Students must select one elective course with the supervision of the specialization director (LKalof@msu.edu). Below are examples of recommended courses and their descriptions. With approval of the director, other courses may be accepted as electives.

**FW 438 Philosophy of Ecology**
Description: Conceptual issues in the science of ecology, including connections between ecology and environmental philosophy. Western and non-western perspectives. Spring of even years.

**FW 810 Human Dimensions Research in Fisheries and Wildlife**
Description: Methods of surveying, educating and involving the public to achieve fish and wildlife management goals. Review of human dimensions research and current case studies. Fall of even years.

**GEO 432 Environmental Ethics**
Description: Ethical dimensions of environmental and spatial issues and associated public policies. Fall of every year.

**PHL 442 Ethics and Animals**
Description: In-depth readings on the question of the moral standing of non-human animals and conceptualizing the basis for human moral obligations in regard to non-human animals. The course will branch out into the ethics of using animals in specific ways: for medical research, for food, in zoos, in the wild, in biotechnology. Fall of every year.

**ZOL 489 Seminar in Zoo and Aquarium Science**
Description: Scientific writing and oral presentations related to zoo and aquarium studies. Departmental approval required, contact the Department of Zoology. Fall of every year.

**ZOL 897 Ecosystem Ecology**
Description: Structure and function of natural ecosystems. Succession, food web analysis, energy flow, nutrient cycling, and effects of human activities on ecosystems. Global environmental change. Ecosystem management and restoration. Departmental approval required, contact the Department of Zoology. Spring of every year.