

Dual Degree: Fisheries and Wildlife/Forestry Updated June 2007

140 Credit Hours (Does not allow for any general elective hours)

I. Pre-Professional Core (33 hours)

A. Communications (3 hours)

English 1000 - Exposition and Argumentation (3hr) Fall/Spring/Summer

3 Writing intensive courses* [prereq: English 20] Subject to **designated "WI" after appropriate courses.**

Subject to change at any time – check current schedule [* C– or better required for WI credit]

B. Quantitative / Analytical Skills (10-13 hours)

Math 1100* - College Algebra (3 hr) Fall/Spring/Summer

* waived with 26 or higher on the ACT Math test, OR C– or higher in a math course equivalent to Calc I

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

Computer courses:

Ag 1111 – Computer and Programming Concepts I (3hr) [waived with departmental consent]

NatR 1090- Beginning GIS for Natural Resources (1hr) Fall/Spring

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

C. Social Sciences (9 hours)

Economics - choose one:

- Ag Econ 2070 – Environmental Economics and Policy (3 hr) Spring **WI**
- Ag Econ 1041 – Applied Microeconomics (3 hr) Fall/Spring
- Ag Econ 1042 – Applied Macroeconomics (3 hr) Spring

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

Additional Social Science elective (3 hr) Fall/Spring/Summer – includes Psychology, Sociology, Rural Sociology

D. Humanities (9 hours) – Fine arts: art, music, or theatre (3 hours of performance courses allowed). Cultural studies: literature [prereq: English 1000], philosophy and ethics, classical studies, religion. Fall/Spring/Summer

II. Science Core (35-37 hours)

Chemistry – Choose one sequence of courses below:

- Chemistry 1310 - Gen Chem I (2hr) [Coll. Algebra] **AND** 1320 and Gen Chem II (3hr) Fall/Spring/Summer
- Chemistry 1100 – Atoms & Molecules (3) Fall/Spring/Summer **AND** Biochemistry 2110 – Molecules of Life (3) Spring

Biology 1200 – Botany (5hr) Fall

Biology 1500 – Intro to Biological Systems (5hr) Fall/Spring [prereq: College Algebra]

Geology 1100 – Principles of Geology (4hr) or Geol 1400 – Environmental Geology (4hr) Fall/Spring/Summer

Soils 2100 – Intro to Soil Science (3hr) Fall/Spring [prereq: College Algebra]

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 [College Algebra]
- AtmSci 1050 – Intro Meteorology (3hr) Spring

Genetics - Choose one:

- FW 2500 – Intro Genetics/Evolution for Conservation (3hr) Spring [prereq: Biology + Chem II + NatR 1070]
- BioSci 2200 – General Genetics (4hr) Fall/Spring [prereq: Biology + Chem II]
- AnSci 3213 – Genetics of Agricultural Plants and Animals (3hr) Spring [prereq: Biology]

Physiology – Choose one:

- Med Pharmacology and Physiology [MPP] 3202 – Elements of Physiology (5hr) Fall/ Spring [prereq: Biology]
- AnSci 3254 – Phys of Domestic Animals (5hr) Spring [prereq: Biology + Chem II]

III. Professional Core (34 hours)

NatR 1070 – Ecology and Renewable Resource Management (3hr) Spring

FW 2100 – Colloquium in Fisheries and Wildlife (1hr) Fall

Public Speaking – Choose one:

- PRT 3231 – Principles of Interpretive Outdoor Recreation (3hr) Spring
- AgEd 2220 – Verbal Comm in Ag (3hr) Fall/Spring

Plant Taxonomy – choose one:

- Biology 3210 – Plant Systematics (4hr) [Botany] Spring
- For 2151 – Dendrology (4hr) [Botany] Fall

Ecology – Choose one:

- Bio 3650 – General Ecology (5hr) Fall [prereq: 10 hrs biology] **WI**
- *For 4320 – Forest Ecology (5hr) Fall **WI** [prereq: For 2151 or Bio 3210] *Req. for For. Certification

For 4330 – Silviculture (3hr) Spring [prereq: For. 4320 or Bio 3650]

Water Quality – Choose one:

- FW 3400 – Water Quality and Management (3hr) Spring [prereq: Chem I]
- For 4390 – Watershed Management (3hr) Fall [prereq: For 2541]

NatR 3110 – Biometrics (3hr) [prereq: statistics or instructor’s consent]

FW 4500 – Population Dynamics (3hr) [prereq: Calculus + Stat (Bio 3650 recommended)]

Law and Policy – Choose one:

- NatR 4353 – Policy and Administration (3hr) Spring [prereq: senior standing or instructor’s consent]
- AgEcon 4356 – Environmental Law and Policy (3hr) Fall [prereq: 3 hrs ag econ]

NatR 4970 – Resource Practicum – Senior capstone course* (3hr) Spring [prereq: senior standing or instructors’ consent] * C– or better required for credit

IV. Summer Field Studies (6hr) Must take concurrently [prereq: Soils 2100; For 2151]

For 2540 – Forest Surveying (1hr)

For 2541 – Forest Utilization (1hr)

For 2542 – Forest Measurement and Inventory (1hr)

For 2543 – Forest Ecology Field Studies (1hr)

For 2544 – Intro to Silviculture and Management (1hr)

For 2545 – Forest Management Planning (1hr)

V. Professional Track – Minimum of 10 courses AND 32 hours required

Fisheries and Wildlife Core– 5 courses minimum, with at least 2 from A. and 2 from B. required

A. Science and Natural History (must take at least 2, only 1 outside F&W)

FW 2600 – Ornithology (4 hr) Spring [prereq: 5 hours biology]

FW 2700 – Ichthyology (4 hr) Spring [prereq: 8 hours biology]

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

FW 4100 – Limnology (3-4 hr) Fall [prereq: Bio 3650]

BioSci 3360 – Herpetology (4 hr) Spring ODD yrs [prereq: 8 hours biology]

BioSci 3710 (3 hr) AND BioSci 3715 (2 hr) – Insect Diversity (total 5 hr) Fall [5 hrs biology]

B. Management – (must take at least 2)

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

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

FW 4300 – Fisheries Management (3 hr) Fall [prereq: Bio 3650 + stat or consent]

FW 4400 – Tech. for Fisheries Manag/ Conserv. (3 hr) Fall **WI** [Bio 3650 + stat + FW 2700 or 4300]

FW 4600 – Wildlife Conservation (4 hr) Fall **WI** [General Ecology]

FW 4700 – Wildlife Research/ Manag Tech (4 hr) Fall EVEN yrs **WI** [Bio 3650 + stat or biometrics]

C. Specialty Courses

FW 2400 – Human Dimensions of Conservation (2 hr) Fall ODD yrs [1 policy or management course]

FW 3200 – Aquaculture (3 hr) Spring

FW 3800 – Waterfowl Biology / Management (3 hr) Spring [Prereq: F&W 2600]

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

Forestry Core – 5 courses minimum, with at least 2 from A. and 2 from B. required.

A. Management – (must take at least 2)

For 3207 – Forest Fire Ecology and Control (2 hr) Fall

For 3212 – Forest Health and Protection (4 hr) Spring ODD yrs [prereq: For 2151]

For 3290 – Urban Forestry (2 hr) Spring EVEN yrs [prereq: For 2151 or consent]

For 4370 – Wildland Fire Management (3 hr) Spring EVEN yrs [prereq: For 3207]

For 4380 – Forest Resource Management (3 hr) Fall [prereq: For 4330 and 4350]

For 4385 – Agroforestry (4 hr) Fall [prereq: Junior standing]

B. Specialty Courses – (must take at least 2)

For 3240 – Wood Technology (3 hr) Fall

For 4340 – Tree Physiology (3 hr) Fall [prereq: Bio Sci 1200; Chem 1100; Bioch 1010 or consent]

*For 4350 – Forest Economics (3 hr) Spring [prereq: Ag Econ 1041 or 3080] *Req for For. Certification

For 4360 – Forest Information Systems (3 hr) Fall [prereq: NatR 1080 or instructor’s consent]

For 4365 – Logging Systems (3 hr) Spring [For 2543 and 2544]

NatR 4325- Introduction to Geographic Information Systems (3 hr) Spring [prereq: NatR 1090 or

Geog 2840 or instructor’s consent]

*** For 4320 – Forest Ecology and For. 4350 – Forest Economics BOTH required for Forestry Certification**