APPROVED
University Registrar

College of Natural Resources and Environment
Department of Fish and Wildlife Conservation
Bachelor of Science in Fish and Wildlife Conservation
Major in Fish Conservation
Human Dimensions Option (FCHD)
For students entering under UG Catalog 2021-2022

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

Pathways Requirements (45 credits)

Concept 1f: Foundational Discourse (6 credits)
__ ENGL 1105 First-Year Writing (3)
__ ENGL 1106 First-Year Writing (3)

Concept 1a: Advanced/Applied Discourse (3 credits)
__COMM 2004 Public Speaking (3)

Concept 2: Critical Thinking in the Humanities (6 credits)
__ Concept 2 course: _____ (3)
__ Concept 2 Ethics elective (3) (choose one):
FREC/LAR/NR 2554 Leadership for Global Sustainability (3) (Recommended for Human Dimensions option)
PHIL 1304 Morality and Justice (3)
PHIL 2304 Global Ethics (3)

Concept 3: Reasoning in the Social Sciences (6 credits)
__ Concept 3 course: _____ (3)
__ Concept 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)

Concept 4: Reasoning in the Natural Sciences (6 credits)
__ BIOL 1105 Principles of Biology (3)
__ BIOL 1106 Principles of Biology (3)

Concept 5f: Foundational Quantitative and Computational Thinking (6 credits)
__ MATH 1025 Elementary Calculus (3)
__ MATH 1026 Elementary Calculus (Pre: 1025) (3)

Concept 5a: Advanced Quantitative and Computational Thinking (3 credits) (Choose one)
__STAT 3604 Statistics for Social Science (Pre: MATH 1014 or MATH 1025 or MATH 1225 or MATH 1524 or MATH 1525) (3) (Recommended for Human Dimensions Option)
__STAT 3615 Biological Statistics (Pre: MATH 1014 or MATH 1025 or MATH 1225 or MATH 1524 or ISC 1105) (3)

Concept 6: Critique and Practice in Design and the Arts (6 credits)
__ Concept 6a course: _____ (3)
__ Concept 6d course: _____ (3)

Concept 7: Critical Analysis of Identity and Equity in the United States (3 credits)
__ Concept 7 course: _____ (3)

Common Degree CORE Requirements (20-21 credits)

__ BIOL 1115 Principles of Biology Laboratory (Pre: or Co: 1105) (1)
__ BIOL 1116 Principles of Biology Laboratory (Pre: or Co: 1106) (1)
__ BIOL 2704 Evolutionary Biology (Pre: (1005 or 1105 or 1205H or ISC 2105), (1006 or 1106 or 1206H)) (3)
__ FIW 2114 Principles of Fish and Wildlife Conservation (3)
__ FIW 4314 Conservation of Biological Diversity (Pre: 4414, 4434) (4) (Wildlife Majors) or FIW 4714 Fisheries Management (Pre: 3514) (4) (Fisheries Majors)
__ FIW 4414 Population Dynamics and Estimation (Pre: 2324) (3)
__ FIW 4464 Human Dimensions of Fisheries and Wildlife (Pre: 2114) (3)
__ NR 1234 FYE Natural Resources and Environment (3) -or- NR 2234 FSE for Transfer Students in CNRE (2)

Additional Degree Requirements (15 credits)

__ CHEM 1035 General Chemistry (Co: MATH 1025 or MATH 1225) (3)
__ CHEM 1036 General Chemistry (Pre: 1035 or 1055 or 1055H) (3)
__ CHEM 1045 General Chemistry Laboratory (Co: 1035) (1)
__ CHEM 1046 General Chemistry Laboratory (Pre: 1045 or 1065; Co: 1036) (1)
__ Experiential Learning Requirement (1) (choose one):
(Department will process transaction when requirements have been met)
FIW 2974 Independent Study (1-3)
FIW 2994 Undergraduate Research (1-3)
FIW 3964 Internship through Directed Field Study (1-3)
FIW 4974 Independent Study (1-3)
FIW 4994 Undergraduate Research (1-3)
XXXX 3954 Study Abroad (1-3)
__ Legal Foundation Restricted Elective (3) (choose one):
AAEC 3314 Environmental Law (3)
FREC 4434 Natural Resource Policy (Pre: NR 4014 or FREC 4424 or ECON 4014) (3)
UAP 3354 Introduction to Environmental Policy and Planning (3)
UAP 4344 Law of Critical Environmental Areas (3)
__ Writing Restricted Elective (3) (choose one):
ALCE 3624 Communicating Agriculture and Life Sciences in Writing (3)
ENGL 3764 Technical Writing (Junior standing. Pre: 1106 or 1204H or COMM 1016) (3)
ENGL 3774 Business Writing (Junior standing) (3)

Major Requirements (19 credits)

__ BIOL 2804 Ecology (Pre: BIOL 1005 or BIOL 1105 or BIOL 1205H or ISC 2105), (BIOL 1006 or BIOL 1106 or BIOL 1206H) (3)
__ FIW 3514 Fisheries Techniques (Pre: 2114) (3)
__ FIW 4424 Ichthyology (4)
__ FIW 4614 Fish Ecology (Pre: BIOL 1106) (3)

__ Geographic Information Systems Restricted Elective (3) (choose one):
FREC 4114 Information Technology for Natural Resources Management (Pre: FREC 2214 or GEOG 2314) (3)
FREC 4214 Forest Photogrammetry (Senior Standing) (3)
GEOG 2084 Principles of Geographic Information Systems (3)
GEOG/GEOS 4354 Introduction to Remote Sensing (3)
__ GEOS 3034 Oceanography (3)

Human Dimensions Option Requirements (15 credits)

__ Education, Outreach, & Interpretation Restricted Elective (3) (choose one):
ALCE 3004 Education Programs in Agricultural and Life Sciences
ALCE 4014 Introduction to Cooperative Extension
ALCE 4304 Community Education and Development (Pre: Junior Standing)
FREC 3524 Environmental Interpretation (Pre: FREC 2554)
FREC 3574 Environmental Education Service Learning

__Stakeholder Engagement & Conflict Resolution Restricted Elective (3) (choose one):
FIW 4454 Human-Wildlife Conflict Resolution (Pre: Junior Standing)
PSVP 2044 Peace and Violence
RLCL/HUM 3204 Multicultural Communication
SOC 2034 Diversity Community Engagement
SPIA 1024 Community Service Learning
SPIA 2554 Collaborative Policy and Planning
STS 3105 Science and Technology in Modern Society

__Ethics & Humanities Restricted Elective (3) (choose one):
HIST 3144 American Environmental History
PSCI/UAP 3344 Global Environmental Issues
STS/HIST 3705 History of Science
UAP 4264 Environmental Ethics (Pre: Junior or Senior Standing)
WATR/GEOG 2004 Water, Environment, and Society

__Social Sciences Restricted Elective (3) (choose one):
AAEC 3324 Environmental and Sustainable Development Economics (Pre: 1005 or 1006 or ECON 2005)
APS/AHRM/GEOG/HD/HUM/SOC/UAP 3464 Appalachian Communities
GEOG 3104 Environmental Problems, Population, and Development
HIST/SOC/STS 2604 Intro to Data in Social Context
SOC 2024 Sociology of Race and Ethnicity
SOC 3314 Social Movements (Pre: 1004)
STS 2454 Science, Technology, and Environment
STS 3334 Energy and Society

__Tourism, Recreation & Management (3) (choose one):
FIW 2234 Fish, Fishing, and Conservation
FREC 3544 Outdoor Recreation Management (Junior standing, Pre: 2554 or FOR 2554)
HTM 2454 Travel and Tourism Management
HTM 4484 International Tourism
HTM 3484 Socio-Cultural Impacts of Tourism

Free electives **–5-6** credits **Degree total 120 Credits**

__ _____
__ _____

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

Notes:

1. **University Requirements—Foreign Language Policy**
   A sequence of two (2) foreign language courses is required for graduation unless two (2) high school units of the same foreign language or six (6) transfer credit hours of foreign language have been earned. These credits do not count toward graduation. See catalog section on "Graduation Requirements".

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 1026, 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. Note that you will not receive credit for your experiential learning until **ALL** the documents related to the experience are completed and submitted, in addition to being registered for the experience. Students enrolling in FIW 2974, 3964, or 4974 should use the P/F option; FIW 2994, 4994 and XXXX 3954 may be taken P/F or A/F.

   To remain in good standing, a student must achieve and maintain an overall and in-major cumulative 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 cumulative GPA of at least 2.0.

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., Pathways).

4. **Satisfactory Progress**
   By the end of the semester in which they have attempted 60 hours (including transfer, advanced placement, advanced standing, and credit by examination), students must pass the courses listed in item number 2 above (or their equivalents).