

COLLEGE OF NATURAL RESOURCES AND ENVIRONMENT
Department of Forest Resources and Environmental Conservation
Bachelor of Science in Forest Resources and Environmental Conservation
Major: Environmental Informatics
For Students Graduating in Calendar Year 2019

Minimum credit hours required for graduation is 120.

Degree Core Requirements (21 credits):

Forest Science (9 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 3314 Forest Ecology and Silvics (3 credits)

Geospatial Analysis (3 credits)

- ___ FREC 1004 Digital Planet (3 credits)

Environmental Economics (3 credits)

- ___ FREC 4014 Natural Resources Economics (3 credits)

Policy (3 credits)

- ___ FREC 4434 Natural Resource Policy (3 credits)

Oral Communication (3 credits – choose one)

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

Computational Requirements (30 credits)

- ___ BIT 3424 Introduction to Business Analytics Modeling (3 credits) (Pre: BIT 2406 or CS 1054 or CS 1114 or CS 1124 or CS 1705)
- ___ BIT 4514 Database Technology for Business (3 credits)
- ___ BIT 4524 Systems Development (3 credits)
- ___ CS 1124 Introduction to Media Computation or CS 1044 Introduction to Programming in C or CS 1064 Introduction to Programming in Python (3 credits)
- ___ FREC 1044 Introduction to Environmental Informatics (3 credits)
- ___ FREC 4114 Information Technologies for Natural Resources Management (3 credits)
- ___ FREC 4214 Forest Photogrammetry and Spatial Data Processing (3 credits)
- ___ FREC 4444 Integrated Forest Management Practicum (3 credits)
- ___ STAT 2524 Data Science (3 credits)
- ___ STAT 3615 Biological Statistics (3 credits)

Curriculum for Liberal Education Requirements (36 credits)

Area 1: Writing and Discourse (6 credits)

____ Approved CLE Area 1 course: _____
____ Approved CLE Area 1 course: _____

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

____ Approved CLE Area 2 course: _____
____ Approved CLE Area 2 course: _____ + _____

Area 3: Society and Human Behavior (6 credits)

____ AAEC 1005 or 1006 Economics of Food & Fiber Systems OR Econ 2005 Principles of Economics (3)
____ Approved CLE Area 3 course: _____

Area 4: Scientific Reasoning and Discovery (8 credits)

____ BIOL 1105 Principles of Biology (3)
____ BIOL 1106 Principles of Biology (3)
____ BIOL 1115 Principles of Biology Laboratory (1)
____ BIOL 1116 Principles of Biology Laboratory (1)

Area 5: Quantitative and Symbolic Reasoning (6 credits)

____ MATH 1025 Elementary Calculus or MATH 1225 Calculus of a Single Variable or MATH 1525 Elementary Calculus with Matrices (3 credits)
____ MATH 1026 Elementary Calculus or MATH 1226 Calculus of a Single Variable or MATH 1526 Elementary Calculus with Matrices (3 credits)

Area 6: Creativity and Aesthetic Experience (1 credit)

____ Approved CLE Area 6 course: _____

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

____ Approved CLE Area 7 course: _____

Free Electives -- 33 credits

IMPORTANT NOTES ON THE FOLLOWING PAGE.

Environmental Informatics Notes

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 (GPA) 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; MATH 1025, 1225, or 1525.

Foreign Language Requirement: Students who did not successfully complete at least two (2) units of a single foreign or classical language during high school must successfully complete: a) six (6) semester hours of a single college level foreign or classical language (credits do not count toward graduation) or b) receive credit by examination for six (6) semester hours of a single foreign or classical language (credits do not count toward graduation). This must be accomplished by the end of the academic year in which the student has attempted 60 semester credit hours (including transfer, advanced placement, advanced standing, and credit by examination). For additional information refer to the Language Study Requirement section of the current undergraduate catalog.

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. You must complete an Exchange Program checklist (available in 138 Cheatham Hall) and obtain the required signatures before beginning the exchange program.

Curriculum Planning

Students should plan early with their advisors to determine appropriate sequences for their courses. Some courses must be taken in sequence to satisfy prerequisites.

Degree Requirements

An in-major and overall GPA of 2.0 is required for graduation. In-major GPA is calculated based on all courses with prefixes FREC, FIW, and GEOG. Minimum hours for degree is 120.

Prerequisites

Some of the listed courses have prerequisites. Be sure to consult with the University Catalog or check with your advisor.