Mississippi State University

DEPARTMENT OF FORESTRY

Forestry Major

Major Advisor: Dr. Courtney M. Siegert, Undergraduate Coordinator
Office: 347 Thompson Hall

The Objective. The Forestry Major prepares its graduates for professional, science-based careers in the management and use of forested ecosystems. By combining courses offering a broad general education with specialized professional courses, the curriculum of the Forestry Major is designed to produce professionally competent graduates who have appropriate development in interpersonal relations, written and oral communications, cultural understanding, environmental awareness, and professional ethics.

Accreditation. Educational programs in the Forest Management, Wildlife Management, Urban Forestry, Environmental Conservation, and Forest Business concentrations lead to a professional degree in Forestry at Mississippi State University and are accredited by the Society of American Foresters (SAF).

The Major. The core curriculum of the Forestry Major is comprised of specifically selected and intentionally designed courses which must be completed satisfactorily by each student who intends to graduate in this major. In addition to completing the core curriculum, each student must complete one of the five academic concentrations for specialized study offered by the Forestry Major. The five academic concentrations are Forest Management, Wildlife Management, Urban Forestry, Environmental Conservation, and Forest Business. Each concentration is an integral part of the Forestry Major and accredited by SAF. Graduates of the major are qualified to become a Registered Forester in Mississippi after completing an examination for this purpose from the Board of Registration for Foresters in Mississippi. Graduates in the Wildlife Management concentration are eligible to become Associate Wildlife Biologists under The Wildlife Society.

The Forestry Major is designed for completion in four academic years which includes a nine-week Summer Field Program between the sophomore and junior years. The Summer Field Program contains many of the prerequisites needed to enroll in junior/senior level professional courses in the Forestry Major and students should plan their schedules accordingly. Correspondence courses are not accepted toward the forestry degree.

Transfer Students. Transfer students are encouraged to enter the Forestry Major at MSU by Spring semester of their sophomore year to complete their academic programs in the normal four-year period of study. Transfer students should be aware that course work taken elsewhere may not be accepted toward a degree in forestry. Only course work that is determined by the Forestry Department to be equivalent to required course work will be accepted. In addition, no course work will be considered for acceptance unless a grade of C or better has been earned.

Degree Requirements: In addition to General Education and College requirements, students must attain a minimum grade of C in Forestry major core courses listed in the CFR Undergraduate Handbook.

Natural Resource and Environmental Conservation Major

Major Advisor: Dr. Courtney M. Siegert
Office: 347 Thompson Hall

The Objectives. The Natural Resource and Environmental Conservation major objectives are to prepare its graduates for professional careers by: 1) providing the broader general education fundamentals of written and oral communication; mathematics; biological, social, and physical sciences; and humanities which are critical to the development and advancement of well-qualified professionals; 2) providing both the relevant domains of knowledge and their application to the solution of real-world problems and achievement of defined

objectives, including in-depth coverage of ecology and biology; measurement and evaluation of natural resource environmental components, properties, and functioning; management of ecosystems; and legal, regulatory, policy, and economic aspects of ecosystem administration and management; 3) establishing awareness of historical and current issues and policies affecting ecosystem management and conservation; and 4) providing a variety of educational experiences including lectures, discussion, simulations, computer applications, individual and group projects in laboratories and field experiences, and a capstone course teaching students to conduct environmental impact assessments. The purpose of these experiences is to ensure that graduates of the program can knowledgeably develop, apply, facilitate, and/or execute natural resource and environmental management plans that adequately address matters of ownership/public goals and objectives, ecosystem health and sustainability, and the legal and regulatory environment.

Accreditation. Educational programs in the Natural Resource Law and Administration, Resource Conservation Science, and Natural Resource Technology concentrations lead to a professional degree in Natural Resource and Environmental Conservation at Mississippi State University and are accredited by the Society of American Foresters (SAF).

The Major. The core curriculum of the Natural Resource and Environmental Conservation major is comprised of specifically selected and intentionally designed courses that provide students with a broad background in the science, technology, and social aspects of natural resource and environmental science. In addition to general education and major core requirements, students will complete one of three concentrations: Natural Resource Law and Administration, Resource Conservation Science, or Natural Resource Technology.

Transfer students. Transfer students are encouraged to enter the Natural Resource and Environmental Conservation major at MSU in the Spring semester of their sophomore year to complete their academic programs in the normal four-year period of study. Transfer students should be aware that course work taken elsewhere may not be accepted toward the degree. Only course work that is determined by the Department of Forestry to be equivalent to required course work will be accepted. In addition, no course work will be considered for acceptance unless a grade of C or better has been earned.

Degree Requirements. In addition to General Education and College requirements, students must attain a minimum grade of C on the Natural Resource and Environmental Conservation Major Core courses taught within the CFR.

BS IN FORESTRY

General Education Requirements

English Composition		
EN 1103	English Composition I	3
or EN 1104	Expanded English Composition I	
EN 1113	English Composition II	3
or EN 1173	Accelerated Composition II	
Creative Discovery		
Select from General Education courses		3
Humanities		
Select from General Education courses		6
Social/Behavioral Sciences		
FO 4113	Forest Resource Economics	3

AEC 2713	Introduction to Food and Resource Economics	3
or EC 2113	Principles of Macroeconomics	
or EC 2123	Principles of Microeconomics	
Quantitative Reasoning		
MA 2113	Introduction to Statistics	0-3
or ST 2113	Elementary Statistics	
or ST 3123	Introduction to Statistical Inference	
or BQA 2113	Business Statistical Methods I	
Natural Sciences		
CH 1043	Survey of Chemistry I	3
or CH 1213	Chemistry I	
BIO 1134	Biology I	0,4
BIO 1144	Biology II	0,4

Major Core

Major Core [2]		
EPP 3124	Forest Pest Management	4
FO 1101	Forest Resources Survey	1
FO 2113	Dendrology	3
FO 2213	Forest Measurements	3
FO 3012	Introduction to Forest Communities	2
FO 3015	Forest Description and Analysis	5
FO 3103	Computer Application in Forest Resources	3
FO 3213	Tree Physiology	3
FO 4113	Forest Resource Economics [3]	3
FO 4123	Forest Ecology	3
FO 4213	Forest Biometrics	3
FO 4221	Practice of Silviculture Laboratory	1

FO 4223	Practice of Silviculture	3
FO 4231	Introduction to Wood Supply Systems	1
FO 4233	Forest Operations and Harvesting	3
FO 4313	Spatial Technologies in Natural Resources Management	3
FO 4323	Forest Resource Management	3
FO 4413	Natural Resources Policy	3
FO 4423	Professional Practice	3
GR 1113	Physical Geography	3
PSS 3303	Soils	3
WFA 3031	Introductory Wildlife/Fisheries Practices	1
WFA 4153	Principles of Wildlife Conservation and Management	3
Oral Communication		
CO 1003	Fundamentals of Public Speaking	3
or CO 1013	Introduction to Communication	
Writing		
Technical Writing Elective		3

1 Accepted for all concentrations but required for Forest Business Concentration

2 Prerequisites and co-requisites are strictly enforced in the College of Forest Resources. It is the student's responsibility to be aware of prerequisites and co-requisites identified in the Course Description section of the Bulletin.

3 FO 4113 is also used concurrently to meet university social/behavioral sciences requirement.

Choose one of the following concentrations:

Academic concentrations within the Forestry Major are offered to encourage the student to design a program with the assistance of a faculty advisor that will fit his or her interests and aptitudes. Each concentration has been constructed by substituting restricted, or in some cases directed, electives for what otherwise would appear as Business, Science, Free, or Professional electives in the major. Concentrations are intended to provide opportunities for the student to focus beyond the fundamental education provided by the core curriculum of the Forestry Major.

Environmental Conservation Concentration (ENCO)

Advisor: Christine Fortuin

The Envrionmental Conservation Concentration prepares students for careers dealing with complex environmental issues in the realm of forest resource management. Courses to be taken in addition to those in the core curriculum of the Forestry major are as follows:

FO 3113	Forest Recreation Management	3
Geospatial Elective [1]		3
FO 4463	Forest Hydrology and Watershed Management	3
FO 4483	Forest Soils	3
Professional Electives [1]		12
Free Elective		3
Total Hours		**128**

1 Electives are selected from the list of electives approved by the Department of Forestry faculty.

Forest Business Concentration (FOBN)

Advisor: Dr. Robert K. Grala

The Forest Business Concentration is designed for students interested in careers that emphasize business aspects of forestry such as timber markets, timber trade, timberland investment and insurance, forest real estate planning and investment, and timber procurement. Students may select from a wide range of electives to meet specific career objectives. Depending on career objectives and learning interests, students will follow a carefully designed set of core courses and electives, and upon coursework completion will qualify for one of the following College of Business minors: accounting, business administration, business information systems, insurance, economics, entrepreneurship, finance, management, marketing, real estate, or business analytics.

FO 3113	Forest Recreation Management	3
Business Elective from the College of Business [1,2]		21
Free Elective		3
Total Hours		**128**

1 If a business minor has a course load less than 21 credit hours required by a minor in business administration (e.g. 18 credit hours required by a minor in finance), a student will substitute the difference in credit hours by enrolling in an additional forest business elective. If a business minor requires less than 18 credit hours (e.g. 15 credit hours required by a minor in real estate), a student will substitute the difference in credit hours by enrolling in an additional forest business elective first and then enrolling in professional electives to maintain the program total of 128 credit hours.

2 Electives are selected from the list of electives approved by the Department of Forestry faculty.

Forest Management Concentration (FOMG)

Advisor: Eric McConnell

The Forest Management Concentration provides the basic education necessary to enter the profession of forestry with the Bachelor of Science degree, yet permits a wide choice of electives. The student may elect courses in almost any subject of interest, if prerequisites are met; however, credit toward the degree will not be allowed for remedial courses, nor for courses covering substantially the same material as courses already passed, or covering only part of the subject matter of required courses.

Faculty advisors are assigned to assist students in selecting electives to meet their personal objectives. A program of study leading to a degree in forestry and a number of business minors are available.

Courses to be taken in addition to those in the core curriculum of the Forestry Major are as follows:

SBP 1103	Introduction to Sustainable Bioproducts	3
FO 3113	Forest Recreation Management	3
FO 3203	Forest Fire	3
FO 4253	Timber Procurement	3
Geospatial Electives [1]		3
Ecosystem Service Elective [1]		3
Professional Electives [1]		6
Free Elective		3
Total Hours		**128**

1 Electives are selected from the list of electives approved by the Department of Forestry faculty.

Urban Forestry Concentration (URBN)

Advisor: Dr. Ashley Schulz

The Urban Forestry Concentration addresses an emerging need for the management of trees in towns and cities. Urban and community foresters manage trees along city streets, in municipal parks, private wood lots, and utility right-of-ways. Employers include federal, state, and municipal governments, private consultants, and industry.

Courses to be taken in addition to those in the core curriculum of the Forestry major are as follows:

PS 1113	American Government	3
PSS 2423	Plant Materials I	3
PSS 3473	Plant Materials II	0,3
PSS 4353	Arboriculture and Landscape Maintenance	3
LA 3623	Urban Planning Theory	3
FO 3113	Forest Recreation Management	3

FO 4683	Introduction to Urban and Community Forestry	3
Geospatial Elective [1]		3
Free Elective		3
Total Hours		**128**

1 Electives are selected from the list of electives approved by the Department of Forestry faculty.

Wildlife Management Concentration (WFMG)

Advisor: Adam Polinko

Undergraduate students who wish to prepare for careers in wildlife management may do so by completing the Wildlife Management Concentration of the Forestry Major. This concentration is designed for forestry students who intend to pursue careers that emphasize wildlife management within the context of multiple-use management of forest land. In addition, the Wildlife Management Concentration prepares the student for a number of wildlife management positions and fulfills the course requirements for certification as a Professional Wildlife Biologist by The Wildlife Society. Graduates of this concentration may undertake graduate studies in forestry or wildlife ecology and related areas.

Courses to be taken in addition to those in the core curriculum of the Forestry Major are as follows:

WFA 4243	Wildlife Techniques	3
Policy Elective [1]		3
Wildlife Biology Elective [1]		3
Wildlife Management Elective [1]		3
Zoology Elective [1]		3
Professional Elective [1]		9
Free Elective		3
Total Hours		**128**

1 Electives are selected form the list of electives approved by the Department of Forestry faculty.

BS IN NATURAL RESOURCE & ENVIRONMENTAL CONSERVATION

General Education Requirements

English Composition		
EN 1103	English Composition I	3