APPLIED ENVIRONMENTAL SCIENCE, EMPHASIS

Applied Environmental Science, Emphasis

The applied environmental science emphasis focuses on the application of sampling and analysis methods and protocols. This area prepares students for technical work such as field sampling, data analysis and GIS mapping, laboratory analysis, field team leader, water quality sampler, and compliance officer. With fewer math and physics requirements than the other areas of emphasis, this is a popular option for students wishing to work in the field with their 4-year degree.

- General Education Course

- Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

Course Requirements

Code	Title	Credit Hours
Core Curriculum		
Core 1: Critical Thinking		
FYS 100	First Yr Sem Critical Thinking	3
NRE 220	Human Dimensions of Nat Res	3
NRE 120	Discussions in Envrion Science	3
Core 2		
ENG 101	Beginning Composition	3
ENG 201	Advanced Composition	3
CMM 103	Fund Speech-Communication	3
MTH 140	Applied Calculus	3
Core II Humanities		3
Core II Social Science		3
Core II Fine Arts		3
BSC 120 & BSC 120L	Principles of Biology I and Principles of Biology I Lab	4
Additional University Requirements		
Writing Intensive		3
Writing Intensive		3
Multicultural or International		3
Capstone		3
NRE 470 or NRE 491	ES Internship ES Senior Capstone	
Major - Specific		
CIT 150	Spreadsheet and Database Apps	3
MTH 140	Applied Calculus	3
NRE 120	Discussions in Envrion Science	3
NRE 220	Human Dimensions of Nat Res	3
CHM 211	Principles of Chemistry I	3
CHM 217	Principles of Chem Lab I	2
CHM 212	Principles Chemistry II	3
CHM 218	Principles of Chem Lab II	2
NRRM 200	Analytical Methods: Statistics	4
NRE 323	Assessment II: Aquatic Ecology	4
NRE 423	GIS and Data Systems	3
NRE 470 or NRE 491	ES Internship ES Senior Capstone	3
NRE 490	ES/NRRM Capstone Prep	3
Area of Emphasis - Specific		
NRE 111 or BSC 120	Living Systems Principles of Biology I	3
GLY 200	The Dynamic Earth	3
Select one of the following:		3-4
NRE 212	Energy	
PHY 201 & PHY 202	College Physics I and General Physics I Laboratory	
CIT 260	Instrumentation	3
CIT 264	Technology Foundations	3
NRE 320	Nature Enviro Problems	3
NRE 321	Resol Environ Problems	3
NRE 435	Biomonitoring	4
NRE 322	Assess I: Terrestrial Systems	4
NRE 425	Water Policy and Regulations	3
Major Elective		3
Major Elective		3
Major Elective		3
Major Elective		3
Major Elective		3
Major Elective		3
Free Elective		3
Free Elective		1

- In addition to the Core General Education requirements, the College of Science requires 3 hours of Calculus, 8 additional hours of Natural or Physical Science, and 40 hours of upper-level credit.
- Coursework listed as elective may vary for each student. Students are encouraged to use elective hours toward a 2nd minor or toward prerequisites.
- Students are strongly encouraged to select courses that meet two or more Core or College requirements. For example, a writing intensive literature course could satisfy the Core II Humanities requirement as well as the university writing intensive requirement.
- Course offerings and course attributes are subject to change each semester. Please consult each semester's schedule of courses for availability and attributes.
- Math is based on an ACT Mathematics score of 24 or higher. Students with an ACT Mathematics score less than 24 will be placed in the appropriate prerequisite mathematics and science courses.
- Electives: In consultation with the COS advisors, students will select electives from the College of Science offerings best suited to prepare students to apply for professional credentials as a

certified ecologist, certified wildlife biologist, or certified fisheries professional. Once a student has satisfied all of the requirements for one of these certifications, he or she should select additional electives in consultation with NRE/COS advisers to reach the 120 credit hours required for graduation. Additional electives may be used to satisfy general education requirements (e.g., writing intensive) and/or to fulfill the requirements of a second major, minor, or certificate.

- General Education Course

- Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

Semester Plan

First Year		
First Semester		**Credit Hours**
CIT 150	Spreadsheet and Database Apps	3
NRE 120	Discussions in Envrion Science	3
MTH 140	Applied Calculus	3
ENG 101	Beginning Composition	3
FYS 100	First Yr Sem Critical Thinking	3
UNI 100	Freshman First Class	1
	Credit Hours	**16**
Second Semester		
CMM 103	Fund Speech-Communication	3
BSC 120 & BSC 120L or NRE 111	Principles of Biology I or Living Systems	3-4
GLY 200	The Dynamic Earth	3
GLY 210L	Earth Materials Lab	1
NRE 220	Human Dimensions of Nat Res	3
	Credit Hours	**13-14**
Second Year		
First Semester		
CHM 211	Principles of Chemistry I	3
CHM 217	Principles of Chem Lab I	2
ENG 201	Advanced Composition	3
Core II Fine Arts		3
Core II Social Science (M/I)		3
Free Elective		1
	Credit Hours	**15**
Second Semester		
CHM 212	Principles Chemistry II	3
Select one of the following:		3-4
NRE 212	Energy	
PHY 201 & PHY 202	College Physics I and General Physics I Laboratory	
CHM 218	Principles of Chem Lab II	2
NRRM 200	Analytical Methods: Statistics	4
CIT 264	Technology Foundations	3
	Credit Hours	**15-16**
Third Year		
First Semester		
NRE 323	Assessment II: Aquatic Ecology	4
NRE 423	GIS and Data Systems	3
CIT 260	Instrumentation	3
NRE 320	Nature Enviro Problems	3
Core II Humanities (WI)		3
	Credit Hours	**16**
Second Semester		
NRE 322	Assess I: Terrestrial Systems	4
NRE 321	Resol Environ Problems	3
NRE 490	ES/NRRM Capstone Prep	3
Major Elective		3
Major Elective		3
	Credit Hours	**16**
Fourth Year		
First Semester		
NRE 425	Water Policy and Regulations	3
Major Elective		3
Major Elective		3
Major Elective		3
Writing Intensive		3
	Credit Hours	**15**
Second Semester		
NRE 470 or NRE 491	ES Internship or ES Senior Capstone	3
NRE 435	Biomonitoring	4
Major Elective		3
Free Elective		3
	Credit Hours	**13**
	Total Credit Hours	**119-121**