

ECOLOGY AND CONSERVATION BIOLOGY - BS, ECOLOGY AND CONSERVATION BIOLOGY TRACK

Program Requirements

First Year

		Semester Credit Hours
BIOL 111	Introductory Biology I	4
ESSM 201	Exploring Ecosystem Science and Management	1
MATH 140	Mathematics for Business and Social Sciences	3
RENr 205	Fundamentals of Ecology	3
General elective ¹		2
Semester Credit Hours		13

Spring

BIOL 112	Introductory Biology II	4
MATH 142	Business Calculus	3
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) ²		3
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) ²		3
Social and behavioral sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences) ²		3
Semester Credit Hours		16

Second Year

		Semester Credit Hours
CHEM 119	Fundamentals of Chemistry I	4
WFSC 302	Natural History of the Vertebrates	3
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) ²		3
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication) ²		3
Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) ²		3
Semester Credit Hours		16

Spring

CHEM 222	Elements of Organic and Biological Chemistry	3
RENr 215	Fundamentals of Ecology--Laboratory	1
STAT 302	Statistical Methods	3

WFSC 304	Wildlife and Fisheries Conservation	3
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication) ²		3
Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science) ²		3
Semester Credit Hours		16

Third Year

Fall

Select one of the following:		4
CHEM 120	Fundamentals of Chemistry II	
GEOL 101 & GEOL 102	Principles of Geology and Principles of Geology Laboratory	
PHYS 201	College Physics	
SCSC 301	Soil Science	
Ecosystem		3
Select one of the following:		
ESSM 309	Forest Ecology	
ESSM 320	Ecosystem Restoration and Management	
WFSC 404	Aquatic Ecosystems	
ESSM 416	Fire Ecology and Natural Resource Management	

Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science) ²		3
Ecology practice ³		3
General elective ¹		3
Semester Credit Hours		16

Spring

ESSM 304	Rangeland Plant Taxonomy	3
ESSM 311	Biogeochemistry and Global Change	3
WFSC 403	Animal Ecology	3
WFSC 433	Molecular Ecology in Wildlife and Fisheries	3
Ecology practice ⁴		3
Semester Credit Hours		15

Fourth Year

Fall

Biodiversity ⁵		3
Ecology practice ⁴		3
Ecology practice ⁶		3-4
Human-environment interaction ⁷		3
Human-environment interaction ⁸		3
Semester Credit Hours		16

Spring

ESSM 485	Directed Studies	1
Individual function		3-4
Select one of the following:		
BESC 401	Bioenvironmental Microbiology	
BIOL 318	Chordate Anatomy	
ENTO 306	Insect Physiology	
ESSM 307	Forest Protection	
ESSM 310	Forest Tree Improvement and Regeneration	

MEPS 313	Introduction to Plant Physiology	
WFSC 422	Ethology	
WFSC 448	Fish Ecophysiology	
Biodiversity ⁵		3
Human-environment interaction ⁹		3
General elective ¹		1-3
Semester Credit Hours		12
Total Semester Credit Hours		120

¹ Select from any 100-499 course not used elsewhere.

² Graduation requirements include a requirement for 3 hours of International and Cultural Diversity (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>) courses and 3 hours of Cultural Discourse (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/>) courses. A course satisfying a Core category, a college/department requirement, or a general elective can be used to satisfy this requirement.

³ Select from ESSM 305, ESSM 324, ESSM 417, ESSM 446, ESSM 484, ESSM 485, ESSM 491, RENR 400, WFSC 300/ENTO 300, WFSC 314, WFSC 316, WFSC 408, WFSC 410, WFSC 415/MARB 415, WFSC 450/ENTO 450, WFSC 451/ENTO 451, WFSC 462/BIOL 462, WFSC 485.

⁴ Select from ESSM 305, ESSM 324, ESSM 351/RENR 405, ESSM 417, ESSM 444, ESSM 446, ESSM 459, ESSM 462/GEOG 462, ESSM 484, ESSM 485, ESSM 491, PHYS 201, PHYS 202, RENR 400, STAT 307, WFSC 300/ENTO 300, WFSC 314, WFSC 316, WFSC 408, WFSC 410, WFSC 415/MARB 415, WFSC 450/ENTO 450, WFSC 451/ENTO 451, WFSC 462/BIOL 462, WFSC 485.

⁵ Select from BESC 204, ENTO 201, ESSM 203, ESSM 302, ESSM 303; WFSC 311, WFSC 315, WFSC 335, WFSC 401, WFSC 402.

⁶ Select from ESSM 351/RENR 405, ESSM 444, ESSM 459, ESSM 462/GEOG 462, PHYS 201, PHYS 202, STAT 307.

⁷ Select from ESSM 301, ESSM 314, ESSM 319, ESSM 420, ESSM 430, RENR 470, WFSC 444, WFSC 447, WFSC 457.

⁸ Select from AGECE 350, ESSM 301, ESSM 308, ESSM 314, ESSM 318, ESSM 319, ESSM 404, ESSM 405, ESSM 406, ESSM 420, ESSM 430, RENR 460/RPTS 460, RENR 470, WFSC 303, WFSC 444, WFSC 447, WFSC 457.

⁹ Select from AGECE 350, ESSM 308, ESSM 318, ESSM 404, ESSM 405, ESSM 406, RENR 460/RPTS 460, WFSC 303.

Must make a grade of C or better in BIOL 111, BIOL 112, and all ECCB major core coursework (ESSM 201, ESSM 304, ESSM 311, ESSM 485, RENR 205, WFSC 302, WFSC 304, WFSC 403, and WFSC 433.)