NATURAL RESOURCES (OSU TRANSFER) EMPHASIS - ASSOCIATE OF SCIENCE (AS)

Description
The Natural Resources (OSU Transfer) emphasis Associate of Science program is designed to fulfill 90-106 credits of the lower division requirements of a Bachelor of Science in Natural Resources, from Oregon State University - Cascades (https://osucascades.edu/academics/natural-resources/). Two specialty options, the fish and wildlife conservation option and the individualized specialty option are available at OSU-Cascades and COCC. Other universities' requirements for a natural resources degree may be similar. Students planning to transfer to any university natural resources program should meet with a COCC forest resources technology advisor to discuss current transfer requirements.

Learning Outcomes
Arts & Letters
1. Interpret and engage in the Arts & Letters, making use of the creative process to enrich the quality of life; and
2. Critically analyze values and ethics within a range of human experience and expression to engage more fully in local and global issues.

Cultural Literacy
1. Identify and analyze complex practices, values, and beliefs and the culturally and historically defined meanings of difference.

Health
1. Explain the relationship between human behavior and health.

Mathematics
1. Use appropriate mathematics to solve problems; and
2. Recognize which mathematical concepts are applicable to a scenario, apply appropriate mathematics and technology in its analysis, and then accurately interpret, validate, and communicate the results.

Science or Computer Science
1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models and solutions and generate further questions;
2. Apply scientific and technical modes of inquiry, individually, and collaboratively, to critically evaluate existing or alternative explanations, solve problems, and make evidence-based decisions in an ethical manner; and
3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment.

Social Science
1. Apply analytical skills to social phenomena in order to understand human behavior; and
2. Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.

Speech/Oral Communication
1. Engage in ethical communication processes that accomplish goals;
2. Respond to the needs of diverse audiences and contexts; and
3. Build and manage relationships.

Writing and Information Literacy
1. Read actively, think critically, and write purposefully and capably for academic and, in some cases, professional audiences;
2. Recognize and articulate the need for information, and then locate, evaluate, and ethically utilize that information to communicate effectively; and
3. Demonstrate appropriate reasoning in response to complex issues.

Entrance Requirements
While this program has no formal entrance requirements, individual courses may have prerequisites which must be met prior to enrollment.

Course Requirements

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Baccalaureate Core</strong></td>
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<tr>
<td>Writing I: (<a href="https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owr1">https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owr1</a>)</td>
<td>4</td>
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<tr>
<td>Writing II: (<a href="https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owr2">https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owr2</a>)</td>
<td>3-4</td>
</tr>
<tr>
<td>Speech: (<a href="https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owr3">https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owr3</a>)</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics: Met by Program Requirements</td>
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<tr>
<td>Fitness: (<a href="https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owfit">https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owfit</a>)</td>
<td>3</td>
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<tr>
<td><strong>Perspectives Courses</strong> 1,2</td>
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<tr>
<td>Choose one course in each of the following categories:</td>
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<tr>
<td>Physical Science: Met by Program Requirements</td>
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<tr>
<td>Biological Science: Met by Program Requirements</td>
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<tr>
<td>Physical or Biological Science: Met by Program Requirements</td>
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<td>Western Culture: (<a href="https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owc1">https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owc1</a>)</td>
<td>3-4</td>
</tr>
<tr>
<td>Literature and the Arts: (<a href="https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owla1">https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/owla1</a>)</td>
<td>3-4</td>
</tr>
<tr>
<td>Social Processes and Institutions: Met by Program Requirements</td>
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<tr>
<td><strong>Program Requirements</strong></td>
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<tr>
<td>Choose one option from the following: 3</td>
<td>12-15</td>
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<tr>
<td>Option 1:</td>
<td></td>
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<tr>
<td>BI 101 General Biology: Cells &amp; Genes</td>
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<td>BI 102 General Biology: Evolution</td>
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</tbody>
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BI 103 General Biology, Ecology

Option 2:

BI 211 Principles of Biology
BI 212 Principles of Biology
BI 213 Principles of Biology
CH 104 Introduction to Chemistry I 4
or CH 221 General Chemistry I
EC 201 Microeconomics
FOR 208 Soils: Sustainable Ecosystems
FW 212 Survey of Northwest Birds
or FW 218 Survey of Northwest Mammals
FOR 235 Resource Measurements
FOR 240A Forest Ecology
FOR 241A Field Dendrology
or FOR 241B Dendrology
FOR 251 Recreational Resource Management
or FOR 260 Conservation of Natural Resources
FW 251 Wildlife Conservation
G 201 Geology I
or G 202 Geology II
or GEOG 278 Physical Geography-Landforms and Water
GEOG 265 Geographic Information Systems
GEOG 279 Physical Geography-Weather and Climate
MTH 243 Introduction to Probability and Statistics I
Choose one from the following:

MTH 112 Trigonometry
MTH 241 Calculus for Management/Social Science
MTH 245 Mathematics for Management, Life, and Social Sciences
MTH 251 Calculus I

Natural Resources Options
Choose one of the following options (see lists below): 4-13

Fish and Wildlife Conservation Option

Individualized Specialty Option

Electives
Choose any course numbered 100 or above that brings the total credits to 90 quarter hours. This may include up to 12 credits of Career and Technical Education courses designated by COCC as acceptable. 5

Total Credits 90-106

1 Select from the appropriate category in the OSU Baccalaureate Core course list (https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/).
2 No more than two courses (or lecture/lab combinations) from any one department may be used by a student to satisfy the Perspectives category of the core. GEO courses listed under Physical Science are considered to be from a different department than GEO courses listed under any other Perspective category.
3 Option 2 is recommended.
4 CH 221 is recommended if you take BI 211 Principles of Biology, BI 212 Principles of Biology and BI 213 Principles of Biology.
5 Consider FW 257 Hunting in Modern Society.

Natural Resources Options

Fish and Wildlife Conservation Option

Course Title Credits
FOR 111 Forestry Perspectives 4
Total Credits 4

Individualized Specialty Option

Course Title Credits
Choose four from the following: 12-13

FOR 111 Forestry Perspectives
FOR 230A Map, Compass and GPS
FOR 230B Forest Surveying
FOR 236 Aerial Photo
FOR 240B Wildlife Ecology
FOR 126 Field Studies Pacific NW Forests
FOR 127 Plants of the Pacific Northwest
FOR 271 Applied Forest Ecology
FOR 272 Forest Entomology/Pathology
FOR 273 Silviculture and Harvesting Systems
Total Credits 12-13

Advising Notes

The following requirement is not part of this AS degree but is required at OSU: Perspectives: Cultural Diversity category (see Baccalaureate Core list (https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/)). Difference, Power and Discrimination is met by an upper division program requirement.

Performance Standards

• Academic Requirements:
  • Students must have a 2.0 cumulative GPA to earn a COCC certificate or degree.
  • All courses in the program must be completed with a grade of C or higher

Sample Plan

First Term Credits
FOR 240A Forest Ecology 3
FOR 241A or FOR 241B Field Dendrology 3
Choose one of the following: 4

MTH 112 Trigonometry
MTH 241 Calculus for Management/Social Science
MTH 245 Mathematics for Management, Life, and Social Sciences
MTH 251 Calculus I
Writing I: (https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/#owr1) 4
Total Credits 14

Second Term

Credits
CH 104 Introduction to Chemistry I 5
or CH 221 General Chemistry I
FOR 235 Resource Measurements 4
FW 251 Wildlife Conservation 3
Writing II: (https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/#owr2) 3-4 Credits 15-16

Third Term

FOR 208 Soils: Sustainable Ecosystems 4
FW 212 Survey of Northwest Birds 2
or FW 218 Survey of Northwest Mammals
Fitness: (https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/#ofit) 3
Speech: (https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/#owr3) 4
Western Culture: (https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/#owc1) 3-4 Credits 16-17

Fourth Term

BI 211 Principles of Biology 5
G 201 Geology I 4
or G 202 Geology II
or GEOG 278 Physical Geography-Landforms and Water
Literature and the Arts: (https://catalog.cocc.edu/degree-certificate-overview/osu-baccalaureate-core/#ola1) 3-4
MTH 243 Introduction to Probability and Statistics I 4 Credits 16-17

Fifth Term

BI 213 Principles of Biology 5
Fish and Wildlife Conservation Option Course (FOR 111) 4
GEOG 265 Geographic Information Systems 4
GEOG 279 Physical Geography-Weather and Climate 4

Credits 17

Sixth Term

BI 212 Principles of Biology 5
EC 201 Microeconomics 4
FOR 251 Recreational Resource Management 3-4
or FOR 260 Conservation of Natural Resources
or FW 257 Hunting in Modern Society

Credits 12-13

Total Credits 90-94