will apply principles of safety and sanitation and business mathematics. This certificate provides skills necessary for an entry-level food service position.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Illustrate safety and sanitation practices in food and beverage handling.
2. Describe the flow of service between a dining room and kitchen in a restaurant.
3. Plan an effective dining room layout design for staffing and service.
4. Assess staffing needs based upon levels of projected business.
5. Describe the sequence of service associated with exemplary dining room service.

CERTIFICATE REQUIREMENTS:
- BUAD 106 Business Math or Math Placement Level 3 or higher 3
- CULA 50 Safety and Sanitation 2
- CULA 65 Dining Room Service 3

TOTAL UNITS FOR CERTIFICATE 5 – 8

Hospitality – Line Cook – Culinary Arts Emphasis

Certificate:

SC Program: CL.3251

PROGRAM DESCRIPTION: This certification prepares a student with the basic skills to be a line cook in a food operation. Students will recognize the importance of safety and sanitation, prepare food, demonstrate plate presentations, use weights and measures, and interpret recipes.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Explain and apply sanitation guidelines related to food handling.
2. Demonstrate station organization, purchasing, storage, menu writing, and sanitation principles.
3. Calculate operation budget, various food and labor costs, menu pricing, inventory controls, and forecasting.
4. Demonstrate production line management and organization.
5. Identify and apply guidelines for handling of meats, dairy products, fresh produce, and bakery items.

CERTIFICATE REQUIREMENTS:
- CULA 45 Basic Food Production 5
- CULA 46 Advanced Foods 5
- CULA 50 Safety and Sanitation 2
- HOSP 10 Introduction to Hospitality 3

TOTAL UNITS FOR CERTIFICATE 15

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.
Hospitality Management – Culinary Arts Concentration

Associate in Science:

SC Program: AS.1292

PROGRAM DESCRIPTION: With this degree, graduates enter the culinary field well prepared for entry-level employment, many progressing to management positions. Students will apply principles in sanitation and safety, hospitality, basic food production, nutrition, management, advanced cuisine, and gourmet food preparation. Business communications and general education requirements are also required for the degree. Hands-on worksite learning provides the student additional experience in the field.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:

1. Prepare workstations, corresponding to the preparation and presentation of a meal, in a time-restricted quality-minded setting.
2. Prepare large scale quantity items in a time-restricted quality-minded setting.
3. Practice the principles of sanitation and safety procedures.
4. Recognize the types of gourmet foods served in hotels and restaurants and the presentation of these specialties.
5. Demonstrate the principles of the garde-manger section of the kitchen.

DEGREE REQUIREMENTS:

CORE COURSES:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUAD 66</td>
<td>Business Communications</td>
<td>3</td>
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<tr>
<td>CULA 45</td>
<td>Basic Food Production</td>
<td>5</td>
</tr>
<tr>
<td>CULA 46</td>
<td>Advanced Foods</td>
<td>5</td>
</tr>
<tr>
<td>CULA 48</td>
<td>Gourmet Food Preparation</td>
<td>3</td>
</tr>
<tr>
<td>CULA 49</td>
<td>Menu Planning and Cost Analysis</td>
<td>2</td>
</tr>
<tr>
<td>CULA 50</td>
<td>Sanitation and Safety</td>
<td>2</td>
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<tr>
<td>CULA 55</td>
<td>Purchasing</td>
<td>2</td>
</tr>
<tr>
<td>CULA 60</td>
<td>Beverage Management</td>
<td>2</td>
</tr>
<tr>
<td>CULA 65</td>
<td>Dining Room Service</td>
<td>3</td>
</tr>
<tr>
<td>CULA 75</td>
<td>Pastry</td>
<td>2</td>
</tr>
<tr>
<td>CULA 94</td>
<td>Culinary Arts Worksite Learning</td>
<td>1</td>
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<tr>
<td>CULA 159</td>
<td>Stocks, Soups, Sauces &amp; Basic Culinary Prep.</td>
<td>2</td>
</tr>
<tr>
<td>CULA 161</td>
<td>The Art of Garde Manger</td>
<td>2</td>
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<tr>
<td>CULA 172</td>
<td>Baking</td>
<td>2</td>
</tr>
<tr>
<td>FSS 25*</td>
<td>Nutrition</td>
<td>3</td>
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<tr>
<td>HOSP 10</td>
<td>Introduction to the Hospitality Industry</td>
<td>3</td>
</tr>
<tr>
<td>HOSP 65</td>
<td>Hospitality Supervision</td>
<td>3</td>
</tr>
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*May be used to fulfill General Education requirements. See a counselor.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

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</table>

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.
Hospitality Management – Hotel/Restaurant Management Concentration

Associate in Science:

SC Program: AS.1294

PROGRAM DESCRIPTION: The course of study in hospitality management includes instruction in hotel and restaurant operations designed to prepare students for various positions in the hospitality industry. What interests many prospective students in this field of study is the extraordinary range of management jobs available. In addition to operational management, graduates will be able to pursue careers in such areas as personnel, marketing, sales, finance, training, facilities management, conference management, and purchasing. Career progression is often very rapid, with companies offering very good financial and professional development packages in recognition of the major shortage of well qualified management graduates for what is one of the world’s largest and fastest growing industries.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Relate customer expectations to the achievement of financial viability of the organization.
2. Practice appropriate communication skills in operational and human resource management.
3. Evaluate hospitality operations.
4. Apply quality control systems to customer service issues.
5. Apply the appropriate management/supervisory techniques to operational situations.

DEGREE REQUIREMENTS:

CORE COURSES:
- BUAD 66 * Business Communications 3
- BUAD 80 Customer Service 3
- CIS 1 Computer Literacy Workshop 3
- CULA 50 Safety and Sanitation 2
- CULA 55 Purchasing 2

CULA 73 Introduction to Wines OR CULA 66 Wine with Food 2

HOSP 10 Introduction to the Hospitality Industry 3
HOSP 20 Hospitality Operations Management 3
HOSP 35 Computer Applications in the Hosp. Industry 3
HOSP 40 Human Res. Mgmt. in the Hospitality Industry 3
HOSP 45 Restaurants, Hotels, and Lawful Management 2
HOSP 50 Hospitality Marketing, Sales and Advertising 3
HOSP 60 Hospitality and Financial Management 3
HOSP 65 Hospitality Supervision 3
HOSP 94 Hospitality Worksite Learning 1

*May be used to fulfill General Education requirements.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:
- Major 39
- Additional General Education 18
- General Electives 3
- Degree Total 60*

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Hospitality Management – Hotel/Restaurant Management Concentration Certificate:

SC Program: CL.3242

PROGRAM DESCRIPTION: This certificate is designed to prepare students for careers in the hospitality field associated with food and beverage management, lodging, and tourism. Hands-on worksite learning gives the student additional experience in the field.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor's Office; therefore, completion of the certificate will not be listed on the student's transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Define the concept of service and train others to meet and exceed guest expectations, in any hospitality industry environment.
2. Define the main departments within a full-service hotel and their functions, and describe how each department works together to ensure the overall objective is met.
3. Describe computer applications commonly used in the hospitality industry.
4. Describe the nature of, and be able to effectively function in, this dynamic physically demanding environment.
5. Describe motivational techniques that management can employ to improve employee performance in a hospitality operation.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at www.shastacollege.edu/specs_hosp_hotelmanagemcert_gainfulemploy ment.

CERTIFICATE REQUIREMENTS:
- BUAD 80 Principles of Customer Service 3
- HOSP 10 Introduction to the Hospitality Industry 3
- HOSP 20 Hospitality Operations Management 3
- HOSP 35 Computer Applications in the Hosp. Industry 3
- HOSP 40 Human Resource Mgmt. in the Hosp. Industry 3
- HOSP 94 Hospitality Worksite Learning 1

TOTAL UNITS FOR CERTIFICATE 16

Industrial Technology Certificate

Certificate:

SC Program: CL.3430

PROGRAM DESCRIPTION: The Industrial Technology Certificate is designed to provide employable knowledge and skills courses common to various industrial occupations for entry-level employment in diverse industries.

Continued on next page…
Chapter 5 – Degrees and Certificates

Industrial Technology Certificate

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Explain the basic theory of the subject matter or industrial system for the course of instruction based on industry standards.
2. Analyze a scenario based upon an industrial equipment system failure/problem/complaint.
3. Employ a systematic approach to troubleshooting an industrial system malfunction and prepare an effective repair solution.
4. Analyze component failures to determine the root cause of the component failure.
5. Verify if the path of repair was correct by testing and/or completing a work order/report.
6. Demonstrate the correct usage of tools/supplies required to diagnose/repair a malfunction

CERTIFICATE REQUIREMENTS:
DIES 48 Hydraulics 3.5
INDE 101 Industrial Occupation Basics 3
INDE 138 Fundamentals of Electronics and Electricity 3
MATH 100 Technical Applications of Mathematics 3
WELD 70 Beginning Welding 3

TOTAL UNITS FOR CERTIFICATE: 15.5

Life Management

Certificate:
SC Program: CL.3252

PROGRAM DESCRIPTION: This certificate is designed to provide students with the information, perceptions and skills necessary to move toward responsible independence and effective interpersonal relationships. Resources such as time, money and energy will be stressed along with the study of the physical, mental, emotional and social needs of all ages. This curriculum is essential for preparing individuals to balance personal, family and work responsibilities throughout the life cycle.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be capable of balancing personal, family and work responsibilities on a sustainable basis through the use of:
1. A comprehensive model of developmentally appropriate concepts and behavior throughout the lifespan.
2. A personal mission statement for life and set of initial life goals.
3. A theoretical perspective of family.
4. A personal dietary analysis and plan.
5. A personal budgetary analysis and plan.

Music

Associate in Arts:

SC Program: AA.1360

PROGRAM DESCRIPTION: The AA curriculum in Music is designed to provide preparation for either transfer to a CSU or UC as a music major and/or assist in development for a career in music within a variety of music career choices. A few of these career options could be: working in the music industry, music performance, music education, music publishing, musical theater, composition, retail music merchandising, and private music instruction. Additionally the music curriculum creates an opportunity for local amateur and professional musicians to perform within the music department’s music performance ensembles (Choirs, Orchestras, Symphonic Bands, and Jazz Ensembles) and/or to advance their music skills.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Describe major concepts, vocabulary, theoretical perspectives, and creative performance practices of music.
2. Demonstrate ensemble specific performance practices and professional standards of conduct expected of ensemble participants.
3. Perform solo literature with an accompanist (if appropriate) using stylistically accurate rhythm, pitch, diction (or articulation) and musical expression. Included will be performance within formal recital settings.
4. Demonstrate the ability to “audiate” a musical score by sight singing tonal music and performing rhythms.
5. Demonstrate the ability to recognize and analyze patterns and musical function by aurally identifying and transcribing scales, modes, melodies, and harmonic progressions.
6. Demonstrate keyboard proficiency at the level required to perform theoretical concepts studied in music theory courses.

DEGREE REQUIREMENTS:
Students must complete the Core and Restricted Elective courses. In addition, students fulfill the 34-39 unit general education pattern for CSU or IGETC. NOTE: Students planning to transfer to National Association of Schools of Music (NASM) accredited universities to complete a BA degree in Music, in addition to meeting the major requirements shown below, will be required by the transfer institution to show proficiency in the following areas: theory, keyboard skills, vocal skills, music history/appreciation, and applied musicianship.

Continued on next page…
Music A.A. Degree (continued):

CORE COURSES:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>MUS 2</td>
<td>Diatonic Harmony and Musicianship</td>
<td>4</td>
</tr>
<tr>
<td>MUS 3</td>
<td>Advanced Diatonic Harmony and Musicianship</td>
<td>4</td>
</tr>
<tr>
<td>MUS 4</td>
<td>Chromatic Harmony</td>
<td>4</td>
</tr>
<tr>
<td>MUS 5</td>
<td>20th Century Harmony</td>
<td>4</td>
</tr>
<tr>
<td>MUS 10*</td>
<td>Music Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>MUS 48</td>
<td>Applied Music (four semesters, .5 units each)</td>
<td>2</td>
</tr>
<tr>
<td>MUS 61A</td>
<td>Beginning Performance Analysis</td>
<td>.5</td>
</tr>
<tr>
<td>MUS 61B</td>
<td>Intermediate Performance Analysis</td>
<td>.5</td>
</tr>
<tr>
<td>MUS 61C</td>
<td>Advanced Intermediate Performance Analysis</td>
<td>.5</td>
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<td>MUS 61D</td>
<td>Advanced Performance Analysis</td>
<td>.5</td>
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<tr>
<td>MUS 64</td>
<td>Beginning Keyboard Skills</td>
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<td>MUS 65</td>
<td>Intermediate Keyboard Skills</td>
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<td>MUS 66</td>
<td>Advanced-Intermediate Keyboard Skills</td>
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<td>MUS 67</td>
<td>Advanced Keyboard Skills</td>
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RESTRICTED ELECTIVES: (Choose four units) 4

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<tbody>
<tr>
<td>MUS 31</td>
<td>Chamber Choir (1)</td>
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<tr>
<td>MUS 33</td>
<td>Jazz Ensemble (1)</td>
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<tr>
<td>MUS 35</td>
<td>Vocal Jazz Ensemble (1)</td>
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<tr>
<td>MUS 40</td>
<td>Concert Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUS 41</td>
<td>Shasta College Women’s Ensemble (1)</td>
<td></td>
</tr>
<tr>
<td>MUS 42</td>
<td>Shasta College Chorale (1)</td>
<td></td>
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<tr>
<td>MUS 43</td>
<td>Shasta College Symphony Orchestra (1)</td>
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<tr>
<td>MUS 44</td>
<td>Shasta College Youth Symphony (.5-1)</td>
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<tr>
<td>MUS 46</td>
<td>Shasta College Symphonic Band (1)</td>
<td></td>
</tr>
<tr>
<td>MUS 47</td>
<td>Shasta College Jazz Ensemble (1)</td>
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</tr>
</tbody>
</table>

The following courses are not required but are recommended by the Department: MUS 11*, 14*, 25A, 25B, 25C, 25D, 29, and 30.

*May be used to fulfill General Education requirements.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
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<tbody>
<tr>
<td>Major</td>
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<tr>
<td>Additional General Education</td>
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<td>General Electives</td>
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<td><strong>Degree Total</strong></td>
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*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Music

Certificate:

SC Program: CL.3280

PROGRAM DESCRIPTION: The Certificate in Music is designed to provide preparation for development of career employment within a variety of music career choices. A few of these career options could be: working in the music industry, music performance, music publishing, musical theater, composition, and private music instruction. Additionally the music curriculum creates an opportunity for local amateur and professional musicians to perform within the music department’s music performance ensembles (Choirs, Orchestras, Symphonic Bands, and Jazz Ensembles) and/or to advance their music skills.

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

Nurse Aide/Home Health Aide

Certificate:

SC Program: CL.3300

PROGRAM DESCRIPTION: These courses are designed to prepare students to perform the basic nursing skills required in acute hospitals, long-term care facilities, and home health care agencies. Special emphasis is placed on health care provisions and modifications in community health care settings.

These courses are offered to complete one after another within one semester, consisting of eight hours lecture and sixteen hours lab/clinical per week and is worth 12.5 units of college credit. These courses are approved by the State Department of Health Services.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion from Shasta College. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

Continued on next page…
PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate:
1. 90% of students taking the end of program comprehensive written and skills predictor examination will demonstrate competency by a written score of 75% or higher and demonstrate competency on at least three of five randomly selected skills consistent with state certification testing competencies.

REQUIREMENTS FOR ENROLLMENT INTO THE PROGRAM
Space in the program is limited. A new class is enrolled every semester. In order to be eligible to enroll in the NA and HHA courses, the student must complete the clinical requirements for immunizations and CPR certification. Students who have completed the requirements and submitted the appropriate forms will be added to the Wait List based on the date of submission of clinical requirement materials to the Health Sciences office. Students on the Wait List will be offered enrollment on a space available basis and will be contacted by the Health Sciences office to complete additional health and safety requirements (physical exam, TB screening, drug screening and criminal background check). Students must meet established physical criteria to participate in the clinical area. See program web page for specific information regarding enrollment.

CERTIFICATE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEOC 130</td>
<td>11</td>
</tr>
<tr>
<td>HEOC 131</td>
<td>1.5</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE: 12.5

Nursing – Associate Degree Nursing

ASSOCIATE IN SCIENCE DEGREE:

SC Program: AS.1380

PROGRAM DESCRIPTION: The educational objective of the Associate in Science Degree Nursing program is to prepare the student who, upon graduation and successful completion of the NCLEX-RN, will be able to function within the scope of nursing as defined by the State of California Nursing Practice Act. Students must meet established physical criteria to participate in the clinical area.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree:
1. 90% of those students who are eligible to sit for the National Council Licensing Examination for Registered Nursing (NCLEX-RN) will pass their examination within the first six months of the first attempt.

Graduation Requirements:
1. Completion of the Humanities requirement.
2. Completion of competence in math (MATH 102 Inter. Algebra or MATH 110 Essential Math are the advised course for meeting this requirement).
3. Completion of the multi-cultural awareness requirement.
4. Completion of computer literacy.

Due to the time commitments of the ADN program, it is strongly recommended to complete the graduation requirement before entering the program.

REQUIREMENTS FOR ENROLLMENT IN THE PROGRAM:
Space in the program is limited. A new class is enrolled every semester. In order to be eligible for enrollment, students must satisfy the prerequisites listed and below file an enrollment packet with the Admissions Office during designated enrollment periods in each semester. All qualified applicants are placed on a waiting list and enrolled on a space available basis in the order of their accepted application date. For specific information, see the Application Process tab on the website or call the Division Office at (530-339-3600).

Students must meet all of the following requirements for application:
1. Students filing enrollment packets must have a high school diploma or equivalent.
2. The “Prerequisite Science” courses listed below must be completed with a grade of C or higher in each course and a minimum science 2.5 GPA.
3. Prerequisites must be completed upon application. No in-progress courses will be accepted.

PREREQUISITE COURSES:
- ANAT 1* Anatomy 5
- MICR 1* **Microbiology 5
- PHY 1* Physiology (with lab) 5

Students must complete the remaining “PREREQUISITE” courses listed below with a grade of “C” or better in each course.
- ANGL 1A* College Composition 4
- ANTH 2* Cultural Anthropology 3
- SOC 1* Introduction to Sociology 3
- SOC 2* Social Problems 3
- PSYC 1A* General Psychology 3
- PSYC 14* Psychology of Personal/Social Adjustment 3
- CMST 10* Interpersonal Communication 3
- CMST 54* Small Group Communication 3
- CMST 60* Public Speaking 3

* May be used to fulfill General Education Requirements. See a counselor.

** ONLY if completed with a grade of C or higher during or prior to Spring 2014.

TOTAL PREREQUISITE UNITS 28

DEGREE REQUIREMENTS:
Students must be enrolled in the ADN Program in order to take the courses listed below. Students must show competence in both clinical and theory components (with a grade of C or better) in order to progress through the curriculum. A failing clinical grade in either theory or clinical will require withdrawal or result in failure of the program.

CORE COURSES:
- REGN 1 Theoretical Foundations of Nursing Care 6.5
- REGN 2 Clinical Foundations of Nursing Care 5.5
- REGN 10 Theoretical Concepts Med/Surgical Nursing I 6.5
- REGN 11 Clinical Concepts Med/Surgical Nursing I 4.5
- REGN 12 Assessment Concepts Med/Surgical Nursing 1
- REGN 20 Theoretical Concepts Med/Surgical Nursing II 7
- REGN 21 Clinical Concepts Med/Surgical Nursing II 5
- REGN 33 Theoretical Concepts Med/Surgical Nursing III 6
- REGN 34 Clinical Concepts Med/Surgical Nursing III 6

TOTAL UNITS FOR CORE: 48

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

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<th>Requirement</th>
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</tr>
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Continued on next page…
The enrollment process for LVNs desiring to transition to RN has changed. For pertinent information see Advanced Placement tab on website or contact the Division at (530) 339-3600.

**ENROLLMENT CRITERIA FOR THE 30-UNIT OPTION – NON DEGREE – LVN-RN PROGRAM:**

LVNs may elect to take a non-degree program under the BRN regulation 1429 – the 30 unit option. This consists of twenty (20) units of nursing and ten (10) units of related science. REGN 20X, REGN 21X, REGN 33X, and REGN 34X are the required 20 units of nursing. Microbiology and physiology are the required 10 units of science. Students must see nursing program director if considering this option.

**Nursing – Vocational Nursing**

**Certificate:**

SC Program: CT.3265

**PROGRAM DESCRIPTION:** This curriculum is designed to prepare selected individuals to provide nursing care requiring technical-manual skills under the supervision of a Registered Nurse or physician. Upon successful completion of the program, a student receives a Certificate of Completion and is eligible to take the NCLEX-PN for licensure as a Vocational Nurse. Students who have had previous education and experience in nursing will be given the opportunity to receive credit toward completion of the program.

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of this certificate:

1. 90% of those students who are eligible to sit for the National Council Licensing Examination for Vocational Nurses (NCLEX-PN) will pass the examination within the first six months of the first attempt.

**GAINFUL EMPLOYMENT INFORMATION:** For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please click on the Gainful Employment Information tab on our website.

**REQUIREMENTS FOR ENROLLMENT INTO THE PROGRAM:**

Space in the program is limited. A new class is enrolled every three semesters. In order to be eligible for enrollment, students must satisfy the prerequisites listed below and file an enrollment packet with the Admissions Office during designated enrollment periods in each semester. All qualified applicants are placed on a waiting list and enrolled on a space available basis in the order of their accepted application date. Specific information is available in the Enrollment Process tab on our website. Students must meet all of the following requirements for application:

1. Students must have a high school diploma or equivalent.
2. Students must be a current Certified Nurse Aide (CNA)
3. Students must complete the following prerequisite courses with a C grade or better. No in-progress courses will be accepted.
OAS – Administrative Office Assistant Certificate (continued):

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor’s Office; therefore, completion of the certificate will not be listed on the student’s transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Define ethical office behavior.
2. Define gracious and efficient behavior with office visitors using appropriate customer service skills.
3. Schedule appointments including the use of electronic calendaring.
4. Organize files and folders electronically.
5. Prepare notices, agendas, and minutes for meetings.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_oas_gainful_employment/.

CERTIFICATE REQUIREMENTS:
BUAD 186 Business English 3
CIS 1 Computer Literacy Workshop 3
OAS 10 Excel for Windows – I 1
OAS 51 Introduction to Keyboarding and Word 3
OAS 64 Computerized 10-Key .5
OAS 152 Keyboarding for Speed and Accuracy .5
OAS 158 Office Procedures for Admin Assistants .5

REstricted electives: (Choose three units) 3
OAS 80 Outlook (1) AND OAS 166 Records Management (2)
OR
OAS 110 Medical Terminology (3)

TOTAL UNITS FOR CERTIFICATE 17

Office Administration – Administrative Office Professional

Associate in Science:
SC Program: AS.1397

PROGRAM DESCRIPTION: This degree prepares you to be an advanced-level Administrative Assistant. Administrative Assistants work for supervisors, managers, and executives. Skills learned: Document and Data Handling: How to prepare, modify, and proofread documents such as reports, letters, memos, records, lists, and schedules. Technology: Advanced knowledge of Microsoft Office: Word, Excel, and Outlook. Setup and coordinate meetings and conferences using Outlook. Intermediate knowledge of Microsoft Office: PowerPoint, Internet Explorer, and Access. Incorporate computer graphics in documents, in addition to computer based filing methods and procedures. Type 50-55 words per minute. Interpersonal: Meet and greet clients and visitors, maintain a pleasant manner, and project a professional image in person and on the phone. Confidential: Handling of mail, money, and receipts, and record keeping. General: Research and price office furniture and supplies with attention to detail. Sales concepts, including markups, discounts, insurance, and depreciation, scheduling and reporting duties, coordinate and maintain records for staff. Obtaining on-the-job training through the Worksite Learning course at Shasta College is highly recommended.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Operate the alphabetic, numeric, and symbol keys by touch with proper typing technique.
2. Type for 5 minutes at a minimum net speed of 50 words a minute with five errors or less.
3. Expand and apply knowledge of Microsoft Word to complete business documents.
4. Increase abilities related to formatting business letters, memos, tables, mail merge, and reports including employment documents.
5. Answer, with at least 70 percent accuracy, questions on objective tests covering technical information

DEGREE REQUIREMENTS:

CORE COURSES:
ACCT 101 Basic Accounting I 3
ACCT 103 PC Accounting 2
BUAD 45 * Human Relations on the Job 3
BUAD 66 * Business Communications 3
BUAD 106 Business Mathematics 3
BUAD 166 Business English 3
CIS 1 Computer Literacy Workshop 3
CIS 20 Access for Windows I 1
OAS 10 Excel for Windows I 1
OAS 11 Excel for Windows II 1
OAS 51 Introduction to Keyboarding and Word 3
OAS 52 Intermediate Keyboarding and Word 3
OAS 53 Advanced Keyboarding and Word 3
OAS 64 Computerized Ten-Key .5
OAS 80 Outlook 1
OAS 84 Office Administration Worksite Learning 1
OAS 92 Word for Windows II 1
OAS 94 PowerPoint 1
OAS 152 Keyboarding for Speed and Accuracy .5
OAS 158 Office Procedures for Admin Assistants 3
OAS 166 Records Management 2
OAS 171 Proofreading Skills 2

RECOMMENDED COURSES (not required):
CIS 83 Web Design Using Dreamweaver (2)
OAS 12 Excel for Windows III (1)
OAS 93* Word for Windows III (1)

*May be used to fulfill General Education requirements. See a counselor.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

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*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Certificate on next page...
Office Administration – Administrative Office Professional Certificate:

SC Program: CT.3247

PROGRAM DESCRIPTION: This certificate prepares you to be an intermediate-level Administrative Assistant. Administrative Assistants work for supervisors, managers, and executives. Skills learned: Document and Data Handling; How to prepare, modify, and proofread documents such as reports, letters, memos, records, lists, and schedules. Technology: Working knowledge of Microsoft Office: Word, Excel, PowerPoint, Internet Explorer, Access, and Outlook. Incorporate computer graphics into documents, in addition to computer based filing methods and procedures. Type 45-50 words per minute. Interpersonal: Meet and greet clients and visitors, maintain a pleasant manner, and project a professional image in person and on the phone. Confidential: Handling of mail, money, and receipts, and record keeping. General: Research and price office furniture and supplies with attention to detail. Scheduling and reporting duties. Obtaining on-the-job training through the Worksite Learning course at Shasta College is highly recommended.

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Type for 5 minutes at a minimum speed of 40 words per minute with five errors or less.
2. Proofread typed work, mark and count errors, and compute speed.
3. Establish folders (directories) and subfolders (sub-directories) for information management.
4. Increase abilities related to formatting business letters, memos, tables, mail merge, and reports including employment documents.
5. Andes, with at least 70 percent accuracy, questions on objective tests covering technical information.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_oas_gainful_employment/.

CERTIFICATE REQUIREMENTS:

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ACCT 101</td>
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</tr>
<tr>
<td>BUAD 45</td>
<td>Human Relations on the Job</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 166</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>CIS 1</td>
<td>Computer Literacy Workshop</td>
<td>3</td>
</tr>
<tr>
<td>CIS 20</td>
<td>Access for Windows-I</td>
<td>1</td>
</tr>
<tr>
<td>OAS 10</td>
<td>Excel for Windows-I</td>
<td>1</td>
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<td>Excel for Windows-II</td>
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<td>OAS 51</td>
<td>Introduction to Keyboarding and Word</td>
<td>3</td>
</tr>
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<td>OAS 52</td>
<td>Intermediate Keyboarding and Word</td>
<td>3</td>
</tr>
<tr>
<td>OAS 64</td>
<td>Computerized Ten Key</td>
<td>.5</td>
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<tr>
<td>OAS 80</td>
<td>Outlook</td>
<td>1</td>
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<td>OAS 84</td>
<td>Office Administration Worksite Learning</td>
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</tr>
<tr>
<td>OAS 92</td>
<td>Word for Windows II</td>
<td>1</td>
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<tr>
<td>OAS 94</td>
<td>PowerPoint</td>
<td>1</td>
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<tr>
<td>OAS 152</td>
<td>Keyboarding for Speed and Accuracy</td>
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<td>OAS 158</td>
<td>Office Procedures for Admin Assistants</td>
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<td>OAS 166</td>
<td>Records Management</td>
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<tr>
<td>OAS 171</td>
<td>Proofreading</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE 33

Office Administration – Health Information Management

Associate in Science:

SC Program: AS.1356

PROGRAM DESCRIPTION: This curriculum is designed to prepare the individual with clerical medical office skills for entry-level employment in physicians' offices, health care facilities, clinics, laboratories, health and accident insurance companies, with related clerical duties essential to medical office assisting. Obtaining on-the-job training through the Worksite Learning course at Shasta College is highly recommended.

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:
1. Analyze a medical case study utilizing principles of medical terminology, medical coding, and account billing.
2. Select and assign the appropriate CPT (Current Procedural Terminology) or HCPCS (Healthcare Common Procedure System) code(s).
3. Differentiate among the payer requirements based on the patient’s status, the medical diagnosis(es), and the services/services performed.
4. Apply appropriate principles for claims processing and completion.
5. Explain the reimbursement issues and practice using appropriate terminology.

DEGREE REQUIREMENTS:

CORE COURSES:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
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<td>BIOL 5*</td>
<td>Introduction to Human Biology</td>
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<td>BUAD 45*</td>
<td>Human Relations on the Job</td>
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<td>BUAD 66*</td>
<td>Business Communications</td>
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<td>BUAD 166</td>
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<td>Computer Literacy Workshop</td>
<td>3</td>
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<td>HEOC 10</td>
<td>Applied Pharmacology</td>
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<td>OAS 10</td>
<td>Excel for Windows – I</td>
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<tr>
<td>OAS 51</td>
<td>Introduction to Keyboarding and Word</td>
<td>3</td>
</tr>
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<td>OAS 52</td>
<td>Intermediate Keyboarding and Word</td>
<td>3</td>
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<tr>
<td>OAS 64</td>
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<td>OAS 110</td>
<td>Medical Terminology</td>
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<td>OAS 113</td>
<td>Advanced Medical Coding</td>
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</tr>
<tr>
<td>OAS 114</td>
<td>Healthcare Billing and Reimbursement</td>
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<td>Electronic Medical Records</td>
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<td>Keyboarding for Speed and Accuracy</td>
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<td>Office Procedures for Admin Assistants</td>
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<td>Medical Transcription</td>
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RECOMMENDED COURSES (not required):

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<tr>
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<th>Units</th>
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<tr>
<td>OAS 11</td>
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<td>OAS 166</td>
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</table>

Continued on next page…
Chapter 5 – Degrees and Certificates

OAS – Health Information Management Degree (continued):

*May be used to fulfill General Education requirements. See a counselor.

<table>
<thead>
<tr>
<th>ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>General Electives</td>
</tr>
<tr>
<td>Degree Total</td>
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</tbody>
</table>

Office Admin – Health Information Management Certificate:

SC Program:  CT.3276

PROGRAM DESCRIPTION: This program is designed to prepare the student for an entry-level position in the medical office. Skills learned: prepare claims for health care facilities, clinics, physicians' offices, medical equipment companies, medical billing service companies, transcription, and record management. Upon completion of this program, the graduate should have the necessary knowledge and skills to secure employment in either the medical provider or health program, the graduate should have the necessary knowledge and transcription, and record management. Upon completion of this certificate, the student should have the necessary knowledge and skills to secure employment in either the medical provider or health program. Upon completion of this certificate, the student should have the necessary knowledge and skills to secure employment in either the medical provider or health program. Upon completion of this certificate, the student should have the necessary knowledge and skills to secure employment in either the medical provider or health program.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:

1. Identify the structure of the current coding methodologies/diagnosis and procedures.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_oas_gainful_employment/.

CERTIFICATE REQUIREMENTS:

<table>
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<tr>
<td>BIOL 5</td>
<td>Introduction to Human Biology</td>
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<td>Business English</td>
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<td>Introduction to Keyboarding and Word</td>
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<td>OAS 52</td>
<td>Intermediate Keyboarding and Word</td>
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<td>OAS 64</td>
<td>Computerized 10-Key</td>
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<tr>
<td>OAS 84</td>
<td>Office Administration Worksite Learning</td>
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<td>OAS 110</td>
<td>Medical Terminology</td>
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<td>OAS 112</td>
<td>Medical Coding</td>
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<td>Advanced Medical Coding</td>
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<td>OAS 114</td>
<td>Healthcare Billing and Reimbursement</td>
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<td>Electronic Medical Records</td>
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<td>Keyboarding for Speed and Accuracy</td>
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<td>Office Procedures for Admin Assistants</td>
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<td>OAS 160</td>
<td>Medical Transcription</td>
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TOTAL UNITS FOR CERTIFICATE  44

RECOMMENDED COURSES (not required):

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<td>OAS 53</td>
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Theatre Arts

Associate in Arts:

SC Program: AA1458

PROGRAM DESCRIPTION: The Theatre Arts program is academically grounded in the liberal arts tradition of literature, performance, cultural studies, history, philosophy, and technical skills. It also provides a hands-on, learn-by-doing environment that gives students experiences and skills to complement many career paths. Employers find theatre trained applicants become valuable employees because they have developed excellent communication and problem-solving skills, confidence, and the ability to work cooperatively with a diverse team of people.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this degree, the student should be able to:

1. Describe the basic elements of dramatic structure and analyze the dramatic components in a theatrical production.
2. Select appropriate monologues and prepare them as audition pieces.
3. Investigate the themes and dramaturgy of the Greek, Roman, Medieval, Renaissance, Elizabethan, Jacobean and Restoration periods of theater history and compare and contrast those periods through discussion, papers, and performance analysis.
4. Identify and apply the major components of stagecraft in the implementation of scenery, lighting, costume, make-up, special effects, and production management.
5. Investigate the social, political, and spiritual objectives of theatrical performance through discussions and papers that deal with gender, politics and religion.

DEGREE REQUIREMENTS:

CORE COURSES:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THTR 1*</td>
<td>Introduction to Theatre Arts</td>
<td>3</td>
</tr>
<tr>
<td>THTR 8*</td>
<td>History of World Theatre I</td>
<td>3</td>
</tr>
<tr>
<td>THTR 12</td>
<td>Acting I</td>
<td>2</td>
</tr>
<tr>
<td>THTR 23/26</td>
<td>Mainstage Production I/II OR</td>
<td>3</td>
</tr>
<tr>
<td>THTR 70</td>
<td>Repertory Theatre I</td>
<td></td>
</tr>
<tr>
<td>THTR 30</td>
<td>Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>THTR 41</td>
<td>Theatre Laboratory OR</td>
<td>3</td>
</tr>
<tr>
<td>THTR 74</td>
<td>Repertory Theatre – Technical</td>
<td></td>
</tr>
</tbody>
</table>

RESTRICTED ELECTIVES IN THEORY: (Choose six units)  6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THTR 5*</td>
<td>20th Century Theatre (3)</td>
<td></td>
</tr>
<tr>
<td>THTR 9*</td>
<td>History of World Theatre II (3)</td>
<td></td>
</tr>
<tr>
<td>THTR 13</td>
<td>Acting II (2)</td>
<td></td>
</tr>
<tr>
<td>THTR 29</td>
<td>Directing (2)</td>
<td></td>
</tr>
<tr>
<td>THTR 31</td>
<td>Introduction to Theatrical Design (3)</td>
<td></td>
</tr>
<tr>
<td>THTR 34</td>
<td>Makeup (2)</td>
<td></td>
</tr>
<tr>
<td>THTR 81</td>
<td>Playwriting and Script Analysis (3)</td>
<td></td>
</tr>
</tbody>
</table>

Continued on next page...
Transition Certificate for Students with Disabilities

Certificate:

SC Program: CL.3415

PROGRAM DESCRIPTION: This curriculum is designed to provide an integrated educational option for students transitioning to post-secondary educational settings.

This is a locally approved certificate. Upon satisfactory completion of the listed requirements and application for completion of the certificate to Admissions and Records, the student will receive a certificate of completion. This certificate program is not approved through the California Community College Chancellor's Office; therefore, completion of the certificate will not be listed on the student's transcript.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:

1. Approximately 70% of students should be able to use a word processor, find information on the Internet, and create a PowerPoint presentation.
2. Approximately 70% of students will be ready to enter regular college math classes such as MATH 220 or MATH 240.
3. Approximately 70% of students will be ready to enter non-adaptive college English classes such as ENGL 260 or 270.
4. Approximately 70% of students will have identified a career path.
5. Students will acquire the knowledge necessary to select relevant occupational opportunities and job search skills. Approximately 70% of students will demonstrate the ability to find job postings, complete job applications, write a resume and prepare for job interviews.
6. Students will know how to access relevant community and governmental resources. Approximately 70% of students will be able to identify at least four or more community organizations, or state agencies that provide support services for students with disabilities.

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version.


**Water/Wastewater Treatment**

**Certificate:**

SC Program: CL.3420

**PROGRAM DESCRIPTION:** This program is designed to provide entry-level training and upgrading for California water and wastewater public and private agency operators. A student seeking introduction into either water or wastewater fields would benefit by taking the entire course offerings. It is strongly recommended that students complete MATH 101-Basic Algebra and CHEM 2A-Introduction to Chemistry before completing the requirements of the program.

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of this certificate, the student should be able to:

1. Assess existing methods in water and wastewater treatment technology.
2. Analyze treatment plant’s relationship and responsibility to the community.
3. Evaluate the processes of coagulation, flocculation, sedimentation, filtration, disinfection, and distribution in water treatment.
4. Evaluate the processes of primary sedimentation, oxidation, disinfection, and disposal in wastewater treatment.

**GAINFUL EMPLOYMENT INFORMATION:** For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at [http://www.shastacollege.edu/bait_wtt_gainful_employment/](http://www.shastacollege.edu/bait_wtt_gainful_employment/).

**CERTIFICATE REQUIREMENTS:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTT 177</td>
<td>Introduction to Wastewater Treatment</td>
<td>3</td>
</tr>
<tr>
<td>WTT 180</td>
<td>Introduction to Water Treatment Tech</td>
<td>3</td>
</tr>
<tr>
<td>WTT 181</td>
<td>Intermediate Water Treatment Tech</td>
<td>3</td>
</tr>
<tr>
<td>WTT 183</td>
<td>Intermediate Wastewater Treatment</td>
<td>3</td>
</tr>
<tr>
<td>WTT 184</td>
<td>Small Water Systems and Distribution</td>
<td>3</td>
</tr>
<tr>
<td>WTT 186</td>
<td>Advanced Wastewater Treatment</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE** 18

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**Welding Technology**

**Associate in Science:**

SC Program: AS.1490

**PROGRAM DESCRIPTION:** The Welding Technology Program is designed to prepare students for positions in a variety of trades or service industries requiring technically trained and/or certified welders. The program is designed to prepare students for the opportunity to become certified welders under the standards set by the American Welding Society. Students can receive their certification by the American Welding Society in a variety of processes as part of the instructional program. The program is available in three formats:

- Associate in Science Degree in Welding Technology
- Certificate from Shasta College in Welding Technology
- Certification by the American Welding Society as a certified welder

This degree is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this degree.

**PROGRAM LEARNING OUTCOMES:**

Upon successful completion of this degree, the student should be able to:

1. Demonstrate competencies in job safety skills and awareness of workplace hazards.
2. Follow written and oral instructions in the interpretation of simple drawings and sketches, including welding symbols and the execution of the fabrication process.
3. Set up, maintain, and adjust welding related equipment.
4. Acquire skills and knowledge to make a successful transition to an entry-level position in the work force.
5. Pass workmanship tests using common welding processes.

**DEGREE REQUIREMENTS:**

**CORE COURSES:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 110*</td>
<td>Essential Math</td>
<td>3</td>
</tr>
<tr>
<td>DIES 48</td>
<td>Hydraulics</td>
<td>3.5</td>
</tr>
<tr>
<td>INDE 1</td>
<td>Career Planning for Industrial Technology</td>
<td>1</td>
</tr>
<tr>
<td>WELD 70</td>
<td>Beginning Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 73</td>
<td>Structural Steel Metal Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>WELD 118</td>
<td>Blueprint/Specification Reading (Mechanical)</td>
<td>2</td>
</tr>
<tr>
<td>WELD 170</td>
<td>Introduction to ARC Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 171</td>
<td>Intermediate ARC Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 174</td>
<td>Structural Steel MIG Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 175</td>
<td>TIG Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 178</td>
<td>Pipe Welding Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>WELD 182</td>
<td>Advanced ARC Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>WELD 183</td>
<td>Advanced ARC Welding Specialty Lab</td>
<td>1.5</td>
</tr>
<tr>
<td>WELD 184</td>
<td>Advanced GTAW (TIG) Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>WELD 186</td>
<td>Advanced Pipe Welding</td>
<td>2</td>
</tr>
<tr>
<td>WELD 188</td>
<td>Advanced GMAW (MIG) Welding</td>
<td>1.5</td>
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</table>

*May be used to fulfill General Education requirements. See a counselor.

**ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
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<tbody>
<tr>
<td>Major</td>
<td>38.5</td>
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<tr>
<td>Additional General Education</td>
<td>18</td>
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<tr>
<td>General Electives</td>
<td>3.5</td>
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<tr>
<td>Degree Total</td>
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</tbody>
</table>

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Welding Technology Certificate on next page
Welding Technology
Certificate:

SC Program: CT.3430

PROGRAM DESCRIPTION: The Welding Technology Program is designed to prepare students for positions in a variety of trades or service industries requiring technically trained and/or certified welders. The program is designed to prepare students for the opportunity to become certified welders under the standards set by the American Welding Society. Students can receive their certification by the American Welding Society in a variety of processes as part of the instructional program.

This certificate is approved through the California Community College Chancellor’s Office. Upon satisfactory completion of the listed requirements and filing an application for graduation with Admissions and Records, the student’s transcript will reflect completion of this certificate.

PROGRAM LEARNING OUTCOMES:
Upon successful completion of this certificate, the student should be able to:
1. Demonstrate competencies in job safety skills and awareness of workplace hazards.
2. Follow written and oral instructions in the interpretation of simple drawings and sketches, including welding symbols and the execution of the fabrication process.
3. Set up, maintain, and adjust welding related equipment.
4. Acquire skills and knowledge to make a successful transition to an entry-level position in the work force.
5. Pass workmanship tests using common welding processes.

GAINFUL EMPLOYMENT INFORMATION: For information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit our website at http://www.shastacollege.edu/bait_weld_gainful_employment/.

CERTIFICATE REQUIREMENTS:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>WELD 70</td>
<td>Beginning Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 73</td>
<td>Structural Steel Metal Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>WELD 118</td>
<td>Blueprint &amp; Specification Reading</td>
<td>2</td>
</tr>
<tr>
<td>WELD 170</td>
<td>Introduction to ARC Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 171</td>
<td>Intermediate ARC Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 174</td>
<td>Structural Steel MIG Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 175</td>
<td>TIG Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 178</td>
<td>Pipe Welding Fundamentals</td>
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<tr>
<td>WELD 182</td>
<td>Advanced ARC Welding</td>
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<td>1.5</td>
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<tr>
<td>WELD 186</td>
<td>Advanced Pipe Welding</td>
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</tr>
<tr>
<td>WELD 188</td>
<td>Advanced GMAW (MIG) Welding</td>
<td>1.5</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE 29.5

REQUIREMENTS FOR AMERICAN WELDING SOCIETY CERTIFICATION:

In order to become certified by the American Welding Society, the following courses are offered for the student to increase his/her skill and knowledge. Certification by the American Welding Society is dependent upon the meeting of criteria as determined by the certified welding inspector. The completion of these courses is recommended, but does not guarantee certification by the American Welding Society.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 182</td>
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<tr>
<td>WELD 183</td>
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</table>