Forestry, Fisheries and Wildlife

Autumn Quarter 2008
181 Hour Curriculum

COURSE & NUMBER	HRS	✓
UNIVERSITY REQUIREMENTS (GEC)		
FAES 100 (University Survey)	1	
Writing Skills	**15 Hours**	
English 110.01 or 110.02 (Composition)	5	
ENR 367[3] † or LARCH 367[3] † (2nd Writing Course)	5*	
ENR 567 (3rd Writing Course)	5	
Data Analysis, Quantitative & Logical Skills	**15-16 Hours**	
Math 150 (Trig & Elementary Functions)	5	
Math 151 (Calculus I)	5	
ENR 222 or Stat 145 or H&CS 260 or Stat 528 (Data Analysis I) and Stat 529 (Data Analysis II)	5 - 6	
Natural Sciences	**20 Hours**	
Chem 121 (General Chemistry I)	5	
Chem 122 (General Chemistry II)	5	
Chemistry: Additional coursework in Chemistry or Bio Chem required for some options only (see specific option for requirements)		
Biology 113[4] (Energy Transfer & Development)	5	
Biology 114 (Form, Function, Diversity & Ecology)	5	
Physics: Additional coursework in Physics required for some options only (see specific options for requirement)		
NATURAL RESOURCES CORE REQUIREMENTS	**15 Hours**	
ENR 201 (Introduction to Environmental Science)	5	
ENR 203 (Society and Natural Resources)	5	
ENR 300.01 (Introduction to Soil Science)	3	
ENR 300.02 (Soil Science Laboratory)	2	
FORESTRY, FISHERIES & WILDLIFE MAJOR	**9 Hours**	
ENR 119.02 (Prof. Survey Forestry, Fisheries & Wildlife)	1	
ENR 319 (Introduction to Forestry, Fisheries & Wildlife)	3	
ENR 606.02 (Natural Resources Management)	5	

COURSE & NUMBER	HRS	✓
UNIVERSITY REQUIREMENTS (GEC)		
Arts and Humanities	**20 Hours**	
GEC History Course[1] ★◆	5	
ENR 367[3] † or LARCH 367[3] † or other GEC Humanities	5*	
GEC Literature Course[1] ★◆●	5	
GEC Visual/Performing Arts Course[1] ★◆●	5	
Social Sciences	**15 Hours**	
AED Econ 200 or Economics 200 (Microeconomics)	5	
ENR 400 (Natural Resources Policy)	5	
Third GEC Social Science[1] ★◆●	5	
Diversity Experiences	***0 Hours****	
Social Diversity in the U.S.[1] ●	5*	
International Issues Western Focus (non-U.S.) [1] ★ A Study Abroad experience may be used toward this requirement with degree unit approval.	5*	
International Issues Non-western/Global Focus[1] ◆ A Study Abroad experience may be used toward this requirement with degree unit approval.	5*	
OPTION COURSES (see Option Guides)		
Forest Ecosystem Science & Management Option	65 Hours	
Urban Forestry & Wildlife Management Option	68 Hours	
Fisheries & Wildlife Science Option	72 Hours	
Fisheries Science Option	81 Hours	
Wildlife Science Option	81 Hours	
Wildlife & Pre-Veterinary Science Option	81 Hours	
Forestry & Wildlife Management Option	85 Hours	
MINIMUM HRS FOR GRADUATION (varies per option)	**181 Hrs**	

[1] From GEC list.
[2] Selected course may not be double counted in the major.
[3] Other 367 courses may be subsituted for the 2nd writing requirement. Five additional hours required from Part B of Arts & Humanitites (Analysis of Texts & Works of Art).
* Requirements may be double counted with another GEC requirement. If you do not overlap these courses, additional coursework will be required to complete your degree requirements.
† Fulfills both GEC 2nd writing & GEC Cultures & Ideas requirements simultaneously.
★ Students are permitted and recommended to double count their GEC International Issues: Western Focus (non U.S.) requirement with another GEC category.
◆ Students are permitted and recommended to double count their GEC International Issues: Non-western/Global requirements with another GEC category.
● Students are permitted and recommended to double count their GEC Social Diversity requirement with another GEC category.

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Program Option & Specialization Course Selection Guide — FOREST ECOSYSTEM OPTION

Forest Ecosystem Science and Management Option	**Credit Hours**	
AGSYSMGT 370 (Principles of Hydrology)	3	
ENR 221 (Biology and Identification of Woody Forest Plants)	5	
ENR 322 (Forest Ecosystems)	5	
ENR 323 (Forest Biometry)	5	
ENR 324 (Photointerpretation)	3	
ENR 333 (Silviculture)	5	
ENR 340 (Concepts of Parks & Recreation) or ENR 545 (Adv. Perspectives of Nat. Resource Admin.)	3-5	
ENR 432 (Forest Industries)	5	
ENR/AED Econ 531 (Environmental & Nat. Res. Economics)	5	
ENR 635 (Forest Management)	4	
ENR 734 (Forest Ecosystem Management)	4	
ENTOMOL 461 (Forest Entomology)	3	
PLNT PTH 610 (Forest Pathology)	4	
Additional Specialization Courses ** (soils, recreation, wildlife, geo-spatial analysis, etc.)	9-11	
Minimum Option Total	**65 Hours**	
Free Electives	10-11	
Degree Total	**181 Hours**	

** Courses requiring advisor approval. Must be 200-level or higher. Additional courses selected in ENR or related disciplines in consultation with faculty advisor.

Program Option & Specialization Course Selection Guide — URBAN FORESTRY OPTION

Urban Forestry and Wildlife Management Option	**Credit Hours**	
C&R PLAN 310 (Intro to City & Reg Planning)	4	
EEOB 322 (Ornithology)	5	
ENR 221 (Biology and Identification of Woody Forest Plants) or H&CS 234 (Landscape Plants)	5	
ENR 322 (Forest Ecosystems) or H&CS 300 (General Plant Biology)	5	
ENR 232 (Landscape Maintenance)	4	
ENR 323 (Forest Biometry) or ENR 662 (Wildlife Ecology Methods)	5	
ENR 333 (Silviculture)	5	
ENR 623 (Principles of Wildlife Ecology & Management)	5	
ENR 624 (Wildlife Identification and Management)	5	
ENR 625 (Management of Wildlife Habitat)	3	
ENR 631 (Arboriculture)	5	
ENTOMOL 461 (Forest Entomology)	3	
PLNT PTH 610 (Forest Pathology)	4	
Additional Specialization Courses **	5	
Minimum Option Total	**68 Hours**	
Free Electives	9-10	
Degree Total	**181 Hours**	

** Courses requiring advisor approval. Must be 200-level or higher. Additional courses selected in ENR or related disciplines in consultation with faculty advisor.

Program Option & Specialization Course Selection Guide — WILDLIFE & FISHERIES OPTION

Wildlife and Fisheries Science Option	**Credit Hours**	
EEOB 322 (Ornithology)	5	
EEOB 400 (Evolution)	5	
EEOB 405.01 (Systematics & Diversity of Organisms Lecture)	4	
EEOB 625 (Mammalogy)	5	
EEOB 626 (Biology of Fishes) or EEOB 621 (Ichthyology)* or EEOB 653 (Fish Biology)*	5	
ENR 221 (Biology and Identification of Woody Forest Plants)	5	
ENR 410 (Environmental Interpretation & Visitor Services) or ENR 615 (Environmental Risk Communication) or Comm 200 (Communication in Society) or Comm 320 (Intro. Interpersonal and Org. Communication) or Comm 321 (Principles of Effective Public Speaking)	5	
ENR 620 (Principles of Fisheries Ecology & Management)	5	
ENR 623 (Principles of Wildlife Ecology & Management)	5	
ENR 624 (Wildlife Identification and Management)	5	
ENR 625 (Management of Wildlife Habitat)	3	
ENR 626 (Field Techniques in Fisheries Management)	5	
ENR 627 (Ecology & Management of Aquatic Inverts.) or ENTOMOL 612 (Aquatic Entomology)* or EEOB 647 (Plankton)	5	
ENR 662 (Wildlife Ecology Methods)	5	
ENR 725 (Wetland Ecology and Management) or EEOB 652* (Limnology at Stone Lab) or EEOB 655 (Limnology)	5	
Minimum Option Total	**72 Hours**	
Free or Directed Electives: An additional 7 credit hours from the courses listed below are required for certification by the American Fisheries Society. AFS Certification in this option is not required for graduation.	3-4	
BIOCHEM 211 (Elements of Biochemistry I) BIOCHEM 212 (Elements of Biochemistry II) CHEM 123 (General Chemistry III) CHEM 231 (Intro Org Chem) CHEM 245 (Org Chem Lab) PHYSICS 111 (General Physics; Mechanics& Heat) PHYSICS 112 (General Physics: Electricity, Magnetism, & Light)		
Degree Total	**181 Hours**	

* Courses offered only at Stone Laboratory

Program Option & Specialization Course Selection Guide — FISHERIES SCIENCE OPTION

Fisheries Science Option	**Credit Hours**	
BIOCHEM 211/212 (Elements of Biochemistry I, II) or CHEM 123 (General Chemistry III) or CHEM 231 (Introd. Org Chem) and CHEM 245 (Org Chem Lab)	5-6	
EEOB 400 (Evolution)	5	
EEOB 405.01 (Systematics & Diversity of Organisms Lecture)	4	
EEOB 405.02 (Animal Diversity & Systematics Lab)	2	
EEOB 503.01 (Introduction to Ecology Lecture)	4	
EEOB 503.02 (Introduction to Ecology Laboratory)	2	
EEOB 626 (Biology of Fishes) or EEOB 621 (Ichthyology)*	5	
EEOB 647 (Plankton)	5	
EEOB 652* (Limnology at Stone Lab) or EEOB 655 (Limnology)	5	
EEOB 653* (Fish Ecology) or EEOB 440 (Introduction to Ethology)	5	
ENR 620 (Principles of Fisheries Ecology & Management)	5	
ENR 626 (Field Techniques in Fisheries Management)	5	
ENR 627 (Ecology & Management of Aquatic Inverts.) or ENTOMOL 612 (Aquatic Entomology)*	5	
ENR 725 (Wetland Ecology and Management)	5	
PHYSICS 111 (General Physics; Mechanics & Heat)	5	
Additional Specialization Courses** The following 2 courses are recommended	13-14 Hours	
ENR 355 (Water Quality Management)	3	
ENR 628 (Aquaculture)	5	
Minimum Option Total	**81 Hours**	
Degree Total	**186 Hours**	

* Courses offered only at Stone Laboratory

** Courses requiring advisor approval. Must be 200-level or higher. Additional courses selected in ENR or related disciplines in consultation with faculty advisor.

Program Option & Specialization Course Selection Guide — WILDIFE SCIENCE OPTION

Wildlife Science Option	**Credit Hours**	
ANIM SCI 310 (Principles of Animal Systems Physiology) or EEOB 470 (Biology of Vertebrates) or EEOB 410 (Animal Form and Function) or PLNT BIO 436 (Introductory Plant Physiology)	3-5	
BIOCHEM 211/212 (Elements of Biochemistry I, II) or CHEM 123 (General Chemistry III) or CHEM 231 (Introd. Org Chem) and CHEM 245 (Org Chem Lab)	5-6	
EEOB 210 (Local Flora)	5	
EEOB 322 (Ornithology)	5	
EEOB 400 (Evolution)	5	
EEOB 405.01 (Systematics & Diversity of Organisms Lecture)	4	
EEOB 625 (Mammalogy)	5	
ENR 221 (Biology & Identification of Woody Forest Plants)	5	
ENR 410 (Environmental Interpretation & Visitor Services) or ENR 615 (Environmental Risk Communication) or COMM 200 (Communication in Society) or COMM 320 (Intro. Interpersonal and Org. Communication) or COMM 321 (Principles of Effective Public Speaking)	5	
ENR 623 (Principles of Wildlife Ecology & Management)	5	
ENR 624 (Wildlife Identification and Management)	5	
ENR 625 (Management of Wildlife Habitat)	5	
ENR 627 (Ecology & Management of Aquatic Inverts.) or ENTOMOL 461 (Forest Entomology) or ENTOMOL 612 (Aquatic Entomology)*	3-5	
ENR 662 (Wildlife Ecology Methods)	5	
PHYSICS 111 (General Physics; Mechanics & Heat)	5	
PHYSICS 112 (General Physics: Electricity, Magnetism & Light)	5	
Specialization Courses**	3-8 Hours	
Minimum Option Total	**81 Hours**	
Degree Total	**186 Hours**	

* Courses offered only at Stone Laboratory

** Courses requiring advisor approval. Must be 200-level or higher. Additional courses selected in ENR or related disciplines in consultation with faculty advisor.

Program Option & Specialization Course Selection Guide — WILDIFE & PRE-VET OPTION

Wildlife and Pre-Veterinary Science Option	**Credit Hours**	
BIOCHEM 511 (Intro. Biological Chemistry)	5	
CHEM 123 (General Chemistry III)	5	
CHEM 251 (Organic Chemistry)	3	
CHEM 252 (Organic Chemistry)	3	
EEOB 322 (Ornithology)	5	
EEOB 400 (Evolution)	5	
EEOB 405.01 (Systematics & Diversity of Organisms Lecture)	4	
EEOB 625 (Mammalogy)	5	
ENR 221 (Biology & Identification of Woody Forest Plants)	5	
ENR 623 (Principles of Wildlife Ecology & Management)	5	
ENR 624 (Wildlife Identification and Management)	5	
ENR 625 (Management of Wildlife Habitat)	5	
ENR 662 (Wildlife Ecology Methods)	5	
MICRBIOL 509 or MICRBIOL 520/521 (Microbiology)	5-12	
MOL GEN 500 (General Genetics)	5	
PHYSICS 111 (General Physics; Mechanics & Heat)	5	
PHYSICS 112 (General Physics: Electricity, Magnetism & Light)	5	
Specialization Courses	0-3 Hours	
Minimum Option Total	**81 Hours**	
Directed Electives: Select 1 course from each of the 2 categories listed below in order to fulfill Wildlife certification requirements. It is recommended that you use directed electives toward this requirement. These courses are not required for graduation in this option.	10 Hours	
COMM 200 (Communication in Society) or COMM 320 (Intro. Interpersonal and Org. Communication) or COMM 321 (Principles of Effective Public Speaking) or ENR 410 (Environmental Interpretation & Visitor Services) or ENR 615 (Environmental Risk Communication)	5	
EEOB 210 (Local Flora)	5	
Degree Total	**186 Hours**	

Program Option & Specialization Course Selection Guide — FORESTRY & WILDIFE OPTION

Forestry and Wildlife Management Option	Credit Hours	
EEOB 210 (Local Flora)	5	
EEOB 322 (Ornithology)	5	
EEOB 400 (Evolution)	5	
EEOB 405.01 (Systematics & Diversity of Organisms Lecture)	4	
EEOB 625 (Mammalogy)	5	
ENR 221 (Biology & Identification of Woody Forest Plants)	5	
ENR 322 (Forest Ecosystems)	5	
ENR 323 (Forest Biometry)	5	
ENR 324 (Natural Resources Photointerpretation)	3	
ENR 333 (Silviculture)	5	
ENR 340 (Concepts of Parks and Recreation) or ENR 545 (Adv. Perspectives of Nat. Resource Admin.)	3-5	
ENR 410 (Environmental Interpretation & Visitor Services) or ENR 615 (Environmental Risk Communication) or COMM 200 (Communication in Society) or COMM 320 (Intro. Interpersonal and Org. Communication) or COMM 321 (Principles of Effective Public Speaking	5	
ENR/AED Econ 531 (Env & Nat Res Economics)	5	
ENR 623 (Principles of Wildlife Ecology & Management)	5	
ENR 624 (Wildlife Identification and Management)	5	
ENR 625 (Management of Wildlife Habitat)	5	
ENR 635 (Forest Management)	4	
ENR 662 (Wildlife Ecology Methods)	5	
ENTOMOL 461 (Forest Entomology) or PLNT PTH 610 (Forest Pathology)	3-4	
Minimum Option Total	**85 Hours**	
Degree Total	**190 Hours**	