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 2016

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 credit hours)

Area 1: Writing and Discourse (6 credit hours required)
  _ ENGL 1105 First-Year Writing (3)  ENGL 111
  _ ENGL 1106 First-Year Writing (3)  ENGL 112

Area 2: Ideas, Cultural Traditions, and Values (6 credit hours required)
  _ CLE Area 2 course: _____________________ (3)
  _ CLE Area 2 Ethics elective: FOR 2554 Nature and American Values (3) – or – PHIL 1304
    Morality and Justice (3) – or – PHIL 2304 Global Ethics (3) – or – UAP 4264
    Environmental Ethics (Pre: UAP 3344 or 3354) (3)

Area 3: Society and Human Behavior (6 credit hours required)
  _ CLE Area 3 course: _____________________ (3)
  _ AAEC 1005 or 1006 Economics of Food and Fiber Systems (3) – or – ECON 2005 or 2006
    Principles of Economics (3)

Area 4: Scientific Reasoning and Discovery (8 credit hours required)
  _ BIOL 1105 Principles of Biology (3)  [3 1 0 1 0 1]
  _ BIOL 1106 Principles of Biology (3)  [3 1 0 1 0 2]
  _ BIOL 1115 Principles of Biology Laboratory (1)
  _ BIOL 1116 Principles of Biology Laboratory (1)

Area 5: Quantitative and Symbolic Reasoning (6 credit hours required)
  _ MATH 1016 Elementary Calculus with Trigonometry I (Pre: 1015) (3)
  _ MATH 2015 Elementary Calculus with Trigonometry II (Pre: 1016) (3)

Area 6: Creativity and Aesthetic Experience (1 credit hour required)
  _ CLE Area 6 course: _____________________ (1)

Area 7: Critical Issues in a Global Context (3 credit hours required)
  _ CLE Area 7 course: FBL 211 4 _____________________ (3)
Degree Core Requirements

Fundamentals of Science – 11 credit hours
- 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 – 24-26 credit hours
- NR 1114 Introduction to Renewable Natural Resources (2)
- FIW 2114 Principles of Fish and Wildlife Management (Pre: BIOL1006 or 1106) (3)
- FIW 4414 Population Dynamics and Estimation (Pre: 2324) (3)
- FIW 4464 Human Dimensions of Fisheries and Wildlife (Pre: 2114) (3)
- BIOL 2704 Evolutionary Biology (3) (Pre: 1005 or 1105 or 1006 or 1106) (BIOL 2704)
- Experiential Learning Requirement: FIW 2974 Independent Study (1-3) – or – XXXX 3954
  Study Abroad (1-3) – or – FIW 3964 Internship through Directed Field Study – or – FIW
  4974 Independent Study (1-3) – or – FIW 4994 Undergraduate Research (1-3)
- Legal Foundation Restricted Elective: AAEC 3314: Environmental Law (3) – or – FOR 4434
  Forest Resource Policy (3) (Pre: 3424) – or – UAP 4344: Law of Critical Environmental
  Areas (3)
- Speaking Restricted Elective: COMM 2004 Public Speaking (3) – or – AEE 3634
  Communicating Agriculture and Life Sciences in Speaking (3)
- Writing Restricted Elective: ENGL 3764 Technical Writing (Junior standing required) (3)
  – or – ENGL 3774 Business Writing (Junior Standing Required) (3) – or – AEE 3624
  Communicating Agriculture and Life Sciences in Writing (3)

Major Requirements – 40-41 credit hours
- FIW 2314 Wildlife Biology (3) (Pre: 2114, BIOL 2504 or 2704)
- FIW 2324 Wildlife Field Biology (3) (Pre: BIOL 1006)
- FIW 4214 Wildlife Field Techniques (3) (Pre: 4414, STAT 3615)
- FIW 4314 Conservation of Biological Diversity (4) (Pre: 4414, 4434)
- FIW 4324 Genetics of Natural and Managed Populations (3) (Pre: BIOL 1105, 1106, STAT
  3005 or 3615 or FOR 3214) – or – BIOL 2004 Genetics (3) (Pre: 1005 or 1105, 1006 or
  1106, CHEM 1036 or 1016)
- Wildlife Restricted Elective: FIW 3414 Disease Ecology and Ecosystem Management (3)
  (Pre: BIOL 1105, 1106) – or – FIW 4434 Wildlife Habitat Ecology and Management (3)
  (Pre: 2114, FOR 3364) – or – FIW 4454 Vertebrate Pest Management (3) – or – FIW
  4534 Ecology and Management of Wetland Systems (3) (Pre: BIOL 3204)
- BIOL 3204 Plant Taxonomy (3)
- FOR 2324 Dendrology Laboratory (1)
- Geographic Information Systems restricted elective: FOR 4114 Information Technology for
  Natural Resources Management (3) (Pre: 2214 or GEOG 2314) – or – FOR 4214 Forest
  Photogrammetry and Spatial Data Processing (3) – or – GEOG 4084 Introduction to
Geographic Information Systems (3) — or — GEOG 4354 Introduction to Remote Sensing (3)

- Ecology restricted elective: FOR 3364 Forest Ecology and Sustainability (Pre: 2324) (3) — or — FOR 3314 Forest Ecology and Silvics (3) (Pre: FOR 2314, CSES 3114 or 3134) — or — BIOL 2804 Ecology (3) (Pre: 1005 or 1105, 1006 or 1106)

- Vertebrate Biology restricted electives (with laboratory): Students must either take both BIOL 4404 Ornithology (4) (Pre: BIOL 2804) and BIOL 4434 Mammalogy (4) (Pre: BIOL 2804) — or — BIOL 4404 (Pre: 2804) or BIOL 4434 (Pre: 2804) and one class from FW 4424 Ichthyology (4) (Pre: BIOL 2504 or BIOL 2704) or BIOL/ENT 4354 Aquatic Entomology (4) (Pre: 1005 or 1105, 1015 or 1115, 1006 or 1106, 1106 or 1116)

- Physical Science elective: CSES 3114 Soils (3) (Pre: CHEM 1036) and CSES 3124 Soils Lab (1) — or — CSES 3134 Soils in the Landscape (3) — or — GEOG 3034 Oceanography (3) (Pre: Math 1206 or 2015) — or — GEOG 3114 Introduction to Meteorology (3) — or — GEO 1004 Physical Geology (3) — or — PHYS 2205 General Physics (3) (Pre: MATH 1016 or 2015) — or — PHYS 2206 General Physics (3) (Pre: 2205) — or — CHEM 2514 Survey of Organic Chemistry (3) (Pre: 1035 or 1056) — or — CHEM 2535: Organic Chemistry (3) (Pre: 1036 or 1056)

Foreign Language

- 2 years of one language in high school — or — Less than two years of one language in high school, needs FL 1105 and 1106

Free electives — 6-9 credit hours

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 2015, and FW 2114. There are no hidden prerequisites on this checklist, however, course requirements may change over time, and students should always check for prerequisite for classes they select.

   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 FW,
FOR, NR, GEOG and SBIO. To graduate, a student must achieve an overall and in-major GPA of at least 2.0.

Students should consult [www.fishwild.vt.edu/experiential_learning.html](http://www.fishwild.vt.edu/experiential_learning.html) for more details on how to fulfill the experiential learning requirement.

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

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