### WILDLIFE SPECIALIZATION

**Effective Fall 2018**

Prerequisites are listed in brackets; Semester usually offered is indicated (Fall, Spring)

#### Communications (8)
- **FW 4603 Preparing Research Proposals for Wildlife Biologists**; (1), Fall --- *will begin Fall 2019*

*Select two or more of the following:*
- **AFEE 2421 Professional Communication for Agriculture, Food and the Environment**; (3), Fall/Spring
- **COMM 1101 Public Speaking**; (3), Fall/Spring/Summer
- **WRIT 3152W Writing on Issues of Science and Technology**; (4), Fall/Spring
- **WRIT 3221W Communication Modes and Methods**; (4), Fall/Spring
- **WRIT 3257 Technical and Professional Presentations**; (3), [COMM 1101] Fall/Spring
- **WRIT 3562W Technical and Professional Writing**; (4) [Jr or instructor consent], Fall/Spring

#### Human Dimensions (6)
*Select two or more of the following:*
- **ESPM 3011W Ethics in Natural Resources**; (3), Fall/Spring
- **ESPM 3202W Env. Conflict Mgmt, Leadership, and Planning**; (3), (Jr/Sr), Spring
- **ESPM 3241W Natural Resource & Env. Policy**; (3), (SS, CIV), Spring
- **ESPM 3245 Sustainable Land Use Planning and Policy**; (3), (ENV), Fall
- **ESPM 3271 Environmental Policy, Law & Human Behavior**; (3), (SS, CIV), Fall
- **FW 3925 Human Dimensions of Fisheries and Wildlife Management**; (3), Spring

#### Animals and Plants (14)
- **BIOL 2022 Botany**; (3) Fall/Spring

*Select two or more of the following:*
- **EEB 4129 or EEB 4839 Mammalogy**; (4) [BIOL 2012], Fall
- **EEB 4134 or EEB 4844 Ornithology**; (4) [BIOL 2012], Spring
- **FW 4101 Herpetology**; (4) [BIOL 1001 or 2012], Spring: every odd year

*Select one of the following:*
- **FNRM 1101 Dendrology, Identifying Forest Trees and Shrubs**; (3), Fall
- **PBIO 4321 Taxonomy of Minnesota Flora**; (3) [BIOL 1001 or BIOL 1009], Fall: alternate years
- **PBIO 4511 Flowering Plant Systematics**; (3) [BIOL 1001 or BIOL 1009], Spring: alternate years

#### Community and Ecosystem Ecology (≥ 3)

*Select one of the following:*
- **EEB 4609W Ecosystem Ecology**; (3) [EEB 3407/8], Fall
- **ESPM 3108 Ecology of Managed Systems**; (3) [BIOL 1001 or 1009], Fall
- **ESPM 3575 Wetlands**; (3), Spring
- **ESPM 5071/HORT 5071 Ecological Restoration**; (4) [ecology course, plant science or botany], Fall
- **FNRM 3104 Forest Ecology**; (4) [biology course], Fall
- **FNRM 3204 Landscape Ecology and Management**; (3) [ecology course], Fall

#### Wildlife (14)
- **FNRM 3131 Geographical Information Systems for Natural Resources**; (4), (T&S), Fall/Spring
- **FW 4103 Principles of Wildlife Management**; (3) [BIOL 1009], Fall
- **FW 5051 Analysis of Populations**; (4) [Ecology, statistics], Spring
- **FW 5603W Habitats and Regulation of Wildlife**; (3) [EEB 3407/8, FW 4103 or FW 4102], Fall
Physical Sciences (4)

Select one or more of the following:

- PHYS 1001W Energy and the Environment; (4), Fall/Spring
- PHYS 1101W Introductory College Physics I; (4), [high school algebra] Fall/Spring
- PHYS 1202W Introductory Physics for Biology & Pre-Med I; (5) [HS or college Calc] Fall/Spring/Summer

Wildlife Professional Certification: Students fulfilling this specialization will meet The Wildlife Society's educational requirements for certified wildlife biologist as long as they select ESPM 3575-Wetlands for Group 4 (Community and Ecosystem Ecology). This course fulfills part of the physical science and botany requirements for TWS. Also, students coming in with four credits from their freshman composition class must select a total of 8 communication credits in the core and wildlife specialization. The bottom line TWS requires 12 credits in communication courses.