

SECTION IV: DEPARTMENT OF WILDLIFE, FISHERIES AND AQUACULTURE

| 2023–2024 WILDLIFE, FISHERIES AND AQUACULTURE MAJOR Wildlife Agriculture Conservation Concentration (Sample Schedule) Total Hours = 124 <i>effective Fall 2023</i> | | | |
|---|---|-----------------|---|
| FRESHMAN YEAR | | | |
| Fall Semester | | Spring Semester | |
| BIO 1134 | Biology I | BIO 1144 | Biology 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 (C or better in CH 1213) |
| EN 1103 | English Comp. I (ACT subscore 17) | EN 1113 | English Composition II (EN 1103) |
| WFA 1102 | Wildlife and Fisheries Profession (FR, SO) (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) | WFA 4243 | Wildlife Techniques (SO) |
| WFA 3133 | Applied Ecology (BIO 1134 & 1144) | | Statistics Elective (3) |
| | WFA Social Science Elective (3) | | Fine Arts Elective (3) |
| FO 2113 | Dendrology (BIO 1144)* | | Social Science Elective (3) |
| | Humanities Elective (3) | | |
| SUMMER SEMESTER | | | |
| Students are strongly encouraged to obtain career-related professional experience. Internship credit may be available with prior approval. | | | |
| JUNIOR YEAR | | | |
| Fall Semester | | Spring Semester | |
| WFA 4123 | WF Biometrics (ST 3123 & C in MA 1613) | WFA 4373 | Cons. in Ag. Landscapes (SP odd) |
| WFA 4153 | Prin. Wildlife Conservation and Mgt. (SO)(WFA 3133 or FO 4123) | | Crop Science Elective (3) |
| | Writing Elective (3) | | WLAC Professional Elective (3) |
| | Animal Science Elective (3) | | Natural Resources Policy Elective (3) |
| | Crop Science Elective (3) | | Zoology Elective |
| SUMMER SEMESTER | | | |
| Students are strongly encouraged to obtain career-related professional experience. Internship credit may be available with prior approval. | | | |
| SENIOR YEAR | | | |
| Fall Semester | | Spring Semester | |
| WFA 4353 | Fish & Wildlife Policy & Law Enforcement (SR)(FL) | WFA 4473 | Wildlife & Fisheries Prac. (SR) (WFA 3133 & WFA 4153) (should be taken in last semester) |
| WFA 4223 | Wildlife Plant ID (BIO 1134 & BIO 1144 & WFA 3133) (FL) | | |
| | Life Science Elective | | GIS Elective |
| | Aquatics Elective (3) | | WLAC Professional Elective (3) |
| | Wildlife Biology Elective (3) | | Wildlife Biology Elective (3) |
| | | | WLAC Professional Elective (3) |
| | | | Free Elective (0-2 hours as needed to meet degree requirements) |

Classes in **BOLD** require a C or better. FL= offered only in fall semester; SP= offered only in spring semester
 SO=Sophomore standing, JR=Junior standing, SR=Senior standing

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| FINE ARTS ELECTIVES (MUST SATISFY MSU GENERAL EDUCATION) (3 HOURS) | | HUMANITIES ELECTIVES (MUST SATISFY MSU GENERAL EDUCATION) (6 HOURS) | |
|---|--|--|---|
| ARC 1013 | Architectural Appreciation | AAS 1063 | Intro to African American Studies |
| ART 1013 | History of Art I | ARC 2313 | History of Architecture I |
| ART 1023 | History of Art II | ARC 3313 | History of Architecture II (ARC 2313) |
| ART 1113 | Art Appreciation | EN/FL 2123 | Greek and Latins Roots of English |
| ART 2063 | Global Contemporary Art | EN 2203 | Intro to Lit (EN 1103, EN 1113) |
| ART 2413 | His & Appr of the Arts & Crafts | EN 2213 | English Lit Before 1800 (EN 1103, EN 1113) |
| CO 1503 | Intro to the Theatre | EN 2223 | English Lit After 1800 (EN 1103, EN 1113) |
| HON 3173 | Honors Seminar in Fine Arts (SO) | EN 2243 | American Lit Before 1865 (EN 1103, EN 1113) |
| ID 3643 | History of Interiors I | | |
| LA 1803 | Landscape Architecture Appreciation | EN2253 | American Lit After 1865 (EN 1103, EN 1113) |
| MU 1103 | African American Music | EN 2273 | World Lit Before 1600 (EN 1103, EN 1113) |
| MU 1113 | His & Appr of Music | EN 2283 | World Lit After 1600(EN 1103, EN 1113) |
| MU 1123 | American Music App | FL 1113-2143 | Foreign Language |
| MU 1133 | History of Rock and Roll | HI 1063 | Early US History |
| PE 1323 | His & Appr of Dance | HI 1073 | Modern US History |
| PSS 2343 | Floral Design | HI 1163 | World History Before 1500 |
| ORAL COMMUNICATION ELECTIVES | | HI 1173 | World History After 1500 |
| | | HI 1213 | Early Western World |
| AELC 3333 | Presentations in Ag & Life Sci (AELC 3203) | HI 1223 | Modern Western World |
| CO 1003 | Fund of Public Speaking | HI 1313 | East Asian Civ to 1300 |
| CO 1013 | Intro to Communication | PHI 1123 | Intro to Ethics |
| STATISTICS ELECTIVES (MUST SATISFY MSU GENERAL EDUCATION) (3 HOURS) | | PHI 3023 | History of Western Philosophy I |
| | | PHI 3033 | History of Western Philosophy II |
| ST 2113 | Intro to Stats (ACT Math subscore 24 or C in MA 1313 or MA 1213) | PHI 3153 | Aesthetics |
| ST 3123 | Intro to Stat. Inf. (ACT Math subscore 24 or C in MA 1313) (recommended) | NATURAL RESOURCE POLICY ELECTIVES | |
| WRITING ELECTIVES | | WFA 4363 | W&F Admin and Comm (JR) |
| | | WFA 4463 | Human Dim of F&W Mgt (JR) |
| AELC 3203 | Prof Writing ANR Hum Sci (JR)(EN 1103, EN 1113) | FO 4343 | Forest Admin & Org (JR) |
| CO 3343 | Writing for the Media (C in EN 1113) | FO 4353 | Natural Resource Law (JR) |
| EDF 3413 | Writing for Thinking (EN 1103, EN 1113) | FO 4413 | Natural Resource Policy (SR) |
| EN 3313 | Writing for the Workplace (EN 1113) | PS 4743 | Environmental Policy (PS 1113, PS 2703) |
| MGT 3213 | Organizational Communication (EN 1113) | | |

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| SOCIAL SCIENCE ELECTIVES (MUST SATISFY MSU GENERAL EDUCATION) (3 HOURS) | | WILDLIFE BIOLOGY ELECTIVES | |
|---|--|-----------------------------------|--|
| | | WFA 4423 | Herpetology (WFA 3133) |
| ADS 1013 | Animal Agriculture & Society: Food for Thought | WFA 4433 | Mammalogy (WFA 3133) |
| AEC 2713 | Introduction to Food and Resource Economics | WFA 4443 | Ornithology (WFA 3133) |
| AN 1103 | Introduction to Anthropology | AQUATICS ELECTIVES | |
| AN 1143 | Introduction to Cultural Anthropology | WFA 4133 | Fisheries Science (ST 3123) |
| AN 1543 | Introduction to Archaeology | WFA 4173 | Fish Physiology (BIO 1134, BIO 1144) |
| AN 2403 | Introduction to the Study of Language | WFA 4183 | Prin & Prac of Aquaculture (BIO 1134, BIO 1144) |
| CO 1223 | Introduction to Communication Theory | | |
| CO 1403 | Introduction to the Mass Media | WFA 4233 | Limnology (WFA 3133) |
| EC 1033 | Economics of Social Issues | WFA 4313 | Fisheries Mgt (WFA 3133) |
| EC 2113 | Prin of Macroeconomics (SO) | WFA 4383 | Wetlands Ecology (JR)(WFA 3133) |
| EC 2123 | Prin of Microeconomics (SO) | WFA 4453 | Ichthyology (WFA 3133) |
| EN 2403 | Introduction to the Study of Language | BIO 4224 | Aquatic Botany (BIO 2113, WFA 3133) |
| EPY 2513 | Human Growth and Development | CVM 4134 | Aquatic Animal Health (any microbiology, any physiology) |
| EPY 3503 | Principles of Educational Psychology | | |
| EPY 3543 | Psychology of Adolescence | | |
| FO 4113 | Forest Resource Economics (AEC 2713) | GG 3613 | Water Resources |
| GR 1123 | Introduction to World Geography | GG 4523 | Coast Environments |
| | | ZOOLOGY ELECTIVES | |
| GR 2013 | Human Geography | WFA 4113 | Animal Behavior |
| HDFS 1813 | Development through the Lifespan | WFA 4453 | Ichthyology (WFA 3133) |
| HON 1173 | The West and the Wider World | BIO 2103 | Cell Biology (6 hours Biology, CH 1223) |
| HON 3143 | Hon Seminar in Soc Sci (SO)(EN 1103, EN 1113) | BIO 3304 | General Microbiology (CH 1053 or CH 1223) |
| | | BIO 3524 | Biology of Vertebrates |
| PO 1013 | Animal Agriculture & Society: Food for Thought | EPP 2213 | Intro to Insects |
| PS 1113 | American Government | EPP 4154 | General Entomology |
| PS 1313 | Introduction to International Relations | EPP 4313 | Forensic Entomology |
| PS 1513 | Comparative Government | CROP SCIENCE ELECTIVES | |
| PSY 1013 | General Psychology | EPP 4113 | Principles of Plant Pathology |
| PSY 3073 | Psychology of Interpersonal Relations (PSY 1013) | EPP 4263 | Principles of Insect Pest Mgt |
| | | PSS 3133 | Intro to Weed Science |
| SO 1003 | Introduction to Sociology | PSS 4103 | Forage and Pasture Crops |
| SO 1103 | Contemporary Social Problems | PSS 4123 | Grain Crops |
| SO 1203 | Sociology of Families | PSS 4133 | Fiber and Oilseed Crops |
| WFA SOCIAL SCIENCE ELECTIVES (MUST SATISFY MSU GENERAL EDUCATION) (3 HOURS) | | PSS 4453 | Vegetable Production (PSS 3303, PSS 3301) |
| | | PSS 4633 | Weed Biology (PSS 3133) |
| ADS 1013 | Animal Agriculture & Society: Food for Thought | | |
| 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 | Human Geography | | |
| PS 1113 | American Government | | |
| PS 1313 | Intro to International Relations | | |
| SO 1003 | Intro to Sociology | | |

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| ANIMAL SCIENCE ELECTIVES | | WLAC PROFESSIONAL ELECTIVES | |
|--------------------------|---|-----------------------------|---|
| ADS 1113 | Animal Science | WFA 4000 | Directed Indiv Study (3 hours max) |
| ADS 3312 | Livestock Management Practices (ADS 1113, ADS 1121) | WFA 4183 | Prin & Prac of Aquaculture (BIO 1134, BIO 1144) |
| ADS 4123 | Animal Breeding (PO 3103, ST 2113) | WFA 4273 | Eco Mgt Human Wildlife Conflicts (WFA 3133) |
| ADS 4223 | Goat and Sheep Production (ADS 1113, ADS 1121) | WFA 4283 | Human Wildlife Conflict Techniques (WFA 3133) |
| ADS 4323 | Beef Cattle Science (ADS 1113, ADS 1121) | WFA 4373 | Cons in Ag Landscapes |
| ADS 4813 | Dairy Farm Mgt (ADS 1113, ADS 1121) | WFA 4383 | Wetlands Ecology (WFA 3133) |
| LIFE SCIENCE ELECTIVES | | WFA 4613 | Landscape Ecology (WFA 3133, ST 2113) |
| WFA 4173 | Fish Physiology (BIO 1134, BIO 1144) | WFA 4484 | Upland Avian Ecology (WFA 3133, WFA 4153) |
| WFA 4263 | Wildlife Diseases (BIO 1134, BIO 1144) | | |
| WFA 4323 | Wildlife Nutrition and Phys (BIO 1134, BIO 1144) | WFA | Any Upper-Level WFA Course |
| ADS 1113 | Animal Science (WLAC Only) | ABE 4313 | Bio Treatment of NPS Pollution |
| ADS 1121 | Animal Science Lab | AEC 1223 | Comp Appl for Ag and Life Sci |
| ADS 1121 | Animal Science Lab | AEC 2713 | Intro to Food & Resource Economics |
| ADS 4114 | Animal Nutrition (CH 2503/2501 OR CH 4513/4511) | BIO 2503 | Environmental Quality (one BIO course) |
| BIO 3303 | Parasitology (BIO 1134) | BIO 4143 | Population Genetics (BIO 1134, BIO 1144) |
| BIO 3504 | Comparative Anatomy (BIO 1134, BIO 1144) | BIO 4233 | Living with Global Change |
| BIO 4514 | Animal Physiology (10 hrs Bio Sci & Org Chem) | BIO 4603 | Ethnobotany (BIO 1134, BIO 1144) |
| PO 4324 | Avian Reproduction | EPP 4154 | General Entomology |
| VS 3014 | Anatomy and Physiology | FO 3103 | Comp Appl in Forest Resources (one CFR course) |
| GIS ELECTIVES | | FO 3203 | Forest Fire |
| WFA 4253 | Appl of GIS in WF | FO 4123 | Forest Ecology (FO 3012) |
| FO 4313 | Spatial Tech in Nat. Res. Mgt. (FO 3015 or GR 2313) | FO 4223 | Forest Ecology (FO 4123) |
| FO 4473 | GIS Nat Res. Mgt. | FO 4221 | Silviculture Lab (co-req: FO 4223) |
| GR 2313 | Maps and Remote Sensing | GG 3133 | Intro Environ Geology (GG 1113) |
| GR 3303 | Survey of Geospatial Tech (GR 2313) | GG 3613 | Water Resources |
| GR 4303 | Principles of GIS | GR 2313 | Maps and Remote Sensing |
| GR 4313 | Advanced GIS | 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) |

APPROVED SUBSTITUTIONS LIST FOR WILDLIFE AGRICULTURE CONSERVATION SCIENCE CONCENTRATION

| Required Courses | Approved Substitution |
|--------------------------------|---|
| BIO 3103 Genetics | BIO 4143 Population Genetics (BIO 1134, BIO 1144) |
| EN 1103 English Comp I | C or better in EN 1104 Expanded English Comp I (ACT English Sub-score of 16 or below) |
| EN 1113 English Comp II | EN 1173 Accelerated Comp II |
| FO 2113 Dendrology | 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, PSS 3133 Intro Weed Science (BIO 2113, CH 1213 or CH 1053) |
| MA 1613 Calc. Bus/Life Science | MA 1713 Calculus I |