MICHIGAN STATE UNIVERSITY | Lyman Briggs College

BACHELOR OF SCIENCE DEGREE IN FISHERIES & WILDLIFE

FOR ADDITIONAL INFORMATION, PLEASE CONTACT THE DEPARTMENT OF FISHERIES & WILDLIFE

(1) UNIVERSITY REQUIREMENTS

Writing Requirement
Tier I: LB 133 4
Tier II: Satisfied by completing the Lyman Briggs College History, Philosophy & Sociology of Science & Senior requirements listed below.

Integrative Studies in Arts & Humanities (IAH)
IAH 201-210* 4
IAH 211-241*† 4

Integrative Studies in Social, Behavioral & Economic Sciences (ISS)
ISS 200-level course* 4
ISS 300-level course*‡ 4

*National, International, & Multicultural Diversity
Students must include at least one "N" course & one "I" course in their Integrative Studies programs. A "D" course may meet either an "N" or an "I" requirement, but not both.

†Beginning Summer 2013, LB 331, 333, & 336 will fulfill the IAH "B" university requirement (IAH 211 or higher). Please consult your LBC advisor for specific details for your program.

‡Beginning Summer 2013, LB 332, 334, & 335 will fulfill the ISS 300-level university requirement. Please consult your LBC advisor for specific details for your program.

Mathematics, Biological & Physical Sciences
Satisfied by the Lyman Briggs College requirements.

Minimum credits required: 120
Minimum cumulative & major GPA: 2.0

(2) LYMAN BRIGGS COLLEGE REQUIREMENTS

Biological Sciences (9 cr.)
Complete ONE of the following groups of courses
(1) LB 144 & 145* 9
(2) BS 161, 162, 171, & 172 10
Honors biology courses are also acceptable

Chemistry (8-9 cr.)
Complete ONE of the following groups of courses
(1) LB 171, 171L, 172, & 172L* 9
(2) CEM 141, 142, & 161* 8

Physics (8 cr.)
Complete ONE of the following groups of courses
(1) LB 273, 274* 8
(2) PHY 231, 232, 251, & 252* 8

Mathematics (6-7 cr.)
Complete ONE of the following groups of courses
(1) LB 118 & STT 231* 7
(2) MTH 132 & STT 231* 6

History, Philosophy & Sociology of Science (11-12 cr.)
LB 133 4
LB 330-336, 355, 490E; ENG 473A; HST 425; SOC 368 7-8

Senior Seminar (4 cr.)
LB 492 or substitute approved by advisor 4

*Biology, Chemistry, Physics & Mathematics courses also meet graduation requirements for major

3) MAJOR REQUIREMENTS

FW Core: Complete ALL of the following courses (19-20 cr.)

FW	101	Fish & Wildlife Fundamentals	3
FW	101L	Fish & Wildlife Fundamentals*	3
FW	238	Intro Fish & Wildlife*	2
FW	293	Undergrad Seminar In Fish & Wildlife	1
FW	364	Ecological Problem Solving	3
FW	424	Population Analysis & Management	4
FW	434	Human Dimensions of FW Management	3
IBIO	355	Ecology	3

*Complete FW 101L **OR** FW 238 (2-3 cr.)

Communication: Complete TWO of the following courses

ACR	205	Agr & Nat. Res. Com Theory & Practice	3
ACR	305	Com for ANR Professionals	3
COM	100	Human Communication	3
COM	225	Intro to Interpersonal Comm	3
COM	275	Effects of Mass Communication	3
FW	435	Integrated Commun. For FW Prof	3
WRA	320	Technical Writing	3
WRA	331	Writing in the Public Interest	3
WRA	341	Writing Nature & Nature of Writing	3
WRA	435	Grant Proposal Writing	

Complete ONE of the following six concentrations

(1) Conservation Biology (24-26 cr.)

Complete ALL of the following courses (12 cr.)

FW	443	Restoration Ecology	3
FW	444	Conservation Biology	3
PLB	441	Plant Ecology*	3
IBIO	370	Intro to Zoogeography*	3
IBIO	445	Evolution	3

*Complete PLB 441 **OR** IBIO 370 (3 credits)

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

CSS	350	Intro. to Plant Genetics	3
IBIO	341	Fundamental Genetics	4

Complete ONE of the following courses (3cr.)

FW	410	Upland Ecosystem Management	3
FW	414	Aquatic Ecosystem Management	3
FW	416	Marie Ecosystem Management	3
FW	417	Wetland Ecology and Management	3
FW	479	Fisheries Management	3

Complete ONE of the following courses (3 cr.)

EEP	255	Ecological Economics	3
ESA	430	Law & Resource	3
FOR	464	Forest Resource Economics	3
FOR	466	Natural Resource Policy	3
FW	445	SocioUeconomics & Policy of Conservation of Biology	3
FW	481	Global Issues in Fisheries & Wildlife	3
MC	450	International Environmental Law & Policy	3
IBIO	446	Environmental Issues & Public Policy	3

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

ENT	422	Aquatic Entomology	3
FOR	204	Forest Vegetation	4
FW	471	Ichthyology	3
PLB	218	Plants in Michigan	3
PLB	418	Plant Systematics	3
IBIO	360	Biology of Birds	4
IBIO	361	Michigan Birds	4
IBIO	365	Biology of Mammals	4
IBIO	384	Biology of Amphibians & Reptiles	4

(2) Fisheries Biology & Management (25-27 cr.)

Complete ALL of the following courses (13 cr.)

FW	420	Stream Ecology*	3
FW	472	Limnology*	3
FW	471	Ichthyology	4
FW	479	Fisheries Management	3
FW	474	Limnological Techniques	3

*Complete FW 420 **OR** FW 472 (3 credits)

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

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

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	3

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

FW	473	Enviro. Fish Physiology	3
IBIO	328	Comparative Anat. & Biology of Vert.	4
IBIO	341	Fundamental Genetics	4
IBIO	483	Environmental Physiology	4

(3) Wildlife Biology & Management (24-25 cr.)

Complete ALL of the following courses (9 cr.)

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

Complete TWO of the following courses (8 cr.)

IBIO	360	Biology of Birds*	4
IBIO	361	Michigan Birds*	4
IBIO	365	Biology of Mammals	4
IBIO	384	Biology of Amphibians & Reptiles	4

*Complete IBIO 360 **OR** IBIO 361 (4 cr.)

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

FOR	204	Forest Vegetation	4
PLB	218	Plants of Michigan	3
PLB	418	Plant Systematics	3

Complete ONE of the following courses (4 cr.)

CSS	350	Introduction to Plant Genetics	3
IBIO	328	Comparative Anatomy & Biology of Vertebrates	4
IBIO	341	Fundamental Genetics	4
IBIO	483	Environmental Physiology	4

(4) Water Sciences (24-27 cr.)

Complete TWO of the following courses (6 cr.)

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

Complete the following course (3 cr.)

FW	474	Limnological Techniques	3

Complete ONE of the following courses (3 cr.)

FW	414	Aquatic Ecosystem Management	3
FW	416	Marine Ecosystem Management	3
FW	479	Fisheries Management	3

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

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

Complete ONE of the following courses (3 cr.)

PLB	418	Plant Systematics	3
PLB	424	Algal Biology	3

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

FW	454	Enviro. Hydrology & Watershed Mgmt	3
FW	473	Environmental Fish Physiology	3
GLG	303	Oceanography	3
GLG	421	Environmental Geochemistry	4
MMG	425	Microbial Ecology	3
MMG	426	Biogeochemistry	4
IBIO	341	Fundamentals Genetics	4
IBIO	353	Marine Biology	4
IBIO	483	Environmental Physiology	4

(5) Fish & Wildlife Disease Ecology & Management (30-32 cr.)

Complete ALL of the following courses (17 cr.)

MMG	301	Introductory Microbiology	3
FW	423	Principles of Fish & Wildlife Disease	3
FW	423L	Principles of Fish & Wildlife Disease Lab	1
FW	444	Conservation Biology	3
IBIO	445	Evolution	3
EP	390	Disease in Society	4

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

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

Complete ONE of the following courses (4 cr.)

ANS	314	Genetic Improvement of Domestic Animals	4
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 Management	3
FW	479	Fisheries Management	3

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

FW	471	Ichthyology	4
IBIO	306	Invertebrate Biology	4
IBIO	316	General Parasitology	3
IBIO	360	Biology of Birds	4
IBIO	361	Michigan Birds	4
IBIO	365	Biology of Mammals	4
IBIO	384	Biology of Amphibians & Reptiles	4

(6) Pre-veterinary (32 cr.)

Complete ALL of the following courses (28 cr.)

ANS	313	Principles of Animal Feeding & Nutrition	4
BMB	401	Basic Biochemistry	4
CEM	251	Organic Chemistry	3
CEM	252	Organic Chemistry II	3
CEM	255	Organic Chemistry Lab	2
FW	423	Principles of Fish & Wildlife Disease	3
FW	423L	Principles of Fish & Wildlife Disease Lab	2
MMG	301	Introductory Microbiology	3
MMG	302	Introductory Microbiology Laboratory	1
MMG	409	Eukaryotic Cell Biology	3

Complete ONE of the following courses (4 cr.)

ANS	314	Genetic Improvement of Domestic Animals	4
IBIO	341	Fundamental Genetics	4