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 Resources 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 – choose one)*
  - COMM 2004 Public Speaking (3 credits) or FREC 3524 Environmental Interpretation (3 credits)

**Computational Requirements (33 credits)**
- BIT 3424 Introduction to Business Analytics Modeling (3 credits)
- BIT 4514 Database Technology for Business (3 credits)
- BIT 4524 Systems Development (3 credits)
- CS 1124 Introduction to Media Computation (3 credits)
  -or- CS 1044 Introduction to Programming in C (3 credits)
  -or- CS 1064 Introduction to Programming in Python (3 credits)
- FREC 1004 Digital Planet (3 credits)
- FREC 1044 Introduction to Environmental Informatics (3 credits)
- FREC 3004: Environmental Informatics (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)

**NOTICE:** Some courses have pre-requisites. Please check the Course Catalog for details.
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 credits)
- Approved CLE Area 3 course:

Area 4: Scientific Reasoning and Discovery (8 credits)
- BIOL 1105 Principles of Biology (3 credits)
- BIOL 1115 Principles of Biology Laboratory (1 credit)
- BIOL 1106 Principles of Biology (3 credits)
- BIOL 1116 Principles of Biology Laboratory (1 credit)

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 – 30 credits

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

IMPORTANT NOTES ON THE FOLLOWING PAGE
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 (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.

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

4. In-major GPA Computation
Includes all courses designated as FREC, FIW, and GEOG.

5. 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.

6. Degree Requirements
An in-major and overall GPA of 2.0 is required for graduation. Minimum hours for degree is 120. 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. Prerequisites
Some of the listed courses have prerequisites. Be sure to consult with the University Catalog or check with your advisor.