

Department of Fisheries and Wildlife



BACHELOR OF SCIENCE DEGREE IN FISHERIES AND WILDLIFE CONCENTRATIONS

(1) CONSERVATION BIOLOGY (27 to 29 cr.)

Complete ALL of the following courses (12 cr.)

FW 444 Conservation Biology	3
FW 445 Biodiversity Conservation Policy and Practice	3
IBIO 445 Evolution	3
PLB 443 Restoration Ecology	3

Complete ONE of the following courses (3 cr.)

FOR 404 Forest Ecology	3
IBIO 485 Tropical Biology	3
PLB 441 Plant Ecology	3

Complete ONE of the following courses (3 to 4 cr.)

CSS 350 Introduction to Plant Genetics	3
IBIO 341 Fundamental Genetics	4

Complete ONE of the following courses (3 cr.)

FW 410 Upland Ecosystem Management	3
FW 414 Aquatic Ecosystem Management	3
FW 416 Marine Ecosystem Management	3
FW 417 Wetland Ecology and Management	3
FW 454 Envir. Hydrology & Watershed Management	3
FW 479 Fisheries Management	3

Complete ONE of the following courses (3 to 4 cr.)

CSUS 464 Environmental & Nat Resources Policy in MI	3
CSUS 465 Environmental Law and Policy	3
EEM 255 Ecological Economics	3
FW 449 Wildlife Policy	3
FW 481 Global Issues in Fisheries and Wildlife	3
FOR 466 Natural Resource Policy	3
IBIO 446 Environmental Issues and Public Policy	3
MC 450 International Environmental Law & Policy	3

Complete ONE of the following courses (3 to 4 cr.)

ENT 422 Aquatic Entomology	3
FOR 204 Forest Vegetation	3
FW 471 Ichthyology	4
IBIO 360 Biology of Birds	4
IBIO 365 Biology of Mammals	4
IBIO 384 Biology of Amphibians and Reptiles	4
PLB 218 Plants of Michigan	3
PLB 418 Plant Systematics	3

Electives: Complete the necessary number of elective credits needed to reach the required 120 credit minimum (123 credits if you were required to complete MTH 1825) for graduation.

(2) FISHERIES BIOLOGY AND MANAGEMENT (25 to 28 cr.)

Complete ALL of the following courses (10 cr.)

FW 471 Ichthyology	4
FW 474 Field & Lab Techniques for Aquatic Studies	3
FW 479 Fisheries Management	3

Complete ONE of the following courses (3 cr.)

FW 420 Stream Ecology	3
FW 472 Limnology	3

Complete ONE of the following courses (3 cr.)

FW 414 Aquatic Ecosystem Management	3
FW 416 Marine Ecosystem Management	3
FW 417 Wetland Ecology and Management	3
FW 454 Envir. Hydrology & Watershed Management	3

Complete ONE of the following courses (3 or 4 cr.)

ENT 404 Fundamentals of Entomology	3
ENT 422 Aquatic Entomology	3
IBIO 306 Invertebrate Biology	4

Complete ONE of the following courses (3 cr.)

PLB 418 Plant Systematics	3
PLB 424 Algal Biology	4

Complete ONE of the following courses (3 or 4 cr.)

CSS 350 Introduction to Plant Genetics	3
FW 431 Ecophysiology & Toxicology of Fishes	3
IBIO 328 Comparative Anat. & Biology of Vert.	4
IBIO 341 Fundamental Genetics	4

Electives: Complete the necessary number of elective credits needed to reach the required 120 credit minimum (123 credits if you were required to complete MTH 1825) for graduation.

(3) WILDLIFE BIOLOGY AND MANAGEMENT (26 to 27 cr.)

Complete ALL of the following courses (9 cr.)

FW 410 Upland Ecosystem Management	3
FW 417 Wetland Ecology and Management	3
FW 413 Wildlife Research & Mgmt Techniques	3

Complete TWO of the following courses (8 cr.)

IBIO 360 Biology of Birds	4
IBIO 365 Biology of Mammals	4
IBIO 384 Biology of Amphibians and Reptiles	4

Complete ONE of the following courses (3 cr.)

FOR 204 Forest Vegetation	3
PLB 218 Plants of Michigan	3
PLB 418 Plant Systematics	3

Wildlife Biology and Management (continued)

Complete ONE of the following courses (3 cr.)

FOR 404	Forest Ecology	3
PLB 105	Plant Biology	3
PLB 203	Biology of Plants	3
PLB 441	Plant Ecology	3

Complete ONE of the following courses (3 or 4 cr.)

CSS 350	Introduction to Plant Genetics	3
IBIO 328	Comparative Anatomy & Biology of Vertebrates	4
IBIO 341	Fundamental Genetics	4

Electives: Complete the necessary number of elective credits needed to reach the required 120 credit minimum (123 credits if you were required to complete MTH 1825) for graduation.

(4) WATER SCIENCES (24 to 28 cr.)

Complete TWO of the following courses (6 cr.)

FW 472	Limnology	3
FW 420	Stream Ecology	3
FW 417	Wetland Ecology and Management	3

Complete the following course (3cr.)

FW 474	Field & Lab Techniques for Aquatic Studies	3
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Complete ONE of the following courses (3 cr.)

FW 414	Aquatic Ecosystem Management	3
FW 416	Marine Ecosystem Management	3
FW 454	Envir. Hydrology & Watershed Management	3
FW 479	Fisheries Management	3

Complete ONE of the following courses (3 or 4 cr.)

ENT 404	Fundamentals of Entomology	3
ENT 422	Aquatic Entomology	3
FW 471	Ichthyology	4
IBIO 306	Invertebrate Biology	4

Complete ONE of the following courses (3 cr.)

PLB 418	Plant Systematics	3
PLB 424	Algal Biology	4

Complete TWO of the following courses (6 to 8 cr.)

CSS 350	Introduction to Plant Genetics	3
FW 431	Ecophysiology & Toxicology of Fishes	3
GLG 421	Environmental Geochemistry	4
IBIO 303	Oceanography	4
IBIO 341	Fundamental Genetics	4
IBIO 353	Marine Biology	4
MMG 425	Microbial Ecology	3

Electives: Complete the necessary number of elective credits needed to reach the required 120 credit minimum (123 credits if you were required to complete MTH 1825) for graduation.

(5) FISH AND WILDLIFE DISEASE ECOLOGY AND MANAGEMENT (33 to 35 cr.)

Complete ALL of the following courses (24 cr.)

FW 423	Principles of Fish and Wildlife Disease	3
FW 423L	Principles of Fish & Wildlife Disease Lab	1
FW 444	Conservation Biology	3
FW 463	Wildlife Disease Ecology	3
IBIO 341	Fundamental Genetics	4
IBIO 445	Evolution	3
MMG 301	Introductory Microbiology	3

Fish and Wildlife Disease Ecology and Management (continued)

Complete ONE of the following courses (3 to 4 cr.)

CEM 143	Survey of Organic Chemistry	4
CEM 251	Organic Chemistry I	3

Complete ONE of the following courses (3 cr.)

FW 410	Upland Ecosystem Management	3
FW 414	Aquatic Ecosystem Management	3
FW 416	Marine Ecosystem Management	3
FW 417	Wetland Ecology and Management	3
FW 454	Envir. Hydrology & Watershed Management	3
FW 479	Fisheries Management	3

Complete ONE of the following courses (3 to 4 cr.)

FW 471	Ichthyology	4
IBIO 306	Invertebrate Biology	4
IBIO 316	General Parasitology	3
IBIO 360	Biology of Birds	4
IBIO 365	Biology of Mammals	4
IBIO 384	Biology of Amphibians and Reptiles	4

Electives: Complete the necessary number of elective credits needed to reach the required 120 credit minimum (123 credits if you were required to complete MTH 1825) for graduation.

(6) PREVETERINARY (27 to 28 cr)

This concentration meets the minimum requirements established by MSU for admission to the MSU College of Veterinary Medicine. Students selecting this concentration should also meet with the College of Veterinary Medicine preveterinary adviser.

Complete ALL of the following courses (24 cr.)

BMB 401	Basic Biochemistry	4
CEM 251	Organic Chemistry I	3
CEM 252	Organic Chemistry II	3
CEM 255	Organic Chemistry Lab	2
FW 423	Principles of Fish and Wildlife Disease	3
FW 423L	Principles of Fish and Wildlife Disease Lab	1
FW 463	Wildlife Disease Ecology	3
PHY 232	Introductory Physics II	3
PHY 251	Introductory Physics Lab I	1
PHY 252	Introductory Physics Lab II	1

Complete ONE of the following courses (3 or 4 cr.)

ANS 314	Genetic Improvement of Domestic Animals	4
ANS 409	Advancement of Reproduction	4
ANS 435	Mammary Physiology	4
ANS 445	Equine Exercise Physiology	4
ANS 455	Avian Physiology	4
BLD 434	Clinical Immunology	3
IBIO 341	Fundamental Genetics	4
IBIO 402	Neurobiology	3
IBIO 408	Histology	4
IBIO 425	Cells and Development	4
IBIO 450	Cancer Biology	3
MMG 301	Introductory Microbiology	3
MMG 409	Eukaryotic Cell Biology	3
MMG 451	Immunology	3
NEU 300	Neurobiology	3
PSL 310	Physiology for Pre-Health Professionals	4

Electives: Complete the necessary number of elective credits needed to reach the required 120 credit minimum (123 credits if you were required to complete MTH 1825) for graduation.