Transfer Information & Requirements

AREA C: ARTS, LITERATURE, PHILOSOPHY AND FOREIGN LANGUAGE
Nine semester units minimum with at least one course each from C1 and C2.

Change: add ART 26, ESL 14, 15

Area C1: Arts
Art 26
English as a Second Language 14, 15 effective fall 2020

AREA D: SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS AND BEHAVIOR, HISTORICAL BACKGROUND
Nine semester units minimum from at least two disciplines.

Area D0-D9: Social and Behavioral Sciences
American Sign Language 5 effective fall 2020
Veterans Services

Financial Aid and Scholarships
Reedley College administers a variety of educational programs for eligible veterans through the Veterans Service staff in Admissions and Records (located in the Student Service Building) or our Veterans Center (VC). The Veteran Center is located in the Student Center in room 105 and is furnished with a study space, computers, and written materials pertinent to Veteran service. The VC serves as a place for student Veterans to meet fellow student Veterans, other Reedley College student services representatives, and instructional representatives who are ready to assist them in their pursuits at our institution.

In addition, there are educational benefits for dependents (spouses and/or children) of veterans under the Survivors’ and Dependents’ Educational Assistance Program.

(1) Veterans who were separated from active duty with the armed forces may be eligible for educational benefits through the Veterans Administration and the following benefit programs:
• a. Post 9/11 GI Bill ® – 90 Days of active duty service after Sept. 10, 2001, and are still on active duty, or if you are honorably discharged Veteran or were discharged with a service-connected disability after 30 days (Chapter 33)
• b. Montgomery GI Bill ® - Active Duty Educational Assistance program (Chapter 30)
• c. Montgomery GI Bill ®- Selected Reserve Educational Assistance Program (Chapter 1606)
• d. VEAP (Chapter 32) - Contributed to VEAP or Section 903 - Military service beginning on or after January 1, 1977 and ending on or before June 30, 1985
• e. Vocational Rehabilitation (Chapter 31) - Veterans who served in the Armed Forces are eligible for vocational rehabilitation if they suffered a service-connected disability while on active service which entitles them to compensation, or would do so except for the receipt of retirement pay. The Veterans' Administration (VA) determines a veteran’s need for vocational rehabilitation to overcome the handicap of his/her disabilities.

(2) Spouses and/or children of the following categories of veterans may be eligible for the Dependents’ Educational Assistance Program:
• a. Veterans who died or are 100 percent permanently disabled as the result of a service-connected disability. The disability must arise out of active service in the Armed Forces.
• b. Veterans who died from any cause while such service connected disability was in existence.
• c. Service persons missing in action or captured in the line of duty by a hostile force.
• d. Service persons forcibly detained or interned in the line of duty by a foreign government or power.

Veteran and Veteran dependent students can learn more about each Veteran Education Benefit at https://www.va.gov/education/about-gi-bill-benefits/

APPLICATION PROCESS
To apply for any of these benefits, students must apply with the Veterans Administration at this link https://www.va.gov/education/how-to-apply/. Students will also need to complete an application packet which is available through our Veterans Services staff, or at our Veterans Center. In addition, students must meet with an academic counselor and have a Veterans Student Education Plan completed for the major they are declaring.

APPROVED MAJORS
All AA, AS, AA-T, AS-T and certificate programs at Reedley College are approved majors for veterans education benefits. Additionally, some articulated transfer programs to the CSU and UC systems as well as private institutions have been approved. Students should inquire about their particular major at the time of application.

EVALUATION OF PREVIOUS EDUCATIONAL/TRAINING CFR S21.4253 (d) (3)
As required by federal law Reedley College will conduct an evaluation of previous education and training, grant appropriate
credit, and notify the VA and student of transfer credit granted. Students applying for veterans benefits must submit transcripts from all prior college and universities attended as well as military training transcripts PRIOR to having their benefits processed regardless of whether or not the student, counselor or certifying official believe that any transfer credit will be granted.

A complete copy of the Veterans Academic Progress Policy is available in the Veterans Education Benefits Office or by written request.

**VETERANS DEPENDENT FEE WAIVER**
Dependents of veterans with disabilities (spouses and/or children) may be eligible to receive tuition free assistance at any California post-secondary educational institution (California Community College, California State University, and/or University of California). Additional information may be obtained from a Veteran Service Office and to look for a County Veterans Service Office in your area go to this link https://www.calvet.ca.gov/VetServices/Pages/CVSO-Locations.aspx

ASSOCIATE DEGREE & CERTIFICATE PROGRAMS

ACADEMIC AND VOCATIONAL ENGLISH AS A SECOND LANGUAGE (MAJOR #R.3032.CC)
effective spring 2021
Certificate of Competency
The Certificate of Competency in Academic and Vocational English as a Second Language prepares intermediate level ESL students with the reading, writing and oral skills in English needed to succeed in a variety of advanced academic and vocational situations. Students attaining this certificate will be ready to begin study in vocational and academic programs.

Program Requirements
ESL 314 High-Intermediate Academic Reading and Writing
ESL 315 Advanced Academic Reading and Writing
Select two courses
ESL 314G High-Intermediate Academic Grammar
ESL 314LS High-Intermediate Academic Listening and Speaking
ESL 315G Advanced Academic Grammar
ESL 315LS Advanced Academic Listening and Speaking

BASIC ENGLISH AS A SECOND LANGUAGE (MAJOR #R.3011.CC) effective spring 2021
Certificate of Competency
The Certificate of Competency in Basic English as a Second Language prepares beginning level ESL students with reading, writing, and oral skills in English needed to succeed in a variety of basic social and vocational situations. Students attaining this certificate will be ready to begin study toward the Intermediate Academic and Vocational English as a Second Language Certificate.

Program Requirements
ESL 310 Low-Beginning Reading, Writing, and Grammar
ESL 311 Beginning Reading, Writing, and Grammar
ESL 310LS Low-Beginning Listening and Speaking
OR
ESL 311LS High-Beginning Listening and Speaking

INTERMEDIATE ACADEMIC AND VOCATIONAL ENGLISH AS A SECOND LANGUAGE (MAJOR #R.3021.CC)
Certificate of Competency
The Certificate of Competency in Intermediate Academic and Vocational English as a Second Language prepares high-beginning to low-intermediate ESL students with reading, writing and oral skills in English needed to succeed in a variety of intermediate social vocational and academic situations. Students attaining this certificate will be ready to begin study toward the Advanced Academic and Vocational English as a Second Language Certificate.

Program Requirements
ESL 312 Low-Intermediate Reading, Writing, and Grammar
ESL 313 Intermediate Academic Reading and Writing
Select either ESL 312LS or ESL 313G & ESL 313LS
ESL 312LS Low-Intermediate Listening and Speaking
ESL 313G Intermediate Academic Grammar
ESL 313LS Intermediate Listening and Speaking

ANIMAL SCIENCE effective fall 2019
Certificate of Achievement
Students completing this program will have the basic animal husbandry skills required for entry-level employment in the livestock industry in areas such as livestock herdsman, animal trainer, livestock fitter, brand inspector, or in occupations within the food animal industry. They will understand animal behavior and have the skills and knowledge to perform safe handling techniques, feeding practices, breeding, environmental management, marketing, health maintenance, nutritional needs and common veterinary procedures. (formerly Animal Husbandry)
Program Learning Outcomes
Upon completion of this program, students will be able to:

- Identify the skills, education, and work experiences needed to pursue his/her chosen career path.
- Maintain an up-to-date comprehensive career portfolio to include a personal résumé, cover letter, application, skills inventory, employment history, and copies of employment application and interview correspondence (thank you letters, etc.).
- Apply effective oral and written communication skills to the work environment.
- Exhibit a high level of work ethic and good time management skills.
- Work in group settings to accomplish team goals.
- Apply commonly used computer programs to the workplace.
- Utilize equipment and technology commonly utilized in the livestock industry and related fields.
- Apply ethical animal husbandry practices and industry accepted quality assurance measures to the responsible production, processing, and marketing of livestock and animal products.
- Demonstrate basic animal management skills in regard to behavior, parturition, identification, nutrition, reproduction and health for common livestock species.
- Evaluate animal conformation and performance data in accordance with industry standards and make selection decisions, based on given scenarios, for various livestock species.

Required Courses .................................................................................................................................................. 11
AGBS 4  Computer Applications in Agriculture .......................................................................................... 3
AS 1   Introduction to Animal Science ............................................................................................... 3
AS 5   Animal Nutrition ......................................................................................................................... 3
AS 40  Livestock Exhibition and Marketing ............................................................................................ 2
Select one course............................................................................................................................................... 3
AS 2   Beef Production .............................................................................................................................. 3
AS 3   Small Ruminant Production .......................................................................................................... 3
AS 4   Swine Production ............................................................................................................................ 3
AS 21  Equine Science ............................................................................................................................... 3
Select one course............................................................................................................................................... 3
AS 6   Livestock Selection and Evaluation ................................................................................................... 3
AS 10  Meat Evaluation and Processing ..................................................................................................... 3

Total Units 17

FLIGHT SCIENCE  
ASSOCIATE IN SCIENCE DEGREE

The Associate Degree in Flight Science is designed to provide students the knowledge, skills, and flight experience required to become certified commercial airplane pilots and flight instructors. Students will complete academic, simulator, and flight courses taught within the guidelines of the Federal Aviation Administration. Emphasis is placed on aeronautical decision making, flight safety, and effective teaching techniques. As courses within the degree are successfully completed, the student will earn the Private Pilot Certificate, Instrument Rating, Commercial Pilot Certificate, and Flight Instructor Certificate. Degree graduates will be ready to enter the aviation industry as commercial airplane pilots and flight instructors.

Program Learning Outcomes
Upon successful completion of the program students will:
1. Apply situational awareness and decision making skills.
2. Demonstrate proficiency of take-offs, landings, and missed approaches.
3. Evaluate how day-to-day weather elements like clouds, wind, and rain affect flight operation and interpret graphic weather products such as surface analysis, weather depiction, and prognostic charts.
4. Exhibit proper emergency procedures decision-making skills.
5. Demonstrate flight proficiency during instrument approach procedures.
6. Effectively communicate with students while demonstrating proper coordination of flight controls.

FLIGHT 101  Private Pilot 1 Ground School ..................................................................................................... 4
FLIGHT 105  Private Pilot 1 Flight Lab .......................................................................................................... 1
FLIGHT 106  Private Pilot 2 Flight Lab .......................................................................................................... 1.5
FLIGHT 107  Private Pilot 1 Simulation Lab .................................................................................................... 5
FLIGHT 108  Private Pilot 2 Ground School ..................................................................................................... 4

2020-2021 RC Catalog Addendum
FLGHT 109  Private Pilot 2 Simulation Lab............................................................... 5
FLGHT 111  Instrument Rating Ground School............................................................ 5
FLGHT 113  Advanced Meteorology ............................................................................ 3
FLGHT 115  Instrument Rating Flight Lab................................................................. 2
FLGHT 117  Instrument Rating Simulation Lab............................................................. 5
FLGHT 121  Commercial Pilot Ground School.............................................................. 5
FLGHT 125  Commercial Pilot 1 Flight Lab................................................................. 2.5
FLGHT 126  Commercial Pilot 2 Flight Lab................................................................. 2.5
FLGHT 131  Flight Instructor Ground School.............................................................. 5
FLGHT 135  Flight Instructor Flight Lab....................................................................... 1.5
Total Units 38.5

Advisor(s): Asman, Johnson, Woolsey, Zielke

FOREST SURVEYING TECHNOLOGY effective fall 2020

CERTIFICATE OF ACHIEVEMENT

Students will have the knowledge, training, and hands-on experience to pursue a career in Natural Resources emphasizing the measurement of objects at or near the Earth’s surface in the context of managing resources for multiple use. They will enter the workforce with specialized surveying, mapping, GIS, GPS, and photo interpretive training.

Program Learning Outcomes:

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

1. Communicate effectively, including use of proper presentation and interpretative techniques to, the public and co-workers, using diverse media.
2. Utilize and apply digital/electronic technology and specialized software programs for forest mapping, inventorying, and communication.
3. Demonstrate a breadth of knowledge of scientific, social, and political issues tied to the natural resources industry, providing a base for decision making and credibility in personal interactions and career decisions.
4. Perform technical skills important for entry level positions in the forestry and natural resources field.
5. Successfully secure and maintain seasonal employment in the forestry and natural resources field while demonstrating professional ethics.
6. Describe scientific concepts and processes which affect the sustainability of natural resources.

Required Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 8</td>
<td>Natural Resources Career Preparation</td>
<td>1</td>
</tr>
<tr>
<td>NR 17</td>
<td>Introduction to Forest Surveying</td>
<td>3</td>
</tr>
<tr>
<td>NR 18</td>
<td>Remote Sensing &amp; Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>NR 19V</td>
<td>Cooperative Work Experience – Forestry</td>
<td>2</td>
</tr>
<tr>
<td>NR 20</td>
<td>Forest Measurements</td>
<td>3</td>
</tr>
<tr>
<td>Select two (2):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NR 108</td>
<td>Introduction to Forestry Field Studies</td>
<td>5</td>
</tr>
<tr>
<td>NR 109</td>
<td>Forestry Field Studies I</td>
<td>5</td>
</tr>
<tr>
<td>NR 110</td>
<td>Forestry Field Studies II</td>
<td>5</td>
</tr>
<tr>
<td>NR 115</td>
<td>Advanced Field Studies I</td>
<td>5</td>
</tr>
<tr>
<td>NR 116</td>
<td>Advanced Field Studies II</td>
<td>5</td>
</tr>
<tr>
<td>Select one math course.</td>
<td></td>
<td>3-5</td>
</tr>
<tr>
<td>BA 39</td>
<td>Finite Mathematics for Business</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 26</td>
<td>Discrete Mathematics for Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>MATH 3A</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MATH 4A</td>
<td>Trigonometry</td>
<td>4</td>
</tr>
<tr>
<td>MATH 5A</td>
<td>Math Analysis I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 11</td>
<td>Elementary Statistics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 11C</td>
<td>Elementary Statistics with Support</td>
<td>5</td>
</tr>
<tr>
<td>MATH 45</td>
<td>Contemporary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 103</td>
<td>Intermediate Algebra</td>
<td>5</td>
</tr>
<tr>
<td>PLS 9</td>
<td>Biometrics</td>
<td>3</td>
</tr>
<tr>
<td>PSY 42</td>
<td>Statistics for the Behavioral Sciences</td>
<td>4</td>
</tr>
<tr>
<td>STAT 7</td>
<td>Elementary Statistics</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Credits 16 - 18
FORESTRY

Associate in Science Degree

The Associate in Science Degree in Forestry is designed to provide students with the knowledge, training, and hands-on experience necessary to pursue a career in forestry. Students are exposed to the guiding principles and philosophies of forestry and natural resource management in the context of ecosystem management. Following completion of this program, students will have the specialized training and technical skills for entry-level positions that can lead to accelerated advancement into supervisory and/or management positions. Opportunities exist within private, state and federal agencies such as Cal Fire and U.S. Forest Service. Careers abound in the areas of timber management, forest and land management.

Program Learning Outcomes
1. Understand which silvicultural systems can be used to achieve different forest management objectives.
2. Utilize and apply digital/electronic technology and specialized software programs for forest mapping, forest inventorying, and surveying.
3. Demonstrate a breadth of knowledge of scientific, social, and political issues tied to the forestry industry, providing a base for decision making and credibility in personal interactions and career decisions.
4. Perform technical skills important for entry-level positions in the forestry field, such as timber cruising.
5. Successfully secure and maintain seasonal employment in the forestry field while demonstrating professional ethics.
6. Describe scientific concepts and processes which affect the sustainability of natural resources.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 1</td>
<td>Introduction to Forestry</td>
<td>3</td>
</tr>
<tr>
<td>NR 3</td>
<td>Computers in Natural Resources</td>
<td>1</td>
</tr>
<tr>
<td>NR 4</td>
<td>Forest Ecosystems</td>
<td>3</td>
</tr>
<tr>
<td>NR 6</td>
<td>Dendrology</td>
<td>3</td>
</tr>
<tr>
<td>NR 8</td>
<td>Natural Resources Career Preparation</td>
<td>1</td>
</tr>
<tr>
<td>NR 11</td>
<td>Silviculture</td>
<td>3</td>
</tr>
<tr>
<td>NR 17</td>
<td>Introduction to Forest Surveying</td>
<td>3</td>
</tr>
<tr>
<td>NR 18</td>
<td>Remote Sensing &amp; Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>NR 19V</td>
<td>Cooperative Work Experience – Forestry</td>
<td>2</td>
</tr>
<tr>
<td>NR 20</td>
<td>Forest Measurements</td>
<td>3</td>
</tr>
<tr>
<td>NR 21</td>
<td>Forest Products</td>
<td>3</td>
</tr>
<tr>
<td>NR 22</td>
<td>Forest Protection</td>
<td>2</td>
</tr>
<tr>
<td>NR 25</td>
<td>Forest and Resource Management</td>
<td>1</td>
</tr>
<tr>
<td>NR 35</td>
<td>Interpretation of Natural Resources</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Courses - select 2 units from following

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 108</td>
<td>Introduction to Forestry Field Studies</td>
<td>5</td>
</tr>
<tr>
<td>NR 109</td>
<td>Forestry Field Studies I</td>
<td>5</td>
</tr>
<tr>
<td>NR 110</td>
<td>Forestry Field Studies II</td>
<td>5</td>
</tr>
<tr>
<td>NR 115</td>
<td>Advanced Field Studies I</td>
<td>5</td>
</tr>
<tr>
<td>NR 116</td>
<td>Advanced Field Studies II</td>
<td>5</td>
</tr>
</tbody>
</table>

Restricted Electives - select at least 3 units from following

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 5</td>
<td>Wildland Fire Technology</td>
<td>3</td>
</tr>
<tr>
<td>NR 12</td>
<td>Watershed Ecology</td>
<td>3</td>
</tr>
<tr>
<td>NR 14</td>
<td>Principles of Wildlife Management</td>
<td>3</td>
</tr>
<tr>
<td>NR 30</td>
<td>Forest Recreation</td>
<td>3</td>
</tr>
<tr>
<td>NR 31</td>
<td>Animal Packing</td>
<td>2</td>
</tr>
<tr>
<td>NR 32A</td>
<td>Museum Techniques-Beginning Taxidermy</td>
<td>1</td>
</tr>
<tr>
<td>NR 32B</td>
<td>Museum Techniques-Intermediate Taxidermy</td>
<td>1</td>
</tr>
<tr>
<td>NR 32C</td>
<td>Museum Techniques-Advanced Taxidermy</td>
<td>1</td>
</tr>
<tr>
<td>NR 34</td>
<td>Conservation Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>NR 42</td>
<td>Advanced Wildland Fire Technology</td>
<td>2</td>
</tr>
<tr>
<td>NR 45</td>
<td>Fuels Management</td>
<td>3</td>
</tr>
<tr>
<td>NR 90</td>
<td>Backpacking</td>
<td>1</td>
</tr>
<tr>
<td>NR 91</td>
<td>Wilderness Navigation</td>
<td>1</td>
</tr>
<tr>
<td>NR 92</td>
<td>Wilderness Survival</td>
<td>1</td>
</tr>
<tr>
<td>NR 133</td>
<td>Introduction to Chainsaw Operations</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units 39
FORESTRY AND NATURAL RESOURCES TRAINING  

Certificate of Achievement  

Students will have broad-based knowledge, training, and hands-on experience to pursue a career in Forestry and Natural Resources. Following completion of this program, students will be able to enter the workforce as a generalist to allow flexibility in pursuing careers in Forestry and Natural Resources management.  

1. Communicate effectively, including use of proper presentation and interpretative techniques to, the public and co-workers, using diverse media.  

2. Utilize and apply digital/electronic technology and specialized software programs for forest mapping, inventorying, and communication.  

3. Demonstrate a breadth of knowledge of scientific, social, and political issues tied to the natural resources industry, providing a base for decision making and credibility in personal interactions and career decisions.  

4. Perform technical skills important for entry level positions in the forestry and natural resources field.  

5. Successfully secure and maintain seasonal employment in the forestry and natural resources field while demonstrating professional ethics.  

6. Describe scientific concepts and processes which affect the sustainability of natural resources.  

Required Courses  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 1</td>
<td>Introduction to Forestry</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NR 4</td>
<td>Forest Ecosystems</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NR 8</td>
<td>Natural Resources Career Preparation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NR 108</td>
<td>Introduction to Forestry Field Studies</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>NR 109</td>
<td>Forestry Field Studies I</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>NR 110</td>
<td>Forestry Field Studies II</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>NR 115</td>
<td>Advanced Field Studies I</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>NR 116</td>
<td>Advanced Field Studies II</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Select two (2):  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 10</td>
<td>Beginning Taxidermy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NR 117</td>
<td>Museum Techniques</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Select at least 8 units from following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 3</td>
<td>Computers in Natural Resources</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NR 5</td>
<td>Wildland Fire Technology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NR 6</td>
<td>Dendrology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NR 17</td>
<td>Introduction to Forest Surveying</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NR 18</td>
<td>Remote Sensing &amp; Geographic Information Systems</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NR 20</td>
<td>Forest Measurements</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NR 21</td>
<td>Forest Products</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NR 30</td>
<td>Forest Recreation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NR 31</td>
<td>Animal Packing</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>NR 32A</td>
<td>Museum Techniques-Beginning Taxidermy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NR 90</td>
<td>Backpacking</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NR 91</td>
<td>Wilderness Navigation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NR 92</td>
<td>Wilderness Survival</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NR 133</td>
<td>Introduction to Chainsaw Operations</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 16

NATURAL RESOURCES  

Associate in Science Degree  

The Associate in Science Degree in Natural Resources is designed to provide students with the knowledge, training, and hands-on experience necessary to pursue a career in Natural Resources. Students are exposed to the guiding principles and philosophies of natural resource management in the context of ecosystem management. Following completion of this program, students will have the specialized training and technical skills for entry-level positions that can lead to accelerated advancement into supervisory and/or management positions. Opportunities exist within private, state and federal agencies such as the California Department of Fish and Game, Cal Fire, U.S. Forest Service, and the U.S. Fish and Wildlife Service. Careers abound in the areas of fire suppression and management, outdoor recreation, interpretation, wildlife management, and watershed management.

Program Learning Outcomes  

Communicate effectively, including use of proper presentation and interpretative techniques to, the public and co-workers, using diverse media.  

Utilize and apply digital/electronic technology and specialized software programs for forest mapping, inventorying, and communication.
Demonstrate a breadth of knowledge of scientific, social, and political issues tied to the natural resources industry, providing a base for decision making and credibility in personal interactions and career decisions.
Perform technical skills important for entry level positions in the forestry and natural resources field.
Successfully secure and maintain seasonal employment in the forestry and natural resources field while demonstrating professional ethics.
Describe scientific concepts and processes which affect the sustainability of natural resources.

Required Courses .................................................................................................................. 30
NR 1  Introduction to Forestry ............................................................................................... 3
NR 3  Computers in Natural Resources .............................................................................. 1
NR 4  Forest Ecosystems ...................................................................................................... 3
NR 6  Dendrology ................................................................................................................ 3
NR 8  Natural Resources Career Preparation ........................................................................ 1
NR 12 Watershed Ecology .................................................................................................. 3
NR 14 Principles of Wildlife Management ............................................................................ 3
NR 18 Remote Sensing & Geographic Information Systems .............................................. 3
NR 19V Cooperative Work Experience - Forestry ............................................................. 2
NR 20 Forest Measurements ................................................................................................ 3
NR 35 Interpretation of Natural Resources .......................................................................... 3

Select 2 units from following: ......................................................................................... 2
NR 108 Introduction to Forestry Field Studies ................................................................... 5
NR 109 Forestry Field Studies I .......................................................................................... 5
NR 110 Forestry Field Studies II .......................................................................................... 5
NR 115 Advanced Field Studies I ....................................................................................... 5
NR 116 Advanced Field Studies II ....................................................................................... 5

Select at least 9 units from following .................................................................................. 9
NR  Wildland Fire Technology ............................................................................................ 3
NR 11 Silviculture .............................................................................................................. 3
NR 17 Introduction to Forest Surveying .............................................................................. 3
NR 21 Forest Products ........................................................................................................ 3
NR 22 Forest Protection ...................................................................................................... 2
NR 25 Forest and Resource Management ......................................................................... 1
NR 30 Forest Recreation ..................................................................................................... 3
NR 31 Animal Packing ........................................................................................................ 2
NR 32A Museum Techniques-Beginning Taxidermy ........................................................... 1
NR 32B Museum Techniques-Intermediate Taxidermy ...................................................... 1
NR 32C Museum Techniques-Advanced Taxidermy ........................................................... 1
NR 34 Conservation Laboratory ........................................................................................ 1
NR 36 Natural Resources Law Enforcement ....................................................................... 3
NR 42 Advanced Wildland Fire Technology ....................................................................... 2
NR 44 Fire Ecology ............................................................................................................. 3
NR 45 Fuels Management .................................................................................................. 3
NR 49 Backpacking ............................................................................................................ 1
NR 91 Wilderness Navigation ............................................................................................. 1
NR 92 Wilderness Survival ................................................................................................ 1
NR 133 Introduction to Chainsaw Operations ...................................................................... 1

Total Credits ....................................................................................................................... 39

RECREATION AND INTERPRETATION TECHNIQUES........................................................... effective fall 2020

Certificate of Achievement

Students will have the knowledge, training, and hands-on experience to pursue a career in Natural Resources emphasizing Recreation and Interpretation in the context of managing resources for multiple use. Following completion of this program, students will be able to enter the workforce with specialized recreation and interpretative training.

Program Learning Outcomes
1. Communicate effectively, including use of proper presentation and interpretative techniques to, the public and co-workers, using diverse media.
2. Utilize and apply digital/electronic technology and specialized software programs for forest mapping, inventorying, and communication.
3. Demonstrate a breadth of knowledge of scientific, social, and political issues tied to the natural resources industry, providing a base for decision making and credibility in personal interactions and career decisions.

2020-2021 RC Catalog Addendum
4. Perform technical skills important for entry level positions in the forestry and natural resources field.
5. Successfully secure and maintain seasonal employment in the forestry and natural resources field while demonstrating professional ethics.
6. Describe scientific concepts and processes which affect the sustainability of natural resources

Required Courses ........................................................................................................................................... 14
NR 6  Dendrology ........................................................................................................................................3
NR 14 Principles of Wildlife Management ............................................................................................... 3
NR 19V Cooperative Work Experience – Forestry ............................................................................... 2
NR 30  Forest Recreation ........................................................................................................................... 3
NR 35  Interpretation of Natural Resources .............................................................................................. 3
Select 3 units ............................................................................................................................................... 3
NR 5  Wildland Fire Technology ................................................................................................................ 3
NR 17  Introduction to Forest Surveying ..................................................................................................3
NR 18  Remote Sensing & Geographic Information Systems ................................................................. 3
NR 20  Forest Measurements ................................................................................................................... 3
NR 21  Forest Products ............................................................................................................................... 3
NR 31  Animal Packing ............................................................................................................................. 2
NR 32A Museum Techniques-Beginning Taxidermy ............................................................................. 1
NR 90  Backpacking ................................................................................................................................. 1
NR 91  Wilderness Navigation ................................................................................................................... 1
NR 92  Wilderness Survival ........................................................................................................................ 1
NR 133 Introduction to Chainsaw Operations ........................................................................................... 1

Total Credits  ............................................................................................................................................... 17

WILDLAND FIRE ADVANCEMENT (MAJOR #R.1200.CA)  effective fall 2020

Certificate of Achievement

Students successfully completing the outlined course of study for the Wildland Fire Advancement Program will be prepared for workforce advancement as an advanced firefighter forestry technician or fuels reduction crewmember. Students will learn how to apply and initiate wildland firefighting fundamentals, risk management, wildland fire behavior, human factors effecting human performance, chainsaw operations, hand tool use, prescribed fire and fuels reduction operations and federal physical readiness standards. Training will require arduous working conditions similar to those performed as a wildland firefighter. Upon completion of this program students will have the NWCG course work necessary for the competitive advancement to a permanent GS-5 senior fire fighter position in the Federal fire service. This academy will focus on principals of leadership, command and control, operational tactics and intermediate fire behavior. Students will be expected to operate in a physically demanding work place like environment where safety and skills are emphasized. Due to the requirements for federal and state employment both physical and other applicable prerequisites may be required.

1. Apply the fundamental and intermediate wildland fire principals surrounding safety, operational engagement and risk management.
2. Initiate and develop safe efficient line construction tactics and knowledge of fundamental fire behavior factors including fuels, topography and weather.
3. Develop communication protocols by effectively utilizing programmable radio systems, formalized briefings and other non-verbal methods.
4. Initiate the use of the incident command structure to manage span of control and incident organization.
5. Apply a working knowledge of the factors effecting human performance in high risk environments.
6. Track and document appropriate use and maintenance of wildland fire hand tools and power tools.
7. Utilize the fundamentals of prescribed fire and fuels reduction operations and the associated tactics and equipment.
8. Proficiently utilize chainsaws to cut trees, brush and other vegetation for fireline construction and fuels management projects.

Total Units 16

2020-2021 RC Catalog Addendum
Certificate in Coaching

Students who complete this program will be well-informed of current topics associated with the coaching profession. Topics include Title IX, prevention and treatment of injuries, and basic coaching pedagogy. Completion of the program prepares students for coaching at elementary, middle, and high school levels as well as recreational coaching.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 1</td>
<td>Contemporary Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 2</td>
<td>First Aid and Safety</td>
<td>3</td>
</tr>
<tr>
<td>KINES 20</td>
<td>Athletic Training</td>
<td>3.5</td>
</tr>
<tr>
<td>KINES 22</td>
<td>Introduction to Physical Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Select                                                                 | 1-3   |

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 2</td>
<td>Aerobics (Dance, Step or Water)</td>
<td>1</td>
</tr>
<tr>
<td>PE 4</td>
<td>Badminton</td>
<td>1</td>
</tr>
<tr>
<td>PE 5</td>
<td>Basketball</td>
<td>1</td>
</tr>
<tr>
<td>PE 5B</td>
<td>Intermediate Basketball</td>
<td>1</td>
</tr>
<tr>
<td>PE 6</td>
<td>Fitness and Health</td>
<td>1</td>
</tr>
<tr>
<td>PE 7</td>
<td>Golf</td>
<td>1</td>
</tr>
<tr>
<td>PE 8</td>
<td>Martial Arts/Self Defense</td>
<td>1</td>
</tr>
<tr>
<td>PE 10</td>
<td>Racquetball</td>
<td>1</td>
</tr>
<tr>
<td>PE 12</td>
<td>Beginning Swim for Fitness</td>
<td>1</td>
</tr>
<tr>
<td>PE 12B</td>
<td>Intermediate Swim for Fitness</td>
<td>1</td>
</tr>
<tr>
<td>PE 12C</td>
<td>Advanced Swim for Fitness</td>
<td>1</td>
</tr>
<tr>
<td>PE 13</td>
<td>Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PE 14</td>
<td>Volleyball</td>
<td>1</td>
</tr>
<tr>
<td>PE 15</td>
<td>Weight Training</td>
<td>1</td>
</tr>
<tr>
<td>PE 16</td>
<td>Fitness Walking</td>
<td>1</td>
</tr>
<tr>
<td>PE 15B</td>
<td>Advanced Weight Training</td>
<td>1</td>
</tr>
<tr>
<td>PE 18</td>
<td>Floor Exercises</td>
<td>1</td>
</tr>
<tr>
<td>PE 19</td>
<td>Weight Training and Aerobics</td>
<td>1</td>
</tr>
<tr>
<td>PE 19B</td>
<td>Advanced Weight Training and Aerobics</td>
<td>1</td>
</tr>
<tr>
<td>PE 30A</td>
<td>Theory of Baseball</td>
<td>1</td>
</tr>
<tr>
<td>PE 30B</td>
<td>Competitive Baseball</td>
<td>3</td>
</tr>
<tr>
<td>PE 30C</td>
<td>Off-Season Conditioning for Baseball</td>
<td>1</td>
</tr>
<tr>
<td>PE 30D</td>
<td>Baseball Training</td>
<td>3</td>
</tr>
<tr>
<td>PE 31A</td>
<td>Theory of Basketball</td>
<td>1</td>
</tr>
<tr>
<td>PE 31B</td>
<td>Competitive Basketball</td>
<td>3</td>
</tr>
<tr>
<td>PE 31C</td>
<td>Off-Season Conditioning for Basketball</td>
<td>1</td>
</tr>
<tr>
<td>PE 33A</td>
<td>Theory of Football</td>
<td>1</td>
</tr>
<tr>
<td>PE 33B</td>
<td>Competitive Football</td>
<td>3</td>
</tr>
<tr>
<td>PE 33C</td>
<td>Off-Season Conditioning for Football</td>
<td>1</td>
</tr>
<tr>
<td>PE 34A</td>
<td>Theory of Golf</td>
<td>1</td>
</tr>
<tr>
<td>PE 34B</td>
<td>Competitive Golf</td>
<td>3</td>
</tr>
<tr>
<td>PE 34C</td>
<td>Off-Season Conditioning for Golf</td>
<td>1</td>
</tr>
<tr>
<td>PE 35B</td>
<td>Pep Squad</td>
<td>3</td>
</tr>
<tr>
<td>PE 36B</td>
<td>Competitive Soccer</td>
<td>3</td>
</tr>
<tr>
<td>PE 36C</td>
<td>Off-Season Conditioning for Soccer</td>
<td>1</td>
</tr>
<tr>
<td>PE 37A</td>
<td>Theory of Softball</td>
<td>1</td>
</tr>
<tr>
<td>PE 37B</td>
<td>Competitive Softball</td>
<td>3</td>
</tr>
<tr>
<td>PE 37C</td>
<td>Off-Season Conditioning for Softball</td>
<td>1</td>
</tr>
<tr>
<td>PE 38A</td>
<td>Theory of Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PE 38B</td>
<td>Competitive Tennis</td>
<td>3</td>
</tr>
<tr>
<td>PE 38C</td>
<td>Off-Season Conditioning for Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PE 40A</td>
<td>Theory of Volleyball</td>
<td>1</td>
</tr>
<tr>
<td>PE 40B</td>
<td>Competitive Volleyball</td>
<td>3</td>
</tr>
<tr>
<td>PE 40C</td>
<td>Off-Season Conditioning for Volleyball</td>
<td>1</td>
</tr>
<tr>
<td>PE 45</td>
<td>Performance Training and Conditioning Techniques for Intercollegiate Athletics</td>
<td>1-2</td>
</tr>
<tr>
<td>PE 49</td>
<td>Weight Training for Collegiate Athletes</td>
<td>1</td>
</tr>
<tr>
<td>PE 49A</td>
<td>Beginning Circuit Training</td>
<td>1</td>
</tr>
<tr>
<td>PE 71</td>
<td>Soccer</td>
<td>1</td>
</tr>
</tbody>
</table>

2020-2021 RC Catalog Addendum
| Total Units | 13.5-15.5 |
### COURSE DESCRIPTION INFORMATION

#### Course Number Changes

<table>
<thead>
<tr>
<th>Old Course Number</th>
<th>New Course Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 117G</td>
<td>ESL 115G</td>
</tr>
<tr>
<td>ESL 227G</td>
<td>ESL 214G</td>
</tr>
<tr>
<td>ESL 260</td>
<td>ESL 210</td>
</tr>
<tr>
<td>ESL 260LS</td>
<td>ESL 210LS</td>
</tr>
<tr>
<td>ESL 261I</td>
<td>ESL 211</td>
</tr>
<tr>
<td>ESL 261LS</td>
<td>ESL 211LS</td>
</tr>
<tr>
<td>ESL 264</td>
<td>ESL 212</td>
</tr>
<tr>
<td>ESL 264LS</td>
<td>ESL 212LS</td>
</tr>
<tr>
<td>ESL 266G</td>
<td>ESL 213G</td>
</tr>
<tr>
<td>ESL 266LS</td>
<td>ESL 213LS</td>
</tr>
<tr>
<td>ESL 317G</td>
<td>ESL 315G</td>
</tr>
<tr>
<td>ESL 327G</td>
<td>ESL 314G</td>
</tr>
<tr>
<td>ESL 360</td>
<td>ESL 310</td>
</tr>
<tr>
<td>ESL 360LS</td>
<td>ESL 310LS</td>
</tr>
<tr>
<td>ESL 361I</td>
<td>ESL 311</td>
</tr>
<tr>
<td>ESL 361LS</td>
<td>ESL 311LS</td>
</tr>
<tr>
<td>ESL 364</td>
<td>ESL 312</td>
</tr>
<tr>
<td>ESL 364LS</td>
<td>ESL 312LS</td>
</tr>
<tr>
<td>ESL 366G</td>
<td>ESL 313G</td>
</tr>
<tr>
<td>ESL 366LS</td>
<td>ESL 313LS</td>
</tr>
</tbody>
</table>
COURSES

ART (ART)

Change: catalog description effective fall 2020

13 BEGINNING WATERCOLOR PAINTING
3 units, 2 lecture hours, 4 lab hours, pass/no pass
ADVISORIES: English 1A or 1AH.
In this class, students will develop beginning level skills in watercolor painting. Through lecture and studio practice, students learn representational, abstract, nonobjective, and conceptual approaches/techniques to painting. Traditional and experimental techniques are explored. (A, CSU, UC)

Change: approved for CSU-GE Area C.1 effective fall 2020

26 SURVEY OF NON-WESTERN ART
3 units, 3 lecture hours
ADVISORIES: English 1A or 1AH.
This course is a survey of art outside the western European tradition, focusing on the major artistic traditions of Africa, Oceania, Indigenous North America, and the Pre-Columbian Americas, from ancient times up to the impact of European contact. The course will focus on the role of the visual arts in non-western cultural perspectives, including discussion of sacred ritual, social and cultural constructs, materials, and artistic creation. Emphasis will be placed on the recognition of works from major civilizations, their artistic traditions, and what can be revealed about the cultures and peoples who created them from historical and cultural viewpoints. Course content will include the availability of a trip to an internationally recognized art venue. (A, CSU-GE)

AUTOMOTIVE TECHNOLOGY (AUTOT)

New course effective fall 2020

309 AUTOMOTIVE ESSENTIALS
0 units, 3 lecture hours, pass/no pass only
This course is an overview of the automobile and its basic components. General servicing procedures and basic troubleshooting are included for anyone needing an introduction to the operating principles of the automobile.

New course effective fall 2020

312 AUTOMOTIVE STEERING AND SUSPENSION
0 units, 3 lecture hours, 3 lab hours, pass/no pass only
PREREQUISITES: Automotive Technology 9 or 309.
This course will cover the identification and diagnosis of steering and suspension components. The lab will provide hands-on experience and skills that automotive chassis technicians need to succeed, in the automotive industry.

New course effective fall 2020

313 AUTOMOTIVE BRAKE SYSTEMS
0 units, 3 lecture hours, 3 lab hours, pass/no pass only
PREREQUISITES: Automotive Technology 9 or 309.
This course will cover the diagnosis and repair of automotive brake systems.

New course effective fall 2020

314 ENGINE AND EMISSION CONTROL FUNDAMENTALS
0 units, 2 lecture hours, 3 lab hours, pass/no pass only
PREREQUISITES: Automotive Technology 10 and 11.
This course is designed to prepare the students for the Bureau of Automotive Repair Smog Check Licensing Exam. Level 1 Training provides students with the basic knowledge of engine and emission controls needed to move forward with Level 2 Smog Check Procedures Training. Smog check rules and regulations are covered in detail. This course provides an introduction to Smog Check Program inspection procedures and policies mandated by the Bureau of Automotive Repair.

New course effective fall 2020

315 SMOG CHECK PROCEDURES TRAINING LEVEL 2
0 units, 2 lecture hours, 2 lab hours, pass/no pass only
PREREQUISITES: Automotive Technology 10, 11, and 114 or 314.
This course provides students with the procedural knowledge, skills, and abilities needed to perform Smog Check inspections. Students who complete and pass this course will have met the California Bureau of Automotive Repair training requirements to qualify to take the Smog Check Inspector state licensing examination.

**AVIATION MAINTENANCE TECHNOLOGY (AMT)**

*New course* effective spring 2021

**10** AVIATION MAINTENANCE GENERAL A

6.5 units, 7 lecture hours, 7 lab hours

ADVISORIES: English 1A or 1AH.

This course prepares students with the skills and technical knowledge they need to perform maintenance on aircraft in the aviation maintenance industry. The content of this course is a variety of general aviation maintenance subjects required by the Federal Aviation Administration as part of the Aviation Maintenance Technology Program. Topics covered will include: fundamental electricity and electronics; aircraft weight and balance; mathematics; physics for aviation; ground operations and servicing; and human factors. (A, CSU)

*New course* effective spring 2021

**20** AVIATION MAINTENANCE GENERAL B

6.5 units, 7 lecture hours, 7 lab hours

ADVISORIES: English 1A or 1AH.

This course prepares students with the skills and technical knowledge they need to perform maintenance on aircraft in the aviation maintenance industry. The content of this course is a variety of general aviation maintenance subjects required by the Federal Aviation Administration as part of the Aviation Maintenance Technology Program. Topics covered will include: maintenance forms, records, and publications; mechanic privileges and limitations; aircraft material, hardware, and processes; aircraft drawings; fluid lines and fittings; cleaning and corrosion control; inspection concepts and techniques; foreign object elimination (foe); and alerts, cautions, and warning indications.

**BIOLOGY (BIOL)**

*Change: advisories* effective spring 2021

**5** HUMAN BIOLOGY

4 units, 3 lecture hours, 3 lab hours, pass/no pass

ADVISORIES: English 1A or 1AH.

This course is an introductory human biology course that examines science and societal issues. This course emphasizes the structure of the human body and the functional interrelationships of the body's systems: integument, circulatory, digestive, respiratory, urinary, skeletal, muscular, nervous, endocrine, reproductive, and genetics. (A, CSU-GE, UC, I)

*Change: advisories* effective spring 2021

**10** INTRODUCTION TO LIFE SCIENCE LECTURE

3 units, 3 lecture hours, pass/no pass

ADVISORIES: English 1A or 1AH.

This lecture course is recommended for the non-biological science and pre-education majors. This is an introductory course using biological concepts. The organismal structure, function, inheritance, evolution, and ecology are covered. Not open to students with credit in Biology 3. (A, CSU-GE, UC, I)

*Change: approved for CSU-GE Area B.2, IGETC Area 5B* effective fall 2020

**10H** HONORS INTRODUCTION TO LIFE SCIENCE LECTURE

3 units, 3 lecture hours, pass/no pass

ADVISORIES: English 1A or 1AH.

This lecture course is recommended for the non-biological science and pre-education majors seeking honors natural science credit. In this introductory course a range of biological concepts will be examined; organismal structure, function, inheritance, evolution, and ecology are covered. Within this course honors level student directed research will be incorporated into the teaching curriculum. This course is not open to students with credit in Biology 3. (A, CSU, UC-GE, UC, I)

*Change: corequisites, advisories, catalog description* effective spring 2021

**10L** INTRODUCTION TO LIFE SCIENCE LAB

1 unit, 3 lab hours, pass/no pass

COREQUISITES: Biology 10 or 10H. ADVISORIES: English 1A or 1AH.

2020-2021 RC Catalog Addendum
This lab course is recommended for the non-biological science and pre-education majors. This is an introductory laboratory course using biological concepts. The organismal structure, function, inheritance, evolution, and ecology are covered in this course. Field trips may be required. This course is not open to students with credit for Biology 3. (A, CSU-GE, UC, I)

Change: prerequisites, advisories, catalog description effective spring 2021

11B  BIOLOGY FOR SCIENCE MAJORS II
5 units, 3 lecture hours, 6 lab hours
PREREQUISITES: Biology 11A and Mathematics 103 or equivalent. ADVISORIES: English 1A or 1AH.
This course is the second course of a two-semester sequence of general biology for science majors. Students will study the origins of life, the evolutionary history of biodiversity, plant form and function, animal form and function, and ecology. This course is intended for science majors and pre-medical, pre-veterinarian, pre-dental, pre-optometry, and pre-pharmacy majors. (A, CSU-GE, UC, I) (C-ID BIOL 140) (C-ID 135S BIOL 11A + BIOL 11B)

Change: advisories effective spring 2021

20  HUMAN ANATOMY
4 units, 3 lecture hours, 3 lab hours
PREREQUISITES: Biology 1 or 5 or 11A. ADVISORIES: English 1A or 1AH and Mathematics 11 or 45.
This is a course providing a basic understanding and working knowledge of the human body with emphasis on the structure of each major system. The interrelationship between human systems and the relationships between the structure and functions of each system will be studied at several levels: cellular, tissue, organ, system, and organismal. (A, CSU-GE, UC, I) (C-ID BIOL 110)

Change: advisories effective spring 2021

31  MICROBIOLOGY
5 units, 3 lecture hours, 6 lab hours
PREREQUISITES: Biology 1 or 5 or 11A and Chemistry 1A or 3A. ADVISORIES: English 1A or 1AH.
This course provides an introduction to the structure, metabolism and ecology of microorganisms with special emphasis on microbe-related human diseases. This course is designed to introduce the student to a variety of topics in the area of microbiology. The text, lab manuals, and lectures are geared to students in biological, medical, physical education and health-oriented programs. (A, CSU-GE, UC, I)

COMMUNICATION (COMM)
New course effective fall 2020

25H  Honors Argumentation and Debate
3 units, 3 lecture hours, pass/no pass
PREREQUISITES: Completion of English 1A or 1AH. Advisories: Communication 1 or 1H.
Argumentation is designed to provide students with the methods for critical inquiry and advocacy. Emphasis will be placed on analysis, presentation and evaluation of oral and written argumentation. This course focuses on identifying fallacies, testing evidence, and advancing a reasoned position while defending and refuting arguments. Students will write a minimum of 6,000 words during the course of the semester. As an Honor’s section, this class will employ enhanced methods of debate and critical analysis of arguments. (A, CSU)

ENGLISH (ENGL)
Correction: advisory to prerequisite

1AH  HONORS READING AND COMPOSITION
4 units, 4 lecture hours
PREREQUISITE: English 132.
English 1AH focuses on conducting research and on reading, analyzing, and composing college-level prose, with emphasis on the expository: research (gathering, organizing, evaluating, integrating, and documenting information), culminating in a term research paper using both traditional and original research; studying writing as a process; exploring different composing structures and strategies; editing and revising one’s own writing. As an Honors section, this course is organized on a theme with a seminar approach. Students will write a minimum of 8,000 words in formal academic language. (A, CSU-GE, UC, I) (C-ID ENGL 100)

ENGLISH AS A SECOND LANGUAGE (ESL)
Change: approved for CSU-GE Area C.2 effective fall 2020
14  HIGH-INTERMEDIATE ACADEMIC READING AND WRITING
6 units, 6 lecture hours, pass/no pass
ADVISORIES: English as a Second Language 266R and 266W or English as a Second Language 366R and 366W or placement through an approved multiple-measure process.
ESL 14 is an integrated reading and writing course designed for multilingual students to develop academic literacy skills at the high-intermediate level. Students explore themes in various texts employing reading strategies with the purpose of developing and supporting theses in multiple-draft, source-based expository essays. This course provides language support and a lens for cultural insight for multilingual students. Successful completion of this course will prepare students for ESL 15 or ESL 315. (A, CSU-GE)

Change: number, requisites effective spring 2021

115G  ADVANCED ACADEMIC GRAMMAR (formerly ESL 117G)
3 units, 3 lecture hours, pass/no pass
ADVISORIES: ESL 214G or ESL 314G, or placement through an approved multiple-measure process.
ESL 115G is an advanced grammar skills course designed for multilingual students who want to comprehend and use grammar structures in written and spoken academic English. This course may be taken to strengthen student performance in other ESL, English, or collegiate level courses.

Change: number effective spring 2021

210  LOW-BEGINNING READING, WRITING, AND GRAMMAR (formerly ESL 260)
6 units, 6 lecture hours, pass/no pass only
ADVISORIES: Placement through an approved multiple-measure process.
ESL 210 is an integrated reading, writing, and grammar course designed for ESL students to develop literacy skills at the low-beginning level. Students learn how to write sentences using basic grammatical structures. Students develop vocabulary by reading about life skills, the work place, and everyday situations. This course may be taken concurrently with other ESL 210-level courses. Successful completion of this course will prepare students for ESL 211 or ESL 311.

Change: number effective spring 2021

210LS LOW-BEGINNING LISTENING AND SPEAKING (formerly ESL 260LS)
6 units, 6 lecture hours, pass/no pass only
Placement through an approved multiple-measure process.
ESL 210LS is a listening and speaking course for ESL students who want to develop oral language skills at the low-beginning level. Students learn to converse on everyday topics, using basic phrases and sentences. ESL 210LS is the lowest level in the ESL sequence. This course may be taken concurrently with other ESL 210-level courses. Students who successfully complete this course will be prepared for ESL 211LS or ESL 311LS.

Change: number, requisites, title effective spring 2021

211  HIGH-BEGINNING READING, WRITING, AND Grammar (formerly ESL 261I)
6 units, 6 lecture hours, pass/no pass only
ADVISORIES: ESL 210 or ESL 310, or placement through an approved multiple-measure process.
ESL 211 is an integrated reading, writing, and grammar course designed for ESL students to develop literacy skills at the high-beginning level. Students learn to write basic paragraphs on familiar topics. Students increase reading comprehension and vocabulary by reading stories, articles, and novels on various high interest topics and themes. This course may be taken concurrently with other ESL 211-level courses. Successful completion of this course will prepare students for ESL 212 or ESL 312.

Change: number, requisites, title effective spring 2021

211LS HIGH-BEGINNING LISTENING AND SPEAKING (formerly ESL 261LS)
6 units, 6 lecture hours, pass/no pass only
ADVISORIES: ESL 210 or ESL 310, or placement through an approved multiple-measure process.
ESL 211LS is a listening and speaking course for ESL students who want to develop oral language skills at the high-beginning level. Students learn to communicate on personal and workplace topics, expressing ideas in a series of phrases and sentences. This course may be taken concurrently with other ESL 211-level courses. Successful completion of this course will prepare students for ESL 212LS or ESL 312LS.

Change: number, requisites, title effective spring 2021

212  LOW-INTERMEDIATE READING, WRITING, AND GRAMMAR (formerly ESL 264)
6 units, 6 lecture hours, pass/no pass only

2020-2021 RC Catalog Addendum
ADVISORIES: ESL 211 or ESL 311, or placement through an approved multiple-measure process.

ESL 212 is an integrated reading, writing, and grammar course designed for ESL students to develop literacy skills at the low-intermediate level. Students learn to write organized paragraphs on familiar topics. Students increase reading comprehension and vocabulary by reading stories, articles, and novels on various high interest topics and themes. This course may be taken concurrently with other ESL 212-level courses. Successful completion of this course will prepare students for ESL 213 or ESL 313.

Change: number, requisites, title effective spring 2021

**212LS LOW-INTERMEDIATE LISTENING AND SPEAKING** (formerly ESL 264LS)

6 units, 6 lecture hours, pass/no pass only

ADVISORIES: ESL 211LS or ESL 311LS or placement through a multiple-measure process.

ESL 212LS is a listening and speaking course for ESL students who want to develop oral language skills at the low-intermediate level. Students learn to exchange information on a variety of common topics, expressing ideas in an extended series of phrases and sentences. This course may be taken concurrently with other ESL 212-level courses. Successful completion of this course will prepare students for ESL 213LS or ESL 313LS.

Change: number effective spring 2021

**213G INTERMEDIATE ACADEMIC GRAMMAR** (formerly ESL 266G)

3 units, 3 lecture hours, pass/no pass only

ADVISORIES: ESL 212 or ESL 312, or placement through an approved multiple-measure process

ESL 213G is an intermediate grammar skills course designed for multilingual students who want to comprehend and use grammar structures in written and spoken academic English. This course may be taken concurrently with other ESL courses to strengthen student academic performance. Successful completion of this course will prepare students for ESL 214G or ESL 314G.

Change: number effective spring 2021

**213LS INTERMEDIATE LISTENING AND SPEAKING** (formerly ESL 266LS)

3 units, 3 lecture hours, pass/no pass only

ADVISORIES: ESL 212LS or ESL 312LS, or placement through a multiple-measure process.

ESL 213LS is a listening and speaking course for ESL students who want to develop oral language skills at the intermediate level. Students learn to comprehend extended spoken discourse and lectures, and learn to give explanations and opinions on a variety of common academic topics. This course may be taken concurrently with other ESL 213-level courses. Successful completion of this course will prepare students for ESL 214LS or ESL 314LS.

Change: number, requisites effective spring 2021

**214G HIGH-INTERMEDIATE ACADEMIC GRAMMAR** (formerly ESL 227G)

3 units, 3 lecture hours, pass/no pass only

ADVISORIES: ESL 213G or ESL 313G, or placement through an approved multiple-measure process

ESL 214G is a high-intermediate grammar skills course designed for multilingual students who want to comprehend and use grammar structures in written and spoken academic English. This course may be taken concurrently with other ESL courses to strengthen student academic performance. Successful completion of this course will prepare students for ESL 215G or ESL 315G.

New Course effective spring 2021

**214LS HIGH-INTERMEDIATE ACADEMIC LISTENING AND SPEAKING**

0 units, 3 lecture hours, pass/no pass only

ADVISORIES: ESL 213LS or ESL 313LS, or placement through a multiple-measure process.

ESL 214LS is a listening and speaking course for ESL students who want to develop oral language skills at the high-intermediate level. Students learn to comprehend authentic lectures, talks and reports and effectively express ideas and points of view in spoken English on a variety of common academic topics. This course may be taken concurrently with other ESL 214-level courses. Successful completion of this course will prepare students for ESL 215LS or ESL 315LS.

New Course effective spring 2021

**215LS ADVANCED ACADEMIC LISTENING AND SPEAKING**

0 units, 3 lecture hours, pass/no pass

ADVISORIES: ESL 214LS or ESL 314LS, or placement through a multiple-measure process.

ESL 215LS is a listening and speaking course for ESL students who want to develop oral language skills at the advanced level. Students learn to comprehend sophisticated, authentic lectures, talks and reports and exchange complex

2020-2021 RC Catalog Addendum
information using effective, fluent and spontaneous spoken English on a variety of common academic topics. This course may be taken concurrently with other ESL 215-level courses.

**Change: number, requisites** effective spring 2021

310  **LOW-BEGINNING READING, WRITING, AND GRAMMAR (formerly ESL 360)**

0 units, 6 lecture hours, pass/no pass only
ADVISORIES: Placement through an approved multiple-measure process
ESL 310 is an integrated reading, writing, and grammar course designed for ESL students to develop literacy skills at the low-beginning level. Students learn how to write sentences using basic grammatical structures. Students develop vocabulary by reading about life skills, the workplace, and everyday situations. This course may be taken concurrently with other ESL 210-level courses. Successful completion of this course will prepare students for ESL 211 or ESL 311.

**Change: number, requisites** effective spring 2021

310LS **LOW-BEGINNING LISTENING AND SPEAKING (formerly ESL 360LS)**

0 units, 6 lecture hours, pass/no pass only
ADVISORIES: Placement through an approved multiple-measure process.
ESL 310LS is a listening and speaking course for ESL students who want to develop oral language skills at the low-beginning level. Students learn to converse on everyday topics, using basic phrases and sentences. ESL 310LS is the lowest level in the ESL sequence. This course may be taken concurrently with other ESL 210-level courses. Students who successfully complete this course will be prepared for ESL 211LS or ESL 311LS.

**Change: number, requisites** effective spring 2021

311  **BEGINNING READING, WRITING, AND GRAMMAR (formerly ESL 361I)**

0 units, 6 lecture hours, pass/no pass only
ADVISORIES: ESL 210 or ESL 310, or placement through an approved multiple-measure process.
ESL 311 is an integrated reading, writing, and grammar course designed for ESL students to develop literacy skills at the high-beginning level. Students learn to write basic paragraphs on familiar topics. Students increase reading comprehension and vocabulary by reading stories, articles, and novels on various high interest topics and themes. This course may be taken concurrently with other ESL 311-level courses. Successful completion of this course will prepare students for ESL 212 or ESL 312.

**Change: number, requisites** effective spring 2021

311LS **HIGH-BEGINNING LISTENING AND SPEAKING (formerly ESL 361LS)**

0 units, 6 lecture hours, pass/no pass only
ADVISORIES: English as a Second Language 210LS or 310LS or placement through a multiple-measure process.
ESL 311LS is a listening and speaking course for ESL students who want to develop oral language skills at the high-beginning level. Students learn to communicate on personal and workplace topics, expressing ideas in a series of phrases and sentences. This course may be taken concurrently with other ESL 311-level courses. Successful completion of this course will prepare students for ESL 212LS or ESL 312LS.

**Change: number, requisites, title** effective spring 2021

312  **LOW-INTERMEDIATE READING, WRITING, AND GRAMMAR (formerly ESL 364)**

0 units, 6 lecture hours, pass/no pass only
ADVISORIES: ESL 211 or ESL 311, or placement through an approved multiple-measure process.
ESL 312 is an integrated reading, writing, and grammar course designed for ESL students to develop literacy skills at the low-intermediate level. Students learn to write organized paragraphs on familiar topics. Students increase reading comprehension and vocabulary by reading stories, articles, and novels on various high interest topics and themes. This course may be taken concurrently with other ESL 312-level courses. Successful completion of this course will prepare students for ESL 213 or ESL 313.

**Change: number, requisites** effective spring 2021

312LS **LOW-INTERMEDIATE LISTENING AND SPEAKING (formerly ESL 364LS)**

0 units, 6 lecture hours, pass/no pass only
ADVISORIES: ESL 211LS or ESL 311LS or placement through a multiple-measure process.
ESL 312LS is a listening and speaking course for ESL students who want to develop oral language skills at the low-intermediate level. Students learn to exchange information on a variety of common topics, expressing ideas in an extended series of phrases and sentences. This course may be taken concurrently with other ESL 312-level courses. Successful completion of this course will prepare students for ESL 213LS or ESL 313LS.

2020-2021 RC Catalog Addendum
313G  INTERMEDIATE ACADEMIC GRAMMAR (formerly ESL 366G)  
0 units, 3 lecture hours, pass/no pass only  
ADVISORIES: ESL 212 or ESL 312, or placement through an approved multiple-measure process.  
ESL 313G is an intermediate grammar skills course designed for multilingual students who want to comprehend and use grammar structures in written and spoken academic English. This course may be taken concurrently with other ESL courses to strengthen student academic performance. Successful completion of this course will prepare students for ESL 214G or ESL 314G.

313LS INTERMEDIATE LISTENING AND SPEAKING (formerly ESL 366LS)  
0 units, 3 lecture hours, pass/no pass only  
ADVISORIES: ESL 212LS or ESL 312LS, or placement through a multiple-measure process.  
ESL 313LS is a listening and speaking course for ESL students who want to develop oral language skills at the intermediate level. Students learn to comprehend extended spoken discourse and lectures, and learn to give explanations and opinions on a variety of common academic topics. This course may be taken concurrently with other ESL courses to strengthen student academic performance. Successful completion of this course will prepare students for ESL 214LS or ESL 314LS.

314G  HIGH-INTERMEDIATE ACADEMIC GRAMMAR (formerly ESL 327G)  
0 units, 3 lecture hours, pass/no pass only  
ADVISORIES: ESL 213G or ESL 313G, or placement through an approved multiple-measure process.  
ESL 314G is a high-intermediate grammar skills course designed for multilingual students who want to comprehend and use grammar structures in written and spoken academic English. This course may be taken concurrently with other ESL courses to strengthen student academic performance. Successful completion of this course will prepare students for ESL 215G or ESL 315G.

314LS HIGH-INTERMEDIATE ACADEMIC LISTENING AND SPEAKING  
0 units, 3 lecture hours, pass/no pass only  
ADVISORIES: ESL 213LS or ESL 313LS, or placement through a multiple-measure process.  
ESL 314LS is a listening and speaking course for ESL students who want to develop oral language skills at the high-intermediate level. Students learn to comprehend authentic lectures, talks and reports and effectively express ideas and points of view in spoken English on a variety of common academic topics. This course may be taken concurrently with other ESL 314-level courses. Successful completion of this course will prepare students for ESL 215LS or ESL 315LS.

315G  ADVANCED ACADEMIC GRAMMAR (formerly ESL 317G)  
0 units, 3 lecture hours, pass/no pass only  
ADVISORIES: ESL 214G or ESL 314G, or placement through an approved multiple-measure process.  
ESL 315G is an advanced grammar skills course designed for multilingual students who want to comprehend and use grammar structures in written and spoken academic English. This course may be taken to strengthen student performance in other ESL, English, or collegiate level courses.

315LS ADVANCED ACADEMIC LISTENING AND SPEAKING  
0 units, 3 lecture hours, pass/no pass only  
ADVISORIES: ESL 214LS or ESL 314LS, or placement through a multiple-measure process.  
ESL 315LS is a listening and speaking course for ESL students who want to develop oral language skills at the advanced level. Students learn to comprehend sophisticated, authentic lectures, talks and reports and exchange complex information using effective, fluent and spontaneous spoken English on a variety of common academic topics. This course may be taken concurrently with other ESL 315-level courses. This course may be taken concurrently with other ESL 315-level courses.

FLIGHT SCIENCE (FLGHT)  
Change: units, hours, catalog description  
effective fall 2020

2020-2021 RC Catalog Addendum
101  **PRIVATE PILOT 1 GROUND SCHOOL**
4 units, 3 lecture hours, 3 lab hours
ADVISORIES: Mathematics 45 and English 1A or 1AH.
This lecture and lab course provides the first of two parts of the aeronautical knowledge needed to earn a private pilot certificate. Some of the topics covered include principles of flight, aerodynamics, aircraft controls, engine systems, and Federal Aviation Regulations applicable to flying under visual flight rules. (A)

*Change: catalog description, advisories  effective fall 2020*

105  **PRIVATE PILOT 1 FLIGHT LAB**
1 unit, 3 lab hours
COREQUISITES: Flight 101 and 107. ADVISORIES: Mathematics 45 and English 1A or 1AH.
This course is the first of two portions of the flight training required to earn the Private Pilot Certificate. Some of the topics covered are fundamental flight maneuvers, performance maneuvers, and development of aeronautical decision making skills. Prior to the first day of class, students must hold a valid 3rd Class or higher FAA medical certificate. Students must also be able to read, speak, write, and understand the English language. Prior to beginning flight training, students must 1) provide TSA proof of Flight Training Eligibility and 2) receive an Airport Identification Badge from Fresno Yosemite International Airport. The cost of this course is substantial. See current published costs in Flight Science Student Handbook. (A)

*Change: catalog description, grading basis  effective fall 2020*

106  **PRIVATE PILOT 2 FLIGHT LAB**
1.5 units, 4.5 lab hours
This course provides advanced flight training for individuals seeking to increase flight proficiency in preparation for Private Pilot Certification. Some of the topics covered will be fundamental flight maneuvers, performance maneuvers, use of navigation aids, cross country flying, and development of aeronautical decision making skills to the FAA Practical Test Standards. Students must hold a valid 3rd class (or higher) FAA medical certificate and a valid Fresno-Yosemite Airport ID Badge for the duration of this course. The cost of this course is substantial. See current published costs in the Flight Science Student Handbook. (A)

*Change: units, hours, catalog description  effective fall 2020*

108  **PRIVATE PILOT 2 GROUND SCHOOL**
4 units, 3 lecture hours, 3 lab hours
This lecture and lab course provides the second portion of the aeronautical knowledge required to earn a private pilot airplane certificate. Some of the topics covered include basic weather and weather services for pilots, navigation, radio communication, and human factors. (A)

*Change: units, hours, catalog description  effective fall 2020*

111  **INSTRUMENT RATING GROUND SCHOOL**
5 units, 4 lecture hours, 3 lab hours
This lecture and lab course covers the aeronautical knowledge required to earn an instrument rating. Some of the topics covered will include principles of instrument flight, flight instruments, instrument navigation systems, IFR departure-arrival procedures, analyzing weather information and conditions, IFR flight planning, and IFR emergency procedures. (A)

*Change: units, hours, catalog description  effective fall 2020*

113  **ADVANCED METEOROLOGY**
This lecture and lab course is designed to provide an in depth look at weather and how weather relates to aviation. Some topics of discussion will be weather basics, circulation systems, weather hazards, and applying weather knowledge. This course will prepare the student for more advanced levels of aviation training. (A)

*Change: units, hours, catalog description  effective fall 2020*

121  **COMMERCIAL PILOT GROUND SCHOOL**
5 units, 4 lecture hours, 3 lab hours
PREREQUISITE: Flight Science 111.
This lecture and lab course provides the aeronautical knowledge required for the commercial airplane pilot certificate. Some of the topics covered include high performance powerplants, environmental and ice control systems, complex aircraft
systems, advanced aerodynamics, predicting performance, controlling weight and balance, and Federal Aviation Regulations. FAA written test and flight equipment costs for this course are substantial. (A)

Change: units  effective fall 2020

125 COMMERCIAL PILOT 1 FLIGHT LAB
2.5 units, 8 lab hours
PREREQUISITE: Flight Science 106.
This course provides flight training for individuals seeking Commercial Pilot Certification. Some of the topics covered will be commercial flight maneuvers, advanced performance maneuvers, use of navigation aids, long distance cross country flying, and development of advanced aeronautical decision making skills. Students must hold a valid 3rd class (or higher) FAA medical certificate and a valid Fresno-Yosemite Airport ID Badge for the duration of this course. The cost of this course is substantial. See current published costs in the Flight Science Student Handbook. (A)

Change: catalog description, grading basis  effective fall 2020

126 COMMERCIAL PILOT 2 FLIGHT LAB
2.5 units, 6 lab hours
This course provides advanced flight training for individuals seeking Commercial Pilot airplane certification. Some of the topics covered are commercial flight maneuvers, advanced performance maneuvers, use of navigation aids, long distance cross country flying, and development of advanced aeronautical decision making skills. Students must hold a valid 3rd class (or higher) FAA medical certificate and a valid Fresno-Yosemite Airport ID Badge for the duration of this course. The cost of this course is substantial. See current published costs in the Flight Science Student Handbook. (A)

Change: units, hours, catalog description  effective fall 2020

131 FLIGHT INSTRUCTOR GROUND SCHOOL
5 units, 4 lecture hours, 3 lab hours
PREREQUISITE: Flight Science 121.
This lecture and lab course provides ground training for individuals seeking Flight Instructor Certification. Some of the topics covered will be fundamentals of instructing and areas of operations for a private and commercial pilot. (A)

GEOGRAPHY (GEOG)
Change: hours  effective summer 2020

10 INTRODUCTION TO GIS
3 units, 2.5 lecture hours, 2 lab hours, pass/no pass
ADVISORIES: English 1A or 1AH, and Mathematics 103 or the equivalent.
Introduction to the fundamental concepts of Geographic Information Systems (GIS), including familiarization with computers, data input, raster GIS, vector GIS, querying, methods of spatial analysis, and applications of GIS. (A, CSU, UC)

MATHEMATICS (MATH)
Change: approved for CSU-GE Area B.4  effective fall 2020

21 FINITE MATHEMATICS
3 units, 3 lecture hours
PREREQUISITES: Mathematics 103 or equivalent. ADVISORIES: English 1A or 1AH.
This course is an introduction to linear functions, systems of linear equations and inequalities, matrices, linear programming, mathematics of finance, sets and Venn diagrams, combinatorial techniques and an introduction to probability. Topics include applications in business, economics and social sciences. (A, CSU-GE)

New Course

271 ASSISTANCE IN STATISTICS
.5 units, 2 lab hours, pass/no pass only
COREQUISITE: Mathematics 11.
This course is for students requiring help with math assignments in MATH 11. The course will provide intensive assistance in statistic topics, critical thinking, and study skills via an embedded tutor and assigned small groups. Students will develop their understanding of course specific mathematics topics and improve their overall ability to reason mathematically. COREQUISITE: Mathematics 11.
NATURAL RESOURCES (NR)

1  INTRODUCTION TO FORESTRY
3 units, 2 lecture hours, 3 lab hours
ADVISORIES: English 1A or 1AH.
This course is an overview of natural resources management and technician skills. It is intended for those who wish to work as a technician for natural resource entities such as the U.S. Forest Service. History of resources management, governmental and private land management entity structure, basic hand tool identification and use, map reading, wood characteristics, forest health, personal safety and first aid, and forest measurements will be included. Field trips may be required. (A, CSU)

3  COMPUTERS IN NATURAL RESOURCES
1 unit, .5 lecture hour, 1.5 lab hours
ADVISORIES: English 1A or 1AH.
This course is for natural resources students with little or no knowledge of microcomputers. Topics include an introduction to microcomputers, their importance in the field of natural resources, and various problem-solving software packages commonly used in the natural resources industry. (A, CSU)

4  FOREST ECOSYSTEMS
ADVISORIES: English 1A or 1AH.
The forest community is used as a model to discuss the role of ecology in forest management. Students will become familiar with basic biological concepts which are the building blocks for understanding forest ecosystems. Students will gain a better understanding of biological processes and organization, the physical environment, and ecological processes such as: nutrient cycling, succession, natural selection, and application of the scientific method. (A, CSU, UC)

5  WILDLAND FIRE TECHNOLOGY
3 units, 2 lecture hours, 3 lab hours
ADVISORIES: English 1A or 1AH.
This course will prepare students for basic employment as a wildland fire fighter with State and Federal agencies. Successful completers may earn basic National Wildfire Coordinating Group course certificates for ICS I-100, S-130, S-190, L-180 and IS-700. The course stresses field performance and teamwork. (A, CSU)

6  DENDROLOGY
2 units, 2 lecture hours, 3 lab hours
ADVISORIES: English 1A or 1AH.
Students will study the ranges and botanical characteristics of the major natural trees and shrubs in the Western United States. Students will learn to collect, preserve, and identify plants. Frequent field trips that may extend beyond scheduled lab hours are required. (A, CSU, UC)

11 SILVICULTURE
3 units, 2 lecture hours, 3 lab hours
ADVISORIES: English 1A or 1AH.
Students will learn the concepts of managing forests for establishment, growth, composition, health, and quality of forests on a sustained yield basis, using varying techniques including: precommercial and commercial harvesting, regeneration methods, site preparation, and forest pest controls. In this course emphasis is placed upon meeting the objectives of landowners through appropriate silvicultural systems as required by federal and/or state regulations. Field trips may be required for this course. (A, CSU)

12  WATERSHED ECOLOGY
3 units, 2 lecture hours, 3 lab hours
ADVISORIES: English 1A or 1AH.

2020-2021 RC Catalog Addendum
In this course students will learn about watershed ecology including, lakes, streams, and rivers. Students will gain an understanding of water storage facilities and water utilization issues. Students will also gain an understanding of fisheries management issues. The course covers use of instruments to monitor water quality at numerous field sites. Field exercises include studies of the lower Kings River, Pine Flat Reservoir, and agricultural water uses. Students will be introduced to the methods, techniques, and tools used to manage and enhance watershed health. Laboratory is required. Field trips may be required for this course. (A, CSU)

**Change: advisories**

14  **PRINCIPLES OF WILDLIFE MANAGEMENT**
    3 units, 2 lecture hours, 3 lab hours
    ADVISORIES: English 1A or 1AH.
    This course will be an examination of plant and animal ecology in relation to wildlife management. There will be a review of wildlife management techniques. Identification of wildlife species found in the western United States and the evaluation of the role of wildlife management in endangered species recovery will be learned. Field trips may be required in this course. (A, CSU)

**Change: advisories, catalog description**

17  **INTRODUCTION TO FOREST SURVEYING**
    3 units, 2 lecture hours, 3 lab hours
    ADVISORIES: Mathematics 103 or 4A and English 1A or 1AH.
    Students will learn the use of basic surveying equipment such as hand compass, staff compass, topographic and engineer's chain, electronic distance machine (EDM), total station, automatic level, Global Positioning System (GPS) and Philadelphia rod in the measurement of distance, direction, and elevation. Collecting, recording, and plotting field data using field workbooks, and/or computer software will be learned. Field trips may be required in this course. (A, CSU)

**Change: title, added advisories**

18  **REMOTE SENSING & GEOGRAPHIC INFORMATION SYSTEMS**
    3 units, 2 lecture hours, 3 lab hours
    ADVISORIES: English 1A or 1AH.
    This course will cover interpretation and use of aerial photographs, remote sensing, and of geographic information systems (GIS) as they relate to natural resources, and will include photo scale calculations, point location, locating datasets and photographs, and field verification of vegetation/conditions. Additionally, questions pertaining to natural resource issues will be addressed through analyzing, creating, displaying, and modeling feature data (i.e. soils, topography, vegetative cover, etc.) using geographic information systems (GIS). This course will also cover the fundamentals of using ESRI ArcGIS software in GIS applications. Field trips may be required in this course. (A, CSU)

**Change: advisories**

20  **FOREST MEASUREMENTS**
    3 units, 2 lecture hours, 3 lab hours
    ADVISORIES: Mathematics 103 and English 1A or 1AH.
    Students will learn about the measurement of timber and growth quantity and quality. Students will study timber inventory systems, cruise design, aerial photographic interpretation, and log scaling. Measurement of natural resources including forest inventory, tree growth, and rangeland resources will be learned. Topics covered may include basic statistical methods, sampling design, log scaling, tree volume calculations, and tree measurement. Students will use forestry equipment such as a Relaskop, scaling stick, wedge prism, and clinometer. Field trips may be required in this course. (A, CSU)

**Change: advisories**

21  **FOREST PRODUCTS**
    3 units, 2 lecture hours, 3 lab hours
    ADVISORIES: English 1A or 1AH.
    This course is a technological study of wood manufacturing processes. Operations from contract through harvest, transport, and sawmill will be learned. Students will study safety codes and laws, other forest products and their uses, and new developments will be learned. This course also includes wood and defect identification. Field trips may be required in this course. (A, CSU)

**Change: advisories**

30  **FOREST RECREATION**
    3 units, 2 lecture hours, 3 lab hours
    ADVISORIES: English 1A or 1AH.

2020-2021 RC Catalog Addendum
The course prepares students for entry-level duties as a recreation technician. Study topics include water-oriented recreation, winter sports, wilderness management, and administration of recreation contracts. Trail construction skills are emphasized, and include maintenance and use of crosscut saws, rock drills, cable hoists and animal pack stock. Activities include campground planning, soil conservation practices and field trips to public and private recreation facilities. Laboratory will include operation of trucks and tractors to hitch and pull trailers and implements. Field trips may be required in this course. (A, CSU)

Change: advisories effective fall 2020

32A MUSEUM TECHNIQUES-BEGINNING TAXIDERMY
1 unit, .5 lecture hour, 2.5 lab hours
ADVISORIES: English 1A or 1AH.
This course is an introduction to the art of preparing, stuffing, and mounting the skins of animals (especially vertebrates) for study or display. (A, CSU)

Change: advisories effective fall 2020

32B MUSEUM TECHNIQUES-INTERMEDIATE TAXIDERMY
1 unit, .5 lecture hour, 2.5 lab hours
PREREQUISITES: Natural Resources 32A. ADVISORIES: English 1A or 1AH.
This course is an introduction to intermediate skills in the art of preparing, stuffing, and mounting the skins of animals (especially vertebrates) for study or display. (A, CSU)

Change: advisories effective fall 2020

32C MUSEUM TECHNIQUES-ADVANCED TAXIDERMY
1 unit, .5 lecture hour, 2.5 lab hours
PREREQUISITES: Natural Resources 32B. ADVISORIES: English 1A or 1AH.
This course is an introduction to advanced techniques for stuffing and mounting the skins of animals (especially vertebrates) for study or display. (A, CSU)

Change: advisories effective fall 2020

34 CONSERVATION LABORATORY
1 unit, 3 lab hours
ADVISORIES: English 1A or 1AH.
This course is the application of conservation techniques, basic ecological principles, energy efficiency, and group study using basic scientific methods. There will be frequent field trips and one extended overnight field trip might be required. (A, CSU)

Change: advisories effective fall 2020

35 INTERPRETATION OF NATURAL RESOURCES
3 units, 2 lecture hours, 3 lab hours
ADVISORIES: Natural Resources 1 and English 1A or 1AH.
Students will learn the theory and techniques of thematic environmental interpretation. Logical organization and composition of guided and self-guided media will be learned. Practical application through public presentation including narrated walks and campfire talks will be learned. Topics covered will include development of self-guided interpretive media including signs, brochures, and interpretive center displays. Field trips may be required for this course. (A, CSU)

Change: advisories effective fall 2020

40 FOREST MACHINERY
2 units, 1 lecture hour, 3 lab hours
ADVISORIES: English 1A or 1AH.
This course is designed to acquaint the student with the safe operation, preventative maintenance and general use of heavy equipment used in forestry. Course not intended to develop expertise, but to develop an awareness of track laying vehicles, wheeled equipment, pumping systems, jackhammers, and cable yarding systems. Contract inspection and administration standards are also part of this course. (A, CSU)

Change: advisories effective fall 2020

42 ADVANCED WILDLAND FIRE TECHNOLOGY
2 units, 1 lecture hour, 3 lab hours
PREREQUISITES: Natural Resources 5. ADVISORIES: English 1A or 1AH.

2020-2021 RC Catalog Addendum
This course is a preparation for employment as an advanced wildland firefighter/squad boss (FFT1) with state and federal fire suppression agencies. Course meets or exceeds the minimum requirements for employment through basic inter-agency courses (S-131, S-211). (A, CSU)

Change: advisories effective fall 2020

45 FUELS MANAGEMENT
COREQUISITES: Natural Resources 5. ADVISORIES: English 1A or 1AH.
This course provides preparation for employment and advancement within State and Federal wildland fire management agencies. This course will provide students with the knowledge of hazardous fuels mitigation to reduce the damaging effects of wildfires to natural resources and human improvements. Emphasis will be placed on prescribed burning, smoke management mitigations, coordination with silvicultural practices, and wildland-urban interface mitigations. Field trips may be required in this course. (A, CSU)

New course effective fall 2020

95 INTEGRATED FUELS MANAGEMENT
9 units, 8 lecture hours, 3 lab hours
PREREQUISITES: Natural Resources 19V and 97. ADVISORIES: English 1A or 1AH.
LIMITATION ON ENROLLMENT: Successful completion of federal work capacity test within two calendar years. Incoming students may enroll based on equivalency course completion and extensive work experience.
This course will allow for advancement in wildland fire fuels and prescribed fire concepts, leadership development and overall knowledge base in hazardous wildland fire fuels management. Work Labs will be tied to agency projects which will provide students the opportunity to apply skills and leadership in a training environment. Students who complete this course will have required training and experience to competitively apply for state, federal and private fuels management occupations. This course will also provide a pathway to current and former wildland fire employees that meet the course equivalent and work experience. (A, CSU)

New course effective fall 2020

96 WILDLAND FIRE SCHOOL-ADVANCEMENT
9 units, 8 lecture hours, 3 lab hours
PREREQUISITES: Natural Resources 19V and 97. ADVISORIES: English 1A or 1AH. LIMITATION ON ENROLLMENT: Successful completion of federal work capacity test within two calendar years. Incoming students may enroll based on equivalency course completion and extensive work experience.
This course is designed for students who have completed the NR-97 Wildland Fire School or equivalent and have obtained work experience in wildland fire. This course will allow for advancement in wildland fire suppression and prescribed fire concepts, leadership development and overall knowledge base in the wildland fire service. Work Labs will be tied to agency projects which will provide students the opportunity to apply skills and leadership in a training environment. Students who complete this course will have required training and experience to competitively apply for a permanent GS-5 position with the federal fire service. This course will also provide a pathway to current and former wildland fire employees that meet the course equivalent and work experience. (A, CSU)

New course effective fall 2020

97 WILDLAND FIRE SCHOOL-FUNDAMENTALS
14 units, 11 lecture hours, 9 lab hours
PREREQUISITES: Natural Resources 1 and 5 and 4 and 8 and 133 and 108 and 109. ADVISORIES: English 1A or 1AH. LIMITATION ON ENROLLMENT: Successful completion of federal work capacity test within two calendar years. Incoming students may enroll based on equivalency course completion and extensive work experience.
The Wildland Fire School Fundamentals course is a rigorous work simulation program that trains students for the wildland fire suppression and fuels reduction service. Students who complete the Wildland Fire School Fundamentals will be fully qualified to fill the position as a Federal wildland firefighter under the National Wildland Fire Coordinating Group (NWCG) Standards. This program’s training approach is rooted in its field-based lessons where the students are first trained in the classroom then are prepared in the wildland environment that mimics fire-based scenarios and proficiency drills. 60-70 percent of the training hours will be in the field utilizing various forest and timberland environments as well as cooperative local agency projects. The Wildland Fire School Fundamentals is targeted for students who are interested in pursuing jobs in the field of wildland fire suppression and fuels management. This course is the pathway foundation for Career Technical Education training and degree programs specializing in wildland fire suppression and fuels management under the Natural Resource land management agencies. (A, CSU)

Change: advisories effective fall 2020

133 INTRODUCTION TO CHAINSAW OPERATIONS
1 unit, .5 lecture hour, 1.5 lab hours, pass/no pass

2020-2021 RC Catalog Addendum
ADVISORIES: English 1A or 1AH.  
This course provides introductory level training for the use of chainsaws in the forestry and natural resources field. Emphasis is placed on defining and applying chainsaw safety standards, maintenance and function of personal protective equipment (PPE), identification of chainsaw parts, maintenance, tuning, and tactical application of techniques required for brushing, limbing, bucking, and falling trees. (A)

**Change: units, hours, advisories effective fall 2020**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Pass/No Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>INCIDENT COMMAND SYSTEM 200</td>
<td>1</td>
<td>1</td>
<td></td>
<td>pass/no pass</td>
</tr>
<tr>
<td></td>
<td>ADVISORIES: English 1A or 1AH.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course is designed to enable personnel to operate efficiently during an incident or event within the Incident Command System (ICS). This course focuses on the management of single resources. (A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Change: units, hours, advisories effective fall 2020**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Pass/No Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>151</td>
<td>S-211 PORTABLE PUMPS AND WATER USE</td>
<td>1</td>
<td>1</td>
<td></td>
<td>pass/no pass</td>
</tr>
<tr>
<td></td>
<td>ADVISORIES: English 1A or 1AH.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course covers principles of positive displacement pumps but focuses on the Wajax-Pacific Mark III Pump which is primarily used by the National Fire Equipment System. Instruction emphasizes effective and efficient utilization of portable pumps and water under field conditions. (A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**New Course effective fall 2020**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Pass/No Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>152</td>
<td>RT-130 WILDLAND FIRE TOPICS - SAFETY TRAINING</td>
<td>1.5</td>
<td>1.56</td>
<td>.45</td>
<td>pass/no pass</td>
</tr>
<tr>
<td></td>
<td>ADVISORIES: English 1A or 1AH.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Wildland Fire Topics course provides a range of training options to meet National Wildfire Coordinating Group (NWCG) position training requirements and agency specific course hours requirements. This course will focus on operations and decision-making issues related to fireline and all hazard incident safety in order to recognize and mitigate risk, maintain safe and effective practices, and reduce accidents and near misses. (A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**New Course effective fall 2020**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Pass/No Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>153</td>
<td>S-131 WILDLAND FIREFIGHTER TYPE 1</td>
<td>.5</td>
<td>.67</td>
<td>.45</td>
<td>pass/no pass</td>
</tr>
<tr>
<td></td>
<td>LIMITATION ON ENROLLMENT: Students must be qualified as a National Wildfire Coordinating Group (NWCG), Fire Fighter Type 2 (FFT-1). ADVISORIES: English 1A or 1AH.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course is targeted for personnel desiring to be qualified as a Firefighter Type 1 (FFT-1) and or Incident Commander Type 5 (ICT5) in the Federal fire service. Course content will cover what is required to meet the training needs of the NWCG Firefighter Type 1 and or Incident Commander Type 5. Topics include operational leadership, communications, Look-outs/Communications/Escape routes/Safety Zones and tactical decision making. This course contains class discussion and several tactical decision games designed to facilitate learning the objectives. Upon completion, students must then take and pass a final assessment to receive credit for the course. (A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**New Course effective fall 2020**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Pass/No Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>154</td>
<td>S-219 FIRING OPERATIONS</td>
<td>1</td>
<td>1.12</td>
<td>.23</td>
<td>pass/no pass</td>
</tr>
<tr>
<td></td>
<td>LIMITATION ON ENROLLMENT: National Wildfire Coordinating Group (NWCG) qualified as a firefighter type 2 (FFT2). ADVISORIES: English 1A or 1AH.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The course introduces the roles and responsibilities of a Firing Boss, Single Resource (FIRB), and outlines duties of other personnel who may engage firing operations. The course discusses and illustrates common firing devices and techniques. The course provides students with important information regarding general tasks required to be successful. When feasible this course will demonstrate to students a real ignition or demonstrate the use of an actual firing device will assist in transferring these new concepts and skills to the job. There is an optional field day outlined in the course, it is the discretion of the delivery unit to include the field day. (A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**New Course effective fall 2020**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Pass/No Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>155</td>
<td>S-212 WILDLAND FIRE CHAINSAWS</td>
<td>1.5</td>
<td>1.34</td>
<td>.5</td>
<td>pass/no pass</td>
</tr>
<tr>
<td></td>
<td>LIMITATION ON ENROLLMENT: National Wildfire Coordinating Group (NWCG) qualified as a Firefighter Type 2 (FFT2) and satisfactory completion of pre-course work. ADVISORIES: English 1A or 1AH.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2020-2021 RC Catalog Addendum
The course provides introduction to the function, maintenance and use of internal combustion engine powered chain saws, and their tactical wildland fire application. Field exercises support entry level training for firefighters with little or no previous experience in operating a chain saw and provide hands-on cutting experience in surroundings similar to fireline situations. This course is targeted for individuals desiring to be qualified as Basic Faller (FAL3), Firefighter Type 1 (FFT1), Incident Commander Type 5 (ICT5), or Felling Boss, Single Resource (FELB) under the National Wildfire Coordinating Group qualification system. (A)

**New Course**

**156 L-280 FOLLOWERSHIP TO LEADERSHIP**

1 unit, .92 Lecture hours, .25 lab hours, pass/no pass

LIMITATION ON ENROLLMENT: Experience on a wildland fire incident in operations or support functions, successful completion of L-180, Human Factors in the Wildland Fire Service and satisfactory completion of pre-course work.

ADVISORIES: English 1A or 1AH.

This course is designed as a self-assessment opportunity for individuals preparing to step into a leadership role in the wildland fire service. The course combines one day of classroom instruction followed by a second day in the field with students working through a series of problem-solving events in small teams (Field Leadership Assessment Course). Topics include leadership values and principles, transition challenges for new leaders, situational leadership, team cohesion factors, ethical decision-making, and after-action review techniques. Some course delivery may be arduous in nature. (A)

Change: units, hours, advisories

**157 S-230 CREW BOSS (SINGLE RESOURCE)**

1.5 units, 1.5 lecture hours, pass/no pass

ADVISORIES: English 1A or 1AH.

Crew Boss (Single Resource), S-230 is a course designed to meet the training needs of a crew boss on a wildland fire incident. The purpose is to provide fire suppression trainees with the skills/knowledge required to perform tasks listed in National Wildfire Coordinating Group Single Resource Boss. (A)

Change: units, hours, advisories

**158 S-231 ENGINE BOSS**

.5 units, .9 lecture hours, pass/no pass

ADVISORIES: English 1A or 1AH.

This course is suggested training for the position of Single Resource Boss. Upon completion students will be able to perform Engine Boss tasks and make tactical decisions required to safely manage an engine and the associated personnel on an incident. (A)

New course

**159 S-236 HEAVY EQUIPMENT BOSS**

1 unit, 1.12 lecture hours, .23 lab hours, pass/no pass

LIMITATION ON ENROLLMENT: National Wildfire Coordinating Group (NWCG) qualified as Firefighter Type 1 (FFT1) and satisfactory completion of pre-course work. ADVISORIES: English 1A or 1AH.

This course is designed to meet the training needs of a Heavy Equipment Boss, Single Resource (HEOB) on an incident as outlined in the National Incident Management System: Wildland Fire Qualification System Guide, PMS 310-1, and the position task book developed for the position. The target group for this course is personnel desiring to be qualified as Heavy Equipment Boss, Single Resource (HEOB). Primary considerations are tactical use and safety precautions required to establish and maintain an effective dozer operation. A field exercise is required as part of the course. (A)

**OFFICE TECHNOLOGY (OT)**

Change: deleted advisory

**12A Microsoft Excel Essentials**

1.5 units, 1.5 lecture hours, .5 lab hours, pass/no pass.

This course is designed for the student who wishes to enter the work force with a basic understanding of Microsoft Excel spreadsheets. Topics will include creating and formatting worksheets, using formulas and functions, and creating graphs. (A, CSU)

Change: advisories

**42 Medical Document Preparation**

3 units, 3 lecture hours, 1 lab hour, pass/no pass.

ADVISORIES: Office Technology 10.
This course covers health insurance plans, insurance claim forms used in a medical office, and diagnostic and procedural coding. (A, CSU)

PHYSICS (PHYS)
Change: lecture and lab hours (compliance of units to hours), advisories effective summer 2020

2A GENERAL PHYSICS I
4 units, 3 lecture hours, 3 lab hours
PREREQUISITES: Mathematics 4A. ADVISORIES: English 1A or 1AH.
The topics covered in this course include mechanics, properties of matter, heat, sound and waves. (A, CSU-GE, UC, I) (C-ID PHYS 105) (C-ID PHYS 100S: PHYS 2A + PHYS 2B)

Change: lecture and lab hours (compliance of units to hours), advisories effective summer 2020

2B GENERAL PHYSICS II
4 units, 3 lecture hours, 3 lab hours
PREREQUISITES: Physics 2A. ADVISORIES: English 1A or 1AH.
The topics covered in this course include electricity, magnetism, light, atomic and nuclear physics. (A, CSU-GE, UC, I) (C-ID PHYS 110) (C-ID PHYS 100S: PHYS 2A + PHYS 2B)

Change: lecture and lab hours (compliance of units to hours), advisories effective summer 2020

4A PHYSICS FOR SCIENTISTS AND ENGINEERS
4 units, 3 lecture hours, 3 lab hours
COREQUISITES: Mathematics 5B. ADVISORIES: English 1A or 1AH.
The topics covered in this course include: classical mechanics, properties of matter, gravitation, fluid mechanics, oscillatory motion and mechanical waves. (A, CSU-GE, UC, I) (C-ID PHYS 205) (C-ID PHYS 200S: PHYS 4A + PHYS 4B + PHYS 4C)

Change: lecture and lab hours (compliance of units to hours), advisories effective summer 2020

4B PHYSICS FOR SCIENTISTS AND ENGINEERS
4 units, 3 lecture hours, 3 lab hours
PREREQUISITES: Physics 4A. COREQUISITES: Mathematics 6. ADVISORIES: English 1A or 1AH.
The topics covered in this course include: Mechanical waves, Thermodynamics, electricity, magnetism. (A, CSU-GE, UC, I) (C-ID PHYS 210) (C-ID PHYS 200S: PHYS 4A + PHYS 4B + PHYS 4C)

Change: lecture and lab hours (compliance of units to hours), advisories effective summer 2020

4C PHYSICS FOR SCIENTISTS AND ENGINEERS
4 units, 3 lecture hours, 3 lab hours
PREREQUISITES: Physics 4B. ADVISORIES: Mathematics 17 and English 1A or 1AH.
The topics covered in this course include: electromagnetic waves, optics, modern physics, condensed matter and nuclear physics. (A, CSU-GE, UC, I) (C-ID PHYS 215) (C-ID PHYS 200S: PHYS 4A + PHYS 4B + PHYS 4C)

PLANT SCIENCE (PLS)
Change: approved for IGETC AREA 2 effective fall 2020

9 BIOMETRICS
3 units, 3 lecture hours, pass/no pass
PREREQUISITES: Mathematics 103.
An introduction to data description, presentation, experimental design, statistical procedures, experimental methods and hypothesis testing with particular emphasis on biological systems. Upon completion of this course, the student will be able to perform basic statistical procedures, including t-tests, ANOVA, linear regression and correlation. (A, CSU-GE, UC, I) (C-ID MATH 110)

PHILOSOPHY (PHIL)
Change: approved for IGETC Area 3B effective fall 2020

3A HISTORY OF ANCIENT PHILOSOPHY
3 units, 3 lecture hours, pass/no pass
ADVISORIES: English 1A or 1AH.
This course introduces students to the history of ancient western philosophy, specifically the writings and ideas of the Pre-Socratics, Plato, Aristotle, and the philosophers of the Hellenistic period. Topics may include the sources and limits of
knowledge, the nature of reality, the nature of virtue and right action, and theories of the good life. Readings will include selections drawn from the primary texts of Plato and Aristotle as well as other primary and secondary sources on the ancient philosophers.

(A, CSU-GE, UC, I) (C-ID PHIL 130)

Change: approved for CSU-GE Area C.2, IGETC Area 3B effective fall 2020

3B HISTORY OF MODERN PHILOSOPHY
3 units, 3 lecture hours, pass/pass
ADVISORIES: English 1A or 1AH.
This course introduces students to the history of modern philosophy, including the major tenets of Rationalism, Empiricism, Idealism, and Existentialism. Topics may include skepticism, mind/body dualism, identity, the sources of knowledge, the nature of reality, and the problem of induction. Readings will include selections drawn from the primary texts of Descartes, Locke, Berkeley, Hume, and Kant as well as other primary and secondary sources on the modern philosophers. (A, CSU-GE, UC, I) (C-ID PHIL 140)
Faculty and Administration

*Numbers in parenthesis indicate year of appointment at Reedley College.*

CONNELLY, ANYA (2019)

*English*

M.A., California State University, Sacramento

Culver-Dockins, Natalie (2020) Dean, Student Success and Achievement

B.S., California State University Stanislaus
M.A., San Jose State University
Ed.D., California State University Fresno

EUBANKS, AARON (2019)

*Career, Transfer and Transitions Counselor/Coordinator*

B.S., M.S., California State University, Fresno

GARABEDIAN, DEANNA (2019)

*English*

B.A., University of California, Berkeley
M.A., California State University, Sacramento

GOMEZ, BONITA (2019)

*Career, Transfer and Transitions Coordinator*

B.A., M.S., California State University, Fresno

JOHNSON, JOHN (2018)

*Flight Science*

B.S., Embry-Riddle Aeronautical University
M.S., Central Missouri State University

Lorenzano, Adelfa (2012)

*Coordinator*

B.A., Fresno Pacific University
M.S., National University