

APPROVED
University Registrar

COLLEGE OF NATURAL RESOURCES AND ENVIRONMENT
Department of Forest Resources and Environmental Conservation
Bachelor of Science in Forest Resources and Environmental Conservation
Major: Forestry
Option: Forest Operations and Business
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 time table 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 (43 credits)

- ___ ACIS 1004 Accounting Foundations (3 credits) **or** ACIS 2115 Principles of Accounting (3 credits)
- ___ CSES 3134 Soils in the Landscape (3 credits) **or** FREC 4354 Forest Soil and Watershed Management (3 credits)
- ___ ENGL 3764 Technical Writing (3 credits) **or** ENGL 3774 Business Writing (3 credits)
- ___ FIN 3054 Legal and Ethical Environment of Business (3 credits)
- ___ FREC 2414 Field Experiences in Forest Resources (2 credits)
- ___ FREC 2514 Wildland Fire: Ecology and Management (3 credits)
- ___ FREC 3214 Forest Biometrics (3 credits)
- ___ FREC 3224 Forest Biometrics Lab (1 credit)
- ___ FREC 3324 Silvicultural Principles and Applications (4 credits)
- ___ FREC 3344 Forest Field Studies (1 credit)
- ___ FREC 3714 Forest Harvesting (3 credits)
- ___ FREC 3724 Forest Boundaries and Roads (3 credits)
- ___ FREC 3734 Timber Procurement (2 credits)
- ___ FREC 4214 Forest Photogrammetry and Spatial Data Processing (3 credits)
- ___ FREC 4444 Integrated Forest Management Practicum (3 credits)
- ___ FREC 4714 Harvest Systems Evaluation (3 credits)

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Restricted Electives (15 credits from the following courses, substitutions possible with approval)

___	AAEC	2104	Personal Financial Planning (3 credits)
___	AAEC	3314	Environmental Law (3 credits)
___	AAEC	3454	Small Business Management and Entrepreneurship (3 credits)
___	AAEC	3504	Marketing Agricultural Products (3 credits)
___	AAEC	4424	Agricultural Financial Management (3 credits)
___	AAEC	4754	Real Estate Law (3 credits)
___	AAEC	4764	Real Estate Appraisal (3 credits)
___	ACIS	2116	Principles of Accounting (3 credits)
___	COMM	1014	Introduction to Communication Studies (3 credits)
___	COMM	2044	Principles of Public Relations (3 credits)
___	COMM	3064	Persuasion (3 credits)
___	COMM	3124	Interpersonal Communication (3 credits)
___	FIN	3104	Introduction to Finance (3 credits)
___	MGT	3064	Cornerstones of Entrepreneurship and Innovation (3 credits)
___	MGT	3304	Management Theory and Leadership Practices (3 credits)
___	MKTG	3104	Marketing Management (3 credits)
___	SBIO	2614	Introduction to Forest Products and Marketing (3 credits)
___	SOC	2024	Minority Group Relations (3 credits)
___	UAP	4374	Land Use and Environment (3 credits)

*****NOTICE: Some courses have pre-requisites. Please check the Course Catalog for details.*****

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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)

- ___ CLE Area 2 course: _____ (3 credits)
- ___ CLE Area 2 course: _____ (3 credits)

Area 3: Society and Human Behavior (6 credits)

- ___ AAEC 1005 Econ of the Food & Fiber System or ECON 2005 Principles of Economics (3 credits)
- ___ AAEC 1006 Econ of the Food & Fiber System or ECON 2006 Principles of Economics (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 1025 Elementary Calculus (3 credits)
- ___ MATH 1026 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)

- ___ CLE Area 7 course: _____ (3 credits)

Free Electives (5 credits)

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FOREST OPERATIONS AND BUSINESS 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 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;, and MATH 1026
2. **Foreign Language Requirement:** A sequence of two (2) foreign language courses is required for graduation unless two (2) high school units 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.