

## SECTION IV: DEPARTMENT OF WILDLIFE, FISHERIES AND AQUACULTURE

**2018-2019 Wildlife, Fisheries and Aquaculture Major  
Wildlife Agriculture Conservation Concentration (WLAC)  
Total Hours = 124 (effective Fall 2017)**

### Freshman Year

Fall Semester		Spring Semester	
BIO 1134	Biological Sciences I	BIO 1144	Biological Sciences II
CH 1043/1213	Survey of Chemistry I or Chemistry I (C in MA 1313 or ACT math subscore 24)	CH 1053/1223*	Survey of Chemistry II (CH 1043) or Chemistry II (CH 1213)
EN 1103	English Comp. I (ACT subscore 17)	EN 1113	English Composition II (EN 1103)
<b>WFA 1102</b>	<b>Wildlife and Fisheries Profession</b> (FR, SO, or instructor consent)(FL)	MA 1613	Calc. for Bus. and Life Sci. (C in MA 1313 or ACT math subscore 24)
Humanities Elective (3)		Oral Communication Elective (3)	

### Sophomore Year

Fall Semester		Spring Semester	
PSS 3303	Soils (CH 1043)	BIO 3103	Genetics (MA 1313, BIO 1134)
PSS 3301	Soils Lab (CH 1043)	Statistics Elective (3)	
<b>WFA 3133</b>	<b>App. Aq. &amp; Terr. Eco.</b> (BIO 1134 & 1144)	Fine Arts Elective (3)	
WFA Social Science Elective (3)		Social Science Elective (3)	
Plant Elective (3)		Zoology Elective (4)	
Humanities Elective (3)			

### Junior Year

Fall Semester		Spring Semester	
WFA 4123	WF Biometrics (ST 3123 & C in MA 1613)	<b>WFA 4243</b>	<b>Wildlife Techniques (JR)</b>
<b>WFA 4153</b>	<b>Prin. Wildlife Conservation and Mgt.</b> (SO) (WFA 3133 or FO 4123)	WFA 4373	Cons. in Ag. Landscapes (SP odd)
<b>WFA 4223</b>	<b>Wildlife Plant ID</b> (BIO 1134 & BIO 1144 & WFA 3133) (FL, Maymester)	Crop Science Elective (3)	
Writing Elective (3)		WLAC Professional Elective (3)	
Animal Science Elective (3)		Natural Resources Policy Elective (3)	

### Senior Year

Fall Semester		Spring Semester	
<b>WFA 4353</b>	<b>Fish &amp; Wildlife Policy &amp; Law Enforcement</b> (SR)(FL)	<b>WFA 4473</b>	<b>Wildlife &amp; Fisheries Prac.</b> (SR)(WFA 3133 & WFA 4153)(SP)
Crop Science Elective (3)		GIS Elective (3)	
Life Science Elective (4)		WLAC Professional Elective (3)	
Aquatics Elective (3)		Wildlife Biology Elective (3)	
Wildlife Biology Elective (3)		WLAC Professional Elective (3)	

\*Survey of Chem II requires prerequisite of Survey of Chem. Cannot switch between series.

Classes in **BOLD** require a C or better. FL= offered only in fall semester; SP= offered only in spring semester

## SECTION IV: DEPARTMENT OF WILDLIFE, FISHERIES AND AQUACULTURE

### 2018-2019 Approved Elective List

#### Wildlife, Fisheries and Aquaculture-Wildlife Agriculture Conservation Concentration (WFA/WLAC)

##### Fine Arts Electives (MSU Core)

ARC 1013	Architectural Appreciation
ART 1013	History of Art I
ART 1023	History of Art II
ART 1113	Art Appreciation
CO 1503	Intro to the Theatre
HON 3173	Honors Seminar in Fine Arts (SO)
ID 3643	History of Interiors I
LA 1803	Landscape Architecture Appreciation
MU 1103	African American Music
MU 1113	His & Appr of Music
MU 1123	American Music App
MU 1133	History of Rock and Roll
PE 1323	His & Appr of Dance
PSS 2343	Floral Design
TKI 2413	His & Appr of the Artcrafts

##### Statistics Electives (MSU Core)

ST 2113	Intro to Stats (ACT Math subscore 24 or C in MA 1313)
ST 3123	Intro to Stat. Inf. (ACT Math subscore 24 or C in MA 1313)

##### Oral Communication Electives

AELC 3333	Presentations in Ag & Life Sci
CO 1003	Fund of Public Speaking
CO 1013	Intro to Communication

##### Writing Electives

AELC 3203	Prof Writing ANR Hum Sci (JR)(EN 1103, EN 1113)
CO 3343	Writing for the Media (C in EN 1113)
EDF 3413	Writing for Thinking (JR)(EN 1103, EN 1113)
EN 3313	Writing for the Workplace (EN 1113)
MGT 3213	Organizational Communication (EN 1113)

##### Plant Electives

BIO 2113	Plant Biology (BIO 1134)
BIO 2213	Survey of Plant Kingdom
BIO 4203	Taxonomy of Spermatophytes (BIO 2113, BIO 2213)
BIO 4213	Plant Ecology
FO 2113	Dendrology (BIO 1144 or BIO 2113)
PSS 3133	Intro Weed Science (BIO 2113; CH 1213 or CH 1053)

##### Humanities Electives (MSU Core)

AAS 1063	Intro to African American Studies
ARC 2313	History of Architecture I
ARC 3313	History of Architecture II (ARC 2313)
EN 2203	Intro to Lit (EN 1103, EN 1113)
EN 2213	English Lit Before 1800 (EN 1103, EN 1113)
EN 2223	English Lit After 1800 (EN 1103, EN 1113)
EN 2243	American Lit Before 1865 (EN 1103, EN 1113)
EN2253	American Lit After 1865 (EN 1103, EN 1113)
EN 2273	World Lit Before 1600 (EN 1103, EN 1113)
EN 2283	World Lit After 1600(EN 1103, EN 1113)
FL_ 1113-2143	Foreign Language
HI 1063	Early US History
HI 1073	Modern US History
HI 1163	World History Before 1500
HI 1173	World History After 1500
HI 1213	Early Western World
HI 1223	Modern Western World
HI 1313	East Asian Civ to 1300
HI 1323	East Asian Civ II
HI 4683	Europe: WWI to Hitler (one HI course)
HON 1163	The Quest Begins
HON 3183	Hon Sem in the Hum (SO)(EN 1103, EN 1113)
PHI 1103	Intro to Philosophy
PHI 1113	Intro to Logic
PHI 1123	Intro to Ethics
PHI 3023	History of Western Philosophy I
PHI 3033	History of Western Philosophy II
PHI 3153	Aesthetics
REL 1103	Intro to Religion
REL 3213	World Religions I
REL 3223	World Religions II

##### Natural Resource Policy Electives

FO 4343	Forest Admin & Org (JR)
FO 4353	Natural Resource Law (JR)
FO 4413	Natural Resource Policy (SR)
PS 4743	Environmental Policy (PS 1113, PS 2703)
WFA 4363	W&F Admin and Comm (JR)
WFA 4463	Human Dim of F&W Mgt (JR)

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### 2018-2019 Approved Elective List

#### Wildlife, Fisheries and Aquaculture-Wildlife Agriculture Conservation Concentration (WFA/WLAC)

##### Social Science Electives (MSU Core)

ADS 1013	Animal Agriculture & Society: Food for Thought
AEC 2713	Introduction to Food and Resource Economics
AN 1103	Introduction to Anthropology
AN 1143	Introduction to Cultural Anthropology
AN 1543	Introduction to Archaeology
AN 2403	Introduction to the Study of Language
CO 1223	Introduction to Communication Theory
CO 1403	Introduction to the Mass Media
EC 1033	Economics of Social Issues
EC 2113	Prin of Macroeconomics (SO)
EC 2123	Prin of Microeconomics (SO)
EN 2403	Introduction to the Study of Language
EPY 2513	Human Growth and Development
EPY 3503	Principles of Educational Psychology
EPY 3543	Psychology of Adolescence
FO 4113	Forest Resource Economics (AEC 2713)
GR 1123	Introduction to World Geography
GR 2013	Cultural Geography
HDFS 1813	Development through the Lifespan
HON 1173	The West and the Wider World
HON 3143	Hon Seminar in Soc Sci (SO)(EN 1103, EN 1113)
PO 1013	Animal Agriculture & Society: Food for Thought
PS 1113	American Government
PS 1313	Introduction to International Relations
PS 1513	Comparative Government
PSY 1013	General Psychology
PSY 3073	Psychology of Interpersonal Relations (PSY 1013)
SO 1003	Introduction to Sociology
SO 1103	Contemporary Social Problems
SO 1203	Sociology of Families

##### WFA Social Science (Economics) Electives

AEC 2713	Intro to Food & Resource Econ
EC 2113	Prin of Macroeconomics (SO)
EC 2123	Prin of Microeconomics (SO)
EC 4043	Survey of Economics (SR)
GR 2013	Cultural Geography
PS 1113	American Government
PS 1313	Intro to International Relations
SO 1003	Intro to Sociology

##### Wildlife Biology Electives

WFA 4423	Herpetology (WFA 3133)
WFA 4433	Mammalogy (WFA 3133)
WFA 4443	Ornithology (WFA 3133)

##### Aquatics Electives

CVM 4134	Aquatic Animal Health (any microbiology, any physiology)
GG 3613	Water Resources (GG 1113)
GG 4523	Coastal Environments (GG 4523)
WFA 4133	Fisheries Science (ST 3123)
WFA 4173	Fish Physiology (BIO 1134, BIO 1144)
WFA 4183	Prin & Prac of Aquaculture (BIO 1134, BIO 1144)
WFA 4233	Limnology (WFA 3133)
WFA 4313	Fisheries Mgt (WFA 3133)
WFA 4383	Wetlands Ecology (JR)(WFA 3133)

##### Zoology Electives

BIO 2103	Cell Biology (6 hours Biology, CH 1223)
BIO 3103	Genetics (MA 1313, BIO 1134)
BIO 3304	General Microbiology (CH 1053 or CH 1223)
BIO 3524	Biology of Vertebrates
EPP 2213	Intro to Insects
EPP 4154	General Entomology
EPP 4313	Forensic Entomology
WFA 4113	Animal Behavior
WFA 4453	Ichthyology (WFA 3133)

##### Crop Science Electives

EPP 4113	Principles of Plant Pathology
EPP 4263	Principles of Insect Pest Mgt
PSS 3133	Intro to Weed Science
PSS 4103	Forage and Pasture Crops
PSS 4123	Grain Crops
PSS 4133	Fiber and Oilseed Crops
PSS 4453	Vegetable Production
PSS 4633	Weed Biology

##### GIS Electives

FO 4313	Spatial Tech Nat Res Mgt (FO 3015 or GR 2313)
GR 2313	Maps and Remote Sensing
GR 3303	Survey of Geospatial Tech (GR 2313)
GR 4303	Prin of GIS (JR)
WFA 4253	Application of GIS in WF (SR)

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### 2018-2019 Approved Elective List

#### Wildlife, Fisheries and Aquaculture-Wildlife Agriculture Conservation Concentration (WFA/WLAC)

##### Animal Science Electives

ADS 1113	Animal Science
ADS 3312	Livestock Management Practices (ADS 1113, ADS 1121)
ADS 4123	Animal Breeding (PO 3103, ST 2113)
ADS 4223	Goat and Sheep Production (ADS 1113, ADS 1121)
ADS 4323	Beef Cattle Science (ADS 1113, ADS 1121)
ADS 4813	Dairy Farm Mgt (ADS 1113, ADS 1121)

##### Life Science Electives

ADS 1113	Animal Science (WLAC Only)
ADS 1121	Animal Science Lab
ADS 4114	Animal Nutrition (CH 2503/2501 OR CH 4513/4511)
BIO 3303	Parasitology (BIO 1134)
BIO 3504	Comparative Anatomy (BIO 1134, BIO 1144)
BIO 4514	Animal Physiology (10 hrs Bio Sci & Org Chem)
PO 4844	Avian Anatomy and Phys
VS 3014	Anatomy and Physiology
WFA 4173	Fish Physiology (BIO 1134, BIO 1144)
WFA 4263	Wildlife Diseases (BIO 1134, BIO 1144)
WFA 4323	Wildlife Nutrition and Phys (BIO 1134, BIO 1144)

##### WLAC Professional Electives

ABE 4313	Bio Treatment of NPS Pollution
AEC 1223	Comp Appl for Ag and Life Sci
AEC 2713	Intro to Food & Resource Economics
BIO 2503	Environmental Quality (one BIO course)
BIO 4233	Living with Global Change
BIO 4603	Ethnobotany (BIO 1134, BIO 1144)
EPP 4154	General Entomology
FO 2113	Dendrology
FO 3103	Comp Appl in Forest Resources (one CFR course)
FO 3203	Forest Fire
FO 4123	Forest Ecology (FO 3012)
FO 4223	Silviculture (FO 4123)
FO 4221	Silviculture Lab (co-req: FO 4223)
GG 3133	Intro Environ Geology (GG 1113)
GG 3613	Water Resources (GG 1113)
GR 2313	Maps and Remote Sensing
GR 3113	Cons Nat Resources
GR 4313	Advanced GIS (GR 4303)
PSS 4333	Soil Cons & Land Use (PSS 3303)
PSS 4373	Geospatial Agronomic Ag (PSS 3303, PSS 3133)
PSS 4633	Weed Ecology (BIO 2113, PSS 3133)
WFA 4000	Directed Indiv Study (3 hours max)
WFA 4183	Prin & Prac of Aquaculture (BIO 1134, BIO 1144)
WFA 4273	Eco Mgt Human Wildlife Conflicts (WFA 3133)
WFA 4283	Human Wildlife Conflict Techniques (WFA 3133)
WFA 4373	Cons in Ag Landscapes
WFA 4383	Wetlands Ecology (WFA 3133)
WFA 4613	Landscape Ecology (WFA 3133, ST 2113)
WFA 4484	Upland Avian Ecology (WFA 3133, WFA 4153)
	Any Upper-Level WFA Course

## SECTION IV: DEPARTMENT OF WILDLIFE, FISHERIES AND AQUACULTURE

<b>Approved Substitutions List for Wildlife, Fisheries, and Aquaculture Majors</b>	
<b>Required Courses</b>	<b>Approved Substitution</b>
MA 1613 Calc. Bus/Life Science	MA 1713 Calculus I
PH 1113 General Physics I	PH 2213 Physics I
PH 1123 General Physics II	PH 2223 Physics II
WFA 4263 Wildlife Diseases	ADS 4633 Immunology and Diseases in Large Livestock BIO 3303 Parasitology PO 4033 Diseases of Poultry BIO 4433 Principles of Virology
WFA 4253 Appl of Spatial Tech in WF.	FO 4472 & 4471 GIS Nat Res. Mgt. GR 4303 Principles of GIS GR 4313 Advanced GIS
WFA 4512 Advanced Topics in Human-Wildlife Conflicts I & WFA 4521 Advanced Topics in Human-Wildlife Conflicts II	WFA 4513 Current Topics in Human-Wildlife Interactions