

FISHERIES & WILDLIFE SCIENCES CURRICULUM (revised Fall 09)
125 hours minimum required for graduation

I. Pre-Professional Core (44-47 hours)

A. Communications (6 credit hours)

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

Communications - choose one:

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

3 Writing intensive courses [C- or higher required; prereq: English 1000] **noted “WI” (check EVERY sem)**

B. Quantitative / Analytical (9 credit hours)

Math 1100* - College Algebra (3) 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 (3) Fall/Spring/Summer [prereq: Math 1100]

Statistics – choose one:

- Stat 2530 - Statistical Methods in Nat Resources (3) Spring [prereq: Computer or equivalent]
- Stat 1400 – Elementary Statistics for Agriculture (3) Fall/Spring [prereq: College Algebra]

C. Physical Sciences (11-14 credit hours)

Chemistry – must complete both courses

- Chem 1310 – Gen. Chem. I (2) **AND** Chemistry 1320 – Gen. Chem. II (3) Fall/Spring/Summer

Earth Science – Choose one:

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

Choose one additional course:

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

D. Social Sciences (9 credit hours minimum)

Economics - choose one:

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

American History or Gov't - State requirement: Hist 1100, 1200, 1400, 2210, 2440; or PolSci 1100, 2100

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

E. Humanities (9 credit hours minimum) – Fine arts: art, music, theatre (only 3 hrs performance credits allowed); Cultural arts: literature, philosophy, classical studies, religion, foreign language (min **13 hrs** same language – through conversation/composition level III).

II. Professional Core (45-47 credit hours)

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

Bio 1200 - General Botany (5) Fall

Introductory Biology - choose one:

- Bio 1500- Intro to Biological Systems (5) Fall/Spring [prereq: Math 1100]
- FW 1100 – Introductory Zoology (5) Spring

Plant Taxonomy Course - choose one:

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

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

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

Law/Policy Course - choose one:

- Ag Econ 2156 – Introduction to Environmental Law (3) Fall
- Ag Econ 3257 - Rural & Agricultural Law (3) Fall/Spring [prereq: 3 hrs. Ag Econ or Econ]
- NatR 4353 - Natural Resources Policy/Admin (3) Spring [prereq: Sr. standing or consent]

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

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

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

Genetics Course - choose one:

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

Animal Form and Function Course - choose one:

- MPP 3202 - Elements of Physiology (5) Fall/Spring [prereq: 5 hrs. biology or consent]
- AnSci 3254 - Physiology of Domestic Animals (3) Fall [prereq: Bio 1500 + Chem 1320] **AND** AnSci 3255 – Physiology of Domestic Animals Lab (2) Spring [prereq AnSci 3254]
- Bio 3700 – Animal Physiology (5) [prereq: Bio 2300]

- PTH & AS 2201 and 2203 – Human Anatomy Lecture (3) and Lab (2) Fall/Spring
 - Biomed 3219 – Elements of Veterinary Anatomy (4) [prereq: 5 hr Biol or Zool] Not currently offered
 - Bio 2300 – Introduction to Cell Biology (4) Fall/Spring [prereq: Bio 2200 + Chem 2100]
- NatR 4970- Resource Practicum (3) Spring [Senior capstone course. C– or higher required. [Prereq: Sr. standing]

III. Professional Tracks (minimum 7 courses and 24 credit hours)

Terrestrial emphasis: 2 courses from Terrestrial A; 2 from Terrestrial B; any 2 courses from Aquatic Track; and one additional course from Aquatic, Terrestrial, or Disciplinary electives.

Aquatic emphasis: 2 courses from Aquatic A; 2 from Aquatic B; any 2 courses from Terrestrial Track; and one additional course from Aquatic, Terrestrial, or Disciplinary electives.

TERRESTRIAL TRACK

A. Science and Natural History

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

FW 3660 - Mammalogy (4) Spring [prereq: 8 hrs biology]

Not more than one course from this group:

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

B. Management and Applications

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

FW 2800 – Controversies in Wildlife Conservation (3) Fall odd yrs [soph standing and Bio 1500 or FW 1100]

FW 4600 – Ecosystem Management (4) Fall [prereq: Bio 3650] **WI**

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

AQUATIC TRACK

A. Science and Natural History

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

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

Not more than one course from this group:

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

B. Management and Applications

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

FW 3900 – Ecology of Fishes (3) Spring even yrs [FW 2700 and Bio 3650]

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

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

DISCIPLINARY ELECTIVES

FW 3200 - Aquaculture (3) Spring odd yrs

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

FW 3800 - Waterfowl Biology/Management (3) Spring [prereq: FW 2600 or consent] (not currently offered)

FW 3700 – Behavioral Ecology (3) Fall [2 F&W, BioSci, or AnSci courses]

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

FW 4660 – Advanced Mammalogy (3) Fall odd years [prereq: FW 3660 with B grade or higher + Bio 3650]

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

FW 4810 – Disease Ecology (3) Fall even years [prereq: Bio 3650]

FW Topics - Subjects and credit vary from semester to semester

NatR 4325 – Introduction to GIS (3) Spring

Bio 4600 – Evolution (3) [Bio 2200 or instructor consent]

Bio 4640 – Behavioral Biology (3) [prereq: Bio 1500 + one upper-level Bio or Psych course]

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

International Studies or Study Abroad (1-12) [prereq: approved F&W Study Abroad Proposal]

IV. General Electives (7-12 hours) Use these credits to broaden general education background and to add specialized courses important to your career goals.