

COLLEGE OF NATURAL RESOURCES AND ENVIRONMENT
Department of Forest Resources and Environmental Conservation
Bachelor of Science in Forest Resources and Environmental Conservation
Major: Environmental Conservation & Society

For students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021

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)

- ___ FREC 2004 Forest Ecosystems **or** FREC 3314 Forest Ecology and Silvics* (3 credits)
- ___ 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 2614 Human-Environment Systems* (3 credits)
- ___ FREC 4014 (NR 4014) Natural Resources Economics* (3 credits)
- ___ FREC 4114 Information Technologies for Natural Resources Management* (3 credits)
- ___ FREC 4434 Natural Resource Policy* (3 credits)

Required Courses for Environmental Conservation & Society Major (12 credits)

- ___ FIW 2114 Principles of Fish and Wildlife Conservation (3 credits)
- ___ FIW 4464 Human Dimensions of Fish and Wildlife* (3 credits)
- ___ FREC 3524 Environmental Interpretation* (3 credits) (*Pathways 1 Advance*)
- ___ FREC 3544 Outdoor Recreation Planning and Management* (3 credits)

Required Restricted Electives for Environmental Conservation & Society Major (18 credits)

- ___ Business Restricted Electives (3 credits)
- ___ Environmental Education and Outreach Restricted Electives (3 hours)
- ___ Environmental Science Restricted Electives (6 credits)
- ___ Human Dimensions Restricted Electives (3 credits)
- ___ Role of Science in Society Restricted Elective (3 credits)

Track Areas with Remaining Required Restricted Electives (12 credits)

Students **must** customize their curriculum to complete one of the following three tracks by selecting an additional 12 credits from one of the three sets of restricted electives outlined below.

(**Note:** 9 of the 12 credits must be 3000-level or above)

Recreation and Tourism Management Track:

- ___ Human Dimensions of Natural Resources Restricted Electives (3 hours)
- ___ Outdoor Recreation Management & Tourism Restricted Electives (9 hours)

Environmental Education and Outreach Track:

- ___ Environmental Education & Outreach Restricted Electives (6 hours)
- ___ Human Dimensions of Natural Resources Restricted Electives (3 hours)
- ___ Leadership & Sustainability in Natural Resources Restricted Electives (3 hours)

Leadership and Sustainability Track:

- ___ Human Dimensions of Natural Resources Restricted Electives (3 hours)
- ___ Leadership & Sustainability in Natural Resources Restricted Electives (9 hours)

Pathways to General Education Requirements (45 credits)

Pathways Concept 1: Discourse (9 credits)

- ___ COMM 1015 Communication Skills **or** ENGL 1105 First-Year Writing (3 credits)
___ COMM 1016 Communication Skills **or** ENGL 1106 First-Year Writing (3 credits)
___ Pathways Concept 1 Advance course: fulfilled by:
___ FREC 3524 Environmental Interpretation* (3 credits)

Pathways Concept 2: Critical Thinking in the Humanities (6 credits)

- ___ FREC 2554 (LAR 2554/NR 2554) Leadership for Global Sustainability (3 credits)
___ Pathways 2 Concept course: _____ (3 credits)

Pathways Concept 3: Reasoning in the Social Sciences (6 credits)

- ___ Select **one** course from the following list (3 credits):
___ AAEC 1005 Economics of the Food and Fiber System
___ ECON 2005 Principles of Economics
___ Select **one** course from the following list (3 credits):
___ COMM 1014 Introduction to Communication Studies
___ GEOG 1004 Introduction to Human Geography
___ GEOG 1115 Seeking Sustainability
___ PSCI 1014 Introduction to United States Government and Politics
___ PSCI 1024 Introduction to Comparative Government and Politics
___ PSYC 1004 Introduction to Psychology
___ SOC 1004 Introductory Sociology
___ SOC 1014 Introduction to Social Anthropology

Pathways Concept 4: Reasoning in the Natural Sciences (6 credits)

- ___ BIOL 1105 Principles of Biology (3 credits)
___ BIOL 1106 Principles of Biology (3 credits)

Pathways Concept 5: Quantitative and Computational Thinking (9 credits)

- ___ Pathways Concept 5 Foundational course: _____ (3 credits)
___ MATH 1025 Elementary Calculus (3 credits)
___ STAT 3604 Statistics for the Social Sciences* **or** STAT 3615 Biological Statistics* (3 credits)

Pathways Concept 6: Critique and Practice in Design and the Arts (6 credits)

- ___ Pathways Concept 6 Arts or Integrated course: _____ (3 credits)
___ Pathways Concept 6 Design or Integrated course: _____ (3 credits)

Pathways Concept 7: Critical Analysis of Identity and Equity in the United States (3 credits)¹

- ___ Pathways Concept 7 course: _____ (3 credits)

Free Electives (additional credit hours to total at least 120, estimated 15 credits)²

¹ A course taken to satisfy another area of Pathways that is also listed within Concept 7 will satisfy the Concept 7 requirement simultaneously

² Free elective estimations are calculated utilizing available overlap between major requirements and Pathways requirements

Restricted Electives

Business Restricted Electives

AAEC/MGT	3454	Small Business Management and Entrepreneurship*	3
ACIS	1004	Accounting Foundations	3
ACIS	2115	Principles of Accounting	3
MGT	3304	Management Theory and Leadership Practice	3
MGT	4334	Ethical Leadership and Corporate Social Responsibility*	3
MKTG	3104	Marketing Management	3
SBIO	2614	Introduction to Forest Product Marketing	3
SBIO	3004	Sustainable Nature-based Enterprises	3
SBIO	3464	Forest Product Business Systems*	3

Environmental Education & Outreach Restricted Electives

ALCE	4004	Teaching Adults in Ag	3
ALCE	4014	Intro to Cooperative Extension	3
ALCE	4034	Methods in Planning Education Programs for Agriculture*	3
ALCE	4304	Community education and Development*	3
ALCE	4884	Youth Program Management	3
CMST	3064	Persuasion*	3
HUM/RLCL	3204	Multicultural Communication	3
FREC	3574	Environmental Education Service Learning	3
PR	2044	Principles of Public Relations	3
TA	2024	Introduction to Acting	3

Environmental Science Restricted Electives

BIOL	2504	General Zoology*	3
BIOL	2704	Evolutionary Biology*	3
BIOL	2804	Ecology*	3
BIOL	4004	Freshwater Ecology*	4
CSES/ENSC	3114 ³	Soils*	3
CSES/ENSC	3134	Soils in the Landscape	3
CSES/HORT	3444	World Crops and Cropping Systems*	3
ENSC	3604	Fundamentals of Environmental Science*	3
FIW	2314	Wildlife Biology*	3
FIW	2324	Wildlife Field Biology*	3
FIW	3514	Fisheries Techniques*	3
FIW	4214	Wildlife Field Techniques*	3
FIW	4314	Conservation Biology*	4
FIW	4334	Mammalogy*	4
FIW	4414	Population Dynamics and Estimation*	3
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	2514	Wildland Fire Ecology and Management*	3
FREC/HORT	3354	Trees in the Built Environment*	3
FREC	3364	Environmental Silviculture*	3
FREC	3714	Forest Harvesting*	3
FREC/CSES	4334	Principles of Agroforestry	3
FREC	4354	Forest Soil and Watershed Management*	3

³ Additional cross-listing includes GEOS 3614

FREC	4374	Forested Wetlands*	3
FREC	4414	Advanced Wildland Fire Management*	3
HORT/FREC	2134	Plants and Greenspaces in Urban Communities	3
SBIO/FREC	2784	Global Forest Sustainability	3

Human Dimensions Restricted Electives

AAEC	3314	Environmental Law	3
AAEC	3324	Environment and Sustainable Development Economics*	3
AAEC	4754	Real Estate Law*	3
FREC	4454	Urban and Community Forestry*	3
GEOG	3104	Environmental Problems, Population, and Development	3
LAR	3044	Land Analysis and Site Planning*	3
LAR	3264	People, Community, and Place*	3
PHIL	2304	Global Ethics	3
PSCI	3214	Political Participation*	3
PSCI	3224	Public Opinion*	3
PSCI	3334	Judicial Process*	3
PSCI	3354	Constitutional Law: Structures and Relationships*	3
PSCI	3414 ⁴	Public Administration*	3
PSCI	3424	State and Local Government*	3
PSCI	3554	Comparative Political Economy*	3
PSCI/UAP	3744	Public Policy Analysis*	3
SOC	2004	Social Problems	3
SOC	3004	Social Inequality*	3
SOC	3204	Social Research Methods*	3
SOC	3504	Population Trends and Issues*	3
SPIA	2554	Collaborative Policy Making and Planning	3
UAP	3014	Urban Policy and Planning*	3
UAP/PSCI	3344	Global Environmental Issues: Interdisciplinary Perspectives	3
UAP	3354	Introduction to Environmental Policy and Planning	3
UAP	4264	Environmental Ethics and Policy*	3
UAP	4344	Law of Critical Environmental Areas	3
UAP	4374	Land Use and Environment*	3

Leadership & Sustainability Restricted Electives (only 3 credits may be below 2000-level)

ALCE	3014	Leadership Effective for Ag	3
GEOG/NR	1116	Seeking Sustainability*	3
GEOG/NR	4444	Sustainability Capstone*	3
LDRS	1015	Exploring Citizen Leadership	3
LDRS	3104	Dynamics of Leadership*	3
LDRS	3304	Elements of Team Leadership*	3
NR	4105 ⁵	Natural Resources Leadership Institute*	3
NR	4106 ⁵	Natural Resources Leadership Institute*	3
SBIO	3004	Sustainable Nature-Based Enterprises	3
SBIO	3454	Society, Sustainable Biomaterials and Energy	3
UAP	4394	Community Renewable Energy Systems*	3

⁴ Additional cross-listings include UAP 3434

⁵ Course is part of the CNRE Leadership Institute, please consult your advisor for registration process.

Outdoor Recreation & Tourism Management Restricted Electives

HTM	2454	Travel and Tourism Management	3
HTM	2464	Introduction to Service	3
HTM	3454	Tourism Analysis	3
HTM	3484	Socio-Cultural Impacts of Tourism	3
HTM	4354	Information Technology and Social Media*	3
Study Abroad	Any study abroad course focusing on human-environment interactions		3-6

Role of Science in Society

HIST/STS	3706	History of Modern Science	3
PHIL	2605	Reason and Revolution in Science	3
PHIL	2606	Reason and Revolution in Science	3
RLCL/STS	2464	Religion and Science	3
STS	1504	Introduction to Science, Technology, and Society	3
STS	2154	Humanities, Technology, and the Life Sciences	3
STS	2454	Science, Technology, and Environment	3
STS	3105	Science and Technology in Modern Society	3
STS	3334	Energy and Society	3

***NOTICE: Some courses have prerequisites. Please check the Course Catalog for details.**

IMPORTANT NOTES BELOW

ENVIRONMENTAL CONSERVATION & SOCIETY 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 Forest Resources and Environmental Conservation 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 Pathways requirements
 - Passing the following courses or their equivalents: BIOL 1105, 1106 and MATH 1025
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 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. Pathways requirements).
7. *Prerequisites: Check prerequisites for each course carefully as these are determined by each department individually. Consult with the University Course Catalog or Timetable of Classes.
8. Some courses must be taken in sequence to satisfy prerequisites. Consult your advisor.