NATURAL RESOURCES CONSERVATION, A.A.S.

Major Code: 0617

The Natural Resources Conservation curriculum provides fundamental training in ecology, fish and wildlife, forestry, outdoor recreation, tree care, and related subjects. Students receive a broad-based education with an emphasis on practical, hands-on experience. College, state and county properties provide a wide assortment of opportunities for field experiences such as fish surveys, trail building, wildlife habitat improvement and forest surveys and management.

Career Opportunities

Parks, forestry, arboriculture, fisheries and wildlife management, soil conservation service, conservation officer, forestry technician, forest ranger, environmental consultant, and water and wastewater treatment plant operator.

Program Learning Outcomes

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

- Describe the state of the natural resources profession and potential career opportunities.
- Conduct himself/herself in a manner consistent with an embodied sense of conservation stewardship.
- Deal professionally and ethically with clients, the public, and agency personnel.
- Utilize oral and computer communication skills necessary to interact in the profession.
- Demonstrate advanced knowledge and competency in taxonomy and natural history.
- Demonstrate hands-on experience in natural resource sampling, inventory, and measurement techniques.
- Demonstrate competency in utilizing geospatial technologies (Global Positioning System – GPS, Geographic Information System – GIS, and remote sensing).
- Apply critical thinking and problem-solving skills in natural resource conservation.
- Utilize existing technology, products, and services to maximize work efficiency and success.
- Practice a collaborative spirit in team-efforts and project coordination.

SUNY General Education Requirements: (https://system.suny.edu/ academic-affairs/acaproplan/general-education/suny-ge/) All SUNY Morrisville AAS degree programs require completion of at least 20 credits of SUNY GE, a minimum of four (out of ten) knowledge and skills areas (including the four required knowledge and skills areas as indicated below), and completion of the two core competencies. The specific courses required within each knowledge and skills area/core competency for this degree program are outlined below.

Knowledge and Skills Areas:

| Communication Written & Oral (required) | as advised |
|--|------------|
| Diversity: Equity, Inclusion, and | as advised |
| Social Justice (required) | |

| Mathematics (and Quantitative Reasoning) (required) | as advised |
|---|------------|
| Natural Sciences (and Scientific Reasoning) (required) | as advised |
| Humanities | as advised |
| Social Sciences | as advised |
| The Arts | as advised |
| US History and Civic Engagement | as advised |
| World History and Global Awareness | as advised |
| World Languages | as advised |
| | |

Core Competencies:

| Information Literacy (required) | as advised |
|---------------------------------|------------|
| Critical Thinking and Reasoning | as advised |
| (required) | |

Curriculum Requirements

A minimum of 60 credits is required for degree completion.

Curriculum

| Code | Title | Credits |
|--|---|---------|
| Major Field Requir | rements | |
| NATR 100 | Intro to Forestry and NR | 3 |
| NATR 101 | General Ecology | 3 |
| NATR 103 | Natural Resources Equipment Op | 2 |
| NATR 110 | Natural Resources Measurements | 3 |
| NATR 113 | Intro toGlobal Positioning Sys | 1 |
| NATR 115 | Forest Ecology | 3 |
| NATR 120 | Intro To Recreation Area Mgmnt | 3 |
| NATR 142 | Plane Surveying I | 3 |
| NATR 144 | Seminar/Environmental Resc I | 1 |
| NATR 145 | Intro Environmental Technology | 3 |
| NATR 210 | Dendrology | 3 |
| NATR 213 | Basics Geospatial Technology | 2 |
| NATR 250 | Aquatic Ecology | 3 |
| BIOL 102 | Botany-Form Function Seed Plt | 3 |
| AGRO 110 | Soil Science | 3 |
| Required SUNY Ge | eneral Education Coursework | |
| SUNY General Edu | cation Communication Written and Oral as Advis | sed 6 |
| SUNY General Edu as Advised | ication Mathematics (and Quantitative Reasonin | g) 3 |
| SUNY General Edu Justice as Advised | ication Diversity: Equity, Inclusion, and Social | 3 |
| Technical Elective BIOL, BSAD, CHEN | s as advised selected from AGBS, AGEN, AGSC, I, CJUS, ENSC, ENRM, HORT, NATR, RENG | 2-3 |
| Core Specializatio | n | |
| Select three of the | following: | 9 |
| NATR 211 | Forest Protection | |
| NATR 215 | Practices Of Silviculture | |
| NATR 221 | Invasive Species Management | |
| NATR 232 | Wildlife Ecology & Management | |

| NATR 252 | Fish Ecology and Management | |
|---------------|-----------------------------|-------|
| Total Credits | | 62-63 |

Society of American Foresters Accredited Forest Technology Concentration

Students wishing to specialize in forestry and silviculture can enroll in the Forest Technology Concentration and will take:

| Code | Title | Credits |
|---|-------------------------------|---------|
| Capstone Electives | | |
| NATR 211 | Forest Protection | 3 |
| NATR 215 | Practices Of Silviculture | 3 |
| NATR 232 | Wildlife Ecology & Management | 3 |
| Technical Elective | | |
| BSAD 116 | Business Organization & Mgmt | 3 |
| Internship | | |
| Minimum one credit intermship at an approved forest industry internship site: | | 1 |
| NATR 246 | Internship Natural Resources | |
| Total Credits | | 13 |

Arboriculture and Urban Forestry Concentration

Students wishing to specialize in tree care, arboriculture, and urban forestry can enroll in the Arboriculture and Urban Forestry Concentration. They will take:

| Code | Title | Credits |
|---------------------------------------|--|---------|
| NATR 160 | Principles of Arboriculture ¹ | 2 |
| NATR 161 | Practices of Arboriculture ¹ | 1 |
| NATR 310 | Urban Forest Management | 3 |
| NATR 211 | Forest Protection | 3 |
| or HORT 241 | Plant Protection | |
| One additional NATR Capstone Elective | | 3 |
| Total Credits | | 12 |

1

Take in place of NATR 250 Aquatic Ecology

Sample Course Sequence

| Course | Title | Credits |
|-------------------------------------|---|---------|
| Year 1 | | |
| Fall | | |
| BIOL 102 | Botany-Form Function Seed Plt | 3 |
| SUNY General Education (| Communication Written and Oral as Advised | 3 |
| SUNY General Education | Mathematics (and Quantitative Reasoning) as Advised | 3 |
| NATR 100 | Intro to Forestry and NR | 3 |
| NATR 144 | Seminar/Environmental Resc I | 1 |
| NATR 113 | Intro toGlobal Positioning Sys | 1 |
| NATR 145 | Intro Environmental Technology | 3 |
| | Credits | 17 |
| Spring | | |
| NATR 101 | General Ecology | 3 |
| NATR 103 | Natural Resources Equipment Op | 2 |
| NATR 110 | Natural Resources Measurements | 3 |
| NATR 115 | Forest Ecology | 3 |
| NATR 213 | Basics Geospatial Technology | 2 |
| SUNY General Education (advised | Communication or other General Education credits as | 3 |

Or, SUNY General Education Diversity, Equity, Inclusion & Social Justice or Technical Elective as advised

| Note: Students plan Resource Managem elective from a diffe | ning on matriculating into the Environmental & Natural ent, B.Tech. program should take an additional GenEd rent GenEd category. | |
|--|--|-------|
| | Credits | 16 |
| Year 2 | | |
| Fall | | |
| NATR 120 | Intro To Recreation Area Mgmnt | 3 |
| NATR 142 | Plane Surveying I | 3 |
| NATR 210 | Dendrology | 3 |
| NATR 250 | Aquatic Ecology | 3 |
| SUNY General Education advised | n Communication or other General Education credits as | 3 |
| Or, SUNY General Ed Technical Elective a | ucation Diversity, Equity, Inclusion & Social Justice or s advised | |
| | Credits | 15 |
| Spring | | |
| AGRO 110 | Soil Science | 3 |
| SUNY General Education advised | n Communication or other General Education credits as | 2-3 |
| Or, SUNY General Ed Technical Elective a | ucation Diversity, Equity, Inclusion & Social Justice or s advised | |
| Select three of the follow | wing Capstone Courses: | 9 |
| NATR 211 | Forest Protection | |
| NATR 215 | Practices Of Silviculture | |
| NATR 221 | Invasive Species Management | |
| NATR 232 | Wildlife Ecology & Management | |
| NATR 252 | Fish Ecology and Management | |
| | Credits | 14-15 |
| | Total Credits | 62-63 |