

COLLEGE OF NATURAL RESOURCES AND ENVIRONMENT
Department of Forest Resources and Environmental Conservation
Bachelor of Science in Forest Resources and Environmental Conservation
Major: Natural Resources Conservation
Option: Environmental Education
For students graduating in calendar year 2020

Minimum credit hours required for graduation is 120. Prerequisites or enrollment restrictions may apply to some courses. Consult the undergraduate course catalog or the timetable of classes.

Degree Core Requirements (21 credits):

Forest Science (9 credits – take all)

- ___ FREC 2214 Introduction to Land and Field Measurements (3 credits)
- ___ FREC 2314 Forest Biology and Dendrology (2 credits)
- ___ FREC 2324 Dendrology Laboratory (1 credit)
- ___ FREC 3314 Forest Ecology and Silvics (3 credits)

Geospatial Analysis (3 credits – take all)

- ___ FREC 4114 Information Technologies for Natural Resource Management (3 credits)

Environmental Economics (3 credits – take all)

- ___ FREC 4014 (NR 4014) Natural Resources Economics (3 credits)

Policy (3 credits – take all)

- ___ FREC 4434 Natural Resource Policy (3 credits)

Oral Communication (3 credits – take one)

- ___ COMM 2004 Public Speaking (3 credits) or FREC 3524 Environmental Interpretation (3 credits)

Option Requirements (30 credits)

- ___ CHEM 1035 General Chemistry (3 credits)
- ___ CHEM 1045 General Chemistry Lab (1 credit)
- ___ ENGL 3524 Literature for Children (3 credits)
- ___ FREC 3544 Outdoor Recreation Management (3 credits)
- ___ FREC 3574 Environmental Education Service Learning (3 credits)
- ___ Geosciences (4 credits – choose one lecture and one corresponding lab)
 - ___ GEOS 1004 (3 credits) and GEOS 1104 Physical Geology (1 credit)
 - ___ GEOS 1024 (3 credits) and GEOS 1124 Resources Geology (1 credit)
- ___ HD 1004 Human Development I (3 credits)
- ___ HIST 1115 History of the United States (3 credits)
- ___ MATH 1614 Numbers & Computing for Teachers (4 credits) or MATH 1624 Geometry & Computing for Teachers (4 credits)
- ___ PHYS 1055 Introduction to Astronomy (3 credits)

Restricted Electives (18 credits – see accompanying lists)

- ___ American History Restricted Elective (3 credits)
- ___ Environmental Science Restricted Electives (6 credits)
- ___ Environmental Ethics Restricted Elective (3 credits)
- ___ Statistics Restricted Elective (3 credits)
- ___ World History Restricted Elective (3 credits)

CLE Requirements (36 credits)

Area 1: Writing and Discourse (6 credits)

- ___ ENGL 1105 First-Year Writing (3 credits)
- ___ ENGL 1106 First-Year Writing (3 credits)

Area 2: Ideas, Cultural Traditions, and Values (6 credits)

- ___ ENGL 3534 Literature and Ecology (3 credits)
- ___ FREC 2554 (LAR 2554, NR 2554) Leadership for Global Sustainability (3 credits)

Area 3: Society and Human Behavior (6 credits)

- ___ AAEC 1005 Economics of the Food & Fiber System or ECON 2005 Principles of Economics (3 credits)
- ___ GEOG 1004 Introduction to Human Geography (3 credits)

Area 4: Scientific Reasoning and Discovery (8 credits)

- ___ BIOL 1105 Principles of Biology (3 credits)
- ___ BIOL 1115 Principles of Biology Lab (1 credit)
- ___ BIOL 1106 Principles of Biology (3 credits)
- ___ BIOL 1116 Principles of Biology Lab (1 credit)

Area 5: Quantitative and Symbolic Reasoning (6 credits)

- ___ MATH 1014 Precalculus with Transcendental Functions (3 credits)
- ___ MATH 1025 Elementary Calculus (3 credits)

Area 6: Creativity and Aesthetic Experience (1 credit)

- ___ CLE Area 6 course: _____ (1 credit)

Area 7: Critical Issues in a Global Context (3 credits)

- ___ FIW 2114 Principles of Fish & Wildlife or FREC 2784 Global Forest Sustainability (3 credits)

Free Electives (15 credits)

APPROVED
University Registrar

Environmental Education Restricted Electives (substitutions possible with approval)

American History Restricted Electives (Choose 3 credits)

HIST	1116	History of the United States (Civil War to Present)	3
HIST	3144	American Environmental History	3
HIST	3214	History of Appalachia	3
HIST	3224	History of Virginia	3

World History Restricted Electives (Choose 3 credits)

HIST	1025	Introduction to European Civilization (Medieval to Mid-18 th Century)	3
HIST	1026	Introduction to European Civilization (Mid-18 th Century to Recent Past)	3
HIST	1214	History of the Modern World	3
HIST	1224	Introduction to Latin America	3
HIST	2124	Issues in World History	3
HIST	2184	History of the Balkans	3
HIST	2346	History of the Middle East	3
HIST	3314	The Later Roman Empire	3
HIST	3394	Europe Since World War II	3
HIST	3494	The Holocaust	3

Statistics Restricted Electives (Choose 3 credits)

STAT	3604	Statistics for Social Sciences	3
STAT	3615	Biological Statistics	3

Environmental Science Restricted Electives (Choose 6 credits)

BIOL	2504	General Zoology	3
BIOL	2704	Evolutionary Biology	3
BIOL	2804	Ecology	3
CSES	3134	Soils in the Landscape	3
CSES	3444	World Crops and Cropping Systems	3
ENSC	3604	Fundamentals of Environmental Science	3
FIW	2314	Wildlife Biology	3
FIW	3514	Fisheries Techniques	3
FIW	4214	Wildlife Field Techniques	3
FIW	4334	Mammalogy	4
FIW	4424	Ichthyology	4
FIW	4434	Wildlife Habitat Ecology and Management	3
FIW	4534	Ecology and Management of Wetland Systems	3
FIW	4614	Fish Ecology	3
FIW	4624	Marine Ecology	3
FREC	2004	Forest Ecosystems	3
FREC	2124	Forests, Society, and Climate	3
FREC	2514	Wildland Fire: Ecology and Management	3
FREC	3354	Trees in the Built Environment	3
FREC	4334	Principles and Practices of Agroforestry	3
GEOS	3034	Introduction to Oceanography	3

Environmental Ethics Restricted Electives (Choose 3 credits)

GEOG	3104	Environmental Problems, Population, and Development	3
PHIL	2304	Global Ethics	3
UAP	3344	Global Environmental Issues: Interdisciplinary Perspectives	3
UAP	4264	Environmental Ethics and Policy	3

NOTICE: Some courses have prerequisites. Please check the Course Catalog for details.
IMPORTANT NOTES ON THE FOLLOWING PAGE.

ENVIRONMENTAL EDUCATION NOTES

1. **Satisfactory Progress:** By the end of the semester in which the student has attempted 60 hours (including transfer, advanced placement, advanced standing, and credit by examination), "satisfactory progress" towards a B.S. degree in the College of Natural Resources and Environment will include the following minimum criteria:
 - Having an in-major and overall grade point average of at least 2.0
 - Passing at least 24 semester credits that apply to the Curriculum for Liberal Education (CLE)
 - Passing the following courses, or their equivalents: BIOL 1105, 1106 and 1115, 1116; CHEM 1035, MATH 1025, and GEOS 1004 or 1024
2. **Foreign Language Requirement:** A sequence of two (2) foreign language courses is required for graduation unless two (2) high school credits of the same foreign language or six (6) transfer credit hours of foreign language have been earned. These credits do not count toward graduation. See catalog section on "Graduation Requirements."
3. **Policy on Student Exchanges:** Studying overseas or at another U.S. university is a wonderful opportunity to enhance your education. However, planning for an exchange should begin at least 9 months prior to leaving. This will allow time to determine what substitutions, if any, will be allowed and time to arrange your schedule at Virginia Tech to ensure that all requirements for graduation are met.
4. **In-major GPA Computation:** Includes all courses designated as FIW, FREC, GEOG, NR, and SBIO.
5. An in-major and overall GPA of 2.0 is required for graduation.
6. In accordance with university guidelines, courses satisfying degree core requirements may not be double counted to satisfy other areas of a degree (e.g. CLE).
7. Some of the listed courses have prerequisites and some courses must be taken in sequence to satisfy prerequisites. Be sure to consult with the University Catalog or check with your advisor.

