

FISH CONSERVATION MAJOR WITH FRESHWATER FISHERIES CONSERVATION OPTION

Program Curriculum

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

Code	Title	Credits
Degree Core Requirements		
BIOL 1115	Principles of Biology Laboratory	1
BIOL 1116	Principles of Biology Laboratory	1
BIOL 2704	Evolutionary Biology	3
FIW 2114	Principles of Fish and Wildlife Conservation	3
FIW 4314	Conservation of Biological Diversity	4
or FIW 4714	Fisheries Management	
FIW 4414	Population Dynamics and Estimation	3
FIW 4464	Human Dimensions of Fisheries and Wildlife	3
NR 1234	First Year Experience In Natural Resources and Environment	3
or NR 2234	1st Semester Experience-Transfer Students in Natural Resources and Environment	
Subtotal		21
Major Requirements		
BIOL 2804	Ecology	3
FIW 3514	Fisheries Techniques	3
FIW 4424	Ichthyology	4
FIW 4614	Fish Ecology	3
<i>Geographic Information Systems Restricted Elective</i>		
Select one of the following: 3		
FREC 4114	Information Technologies for Natural Resource Management	
FREC 4214	Forest Photogrammetry and Spatial Data Processing	
GEOG 2084	Principles of Geographic Information Systems	
GEOG/GEOS 4354	Introduction to Remote Sensing	
GEOS 3034	Oceanography	3
Subtotal		19
Additional Degree Requirements		
CHEM 1035	General Chemistry	3
CHEM 1036	General Chemistry	3
CHEM 1045	General Chemistry Laboratory	1
CHEM 1046	General Chemistry Laboratory	1
<i>Experiential Learning Requirement</i>		
Select one of the following: (requires department approval) 1		
FIW 2974	Independent Study	
FIW 2994	Undergraduate Research	
FIW 3964	Internship Through Directed Field Study	

FIW 4974	Independent Study	
FIW 4994	Undergraduate Research	
XXXX 3954	Study Abroad	
<i>Legal Foundation Restricted Elective</i>		
Select one of the following: 3		
AAEC 3314	Environmental Law	
FIW 2514	Fish and Wildlife Conservation Policy	
FREC 4434	Natural Resource Policy	
UAP 3354	Introduction to Environmental Policy and Planning	
UAP 4344	Law of Critical Environmental Areas	
<i>Writing Restricted Elective</i>		
Select one of the following: 3		
ALCE 3624	Communicating Ag and Life Sciences in Writing	
ENGL 3764	Technical Writing	
ENGL 3774	Business Writing	
Subtotal		15
Option Required Courses		
FIW/FREC 4324	Genetics of Natural and Mangaged Populations	3
STAT 3616	Biological Statistics	3
<i>Physical Science Restricted Elective</i>		
Select one of the following: 3		
ENSC 3134	Soils in the Landscape	
GEOS 1004	Earth Science: Our Past, Present, and Future	
GEOS 1024	Earth Resources, Society, and Environment	
PHYS 2205	General Physics	
PHYS 2206	General Physics	
<i>Aquatic Ecology Restricted Elective</i>		
Select two of the following: 8		
BIOL 4004	Freshwater Ecology	
BIOL 4454	Invertebrate Zoology	
ENT 4354	Aquatic Entomology	
Subtotal		17
Free Electives		
Select 3-4 credits 3-4		
Subtotal		3-4
Pathways to General Education		
<i>Pathways Concept 1 - Discourse</i>		
ENGL 1105	First-Year Writing (1F)	3
ENGL 1106	First-Year Writing (1F)	3
ALCE 3634	Communicating Ag and Life Sciences in Speaking (1A)	3
or COMM 2004 Public Speaking		
<i>Pathways Concept 2 - Critical Thinking in the Humanities</i>		
Select three credits in Pathway 2 (https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G02) 3		
Select one of the following: 3		
FREC/LAR/NR 2554	Leadership for Global Sustainability	
PHIL 1304	Morality and Justice	
PHIL 2304	Global Ethics	
<i>Pathways Concept 3 - Reasoning in the Social Sciences</i>		
Select three credits in Pathway 3 (https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G03) 3		

Select one of the following:	3
AAEC 1005 Economics of the Food and Fiber System or AAEC 1006 Economics of the Food and Fiber System	
ECON 2005 Principles of Economics or ECON 200 Principles of Economics	
<i>Pathways Concept 4 - Reasoning in the Natural Sciences</i>	
BIOL 1105 Principles of Biology	3
BIOL 1106 Principles of Biology	3
<i>Pathways Concept 5 - Quantitative and Computational Thinking</i>	
Select one of the following:	6
MATH 1025 Elementary Calculus (5F) or MATH 1226 Calculus of a Single Variable	
MATH 1026 Elementary Calculus (5F) or MATH 1226 Calculus of a Single Variable	
STAT 3615 Biological Statistics (5A)	3
<i>Pathways Concept 6 - Critique and Practice in Design and the Arts</i>	
Select three credits in Pathway 6a (https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06A)	3
Select three credits in Pathway 6d (https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06D)	3
<i>Pathways Concept 7 - Critical Analysis of Identity and Equity in the United States</i>	
Select three credits in Pathway 7 (https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G07)	3
Subtotal	45
Total Credits	120-121

Notes:

- University Requirements—Foreign Language Policy** Complete an 1105-1106 foreign language (e.g., FR, GR, SPAN) grouping or the equivalent.
- 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 Principles of Biology, BIOL 1106 Principles of Biology, BIOL 1115 Principles of Biology Laboratory, BIOL 1116 Principles of Biology Laboratory, CHEM 1035 General Chemistry, CHEM 1036 General Chemistry, CHEM 1045 General Chemistry Laboratory, CHEM 1046 General Chemistry Laboratory; MATH 1026 Elementary Calculus or MATH 1226 Calculus of a Single Variable, and FIW 2114 Principles of Fish and Wildlife Conservation.

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 (http://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 Independent Study, FIW 3964 Internship Through Directed Field Study, or FIW 4974 Independent Study should use the P/F

option; FIW 2994 Undergraduate Research, FIW 4994 Undergraduate Research 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.

- 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).
- 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).