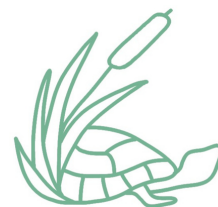


APPLIED CONSERVATION BIOLOGY (B.S.)



The B.S. in Applied Conservation Biology focuses on the science of analyzing and conserving the earth's biological diversity drawing from the biological, physical and social sciences, economics, and the practice of natural resource conservation and management.

All of the following courses (25 credits):

- FW 101 Fundamentals of Fisheries and Wildlife Ecology and Management (3 cr.)
- FW 101L Fundamentals of Fisheries and Wildlife Ecology and Management Lab (2 cr.)
- FW 102 Fundamentals of Fisheries and Wildlife – New Student Seminar (1 cr.)
- FW 293 Undergraduate Seminar in Fisheries and Wildlife (1 cr.)
- FW 334 Human Dimensions of Fisheries and Wildlife Management (3 cr.)
- FW 364 Ecological Problem Solving (3 cr.)
- FW 444 Conservation Biology (3 cr.)
- FW 445 Biodiversity Conservation Policy and Practice (3 cr.)
- FW 497 Capstone: Conservation and Management Decision Making (W) (3 cr.)
- IBIO 355 Ecology (3 cr.)

One of the following groups (6 or 9 cr):

- BS 161 Cell and Molecular Biology (3 cr.)
and BS 162 Organismal and Population Biology (3 cr.)
- LB 144 Biology I: Organismal Biology (4 cr.) **and** LB 145 Biology II: Cellular and Molecular Biology (5 cr.)

One from each group (5 cr):

- CEM 141 General Chemistry (4 cr.) **or** LB 171 Principles of Chemistry (4 cr.)
- CEM 161 Chemistry Lab (1 cr.) **or** LB 171L Principles of Chemistry Lab I (1 cr.)

***One of the following courses (2 cr):**

- BS 171 Cell and Molecular Biology Lab (2 cr.)
- BS 172 Organismal and Population Biology Lab (2 cr.)

*This requirement is waived if student completes LB 144 or LB 145

One of the following courses (3 or 4 cr):

- MTH 124 Survey of Calculus I (3 cr.)
- MTH 132 Calculus I (3 cr.)
- LB 118 Calculus I (4 cr.)

One of the following courses (3 or 4 cr):

- STT 201 Statistical Methods (4 cr.)
- STT 224 Introduction to Probability and Statistics for Ecologists (3 cr.)
- STT 231 Statistics for Scientists (3 cr.)
- STT 421 Statistics I (3 cr.)

One of the following courses (3 or 4 cr):

- CSUS 310 History of Environmental Thought and Sustainability (3 cr.)
- FW 439 Conservation Ethics (3 cr.)
- HST 391 Environmental History of North America (3 cr.)
- PHL 214 Indigenous Philosophy (3 cr.)
- PHL 340 Ethics (3 cr.)
- PHL 342 Environmental Ethics (3 cr.)
- PHL 380 Nature of Science (3 cr.)
- PHL 442 Ethics and Animals (3 cr.)
- PHL 480 Philosophy of Science (4 cr.)

One of the following courses (3 cr):

- FW 424 Wildlife Population Analysis and Management (3 cr.)
- FW 479 Fisheries Population Analysis and Management (3 cr.)



Two of the following courses (6 or 7 cr):

- COM 100 Human Communication (3 cr.)
- COM 225 Intro to Interpersonal Communication (3 cr.)
- COM 240 Intro to Organizational Communication (4 cr.)
- COM 275 Effects of Mass Communication (3 cr.)
- CSUS 433 Grant Writing and Fund Development (3 cr.)
- JRN 472 Environmental, Science and Health Reporting (3 cr.)
- WRA 331 Writing in the Public Interest (W) (3 cr.)
- WRA 333 Writing in Corporate Contexts (3 cr.)
- WRA 335 Writing in Scientific Contexts (3 cr.)
- WRA 337 Writing and Public Policy (3 cr.)
- WRA 453 Grant and Proposal Writing (3 cr.)

One of the following courses (3 or 4 cr):

- FOR 419 Applications of GIS to Natural Resources Management (4 cr.)
- FW 413 Wildlife Research and Management Techniques (3 cr.)
- FW 474 Field and Lab Techniques for Aquatic Studies (3 cr.)
- GEO 221 Intro to Geographic Information (3 cr.) **and** GEO 221L Intro to Geographic Information Lab (1 cr.)

One of the following courses (3 or 4 cr):

- CSS 350 Intro to Plant Genetics (3 cr.)
- IBIO 341 Fundamental Genetics (4 cr.)

One of the following (3 or 4 cr):

- IBIO 445 Evolution (W) (3 cr.)
- GLG 304 Physical and Biological History of the Earth (4 cr.)
- GLG 434 Evolutionary Paleobiology (4 cr.)

One of the following courses (3 cr):

- FOR 340 Forest Ecology (3 cr.)
- FW 420 Stream Ecology (3 cr.)
- FW 472 Limnology (3 cr.)
- FW 353 Marine Biology (3 cr.)
- IBIO 485 Tropical Biology (3 cr.)
- PLB 441 Plant Ecology (3 cr.)

One of the following courses (3 cr):

- CSUS 464 Environmental and Natural Resource Policy in Michigan (3 cr.)
- CSUS 465 Environmental and Natural Law (3 cr.)
- FOR 466 Natural Resource Policy (3 cr.)
- FW 481 Global Issues in Fisheries and Wildlife (3 cr.)
- IBIO 446 Environmental Issues in Public Policy (3 cr.)
- MC 450 International Environmental Law and Policy (3 cr.)

One of the following courses (3-4 cr):

- FOR 413 Wildland Fire Ecology and Management (3 cr.)
- FW 410 Upland Ecology & Management (3 cr.)
- FW 416 Marine Ecology and Management (3 cr.)
- FW 417 and 417L Wetland Ecology and Management **and** Lab (4 cr.)
- FW 423 Principles of Fish and Wildlife Disease (3 cr.)
- FW 463 Wildlife Disease Ecology (3 cr.)
- PLB 443 Restoration Ecology (3 cr.)

One of the following courses (3 cr):

- FOR 360 Forest Ecosystems, Carbon and Climate Change (3 cr.)
- GEO 409 Global Climate Change and Variability (3 cr.)
- IBIO 357 Global Change Biology (W) (3 cr.)
- SOC 478 Climate Change and Society (3 cr.)

Two of the following courses (6 to 8 cr):

- ENT 404 Fundamentals of Entomology (4 cr.)
- ENT 422 Aquatic Entomology (3 cr.)
- FOR 204 Forest Vegetation (3 cr.)
- FW 471 Ichthyology (4 cr.)
- IBIO 306 Invertebrate Biology (4 cr.)
- IBIO 360 Biology of Birds (4 cr.)
- IBIO 365 Biology of Mammals (4 cr.)
- IBIO 384 Biology of Amphibians and Reptiles (W) (4 cr.)
- PLB 218 Plants of Michigan (3 cr.)
- PLB 418 Plant Systematics (3 cr.)

Complete a minimum of 3 credits from the following courses:

- FW 480 International Studies in Fisheries and Wildlife (1 to 3 cr.)
- FW 490 Independent Study in Fisheries and Wildlife (1 to 3 cr.)
- FW 493 Professional Internship in Fisheries and Wildlife (1 to 3 cr.)
- FW 494 Marine Biology and Ecosystem Experience (1 to 3 cr.)
- FW 499 Senior Thesis in Fisheries and Wildlife (4 cr.)

