

CONSERVATION BIOLOGY SPECIALIZATION

Effective Fall 2018

[Prerequisites are listed in brackets]

Communications

Take *one or more* of the following:

- ___ AFEE 2421 Professional Communication for Agriculture, Food, and the Environment; (3), Fall/Spring
- ___ COMM 1101 Introduction to Public Speaking; (3), (CIV), Fall/Spring
- ___ WRIT 3562W Technical and Professional Writing; (4) [WRIT 1301, *or* WRIT 1401, *or* instructor consent], Jr/Sr, Fall/Spring

Policy, Human Behavior, & Planning

Select *one of the following*:

- ___ ESPM 3202W Env't. Conflict Mgmt, Leadership, and Planning; (3) (Jr/Sr), Spring
- ___ ESPM 3245 Sustainable Land Use Planning and Policy; (3), (ENV), Fall
- ___ FNRM 3101 Park and Protected Area Tourism; (3), Fall: odd years

Select *two of the following*

- ___ ESPM 3011W Ethics in Natural Resources; (3), (CIV) Fall/Spring
- ___ ESPM 3241W Natural Resource & Env. Policy; (3), (SOC, CIV), Spring
- ___ ESPM 3271 Environmental Policy, Law & Human Behavior; (3), (SOC, CIV), Fall
- ___ FW 3925 Human Dimensions of Fisheries and Wildlife Management; (3), Spring
- ___ ESPM 3261 Economics and Natural Resources Management; (4), (SOC, ENV)
Or APEC 3611W Environmental and Natural Resource Economics; (3), (ENV), Spring
- ___ GCC 3010 Grand Challenge: The Global Climate Challenge: Creating an Empowered Movement for Change; (3), (CIV), Spring
Or GCC 5010 Grand Challenge: The Global Climate Challenge: Creating an Empowered Movement for Change; (3), (CIV), Spring

Organismal Biology

Select *one of the following*:

- ___ EEB 4129 or EEB 4839 Mammalogy; (4), [BIOL 2012], Fall
- ___ EEB 4134 or EEB 4844 Ornithology; (4) [BIOL 2012], Spring
- ___ FNRM 1101 Dendrology; Identifying Forest Trees and Shrubs; (3), Fall
- ___ FW 4101 Herpetology; (4) [BIOL 1001 *or* 2012], Spring: odd years
- ___ FW 2003 Introduction to Marine Biology; (3) [BIOL 1001, *or* BIOL 1009, *or* instructor consent], Spring
- ___ FW 4136 Ichthyology; (4) [BIOL 2012], Fall
- ___ FW 4401 Fish Physiology and Behavior; (3) [FW 4136, BIOL 2012, CHEM 1061 (3)], Fall: even years
- ___ ENT 5021 Insect Biodiversity and Evaluation; (4), Fall
- ___ ENT 5361 Aquatic Insects; Instructor Consent; (4), Spring
- ___ PMB 4321 Minnesota Flora; (3) [BIOL 1001 *or* 1009], Fall: even years
- ___ PMB 4511 Flowering Plant Diversity; (3) [BIOL 1001 *or* 1009], Spring: odd years

Ecosystem Ecology

Select one of the following

- ___ FNRM 3204 Landscape Ecology and Management; (3) [ecology course], Fall
- ___ FNRM 3104 Forest Ecology; (4) [basic biology course], Fall
- ___ FNRM 3203 Forest Fire and Disturbance Ecology; (3), Spring
- ___ ESPM 3575 Wetlands; (3), Spring
- ___ EEB 5601 Limnology; (3) Fall
- ___ EEB 4609W Ecosystem Ecology; (3), [EEB 3407], Fall
- ___ FW 5603W Habitats and Regulation of Wildlife; (3), Fall
- ___ GCC 5008 Grand Challenge: Policy and Science of Global Environmental Change; (3), Spring

Conservation Biology; all courses are required

- ___ BIOL 2022 General Botany; (3), Fall/Spring
 - ___ FNRM 3131 Geographical Information Systems for Natural Resources; (4), Fall/Spring
 - ___ FW 4102 Principles of Conservation Biology; (3) [BIOL 1001 *or* BIOL 1009], (ENV), Spring
 - ___ FW 5051 Analysis of Populations; (4) [statistics course, ecology course], Sr or grad student, Spring
- Or* FW 5601 Fisheries Population Analysis; (3), Fall Not offered in 2017-18

Management and Restoration

Select one course from the following:

- ___ ESPM 3251 Natural Resources in Sustainable International Development, (3), (GP), Fall
- ___ ESPM 4601 Environmental Pollution; (3) [SOIL 2125, CHEM 1061 *and* 1062 *or* equiv *or* instructor consent], Fall
- ___ ESPM 5071 Ecological Restoration; (4) [ecology course, *and* plant science *or* botany], Fall
- ___ FNRM 3411 Managing Forest Ecosystems: Silviculture; (3), Fall
- ___ FW 4103 Principles of Wildlife Management; (3), [BIOL 1001 *or* 1009], Fall
- ___ FW 4107 Principles of Fisheries Science and Management; (3), Spring
- ___ EEB 3603 Science, Protection, and Management of Aquatic Environments; (3), Spring

Additional Course

Must select one:

- ___ Students must select at least **one** additional course from Organismal Biology, Ecosystem Ecology, *or* Management and Restoration.