

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

**2018-2019 Wildlife, Fisheries and Aquaculture Major  
Human-Wildlife Interactions Concentration (HWI)  
Total Hours = 124 (effective Fall 2017)**

### Freshman Year

#### Fall Semester

BIO 1134 Biological Sciences I  
CH 1043/1213 Survey of Chemistry I or Chemistry I (C in MA 1313 or ACT math subscore 24)  
Humanities Elective (3)  
EN 1103 English Comp. I (ACT subscore 17)  
**WFA 1102 Wildlife and Fisheries Profession** (FR, SO, or instructor consent)(FL)

#### Spring Semester

BIO 1144 Biological Sciences II  
CH 1053/1223\* Survey of Chemistry II (CH 1043) or Chemistry II (CH 1213)  
EN 1113 English Composition II (EN 1103)  
MA 1613 Calc. for Bus. and Life Sci. (C in MA 1313 or ACT math subscore 24)  
Communication Elective (3)

### Sophomore Year

#### Fall Semester

**WFA 3133 App. Aq. & Terr. Ecol.** (BIO 1134 & 1144)  
PSS 3303 Soils (CH 1043)  
PSS 3301 Soils Lab (CH 1043)  
Plant Elective (3)  
Statistics Elective (3)  
WFA Social Science (3)

#### Spring Semester

Life Science Elective (3)  
Fine Arts Elective (3)  
Humanities Elective (3)  
Social Science Elective (3)  
Zoology Elective (4)

### Junior Year

#### Fall Semester

WFA 4123 WF Biometrics (ST 3123 & C in MA 1613)(FL)  
**WFA 4223 Wildlife Plant ID** (BIO 1134 & BIO 1144 & WFA 3133) (FL, Maymester)  
WFA 4273 Eco. & Mgt. of Human-Wildlife Conflicts (WFA 3133) (FL Odd)  
WFA 4283 Human-Wildlife Conflicts Techniques (WFA 3133) (FL Odd)  
Natural Resources Policy Elective (3)

#### Spring Semester

**WFA 4243 Wildlife Techniques** (JR) (SP)  
Writing Elective (3)  
Wildlife Biology Elective (3)  
Computer Application Elective (3)  
HWI Professional Electives (3)

### Summer Semester

WFA 3013 HWI Internship

### Senior Year

#### Fall Semester

**WFA 4153 Prin. Wildlife Conservation & Mgt.** (SO)(WFA 3133 or FO 4123)  
**WFA 4353 Fish and Wildlife Policy and Law Enforcement** (SR)(FL)  
WFA 4512 Advanced Topics in Human-Wildlife Conflicts I (WFA 4273, WFA 4283) (FL Even)  
Life Science Elective (4)  
HWI Professional Elective (3)

#### Spring Semester

**WFA 4473 Wildlife & Fisheries Prac.** (SR)(WFA 3133 & WFA 4153)(SP)  
WFA 4521 Advanced Topics in Human-Wildlife Conflicts II (WFA 4512)(SP Odd)  
Aquatics Elective (3)  
Wildlife Biology Elective (3)  
HWI 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

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### 2018-2019 Approved Elective List

#### Wildlife, Fisheries and Aquaculture- Human-Wildlife Interactions Concentration (WFA/HWI)

##### 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 (SOPH standing) |
| 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                          |

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##### 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 4453 | Ichthyology (WFA 3133)                    |

##### HWI Professional Electives

|                            |  |
|----------------------------|--|
| BIO 4233                   | Living with Global Change                    |
| CVM 4180                   | Emergency Prep Animal Health (max 3 credits) |
| PHI 1123                   | Intro to Ethics                              |
| WFA 4463                   | Hum Dim of F&W Mgt (JR)                      |
| Any Upper-Level WFA Course |  |

##### Computer Application Electives

|          |  |
|----------|--|
| AEC 1223 | Computer Applications for Ag & Life Sciences |
| FO 3103  | Computer Applications in Forest Resources    |
| GR 2313  | Maps & Remote Sensing                        |
| GR 3303  | Survey of Geospatial Tech (GR 2313)          |
| TKT 1273 | Computer Applications                        |
| TKB 2123 | Intro to Database Mgt (TKT 1273 or BIS 1012) |
| WFA 253  | Application of GIS (SR)                      |

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##### Life Science Electives

|          |  |
|----------|--|
| 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 of 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) |

##### 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)               |

## 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<br>BIO 3303 Parasitology<br>PO 4033 Diseases of Poultry<br>BIO 4433 Principles of Virology |
| WFA 4253 Appl of Spatial Tech in WF.  | FO 4472 & 4471 GIS Nat Res. Mgt.<br>GR 4303 Principles of GIS<br>GR 4313 Advanced GIS  |
| WFA 4512 Advanced Topics in Human-Wildlife Conflicts I &<br>WFA 4521 Advanced Topics in Human-Wildlife Conflicts II | WFA 4513 Current Topics in Human-Wildlife Interactions   |