

# School of Forestry and Wildlife Sciences

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**T**HE SCHOOL OF FORESTRY AND WILDLIFE SCIENCES offers educational programs that prepare graduates for employment in a wide variety of forestry, wildlife, natural resources, and environmental management positions. Forests and their associated resources play a unique and increasingly important role in contemporary society through enhancement of both economic development and environmental quality. The school's programs emphasize understanding of interrelationships among the functions and values of renewable natural resources. This understanding is essential to their effective management and, ultimately, to the meeting of societal needs.

In keeping with the university's land-grant mission, the school's goals are to pursue excellence in education, research and extension/outreach/public service activities focused on the forests, wildlife and associated resources of Alabama and the southeastern United States. With respect to undergraduate education, this involves the preparation and graduation of individuals who have both the necessary skills for initial employment and the breadth and depth of educational background to support professional growth and continuing career advancement.

## Curricula

The School of Forestry and Wildlife Sciences offers undergraduate curricula leading to Bachelor of Science (B.S.) degrees in Forestry, Wildlife Sciences, and in Wildlife Sciences Pre-Veterinary Medicine. A Forest Engineering Option is available under the Bachelor of Biosystems Engineering (BBSE) degree program. It is offered in conjunction with the Samuel Ginn College of Engineering. Note: Qualified Forestry students are encouraged to consider participation in the Forestry Scholars Program (see below). Forestry and Wildlife students with exceptional academic qualifications should also consider enrollment in the University's Honors College (see Honors College).

The Bachelor's programs in Forestry and the Forest Engineering Option in Biosystems Engineering (the latter with addition of the Forest Resources Minor) are accredited by the Society of American Foresters (SAF). SAF is the accrediting body recognized by the Council on Higher Education Accreditation as the accrediting agency for forestry education in the United States. Graduation from such SAF-accredited programs is required of all applicants for Registered Forester status in Alabama and several other states. The Biosystems Engineering program with the Forest Engineering Option is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). Completion of the Wildlife Sciences degree program qualifies the graduates for certification as Associate Wildlife Biologists by The Wildlife Society. Completion of the Wildlife Pre-Vet concentration prepares students for Veterinary Medicine study.

## Web Site

Students are encouraged to visit the school's web site (<http://www.sfws.auburn.edu>) and, in particular, its Student Services Office link (<http://www.sfws.auburn.edu/sso/>). These sites provide information on the school's programs and faculty, as well as updates on courses, scheduling, etc. The latter is sometimes necessary after the bulletin is printed.

## Admission

### General Requirements

Freshman eligibility is determined by the University Admissions Office. However, since the requirements for forestry and wildlife education necessitate high school preparatory work of high intellectual quality and considerable breadth, the following program is recommended: English (4 units), mathematics (including algebra, geometry, trigonometry and analytic geometry) (4 units), chemistry (1 unit), biology (1 unit), physics (1 unit), history, literature or social science (2 or 3 units), and foreign languages (1 unit). Freshmen in Forestry are admitted to the

Pre-Forestry (PFOR) curriculum. Wildlife Sciences students are admitted directly into the Wildlife Sciences curricula (WILD).

Transfers from other institutions must apply through the Admissions office. The exact placement of transfer students can be determined only upon review of their transcripts by the School of Forestry and Wildlife Sciences.

Credit toward a degree in the School of Forestry and Wildlife Sciences will not be allowed for mathematics, chemistry or physics courses at a lower level than those specified in the curriculum for the degree sought. Students who are not prepared to take the courses prescribed may take lower level courses without degree credit.

Transfer credit for forestry and wildlife courses not considered equivalent to those required in the chosen curriculum may be substituted for elective credit. However, duplication of credit will not be allowed. Equivalency of forestry and wildlife courses will be determined by the Dean's Office. Students also may obtain credit for FORY and WILD courses on the basis of validating examinations. Arrangements for validating examinations must be made with the Dean's Office.

## Forestry Requirements

The Professional Curriculum in Forestry (FORY) begins with the courses in the School of Forestry and Wildlife Sciences Summer Field Practicum (see below). Students are admitted to this curriculum once a year during spring semester. To be considered for admission, a student must have completed, or be enrolled in all required courses in mathematics, statistics, biology, microeconomics, English, and chemistry, plus an additional nine credit hours from any other courses in the Pre-Forestry curriculum (PFOR) (see below). In addition, students admitted to the professional forestry curriculum must have a minimum GPA, computed only on courses that can be used toward the undergraduate forestry degree (applicable courses), of 2.0.

Because admission to the professional forestry curriculum is limited, the number of students admitted may be fewer than the number of qualified applicants. Students who submit completed applications (including transcripts for transfer students) for admission to the Summer Field Practicum by March 15 each year will be ranked, using GPA in applicable courses. Applicants not selected may reapply in subsequent years.

Students in the FORY and BSEN Forest Engineering Option curricula (see below) must attend the Forestry Practicum, which is scheduled for the summer term preceding the junior year and is held at the Solon Dixon Forestry Education Center near Andalusia.

To remain enrolled in the professional Forestry curriculum, students must maintain minimum GPA standards established by Auburn University. In addition to these standards all required forestry courses (FORY, FOEN, and FOPR) listed in the junior and senior years must be completed with a C or better grade. Grades lower than a C will not satisfy prerequisite requirements of successive listed courses and must be re-taken for credit.

## Forest Engineering Option Requirements

Students are admitted to the professional Biosystems Engineering with Forest Engineering Option curriculum (BSEN with FYEN option) upon successful completion of the Pre-Biosystems Engineering (PBSE) Forest Engineering Option program in the Samuel Ginn College of Engineering with a GPA of 2.2 or greater. (See additional detail on Forest Engineering Option below.) Students pursuing the Forest Engineering Option must meet School of Forestry and Wildlife Sciences requirements for admission to the Forestry Summer Field Practicum.

## Wildlife Sciences Requirements

Admission requirements for the Wildlife Sciences curricula (WILD and WILD/PVET) are the same as for Forestry (above) with this exception: on-campus transfer students must have a cumulative Auburn GPA of at least 2.0 on all work attempted.

To remain enrolled in the Wildlife Sciences curriculum, students must maintain minimum GPA standards established by Auburn University. In addition to these standards all required wildlife science courses (WILD) listed in the curriculum must be completed with a C or better grade. Grades lower than a C will not satisfy prerequisite requirements of successive listed courses and must be re-taken for credit.

## Minors

### Forest Resources Minor

Available only to students in the Forest Emphasis of the Forest Engineering Option of the Biosystems Engineering degree in College of Engineering. Completion of the minor is required for Registered Forester eligibility in the state of Alabama.

20/21 semester hours in the minor.

Courses required		Cr. Hr.
FORY 4190	Forest Measurements II .....	3
FORY 4230	Forest Ecology .....	3
FORY 5400	Forest Economics .....	3
FORY 5410	Forest Management and Administration .....	3
FORY 5420	Forest Policy .....	3
WILD 3280	Principles of Wildlife Management .....	3 OR
FORY 3600	Wildland Recreation Policy .....	2
FORY 4150	Forest Health .....	3 OR
FORY 4440	Forest Fire Management.....	3

## Forestry

The objectives of the forestry curriculum are to provide: 1) the fundamental knowledge regarding the resources that professional foresters typically manage and the multiple uses, sustaining, and conservation of those resources; 2) a general education integrating physical, social and biological sciences to prepare the forester for the role as steward of public and private forest resources; and 3) training and skills needed for initial forestry employment, as well as, for advancement to higher levels of managerial responsibility. The forestry degree is appropriate for students who seek employment in any aspect of forest resource management, from forest industry lands where timber production is typically the primary objective, to private non-industrial properties where multiple use predominates, to public lands where recreation or environmental protection is often paramount. The curriculum emphasizes biological, ecological, environmental, social, economic, and ethical considerations in forest management.

The required courses in the professional forestry curriculum (FORY, see below) are designed to be taken in sequence and as a block. The work is integrated among courses in each semester and between semesters. Students must pay careful attention to the pre-requisites of the junior and senior year courses, which are strictly enforced by the School, to ensure successful completion of the forestry program.

Forestry students are required to meet the minimum requirements of one Emphasis area. The approved Emphases are listed following the FORY curriculum model (see below).

### Curriculum in Pre-Forestry (PFOR)

FR	F	S		F	S
BIOL	1020		Principles of Biology & Lab .....	4	**
BIOL		1030	Organismal Biology & Lab .....	**	4
ENGL	1100	1120	English Composition I & II .....	3	3
MATH	1610		Calculus I .....	**	4
FORY	1010		Intro Natural Resources .....	1	**
			Core History .....	3	3
			Core Social Science .....	3	**
				14	14
SO					
ECON		2020	Microeconomics .....	**	3
ENGL	2200	2210	World Literature I & II.....	3	3
CHEM	1010	1020	Survey of Chemistry I & II .....	4	4
			Core Philosophy .....	3	**
AGRN		2040	Introduction to Soils.....	**	4
COMM		2410	Small Group Communications.....	**	3
STAT	2510		Statistics .....	3	**
			ACCT 2910 or PHYS 1000 .....	3-4	**
				16/17	17

Courses in bold type above are required for admission to Forestry (FORY) curriculum.

### Curriculum in Professional Forestry (FORY)

SUMMER					
FOEN	3000	Forest Operations .....	2		
FORY	3020	Forest Biology .....	2		
FOEN	3040	Forest Surveying .....	3		
FORY	3050	Field Mensuration .....	3		
FORY	3060	Forest Management .....	2		
			12		
JR					
		Core Fine Arts .....	**	3	
FOEN	5700	Harvesting .....	**	3	
FOPR	3390	Introduction Wood Science .....	3	**	
FORY	3100	Dendrology .....	3	**	
FORY	3180	4190 Forest Measurements I & II .....	3	3	
FORY	3200	Forest Tree Physiology .....	3	**	
FORY	4230	Forest Ecology .....	**	3	
FORY	5400	Forest Economics .....	**	3	
			12	15	
SR					
		Emphasis .....	6	6	
FORY	5150	Forest Health .....	3	**	
FORY	4970	Senior Project .....	**	3	
FORY	5230	Silviculture .....	3	**	
FORY	5410	Forest Management .....	3	**	
FORY	5420	Forest Policy .....	**	3	
			15	12	
<b>TOTAL HOURS - 129-130</b>					

Courses in bold type above are components of the Forestry major.

## Forest Emphases

To provide students an opportunity to develop strengths in areas of particular personal and professional interest, the School has developed a series of course groupings called Emphases which, beyond the broad base of Forestry core courses, afford opportunity for specialized study. Current emphases are: Forest Land Management, Forest Operations, Forest Products, Urban Forestry, Business, Forest Biology, Wildlife Management, Spatial Analysis, and Policy. Emphases are selected by students at the close of the Summer Practicum. These choices are taken into account by the student and his/her faculty adviser as the program of study for completion of the professional (FORY) program is developed. Details on courses in each Emphasis (both required and optional, 12 credit hours minimum) are available online ([www.sfw.s.auburn.edu/sso/](http://www.sfw.s.auburn.edu/sso/)).

## Scholars Program in Forestry

The Scholars Program in Forestry provides qualified students an opportunity to explore areas besides the Emphases listed above in which they are particularly interested and/or to prepare for graduate study. Students with at least 3 semesters remaining in the Forestry curriculum, and with at least a 3.3 GPA overall or 3.0 in courses in the Forestry core curriculum, may apply for admission to the program by petition to the student's academic adviser and the dean. Under the guidance of the faculty adviser, and with dean's approval, the student develops an Emphasis to fit his/her unique interests. The Scholars Emphasis must include FORY 4990 in addition to a minimum of 12 semester hour credits in courses at the 3000 level or above.

## Forest Engineering Option

The Biosystems Engineering Department in conjunction with the Samuel Ginn College of Engineering and the School of Forestry and Wildlife Sciences offers an accredited degree in Biosystems Engineering with a Forest Engineering Option. Graduates are qualified to pursue Professional Engineering (PE) credentials. To receive a Society of American Foresters accredited degree and be eligible to become a registered forester in the state of Alabama, students must complete the Forest Emphasis and Forest Resources Minor.

This program is committed to preparing students for productive professional careers in the forest products industry and related natural resource and environmental systems sectors. Specific educational objectives of the program are to produce graduates with: the skills necessary to solve engineering problems associated with the management of forest and natural resources and the production of wood fiber and the manufacture and utilization of wood-based products; the ability to combine engineering skills with training in forest sciences to solve problems and to work in multi-disciplinary teams; the ability to analyze

problems critically and conduct scientific experimentation and engineering analysis; and the ability to continue developing professionally throughout their career.

The curriculum is coordinated by the Samuel Ginn College of Engineering and the School of Forestry and Wildlife Sciences. Students register in the Samuel Ginn College of Engineering and are assigned academic advisers in Biosystems Engineering and in Forestry. Beginning students should apply to the Samuel Ginn College of Engineering and complete the Pre-Biosystems Engineering, Forest Engineering Option, program. (See the Samuel Ginn College of Engineering section for the curriculum model, and detailed admission and degree requirements.)

### Wildlife Sciences

The Wildlife Sciences (WILD) degree program provides a broad biological education that is specifically designed to meet the needs of students interested in careers involving wildlife ecology, management, and conservation. Graduates are employed with state or federal wildlife agencies, environmental consulting firms, private conservation organizations, and private land management companies. Because many jobs require a Master's degree, the program is designed to prepare students for graduate studies in wildlife ecology and management. Students must complete designated courses in the major (see bold type in curriculum models below) with at least a 2.0 GPA.

#### Curriculum in Wildlife Science (WILD)

FR	F	S		F	S
BIOL	1020		Principles of Biology & Lab .....	4	**
BIOL		1030	Organismal Biology & Lab .....	**	4
			Core History .....	3	3
			Core Fine Arts .....	**	3
ENGL	1100	1120	English Composition I & II .....	3	3
MATH	1610		Calculus I .....	4	**
			Elective .....	**	3
				<b>14</b>	<b>16</b>
<b>SO</b>					
PHYS		1000	Foundations of Physics .....	**	4
CHEM	1010	1020	General Chemistry I & II .....	4	4
BIOL	3000		Genetics .....	4	**
BIOL		3030	Evolution & Systematics .....	**	3
<b>BIOL</b>		<b>3060</b>	<b>Principles of Ecology .....</b>	<b>**</b>	<b>4</b>
STAT	2510		Statistics .....	3	**
<b>WILD</b>	<b>2050</b>		<b>Wildlife Conserv. History &amp; Law .....</b>	<b>3</b>	<b>**</b>
				<b>14</b>	<b>15</b>
<b>JR</b>					
COMP	1000		Personal Computer Applications .....	2	**
ENGL	2200	2210	World Literature I & II .....	3	3
			Core Philosophy .....	**	3
			Core Social Science Group 1 & 2 .....	3	3
<b>AGRN</b>	<b>2040</b>		<b>Basic Soil Science .....</b>	<b>4</b>	<b>**</b>
<b>BIOL</b>		<b>5120</b>	<b>Systematic Botany .....</b>	<b>**</b>	<b>4</b>
<b>BIOL</b>		<b>5140</b>	<b>Plant Ecology .....</b>	<b>**</b>	<b>4</b>
<b>WILD</b>	<b>3280</b>		<b>Principles Wildlife Management .....</b>	<b>3</b>	<b>**</b>
<b>WILD</b>	<b>3281</b>		<b>Principles Wildlife Management Lab .....</b>	<b>1</b>	<b>**</b>
				<b>16</b>	<b>17</b>
<b>SR</b>					
ENGL	3040		Technical Writing .....	3	**
COMM	1000		Public Speaking .....	3	**
<b>WILD</b>	<b>5270</b>		<b>Wildlife Resource Philosophy &amp; Policy .....</b>	<b>**</b>	<b>3</b>
<b>WILD</b>	<b>5280</b>	<b>5290</b>	<b>Wildlife Ecology &amp; Mngt I &amp; II .....</b>	<b>3</b>	<b>3</b>
<b>WILD</b>	<b>5281</b>	<b>5291</b>	<b>Wildlife Ecology &amp; Mngt Lab I &amp; II .....</b>	<b>1</b>	<b>1</b>
			<b>Fld. Biol Elective Experience .....</b>	<b>4</b>	<b>4</b>
			<b>Natural Resource/Biology Elective .....</b>	<b>3</b>	<b>3</b>
				<b>17</b>	<b>14</b>
<b>TOTAL HOURS - 123</b>					

Professional Electives - Listed on the school's SSO website.

### Wildlife Sciences, Pre-Veterinary Medicine (WILD/PVET) Concentration

Students may be admitted to the College of Veterinary Medicine (CVM) upon completion of the minimum requirements listed below. If students are admitted to the CVM prior to completion of the full four years, they may obtain a Bachelor of Science degree in this concentration after successful completion of the freshman year in the CVM. (Students obtaining the B.S. in this manner may not be certifiable as Associate Wildlife Biologists.) The minimum requirements for admission to the CVM are incorporated in the first three years in the Wildlife Sciences, Pre-Veterinary Medicine Concentration. All minimum requirements must be completed by the end of the spring semester preceding the date of admission to CVM. (See the College of Veterinary Medicine section for additional information.)

#### Curriculum in Wildlife Science/Pre-Vet Concentration

FR	F	S		F	S
BIOL	1020		Principles of Biology & Lab .....	4	**
BIOL		1030	Organismal Biology & Lab .....	**	4
CHEM	1030	1040	General Chemistry I & II .....	3	3
CHEM	1031	1041	General Chemistry Lab I & II .....	1	1
ENGL	1100	1120	English Composition I & II .....	3	3
MATH	1610		Calculus I .....	4	**
			Core History .....	**	3
				<b>15</b>	<b>14</b>
<b>SO</b>					
CHEM	2070	2080	Organic Chemistry I & II .....	3	3
CHEM	2071	2081	Organic Chemistry Lab I & II .....	1	1
ENGL	2200	2210	World Literature I & II .....	3	3
PHYS	1500	1510	General Physics I & II .....	3	3
PHYS	1501	1511	General Physics Lab I & II .....	1	1
			Core Social Science Group 1 & 2 .....	3	3
		1000	Personal Computer Applications .....	**	2
<b>WILD</b>	<b>2050</b>		<b>Wildlife Conservation History &amp; Law .....</b>	<b>3</b>	<b>**</b>
				<b>17</b>	<b>16</b>
<b>JR</b>					
			Core Philosophy .....	**	3
			Core History .....	**	3
			Core Fine Arts .....	3	**
BCHE	3200		Prin. Biochemistry .....	3	**
COMM	1000		Public Speaking .....	3	**
BIOL	3200		Gen Microbiology .....	**	4
BIOL	3000		Genetics .....	4	**
BIOL		3030	Evolution & Systematic .....	**	3
<b>BIOL</b>		<b>3060</b>	<b>Principles of Ecology .....</b>	<b>**</b>	<b>4</b>
<b>WILD</b>	<b>3280</b>		<b>Principles Wildlife Management .....</b>	<b>3</b>	<b>**</b>
<b>WILD</b>	<b>3281</b>		<b>Principles Wildlife Management Lab .....</b>	<b>1</b>	<b>**</b>
				<b>17</b>	<b>17</b>
<b>SR</b>					
STAT	2510		Statistics .....	3	**
BIOL	4020		Vertebrate Biodiversity .....	4	**
<b>BIOL</b>		<b>5120</b>	<b>Systematic Botany .....</b>	<b>**</b>	<b>4</b>
<b>WILD</b>	<b>5280</b>	<b>5290</b>	<b>Wildlife Ecology &amp; Mngt I &amp; II .....</b>	<b>3</b>	<b>3</b>
<b>WILD</b>	<b>5281</b>	<b>5291</b>	<b>Wildlife Ecology &amp; Mngt Lab I &amp; II .....</b>	<b>1</b>	<b>1</b>
			<b>Natural Resource/Biology Elective .....</b>	<b>**</b>	<b>4</b>
			Elective .....	4	**
				<b>15</b>	<b>12</b>
<b>TOTAL HOURS - 123</b>					

Professional Electives - Listed on the school's SSO website.

### Degrees in both Forestry and Wildlife Sciences

Curricula leading to degrees in both forestry and wildlife sciences are available for students interested in obtaining both BS degrees. In combination, the two degrees meet the requirements for Registered Forester eligibility in Alabama and Associate Wildlife Biologist certification requirements for The Wildlife Society. Completion of both degrees requires an additional year of coursework (168 total semester hours). Students need to work closely with their academic adviser beginning in the sophomore year in order to successfully complete all requirements for the degrees. Two tracks are available depending upon which degree to focus on first. The student has the option, up until the senior year, to drop back and complete the 4 year requirements for the focus degree of the selected track. For more details about the two tracks visit the School's website ([www.sfws.auburn.edu/ss0](http://www.sfws.auburn.edu/ss0)).