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**College of Natural Resources and Environment**
**Department of Fish and Wildlife Conservation**
**Bachelor of Science in Fish and Wildlife Conservation**
**Major in Wildlife Conservation**
**For students graduating in calendar year 2020**

Name_____ Student ID _____
Advisor _____ Expected graduation _____

Minimum hours for degree is 120. A minimum GPA of 2.0 is required for all work applied to the major.

**Curriculum for a Liberal Education Requirements (36 credits)**

**Area 1: Writing and Discourse** (6 credits)
__ ENGL 1105 First-Year Writing (3)
__ ENGL 1106 First-Year Writing (3)

**Area 2: Ideas, Cultural Traditions, and Values** (6 credits)
__ CLE Area 2 course: _____ (3)
__ CLE Area 2 Ethics elective (3) (choose one):
FREC 2554 Nature and American Values (3)
PHIL 1304 Morality and Justice (3)
PHIL 2304 Global Ethics (3)
UAP 4264 Environmental Ethics (Pre: 3344 or 3354) (3)

**Area 3: Society and Human Behavior** (6 credits)
__ CLE Area 3 course: _____ (3)
__ CLE Area 3 Economics elective (3) (choose one):
AAEC 1005 or 1006 Economics of Food and Fiber Systems (3)
ECON 2005 or 2006 Principles of Economics (3)

**Area 4: Scientific Reasoning and Discovery** (8 credits)
__ BIOL 1105 Principles of Biology (3)
__ BIOL 1106 Principles of Biology (3)
__ BIOL 1115 Principles of Biology Laboratory (1)
__ BIOL 1116 Principles of Biology Laboratory (1)

**Area 5: Quantitative and Symbolic Reasoning** (6 credits)
__ MATH 1025 Elementary Calculus (3)
__ MATH 1026 Elementary Calculus (Pre: 1025) (3)

**Area 6: Creativity and Aesthetic Experience** (1 credit)
__ CLE Area 6 course: _____ (1)

**Area 7: Critical Issues in a Global Context** (3 credits)
__ FIW 2114 Principles of Fish and Wildlife Management (Pre: BIOL 1006 or 1106) (3)

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## Degree Core Requirements

**Fundamentals of Science – 11 credits**

__ CHEM 1035 General Chemistry (3)
__ CHEM 1036 General Chemistry (3)
__ CHEM 1045 General Chemistry Laboratory (1)
__ CHEM 1046 General Chemistry Laboratory (1)
__ STAT 3615 Biological Statistics (3)

**Degree Core Requirements – 21-24 credits**

__ NR 1234 FYE Natural Resources and Environment (3) – or - NR 2234 FSE for Transfer Students in CNRE (2)
__ FIW 4414 Population Dynamics and Estimation (Pre: 2324) (3)
__ FIW 4464 Human Dimensions of Fisheries and Wildlife (Pre: 2114) (3)
__ BIOL 2704 Evolutionary Biology (Pre: 1005 or 1105 or 1205H, 1006 or 1106 or 1206H) (3)
__ Experiential Learning Requirement (1-3) (choose one):
- FIW 2974 Independent Study (1-3)
- XXXX 3954 Study Abroad (1-3)
- FIW 3964 Internship through Directed Field Study (1-3)
- FIW 4974 Independent Study (1-3)
- FIW 4994 Undergraduate Research (1-3)

__ Legal Foundation Restricted Elective (3) (choose one):
- AAEC 3314 Environmental Law (3)
- FREC 4434 Natural Resource Policy (Pre: 4014 or 4424) (3)
- UAP 3354 Introduction to Environmental Policy and Planning (3)
- UAP 4344 Law of Critical Environmental Areas (3)

__ Speaking Restricted Elective (3) (choose one):
- ALCE 3634 Communicating Agriculture and Life Sciences in Speaking (3)
- COMM 2004 Public Speaking (3)
- FREC 3524 Environmental Interpretation (Pre: 2554) (3)

__ Writing Restricted Elective (3) (choose one):
- ALCE 3624 Communicating Agriculture and Life Sciences in Writing (3)
- ENGL 3764 Technical Writing (Junior standing required) (3)
- ENGL 3774 Business Writing (Junior Standing Required) (3)

## Major Requirements – 44-45 credits

__ FIW 2314 Wildlife Biology (Pre: 2114, BIOL 2504 or 2704) (3)
__ FIW 2324 Wildlife Field Biology (Pre: BIOL 1106) (3)
__ FIW 4214 Wildlife Field Techniques (Pre: 4414, STAT 3615) (3)
__ FIW 4314 Conservation of Biological Diversity (Pre: 4414, 4434) (4)
__ FIW 4434 Wildlife Habitat Ecology and Management (Pre: 2114) (3)
__ FIW4474 Wildlife Habitat Evaluation (Pre: STAT 3005; Co: 4434) (1)
__ Genetics (3) (choose one):
- FIW 4324 Genetics of Natural and Managed Populations (Pre: BIOL 1105, 1106, STAT 3005 or 3615 or FREC 3214) (3)
- BIOL 2004 Genetics (Pre: 1005 or 1105, 1006 or 1106, CHEM 1036 or 1016) (3)

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__ Wildlife Restricted Elective (3) (choose one):
FIW 3414 Disease Ecology and Ecosystem Management (Pre: BIOL 1105, 1106) (3)
FIW 4454 Human-Wildlife Conflict Resolution (3)
FIW 4534 Ecology and Management of Wetland Systems (Pre: BIOL 3204) (3)
__ BIOL 3204 Plant Taxonomy (Pre: 1005 or 1105 or 1205H, 1006 or 1106 or 1206H) (3)
__ FREC 2324 Dendrology Laboratory (1)
__ Geographic Information Systems Restricted Elective (3) (choose one):
FREC 4114 Information Technology for Natural Resources Management (Pre: 2214 or GEOG 2314) (3)
FREC 4214 Forest Photogrammetry (3)
GEOG 2084 Principles of Geographic Information Systems (3)
GEOG 4354 Introduction to Remote Sensing (3)
__ Ecology Restricted Elective (3) (choose one):
BIOL 2804 Ecology (Pre: 1005 or 1105, 1006 or 1106) (3)
FREC 3314 Forest Ecology and Silvics (Pre: 2314, 2214) (3)
FREC 3364 Environmental Silviculture (Pre: 2324) (3)
__ __ Vertebrate Biology Restricted Electives (8 credits - must include labs) (choose two):
BIOL 4404 Ornithology (Pre: 2804) (4)
FIW 4334 Mammalogy (Pre: BIOL 2704) (4)
FIW 4344 Herpetology (Pre: BIOL 2704) (4)
— Or —
One from the 3 above and one from the 2 below:
FIW 4424 Ichthyology (Pre: BIOL 2504 or 2704) (4)
BIOL/ENT 4354 Aquatic Entomology (Pre: 1005 or 1105, 1015 or 1115, 1006 or 1106, 1106 or 1116) (4)
__ Physical Science Restricted Elective (3-4) (choose one):
CHEM 2514 Survey of Organic Chemistry (Pre:1035 or 1055 or 1055H, 1036 or 1056 or 1056H, 1045 or 1065, 1046 or 1066) (3)
CHEM 2535 Organic Chemistry (Pre: 1036 or 1036H or 1056 or 1056H) (3)
CSES 3114 Soils (Pre: CHEM 1036) (3) and CSES 3124 Soils Lab (1)
CSES 3134 Soils in the Landscape (3)
GEOS 3034 Oceanography (Pre: MATH 1026) (3)
GEOS 1004 Physical Geology (3)
PHYS 2205 General Physics (Pre: MATH 1025 or 1026) (3)
PHYS 2206 General Physics (Pre: 2205) (3)

**Foreign Language**[1]
__ 2 years of one language in high school – or – FL 1105 and 1106 _____

**Free electives – 4-8 credits**

__ _____
__ _____
__ _____

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**Notes:**

1. **University Requirements—Foreign Language Policy**
   The university requires two units of a single foreign language (or American Sign Language) during high school. Students who do not satisfy the foreign language requirement in high school may do so by taking six credits of college-level foreign language (classical language or American Sign Language). These six credits do not count toward the total minimum hours required of the declared degree program.

2. **Major Requirements**
   To earn a B.S. degree in Wildlife Conservation, a student must pass the following courses, or their equivalents, with a **grade of C - or better**: BIOL 1105, BIOL 1106, BIOL 1115, BIOL 1116; CHEM 1035, CHEM 1036, CHEM 1045, CHEM 1046; MATH 1026, FREC 2324 and FIW 2114.

   There are no hidden prerequisites on this check sheet; however, course requirements may change over time, and students should always check for prerequisites for classes they select.

   Students should consult www.fishwild.vt.edu/experiential_learning.html for more details on how to fulfill the experiential learning requirement.

   To remain in good standing, a student must achieve and maintain an overall and in-major GPA of at least 2.0. Courses used for the in-major GPA computation include all those designated as FIW, FREC, GEOG, NR, and SBIO. To graduate, a student must achieve an overall and in-major GPA of at least 2.0.

   **STUDENTS NOT MEETING THESE CRITERIA WILL NOT BE ALLOWED TO ENROLL IN 3xxx and 4xxx LEVEL FIW CLASSES.**

3. In accordance with university guidelines, courses satisfying degree core requirements may not be double counted to satisfy other areas of a degree (e.g., CLE).

4. **Satisfactory Progress**
   By the end of the semester in which they have attempted 45 hours (including transfer, advanced placement, advanced standing, and credit by examination), students must pass the courses (or their equivalents) listed in item number 2 above.