

**FISHERIES AND WILDLIFE CURRICULUM** (updated June 2007)  
**125 HOURS MINIMUM FOR GRADUATION**

**I. Pre-Professional Core** (46 - 51 hours)

**A. Communications** (6 credit hours)

English 1000 - Exposition and Argumentation (3hr) Fall/Spring/Summer (C- or higher required)

Communications - choose one:

- Ag Educ 2220 - Verbal Communication in Agriculture (3hr) Fall/Spring [Soph standing]
- Communication 1200 - Intro to Speech Communication (3hr) Fall/Spring/Summer
- PRT 3231 Principles of Outdoor Interpretation (3hr) Spring

3 Writing intensive courses [prereq: English 1000] **noted “WI” for possible courses (check EVERY sem)**

**B. Quantitative / Analytical** (10 - 13 credit hours)

Math 1100\* - College Algebra (3 hr) Fall/Spring/Summer (C- or higher required) \* waived if a student receives 26 or higher on the ACT Math test OR if earned C- or higher in a Calculus I equivalent.

Math 1400 - Calculus for Social and Natural Sciences (3hr) Fall/Spring/Summer [prereq: Math 1100]

Computer courses:

- Agriculture 1111 - Computer and Programming Concepts 1 (3hr) Fall/Spring/Summer (not required)
- NatR 1090- Beginning GIS for Natural Resources (1hr) Fall/Spring

Statistics 2530- Statistical Methods in Nat Resources (3hr) Spring [prereq: Computer or equivalent]

**C. Physical Sciences** (12 - 14 hours)

Chemistry – Must complete both courses

- Chemistry 1310 - General Chemistry I (2hr) Fall/Spring/Summer **AND**
- Chemistry 1320 - General Chemistry II (3hr) Fall/Spring/Summer [prereq: C- or better in Chem 1310]

Earth Science - choose one:

- Geology 1100 - Principles of Geology (4hr) Fall/Spring/Summer
- Soils 2100 - Intro to Soil Science (3hr) Fall/Spring [prereq: Math 1100] **AND** Soils 2106 - Soil Science Lab (2hr) Fall/Spring [prereq: 3 hrs. Chem or concurrent enrollment in Soils 2100]

Physics - choose one:

- Physics 1210 - College Physics (4hr) Fall/Spring/Summer [prereq: Math 1100 or equiv]
- Atmospheric Science 1050 - Introduction to Meteorology (3hr) Spring
- Biochemistry 2110 – The Molecules of Life (3hr) Spring

**D. Social Sciences** (9 hours minimum)

Economics - choose one:

- Ag Econ 2070 – Environmental Economics and Policy (3 hr) Spring **WI**
- Ag Econ 1041 – Applied Microeconomics (3 hr) Fall/Spring

American History or Government - State Law requirement: Choose from History 1100, 1200, 1400, 2210, 2440; or Political Science 1100, 1700, 2100. Fall/Spring/Summer

Additional Social Science elective (3 hr) Fall/Spring/Summer (choices include classes in Soc., Rural Soc, Psych)

**E. Humanities** (9 hours minimum) – Fine arts: art, music, or theatre (only 3 hrs performance credits allowed).

Cultural studies: literature, philosophy, classical studies, religion, foreign language (requires 12 hrs of the same language). Fall/Spring/Summer

**II. Professional Core** (43 - 44 hours)

NatR 1070- Ecology and Renewable Resources Management (3hr) Spring

Bio Sci 1500- Intro to Biological Systems (5hr) Fall/Spring [prereq: Math 1100]

Bio Sc 1200 - General Botany (5hr) Fall

FW 2100 - Colloquium in Fisheries and Wildlife (1hr – S/U grading only) Fall

Bio Sci 3650 - General Ecology (5hr) Fall [prereq: 10 hrs biology] **WI**

NatR 3110 - Biometrics (3hr) Fall [prereq: 1 stat course]

Law/Policy Course - choose one:

- Ag Economics 4356- Environmental Law and Policy (3 hr) Fall
- Ag Economics 3257 - Rural & Agricultural Law Fall/Spring (3hr) [prereq: 3 hrs. Ag Econ or Econ]
- NatR 4353 - Nat Rec Policy/Admin (3hr) Spring [prereq: Sr. standing or consent]

FW 4500- Animal Population Dynamics (3hr) Spring [prereq: Math 1400 + Stat 2530, Bio 3650 recommended]

Plant Taxonomy Course - choose one:

- Biological Science 3210 - Plant Systematics (4hr) Spring [prereq: 1 sem. biology or botany]
- Forestry 2151 - Dendrology (4hr) Fall [prereq: Bio 1200]

Genetics Course - choose one:

- FW 2500 – Introduction to Genetics and Evolution for Conservation (3hr) Spring [prereq: Bio 1500 + Chem 1310 + NR 1070]
- Biological Science 2200 - General Genetics (4hr) Fall/Spring [prereq: Bio 1500 + Chem 1320]
- Animal Science 3213 - Genetics of Agricultural Plants & Animals (3 hr) Spring [prereq: Bio 1500]

Physiology Course - choose one:

- MPP 3202 - Elements of Physiology (5hr) Fall/Spring [prereq: 5 hrs. biology or consent]
- Animal Science 3254 - Physiology of Domestic Animals (5hr) Spring [prereq: Bio 1500 + Chem 1320]

NatR 4970- Resource Practicum (3hr) Spring [C- or higher required. Prereq: Sr. standing or consent]

### III. Professional Tracks (minimum of 7 courses and 24-hrs)

Emphasize terrestrial or aquatic studies by course choice, with at least 2 courses from each track. EX – 4 terrestrial and 3 aquatic, or 2 terrestrial and 5 aquatic. Must choose 2 Science/Natural History courses (A.) and 2 Management/Techniques courses (B.) from the emphasized track.

» Check for Special Topics offerings each semester

#### TERRESTRIAL TRACK

##### A. Science and Natural History (at least 2 for Terrestrial track emphasis)

FW 2600 - Ornithology (4hr) Spring [prereq: 5 hrs biology or consent]

FW 3660 - Mammalogy (4hr) Fall [prereq: Jr. standing or consent]

Not more than one course from this group:

- Entomology 3710 - Entomology (3hr) Fall [prereq: Bio 1500 or 1200 or equiv] **PLUS**  
Entomology 3715 - Insect Diversity (2hr lab) Fall [prereq: Bio 3710, completed or concurrent]
- Bio Sci 3360 - Herpetology (4hr) Spring odd years [prereq: 8 hrs biology]
- Bio Sci 3260 - Invertebrate Zoology (4hr) Fall [prereq: Bio 1500]

##### B. Management and Techniques (at least 2 for Terrestrial track emphasis)

FW 3300 – Wildlife Damage Management (3hr) Spring; **Optional:** FW 3350 – Wildlife Damage Lab (1hr)

FW 3600 - Introduction to Conservation Biology (3 hr) Spring [prereq: Bio 3650]

FW 4600 - Wildlife Conservation (4hr) Fall [prereq: Bio 3650] **WI**

FW 4700 - Wildlife Research and Management Tech (4hr) Fall even yrs [Bio 3650 + Stat 2530 or NR 3110] **WI**

##### C. Specialty Courses

FW 2400 - Human Dimensions of Wildlife Conservation (2hr) Fall odd [prereq: 1 policy or management class]

FW 3500 – Wildlife Conservation of British Cities (2-4 hr) Time offered varies

FW 3800 - Waterfowl Biology and Management (3hr) Spring [prereq: FW 2600 or consent]

FW 4200 - Urban Wildlife Management (3hr) Spring [prereq: Bio 3650] **WI**

Bio Sci 4670 - Avian Ecology (3hr) Spring even years [prereq: Bio 3650 and FW 2600]

FW 4800 - Environmental Toxicology (3hr) Spring odd years [prereq: 10 hrs biology and Chem II]

#### AQUATIC TRACK

##### A. Science and Natural History (at least 2 for Aquatics track emphasis)

FW 2700 - Ichthyology (4hr) Spring [prereq: 8 hrs biology or equiv]

FW 4100 - Limnology (4hr) Fall [prereq: Sr. standing or Bio 3650]

Not more than one course from this group:

- Entomology 3710 - Entomology (3hr) Fall [prereq: Bio 1500 or 1200 or equiv] **AND**  
Entomology 3715- Insect Diversity (2hr) Fall [prereq: Bio 3710, completed or concurrent]
- Bio Sci 3260- Invertebrate Zoology (4hr) Fall [prereq: Bio 1500]
- Bio Sci 3360 - Herpetology (4hr) Spring odd years [prereq: 8 hrs biology]

##### B. Management and Techniques (at least 2 for Aquatics emphasis)

FW 3400 – Water Quality and Natural Resource Management (3hr) Spring [prereq: Chem 1310 or consent]

FW 4300 - Fisheries Management (3hr) Fall [prereq: Bio 3650 + Stat 2530 or consent]

FW 4400 - Techniques for Fisheries Management and Conservation (3hr) Fall [prereq: Bio 3650 + Stat 2530 or NatR 3110 + FW 2700 or 4300] **WI**

##### C. Specialty Courses

FW 3200 - Aquaculture (3hr) Spring

FW 3600 - Introduction to Conservation Biology (3 hr) Spring [prereq: Bio 3650]

FW 4800 - Environmental Toxicology (3hr) Spring odd years [prereq: 10 hrs Bio]

**VI. Electives** (6 - 9 hours) Use these hours to broaden general educational background and to add specialized courses important to career goals.