B.S. IN ENVIRONMENTAL SCIENCE

Code	Title	Credits
Major in Environmental Science (B.S.)		
BIO 124 & BIO 124D	Integrative Biology: Genes, Cells, Change and Integrative Biology: Genes, Cells, Change Lab	4
BIO 128 & BIO 128D	Integrative Biology: Metabolism, Energy, Biodiversity and Integrative Biology: Metabolism, Energy, Biodiversity Lab	4
BIO 218	Biology in a Changing World	3
BIO 495	Biology Seminar	2
CHE 113 & CHE 113D	General Chemistry and General Chemistry Lab	4
CHE 214 & CHE 215	General Chemistry II and General Chemistry II Lab	4
CHE 312 & CHE 313	Quantitative Analysis and Quantitative Analysis Lab	4
ENS 104 & ENS 104D	Environment and Humanity and Environment and Humanity Lab	4
ENS 330 & ENS 331	Ecology and Ecology Lab	4
ENS 399	Introduction to Research	2
ENS 499	Symposium	0
Choose an applied experience:		**2-4**
ENS 481	Internship in Environmental Science	
or		
ENS 496	Research in Environmental Science	
ENS/BIO 497	Advanced Research in Environmental Science	
Choose one course from the following:		**4-5**
ENS 318KZ & ENS 496	Ecology in the Tropics: Natural History and Future Prospects and Research in Environmental Science [1, 5]	
ENS 335K	Environmental Ethics	
GEO/HIS 320K	History and the Human Environment	
GES 326K	Plants and People	
Choose three of the following Environmental Area Courses:		**12-13**
BIO 328 & BIO 329	Invertebrate Biology and Invertebrate Biology Lab	
BIO 342 & BIO 343	Aquatic Biology and Aquatic Biology Lab	
BIO 346 & BIO 347	Animal Behavior and Animal Behavior Lab	
BIO 372 & BIO 373	Plant Taxonomy and Ecology and Plant Taxonomy and Ecology Lab	
BIO 380 & BIO 383	Environmental Plant Biology and Environmental Plant Biology Lab	
ENS 316 & ENS 317	Wildlife Ecology and Wildlife Ecology Lab	

ENS 318KZ & ENS 496	Ecology in the Tropics: Natural History and Future Prospects and Research in Environmental Science [1, 5]	
Courses from the Au Sable Institute of Environmental Studies		
Choose one of the following:		**3-4**
BIO 234 & BIO 235	Microbiology and Microbiology Lab	
BIO 326 & BIO 327	Vertebrate Histology and Vertebrate Histology Lab	
BIO 332 & BIO 333	Genetics and Genetics Lab	
BIO 338 & BIO 339	Endocrinology and Endocrinology Lab	
BIO 354 & BIO 355	Cell Biology and Cell Biology Lab [3]	
BIO 358 & BIO 359	Neurobiology and Neurobiology Lab	
BIO 368 & BIO 369	Structure and Development of Vertebrates and Structure and Development of Vertebrates Lab	
BIO 376 & BIO 377	Animal Physiology and Animal Physiology Lab	
CHE 304 & CHE 397	Essentials of Biochemistry and Biochemistry II Lab [4]	
CHE 320	Instrumental Analysis	
CHE 388 & CHE 389	Biochemistry I and Biochemistry I Lab [2]	
Au Sable Institute Courses		**12**
BIOL/GEOL/GEOG 301 Land Resources		
BIOL/ENVST/GEOG 330 Geographic Information Systems		
Au Sable Elective		

Code	Title	Credits
Major		68-73
General Education *		40-48
Electives		6-9
Total Credits		**122**

1 Recommended option to complete the major in 3.5 years.
2 CHE 226/CHE 227 is a prerequisite for this course.
3 CHE 224/CHE 225 is a prerequisite for this course.
4 Students requiring CHE 397 for their degree will require an override to take this course concurrently with CHE 304.
5 When taken with ENS 318KZ, ENS 496 does not count toward the research option in the applied experience.
* Courses whose number is followed by a letter fulfill a General Education requirement.
With permission of the Department Chair, appropriate courses taken in other off-campus programs may substitute for those listed above.
Students are strongly urged to meet the "M" tag (Mathematics) General Education requirement by taking an introductory statistics course such as PSY 230M or MAT 207M.
Students may not declare a B.S. in Environmental Science and a Minor in Environmental Studies.