

Warnell School of Forestry and Natural Resources

Professional Program Curriculum

Fisheries and Wildlife Major Program of Study

Course ID	Course Title	Hours
FANR 3000-3000L	Field Orientation, Measurements, and Sampling in Forestry and Natural Resources	4
FANR 3200-3200L or ECOL(BIOL) 3500-3500L or approved ECOL substitute	Ecology of Natural Resources Ecology any approved ECOL course numbered 3000 or above	4 4 ?
FANR 3800-3800L or FANR 4201-4201L ^P	Spatial Analysis of Natural Resources Spatial Analysis for Integrative Natural Resource Problem Solving	3 4
FANR 4500 or FANR 4990	Senior Project or Senior Thesis	4
WILD (FISH) 3000	Introduction to Fish and Wildlife Management	2
WILD (ECOL) 3580-3580L	Vertebrate Natural History	4
Area of Emphasis and Restricted Electives (choose Aquatic Sciences, Pre-Vet Wildlife Sciences, or Wildlife Sciences—see following page)		39
Professional Hours		60
Total with Regents Core		120

Additional Requirement:

Professional Experience Requirement Students must take one course marked with a ^P in the curriculum.

Professional Program Curriculum (continued)

Fisheries and Wildlife Major Areas of Emphasis

Aquatic Sciences Area of Emphasis		
Course ID	Course Title	Hours
Required Courses:		20
CRSS (FANR) 3060-3060L	Soils and Hydrology	4
FISH 4200-4200L	Aquatic Biology	4
FISH 4300-4300L	Environmental Biology of Fishes	4
FISH 4500-4500L	Fish Physiology	4
FISH 5360-5360L	Fisheries Management	4
Wildlife Sciences Requirement	Students must take one course marked with a ^W in the curriculum.	
Restricted Electives: choose from the categories below		19*
Habitat and Ecosystem Ecology and Management (select one course; 3 hours required)		
ECOL 3520	Ecological Applications	3
ECOL 4010	Ecosystem Ecology	3
FISH 4310-4310L	Limnology	4
FISH 4550-4550L ^P	Conservation Aquaculture	4
FISH 4600	Ecotoxicology	3
FISH 4650L ^P	Georgia Fishes Field Study	4
WASR 4400-4400L	Introduction to Wetlands	3
WILD 4000-4000L ^W	Management of Wildlife Habitat	4
WILD 5350-5350L ^W	Wetland Management for Wildlife	3
WILD 5200 ^{W P}	International Wildlife Management in South Africa	6
	<i>Students taking WILD 5200 may use 3 hours towards this elective and 3 hours towards the Population Ecology and Management Elective.</i>	
or	other advisor-approved course	3+
Organismal Biology and Ecology (select two courses; 6 hours required)		
BIOL 3700 or BIOL 3720L	Animal Behavior <i>or</i> Field Animal Behavior	3
ECOL 3220 ^W	Biology and Conservation of Marine Mammals	4
ECOL 4050-4050L	Ichthyology	4
ECOL 4070-4070L	Invertebrate Zoology	4
ENTO 4000-4000L	General Entomology	4
FISH 4650L ^P	Georgia Fishes Field Study	4
GENE 3000	Evolutionary Biology	4
WILD 4040-4040L ^W	Herpetology	4
WILD 4050-4050L ^W	Mammalogy	4
WILD 4060-4060L ^W	Ornithology	4
WILD 4575 ^{W P}	Conservation Medicine and Biology	6
	<i>Students taking WILD 4575 may use 3 hours towards this elective and 3 hours towards the Population Ecology and Management Elective.</i>	
WILD 5100 ^W	Principles and Management of Wildlife Diseases	3
or	other advisor-approved course	3+

(requirements continued on the following page)

Population Ecology and Management (select one course; 3 hours required)

ECOL 3220 ^W	Biology and Conservation of Marine Mammals	4
ECOL 4000	Population and Community Ecology	3
FANR 4350	Conservation Genetics	3
FISH 4550-4550L ^P	Conservation Aquaculture	4
FISH 4600	Ecotoxicology	3
GENE 3000	Evolutionary Biology	4
WILD 4500 ^W	Nongame and Endangered Species Management	3
WILD 4575 ^{W P}	Conservation Medicine and Biology	6
	<i>Students taking WILD 4575 may use 3 hours towards this elective and 3 hours towards the Organismal Biology and Ecology Elective.</i>	
WILD 4900-4900L ^W	Wildlife Damage Management	3
WILD 5100 ^W	Principles and Management of Wildlife Diseases	3
WILD 5200 ^{W P}	International Wildlife Management in South Africa	6
	<i>Students taking WILD 5200 may use 3 hours towards this elective and 3 hours towards the Habitat and Ecosystem Ecology and Mgmt. Elective.</i>	
WILD 5700-5700L	Applied Population Dynamics	3
or	other advisor-approved course	3+

Policy and Decision-Making Elective (select one course; 2 hours required)*If FANR 4500 is taken:*

FANR 4800	Renewable Resources Policy	2
FISH 4520-4520L	Conservation Decision-Making	3
WILD 4500 ^W	Nongame and Endangered Species Management	3

If FANR 4600 is taken:

FISH 4520-4520L	Conservation Decision-Making	3
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Free Elective (select one to two courses, 5 hours required; excess credit from other restricted electives may count here)

FISH 3000+, including	any 3000-level or above FISH course	3+
FISH 3900 ^{P**} ,	Fisheries Internship (<i>only 3 hours may count towards graduation</i>)	1-3
or	any advisor-approved course	3+

* Total hours for Area of Emphasis and Restricted Electives must equal 39.

** 2+ hours of FISH 3900 are required to satisfy the Professional Experience Requirement.

Professional Program Curriculum (continued)

Fisheries and Wildlife Major Areas of Emphasis

Wildlife Sciences Area of Emphasis		
Course ID	Course Title	Hours
Required Courses:		14
CRSS (FANR) 3060-3060L	Soils and Hydrology	4
(FANR 3300-3300D and FANR 3400-3400D) or FANR 4202-4202D ^P	Economics of Renewable Resources Society and Natural Resources People, Economics, and Nature in a Global Context	2 2 4
FORS 3010-3010L	Dendrology	3
WILD 4700-4700L	Techniques in Wildlife Population Management	3
Aquatic Sciences Requirement	Students must take one course marked with an ^A in the curriculum.	
Restricted Electives: choose from the categories below		25*
Habitat and Ecosystem Ecology and Management: Elective #1 (select one course; 3 hours required)		
WILD 4000-4000L	Management of Wildlife Habitat	4
WILD 5350-5350L	Wetland Management for Wildlife	3
WILD 5330	Conserving Wildlife in Agricultural Landscapes	3
Habitat and Ecosystem Ecology and Management: Elective #2 (select one course; 2 hours required)		
ECOL 3520	Ecological Applications	3
ECOL 4010	Ecosystem Ecology	3
ECOL(FANR) 4220	Foundations of Restoration Ecology	3
FISH 4200-4200L ^A	Aquatic Biology (<i>lab optional</i>)	4
FISH 4310-4310L	Limnology	4
FORS 4010-4010L	Silviculture	4
FORS 4210	Forest Health and Protection	3
FORS 5600	Wildland Fire	3
FORS 5610 ^P	Prescribed Fire in the Forest Ecosystem	2
WASR 4400-4400L	Introduction to Wetlands	3
WILD 4000-4000L	Management of Wildlife Habitat	4
WILD 5350-5350L	Wetland Management for Wildlife	3
WILD 5200 ^P	International Wildlife Management in South Africa <i>Students taking WILD 5200 may use 3 hours towards elective and 3 hours towards Population Ecology, Conservation, and Management: Elective #2.</i>	6
WILD 5330	Conserving Wildlife in Agricultural Landscapes	3
or	other advisor-approved course	3+
Organismal Biology and Ecology: Elective #1 (select one course; 4 hours required)		
WILD 4040-4040L	Herpetology	4
WILD 4050-4050L	Mammalogy	4
WILD 4060-4060L	Ornithology	4
Organismal Biology and Ecology: Elective #2 (select one course; 3 hours required)		
BIOL 3700 or BIOL 3720L	Animal Behavior <i>or</i> Field Animal Behavior	3
ECOL 3220	Biology and Conservation of Marine Mammals	4
ECOL 4240-4240L	Physiological Ecology	4
WILD 4040-4040L	Herpetology	4
WILD 4050-4050L	Mammalogy	4
WILD 4060-4060L	Ornithology	4
WILD 4400	Wildlife Physiology and Nutrition	3
WILD 5100	Principles and Management of Wildlife Diseases	3

(requirements continued on the following page)

Effective for students entering Spring 2017 and later.

Organismal Biology and Ecology: Elective #3 (select one course; 3 hours required)

BIOL 3700 or BIOL 3720L	Animal Behavior <i>or</i> Field Animal Behavior	3
ECOL 3220	Biology and Conservation of Marine Mammals	4
ECOL 4050-4050L ^A	Ichthyology	4
ECOL 4070-4070L	Invertebrate Zoology	4
ECOL 4240-4240L	Physiological Ecology	4
ENTO 4000-4000L	Entomology	4
FISH 4200-4200L ^A	Aquatic Biology (<i>lab optional</i>)	4
FISH 4500 ^A	Fish Physiology (<i>lab optional</i>)	3
FISH 4600	Ecotoxicology	3
FISH 4650L ^{A P}	Georgia Fishes Field Study	4
GENE 3000	Evolutionary Biology	4
WILD 4040-4040L	Herpetology	4
WILD 4050-4050L	Mammalogy	4
WILD 4060-4060L	Ornithology	4
WILD 4300-4300L ^A	Environmental Biology of Fishes (<i>lab optional</i>)	4
WILD 4400	Wildlife Physiology and Nutrition	3
WILD 4575 ^P	Conservation Medicine & Biology	6
	<i>Students taking WILD 4575 may use 3 hours towards this and 3 hours towards Population Ecology, Conservation, and Management: Elective #2.</i>	
WILD 5100	Principles and Management of Wildlife Diseases	3
or	other advisor-approved course(s)	3+ ea.

Population Ecology, Conservation, and Management: Elective #1 (select one course; 3 hours required)

ECOL 4000	Population and Community Ecology	3
WILD 5700-5700L	Applied Population Dynamics	3

Population Ecology, Conservation, and Management: Elective #2 (select one course; 2 hours required)

ECOL 3220	Biology and Conservation of Marine Mammals	4
ECOL 4000	Population and Community Ecology	3
FANR 4350	Conservation Genetics	3
FISH 4550-4550L	Conservation Aquaculture	4
FISH 5360 ^A	Fisheries Management (<i>lecture only</i>)	3
GENE 3000	Evolutionary Biology	4
WILD 4500	Nongame and Endangered Species Management	3
WILD 4575 ^P	Conservation Medicine & Biology	6
	<i>Students taking WILD 4575 may use 3 hours towards this elective and 3 hours towards Organismal Biology and Ecology: Elective #2.</i>	
WILD 4600 ^P	Field Methods in Wildlife Health, Management, and Research	2
WILD 4650-4650L ^P	Field and Molecular Techniques in Wildlife Research and Management	4
WILD 4900-4900L	Wildlife Damage Management	3
WILD 5100	Principles and Management of Wildlife Diseases	3
WILD 5200 ^P	International Wildlife Management in South Africa	6
	<i>Students taking WILD 5200 may use 3 hours towards this elective and 3 hours towards the Habitat and Ecosystem Ecology and Mgmt. Elective.</i>	
WILD 5330-5330L	Conserving Wildlife in Agricultural Landscapes	3
WILD 5700-5700L	Applied Population Dynamics	3
or	other advisor-approved course	3+

(requirements continued on the following page)

Policy and Decision-Making Elective (select one course; 2 hours required)*If FANR 4500 is taken:*

FANR 4800	Renewable Resources Policy	2
FISH 4520-4520L	Conservation Decision-Making	3
WILD 4500 ^W	Nongame and Endangered Species Management	3

If FANR 4600 is taken:

FISH 4520-4520L	Conservation Decision-Making	3
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Additional Requirements (select one course; 3 hours required)*Excess credit from courses used to satisfy other restricted elective categories may be used here.*

FANR 4202-4202D ^P	People, Economics, and Nature in a Global Context <i>Students who take this are exempt from FANR 3300 & 3400; students who take FANR 3300 or 3400 cannot take this course.</i>	4
FANR 4271 ^P	Field Studies in Natural Resources	3-6
FANR 4272 ^P	Antarctica: The Fragile Continent	3-12
FANR 4273 ^P	Field Studies in Sustainable Development	3-9
FANR 4770H	The Business of Environmental Law	3
FANR 4810	Natural Resources Law for Managers and Administrators	4
FANR 5680	Economic Perspectives on Natural Resource Issues	3
PRTM 5900	Ecotourism and Sustainable Development	3
WILD 3900 ^{P**}	Wildlife Internship (<i>no more than 3 hours may count towards graduation</i>)	1-3
WILD 4280 ^P	Field Study in Natural History [<i>approved for students entering Fall 2013 & later</i>]	3
or	other advisor-approved course	3+

* Total hours for Area of Emphasis and Restricted Electives must equal 39.

** 2+ hours of WILD 3900 are required to satisfy the Professional Experience Requirement.

Professional Program Curriculum (continued)

Fisheries and Wildlife Major Areas of Emphasis

Pre-Vet / Wildlife Sciences Area of Emphasis		
Course ID	Course Title	Hours
Required Courses:		17
BCMB 3100	Biochemistry	4
(FANR 3300-3300D and FANR 3400-3400D) or FANR 4202-4202D	Economics of Renewable Resources Society and Natural Resources People, Economics, and Nature in a Global Context	2 2 4
FORS 3010-3010L	Dendrology	3
WILD 4700-4700L	Techniques in Wildlife Population Management	3
WILD 5100	Wildlife Disease Ecology and Management	3
Restricted Electives: choose from the categories below		22*
Habitat and Ecosystem Ecology and Management (select one course; 3 hours required)		
WILD 4000-4000L	Management of Wildlife Habitat	4
WILD 5350-5350L	Wetland Management for Wildlife	3
WILD 5330-5330L	Conserving Wildlife in Agricultural Landscapes	3
Organismal Biology and Ecology: Elective #1 (select one course; 4 hours required)		
WILD 4040-4040L	Herpetology	4
WILD 4050-4050L	Mammalogy	4
WILD 4060-4060L	Ornithology	4
Organismal Biology and Ecology: Elective #2 (select one course; 3 hours required)		
BIOL 3700 or BIOL 3720L	Animal Behavior <i>or</i> Field Animal Behavior	3
ECOL 3220	Biology and Conservation of Marine Mammals	4
ECOL 4240-4240L	Physiological Ecology	4
WILD 4040-4040L	Herpetology	4
WILD 4050-4050L	Mammalogy	4
WILD 4060-4060L	Ornithology	4
WILD 4400	Wildlife Physiology and Nutrition	3
WILD 4575 ^P	Conservation Medicine and Biology <i>Students taking WILD 4575 may use 3 hours towards this elective and 3 hours towards the Population Ecology and Management Elective #2.</i>	6
Population Ecology and Management: Elective #1 (select one course; 3 hours required)		
FANR 4350	Conservation Genetics	3
WILD 5330-5330L	Conserving Wildlife in Agricultural Landscapes	3
<i>(requirements continued on the following page)</i>		

Effective for students entering Spring 2017 and later.

Population Ecology and Management: Elective #2 (select one course; 2 hours required)

ECOL 3220	Biology and Conservation of Marine Mammals	4
ECOL 4000	Population and Community Ecology	3
FANR 4350	Conservation Genetics	3
GENE 3000	Evolutionary Biology	4
WILD 4500	Nongame and Endangered Species Management	3
WILD 4600 ^P	Field Methods in Wildlife Health, Management, and Research	2
WILD 4650-4650L ^P	Field and Molecular Techniques in Wildlife Research and Management	4
WILD 4900-4900L	Wildlife Damage Management	3
WILD 5330-5330L	Conserving Wildlife in Agricultural Landscapes	3
WILD 4575 ^P	Conservation Medicine and Biology	6
	<i>Students completing WILD 4575 may use 3 hours towards this elective and 3 hours towards Organismal Biology and Ecology: Elective #2</i>	
WILD 5200 ^P	International Wildlife Management in South Africa	6

Additional Veterinary Elective (select one course; 3 hours required)

FANR 4350	Conservation Genetics	3
WILD 4040-4040L	Herpetology	4
WILD 4050-4050L	Mammalogy	4
WILD 4400	Wildlife Physiology and Nutrition	3
WILD 5330-5330L	Conserving Wildlife in Agricultural Landscapes	3
or	other advisor-approved course	3+

Policy and Decision-Making Elective (select one course; 2 hours required)

If FANR 4500 is taken:

FANR 4800	Renewable Resources Policy	2
FISH 4520-4520L	Conservation Decision-Making	3
WILD 4500 ^W	Nongame and Endangered Species Management	3

If FANR 4600 is taken:

FISH 4520-4520L	Conservation Decision-Making	3
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Free Elective (select one course; 2 hours required; excess credit from other restricted electives may count here)

any advisor-approved course	2+
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* Total hours for Area of Emphasis and Restricted Electives must equal 39.

NOTE: CHEM 2211 and CHEM 2211L, CHEM 2212 and CHEM 2212L, PHYS 1111-1111L, and PHYS 1112-1112L are required for entrance into Veterinary School.