

College of Natural Resources and Environment
Department of Fish and Wildlife Conservation
Bachelor of Science in Fish and Wildlife Conservation
Major in Fish 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 Liberal Education Requirements – 36 credit hours

Area 1: Writing and Discourse (6 credit hours)

- ___ ENGL 1105 First-Year Writing (3)
- ___ ENGL 1106 First-Year Writing (3)

Area 2: Ideas, Cultural Traditions, and Values (6 credit hours required)

- ___ CLE Area 2 course: _____
- ___ 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: _____
- ___ 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)
- ___ 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 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: _____

Area 7: Critical Issues in a Global Context (3 credit hours required)

- ___ CLE Area 7 course _____

Foreign Language¹

___ 2 years of one language in high school – or – Less than two years of one language in high school, needs FL 1105 and 1106 _____

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 (3) (Pre: BIOL 1006 or 1116)
- ___ FIW 4414 Population Dynamics and Estimation (3) (Pre: 2324, waived for Fish Conservation and non-Wildlife Conservation students)
- ___ FIW 4464 Human Dimensions of Fisheries and Wildlife (3) (Pre: 2114)
- ___ BIOL 2704 Evolutionary Biology (3) (Pre: 1005 or 1105 or 1006 or 1106)
- ___ 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 Agricultural Writing (3)

Major Requirements – 23-24 credit hours

- ___ GEOS 3034 Oceanography (3)
- ___ FIW 4424 Ichthyology (4) (Pre: BIOL 2504 or BIOL 2704)
- ___ FIW 4614 Fish Ecology (3) (Pre: BIOL 1006)
- ___ FIW 4714 Fisheries Management (4) (Pre: 3514)
- ___ BIOL 2804 Ecology (3) (Pre: 1005 or 1105 , 1006 or 1106)
- ___ CHEM 2514 Survey of Organic Chemistry (3) (Pre: 1035, 1036, 1045, 1046) –or- (1055, 1056, 1065, 1066)
- ___ STAT 3616 Biological Statistics (3) (Pre: 3615)

Track Requirements

Freshwater Fisheries Conservation Track – 19-21 credit hours

- ___ FIW 3514 Fisheries Techniques (3) (Pre: 2114)
- ___ Physical Science elective: GEOS 1004 Physical Geology (3) – or – GEOS 1024 Resources Geology (3) – or – GEOG 3114 Introduction to Meteorology (3) – or – CSES 3134 Soils in the Landscape (3) – or – PHYS 2206 General Physics
- ___ Biology restricted elective: BIOL 2004 Genetics (3) (Pre: 1005 or 1105, 1006 or 1106, CHEM 1036 or 1016) – or – BIOL 2304 Plant Biology (3) (Pre: 1005 or 1105, 1006 or 1106) – or – BIOL 2504 General Zoology (3) (Pre: 1005 or 1105, 1006 or 1106)
- ___ PHYS 2205 General Physics (3) (Pre: MATH 1016 or 2015 or 1525 or 1535)
- ___ Aquatic ecology restricted elective. Take two courses from: BIOL 4004 Freshwater Ecology (4) (Pre: 2804) – or – ENT 4354 Aquatic Entomology (4) (Pre: BIOL1005 or 1105, 1015 or 1115, 1006 or 1106, 1016 or 1116) – or – BIOL 4454 Invertebrate Zoology (3) (Pre: BIOL 2504)

Free electives – 2-7 credit hours

___ _____
___ _____

Marine Fisheries Conservation Track – 21-22 credit hours

- ___ FIW 3514 Fisheries Techniques (Pre: 2114) (3) – or – BIOL 4004 Freshwater Ecology (4) (Pre:2804)
- ___ FIW 4624 Marine Ecology (3) (Pre: BIOL 2804 or GEOS 3034)

Approved marine science courses at a collaborating institution (12 hours):

___ _____
___ _____
___ _____
___ _____
___ _____

Free electives – 4-8 credit hours

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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 Fish 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 FIW 2114.

There are no hidden prerequisites on this checksheet, however, course requirements may change over time, and students should always check for prerequisite 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, FOR, NR, GEOG 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. **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).