

# ECOLOGY AND CONSERVATION BIOLOGY - BS, VERTEBRATE ZOOLOGY TRACK

## Program Requirements

### First Year

		Semester Credit Hours
<b>Fall</b>		
BIOL 111	Introductory Biology I	4
ECCB 101	Introduction to Ecology and Conservation Biology	1
ECCB 205	Fundamentals of Ecology	3
MATH 140	Mathematics for Business and Social Sciences	3
General elective <sup>1</sup>		3
<b>Semester Credit Hours</b>		<b>14</b>

### Spring

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

### Second Year

		Semester Credit Hours
<b>Fall</b>		
CHEM 119	Fundamentals of Chemistry I	4
ECCB 215	Fundamentals of Ecology--Laboratory	1
ECCB 285	Directed Studies	1
or ECCB 385	or Communication in Ecology and Conservation Biology	
ECCB 302	Diversity and Evolution of Vertebrates	3
STAT 302	Statistical Methods	3
American history ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> ) <sup>2</sup>		3
<b>Semester Credit Hours</b>		<b>15</b>

### Spring

CHEM 222	Elements of Organic and Biological Chemistry	3
ECCB 304	Conservation Biology	3
Biodiversity <sup>3</sup>		3

Communication (<http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication>) <sup>2</sup> 3

Government/Political science (<http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science>) <sup>2</sup> 3

**Semester Credit Hours 15**

### Third Year

#### Fall

ECCB 403	Population and Community Ecology	3
Select one of the following:		4
CHEM 120	Fundamentals of Chemistry II	
GEOL 101 & GEOL 102	Principles of Geology and Principles of Geology Laboratory	
OCNG 251 & OCNG 252	The Blue Planet - Our Oceans and The Blue Planet - Our Oceans Laboratory	
PHYS 201	College Physics	
SCSC 301	Soil Science	

#### Ecosystem

Select one of the following:		3
ECCB 309	Forest Ecology	
ECCB 320	Ecosystem Restoration and Management	
ECCB 416	Fire Ecology and Natural Resource Management	
RWFM 404	Aquatic Ecosystems	

Creative arts (<http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts>) <sup>2</sup> 3

Government/Political science (<http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science>) <sup>2</sup> 3

**Semester Credit Hours 16**

#### Spring

ECCB 301	Diversity and Evolution of Plants	3
ECCB 303	Fire Ecology and Biogeochemistry	3
Communication ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication</a> ) <sup>2</sup>		3
Ecology practice <sup>4</sup>		3
Professional development <sup>5</sup>		3

**Semester Credit Hours 15**

### Fourth Year

#### Fall

ECCB 400	Molecular Ecology	3
Biodiversity <sup>3</sup>		3
Ecology practice <sup>4</sup>		4
Professional development <sup>5</sup>		3
General elective <sup>1</sup>		3

**Semester Credit Hours 16**

#### Spring

ECCB 485	Directed Studies	1
Individual Function		
Select one of the following:		3-4

BIOL 206	Introductory Microbiology	
BIOL 318	Chordate Anatomy	
BIOL 351	Fundamentals of Microbiology	
BIOL 388	Principles of Animal Physiology	
ECCB 422	Behavioral Ecology	
ECCB 448	Fish Ecophysiology	
RWFM 447	Aquatic Animal Nutrition, Diet Formulation and Feeding	
VTPB 405	Biomedical Microbiology	
Ethical Dimensions		
Select one of the following:		3
AGEC 350	Environmental and Natural Resource Economics	
ECCB 308	Fundamentals of Environmental Decision-Making	
ECCB 318	Coupled Social and Ecological Systems	
ECCB 405	Forest Resource Assessment and Management	
ECCB 460/ RPTS 460	Nature, Values, and Protected Areas	
RWFM 308	Fish and Wildlife Laws and Administration	
RWFM 436	Natural Resources Policy	
Professional development <sup>5</sup>		3
General elective <sup>1</sup>		2-3
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

<sup>1</sup> Select from any 100-499 course not used elsewhere.

<sup>2</sup> 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.

<sup>3</sup> Select from ECCB 311, ECCB 315, ECCB 401, ECCB 402.

<sup>4</sup> Select from ECCB 314, ECCB 316, ECCB 324, ECCB 351, ECCB 406/  
GEOG 462, ECCB 407, ECCB 417, ECCB 444, ECCB 446, ECCB 462,  
ECCB 484, ECCB 485, ECCB 491; ENTO 300/ECCB 300, ENTO 450/  
ECCB 450, ENTO 451/ECCB 451; PHYS 201, PHYS 202; RWFM 325,  
RWFM 400/ECCB 452, RWFM 408, RWFM 410, RWFM 484, RWFM 485,  
RWFM 491; STAT 307.

<sup>5</sup> Select from ANSC 303, ANSC 318, ANSC 320; CHEM 227 & CHEM 237,  
CHEM 228 & CHEM 238; ECCB 203, ECCB 311, ECCB 312, ECCB 313,  
ECCB 315, ECCB 401, ECCB 402, ECCB 420, ECCB 430; ENTO 201;  
OCNG 251; RWFM 301, RWFM 302, RWFM 314, RWFM 443, RWFM 470.

Must make a grade of C or better in BIOL 111, BIOL 112, MATH 140, and all ECCB major core coursework or any course substituted for an ECCB major core coursework requirement (ECCB 101, ECCB 205, ECCB 301, ECCB 302, ECCB 303, ECCB 304, ECCB 400, ECCB 403, and ECCB 485).