Biology Concentration Course Descriptions

- **EVSB 7050 / Environmental Risk Assessment / Lec. 2. Lab 2. Cr. 3.**
    - Prerequisite: BIOL 6060, EVSC 6010, or consent of instructor. Assessment of ecological risk associated with new chemicals and effluents, existing chemicals and mixtures of chemicals, and human actions.
- **EVSB 7060 / Ecological Toxicology / Lec. 2. Lab. 2. Cr. 3.**
    - Prerequisite: BIOL 6060, EVSC 6010, or consent of instructor. A study of the mechanisms of toxicity in terrestrial and aquatic ecosystems, including the measurement of response, uptake, metabolism, and excretion of toxicants; design and interpretation of toxicity tests, hazard evaluation, risk assessment, and toxics reduction plans; fate and transport processes and advanced approaches in automated computer-assisted monitoring will be evaluated.
- **EVSB 7110 / Environmental Approaches to Fisheries Management / Lec. 3. Lab. 2. Cr. 4.**
    - Prerequisite: WFS 5710 and BIOL 6630, or consent of instructor. An in-depth analysis of current fisheries management practices assessed from the ecosystem perspective.
- **EVSB 7120 / Endangered Species Biology / Lec. 3. Lab. 3. Cr. 3.**
    - Prerequisite: EVSB 6010 or equivalent, or consent of instructor. The biology, ecology, management, and recovery of threatened and endangered species.
- **EVSB 7130 / Wetlands Ecology / Lec. 3. Lab. 3. Cr. 4.**
    - Prerequisite: EVSB 6010 or equivalent, or consent of instructor. Ecology and legal issues concerning the management of wetland habitats and species.
- **EVSB 7140 / Wildlife and Fisheries Nutrition / Lec. 3. Cr. 3.**
    - The nutritional and foraging ecology of wild fish, amphibians, reptiles, birds, and mammals.

- **EVSB 7150 / Population and Community Ecology / Lec. 3. Cr. 3.**
    - Prerequisite: BIOL 2130 or equivalent, or consent of instructor. Empirical and theoretical concepts in ecology at the population and community levels, including population growth and regulation, species interactions, community assembly and dynamics, metapopulation ecology, and landscape ecology.
- **EVSB 7210 / New and Re-emerging Environmental Human Pathogens / Lec. 3. Cr. 3.**
    - Prerequisite: 7 hours of microbiology courses or equivalent. Aspects of emerging human pathogens, including case histories of outbreaks, methods of detection in food and water, and techniques for enumeration and identification.
- **EVSB 7220 / Molecular Ecology and Evolution Seminar / Lec. 1. Cr. 1.**
    - Prerequisite: BIOL 2130 and BIOL 4150, and consent of instructor. Review of current literature concerning application of modern molecular techniques to solve ecological and evolutionary questions. Course may be taken up to 3 times for credit.
- **EVSB 7230 / Molecular Ecology and Evolution / Lec. 3. Lab. 3. Cr. 4.**
    - Prerequisite: Graduate standing or consent of instructor. Role of molecular techniques in the study of ecology and evolution, including techniques used to study phylogeny, microorganism detection, population structure, gene flow, and kinship.
- **EVSB 7310 / Plant Ecology / Lec. 3. Lab. 3. Cr. 4.**
    - Prerequisite: BIOL 2130, 5240, or consent of instructor. Interrelationships between plants and their environment, and evaluation of community structure.
- **EVSB 7320 / Aquatic Botany / Lec. 3. Lab. 3. Cr. 4.**
    - Prerequisite: EVSB 7310 or consent of instructor. Anatomy, ecology, morphology, physiology, reproductive biology, evolution, and taxonomy/systematics of aquatic plants.

- **EVSB 7900 / Research Design in Environmental Biology / Lec. 3. Cr. 3.**
    - Prerequisite: Consent of research advisory committee. Literature investigation and development of an original research proposal outside the student's doctoral dissertation research.
- **EVSB 7970 / Topics in Environmental Biology / Lab. 2-8. Cr. 1-4.**
    - Prerequisite: Consent of instructor. Special study in an approved field under the supervision of a member of the graduate faculty. Course may be taken for credit more than once for a maximum of 6 hours of credit.
- **EVSB 7990 / Research and Dissertation / Cr. 3, 6, 9.**