BS in Environmental Science

Environmental Science is one of the most important and exciting fields in today's world. The UTEP Environmental Science program offers four tracks that allow you to concentrate on different aspects of Environmental Science. These are Environmental Biology, Environmental Chemistry, Environmental Geoscience, and Environmental Hydroscience. There is also a concentration leading to a Secondary Teacher Certification (grades 7-12). The science courses on these tracks give our graduates the background and quantitative skills to excel in their careers and fulfill their professional goals whether in industry, government or continuing in academia. In addition, special classes give students practice in environmental sample collection, data analysis, report writing and presentation. Professional development and career preparation are built into the program. Every student gets the opportunity to do research with a faculty member and every student has at least one professional internship as part of the degree.

There is a strong demand for Environmental Science Graduates. According to the US Bureau of Labor Statistics, environmental science jobs are growing at 5% a year, with a median salary of $76,530 and starting salaries over 50,000 according to several jobs websites.

Marketable Skills

Students will develop:

- Communication: Reach mutual understanding through effective exchange of information, ideas, and feelings
- Critical thinking: Analyze and evaluate issues in order to solve problems and develop informed opinions
- Problem-solving: Find solutions to difficult or complex issues
- Research: Be able to search, investigate and critically analyze information in response to a specific research question
- Teamwork: Participate as an effective, efficient member of a group in order to meet a common goal
- Writing: Communicate using text in a clear and concise manner

Additionally, students will learn about 3-D spatial thinking, the ability to interpret geological maps, mapping skills, sample collection, and organization skills.

All students will fulfill the University Foundation courses and the Environmental Science Core, a sequence of environmental science classes. In addition, students take courses in their selected concentration area. Each concentration area is different and contains unique course requirements.

The Bachelor of Science (BS) degree in Environmental Science can be used to obtain a concentration in Secondary Teacher Certification 7-12.

Courses required of all students in the program:

Fast Track

The Fast-Track Program (http://catalog.utep.edu/admissions/undergraduate/fast-track/#text) enables outstanding undergraduate UTEP students to receive both undergraduate and graduate credit for up to 15 hours of UTEP course work as determined by participating Master's and Doctoral programs. Not all undergraduate programs have elected to participate in the Fast Track option, so students should see their departmental graduate advisor for information about requirements and guidelines. A list of courses that have been approved for possible use at the graduate level is found here (http://catalog.utep.edu/admissions/undergraduate/fast-track/#fasttrackcoursestext).

Degree Plan

BS in Environmental Science Core for all concentrations

Required Credits: 120

Code	Title	Hours
Designated Core (All courses require a grade of C or better)		
Required Courses: [1]		
CHEM 1105	Laboratory for CHEM 1305	1
CHEM 1106	Laboratory for CHEM 1306	1
CHEM 1305	General Chemistry	3
CHEM 1306	General Chemistry	3
MATH 1411	Calculus I	4
University Core Curriculum		
Complete the University Core Curriculum requirements.		
An applied internship that promotes learning, hands-on experience, and industrial practice by applying international manufacturing management and engineering fundamentals is offered in a local manufacturing plant.		42
Environmental Science Core		

ESCI 1101	Environmental Sci. Lab	1
ESCI 1301	Intro to Environmental Sci	3
ESCI 1310	Field Methods in Env Science	3
ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3192	Prof. Development in ESCI	1
ESCI 3201	Environmental Policy & Law	2
ESCI 3204	Research Exp in Envi Science 1	2
ESCI 4301	Senior Project	3
ESCI 4320	Monitoring Regional Sust	3
ESCI 4398	Environmental Sci. Internship (Note: Not required for ESCI Secondary Education Minor)	3
STAT 2480	Elementary Statistical Methods	4
Concentration		
Select one of the concentrations below:		49
Upper Division Requirement		
Select a total of thirty-seven hours of upper division course work [1]		
Total Hours		**120**

[1] A total of thirty-seven hours of upper division coursework is required for all Bachelor of Science degrees.

Concentrations

Environmental Biology

Code	Title	Hours
Environmental Biology Concentration		
Required Courses:		
BIOL 1107	Topics in Study of Life I	1
BIOL 1108	Organismal Biology Laboratory	1
BIOL 1305	General Biology	3
BIOL 1306	Organismal Biology	3
BIOL 3117	Ecology Laboratory	1
BIOL 3316	Ecology	3
BIOL 4428	Global Change Ecology	4
Select eight hours of the following:		**8**
BOT 2410	General Botany	
GEOG 1306 & GEOG 1106	Physical Geography and Laboratory for GEOG 1306	
GEOL 1313 & GEOL 1103	Intro to Physical Geology and Lab for GEOL 1313	
MICR 2141	Gen Microbiology Laboratory	
MICR 2340	General Microbiology	
ZOOL 2406	Vertebrate Zoology	
ZOOL 2466	Invertebrate Zoology	
Select 14 hours of the following:		**14**
BIOL 3320	Genetics	
BIOL 3321	Evolution	
BIOL 3342	Plants and People	
BIOL 3360	Quantitative Methods Ecology	
BIOL 3417	Plant Ecology	
BIOL 4225	Field Biology	
BIOL 4324	Animal Behavior	
BIOL 4327	Animal Ecology	
BIOL 4398	Special Problems	
BIOL 4466	Ecosystem Ecology	

BOT 3437	Plant Diversity & Systematics	
ZOOL 4476	Fish, Amphibians, and Reptiles	
ZOOL 4478	Birds and Mammals	
Additional Semester Hours		**11**
Select 11 hours from courses in BIOL, BOT, CHEM, ESCI, GEOG, GEOL, MICR, ZOOL		
Total Hours		**49**

Environmental Chemistry

Code	Title	Hours
Concentration in Environmental Chemistry		
Required Courses:		
CHEM 2221	Organic Chemistry I Lab	2
CHEM 2321	Organic Chemistry I	3
CHEM 2322	Organic Chemistry II	3
CHEM 3110	Lab for Chemistry 3310	1
CHEM 3151	Lab for Chemistry 3351	1
CHEM 3310	Analytical Chemistry	3
CHEM 3330	Biochem I:Struc & Function	3
CHEM 3351	Physical Chemistry I	3
CHEM 4211	Instrumental Meths Analyt Chem	2
CHEM 4212	Lab for Chemistry 4211	2
MATH 1312	Calculus II	3
MATH 2313	Calculus III	3
PHYS 2320	Introductory Mechanics	3
PHYS 2120	Laboratory for PHYS 2320	1
PHYS 2321	Introductory Electromagnetism	3
PHYS 2121	Laboratory for PHYS 2321	1
Additional Semester Hours		**12**
Select 12 hours from courses in CHEM, ESCI, GEOG, GEOL, GEOP		
At least 7 hours must be upper division.		
Total Hours		**49**

Environmental Geoscience

Code	Title	Hours
Environmental Geoscience Concentration		
Required Courses:		
GEOL 1313 & GEOL 1103	Intro to Physical Geology and Lab for GEOL 1313	3-4
or GEOL 1211 & GEOL 1111	Principles of Earth Sciences and Principles of Earth Sci - Lab	
GEOL 1314 & GEOL 1104	Intro to Historical Geol and Lab for GEOL 1314	3-4
or GEOL 1212 & GEOL 1112	Principles of Earth Science and Laboratory for Geology 1212	
PHYS 2230	Thermal and Fluid Physics	2
PHYS 2320	Introductory Mechanics	3
PHYS 2120	Laboratory for PHYS 2320	1
GEOL 2309 & GEOL 2109	Mineralogy & Petrology and Mineralogy & Petrology Lab	4
GEOL 3312 & GEOL 3112	Geoscience Processes and Geoscience Processes Lab	4
GEOL 3323 & GEOL 3123	Structural Geology and Structural Geology Lab	4

GEOL 3326 & GEOL 3126	Sedimentology & Stratigraphy and Lab for Sedim & Stratigraphy	4
GEOL 4375 & GEOL 4376	Field Geology I and Field Geology II	6
MATH 1312	Calculus II	3
Select one of the following:		**3**
GEOL 4385	Introduction to GIS	
GEOP 4336	Intro. to Remote Sensing	
Or any upper-division Environmental Ethics or Environmental Policy Course		
Additional Semester Hours:		
Select 6 hours from courses in BIOL, BOT, CHEM, ESCI, GEOG, GEOL, GEOP, MICR, ZOOL		6
Total Hours		**46-48**

Environmental Hydroscience

Code	Title	Hours
Environmental Hydroscience Concentration		
Required Courses:		
ESCI 3306 & ESCI 3106	Principles of Hydrology and Principles of Hydrology Lab	4
GEOL 1313	Intro to Physical Geology	3
GEOL 1314	Intro to Historical Geol	3
GEOL 3312 & GEOL 3112	Geoscience Processes and Geoscience Processes Lab	4
GEOL 4335	Soil Properties & Genesis	3
or GEOL 4373	Grndwater Contam and Reclam	
GEOL 4383	General Hydrogeology	3
GEOP 3320A	Introduction to Geophysics	3
GEOP 4350	Field Geophysics	3
or GEOL 4375	Field Geology I	
MATH 1312	Calculus II	3
MATH 2326	Differential Equations	3
PHYS 2230	Thermal and Fluid Physics	2
PHYS 2320 & PHYS 2120	Introductory Mechanics and Laboratory for PHYS 2320	4
or PHYS 2420	Introductory Mechanics	
Ethics or Policy:		
Select eleven upper division hours from any courses in CE, CHEM, ESCI, GEOG,GEOL, GEOP		11
GEOL 4385 is strongly recommended		
Total Hours		**49**

You cannot choose this concentration until you meet three criteria: your UTEP overall GPA must be at least 2.75, your UTEP majors GPA must be at least 2.75, and your must pass the UTEP Qualifying Exam in Science with a score of at least 80%.

7-12 Science

Code	Title	Hours
Background Check Required		
A complete background check is required of all students who wish to receive teacher certification in the State of Texas. Students will be required to pass a background check before certification will be conferred by the State Board of Educator Certification (SBEC).		
Designated Core		
Required Courses:		
CHEM 1105	Laboratory for CHEM 1305	1
CHEM 1106	Laboratory for CHEM 1306	1
CHEM 1305	General Chemistry	3
CHEM 1306	General Chemistry	3

MATH 1411	Calculus I	4
University Core Curriculum		
Complete the University Core Curriculum requirements.		
An applied internship that promotes learning, hands-on experience, and industrial practice by applying international manufacturing management and engineering fundamentals is offered in a local manufacturing plant.		42
Environmental Science Core		
ESCI 1101	Environmental Sci. Lab	1
ESCI 1301	Intro to Environmental Sci	3
ESCI 1310	Field Methods in Env Science	3
ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3192	Prof. Development in ESCI	1
ESCI 3201	Environmental Policy & Law	2
ESCI 3204	Research Exp in Envi Science 1	2
ESCI 4301	Senior Project	3
ESCI 4320	Monitoring Regional Sust	3
STAT 2480	Elementary Statistical Methods	4
Required Courses: [1]		
BIOL 1107	Topics in Study of Life I	1
BIOL 1108	Organismal Biology Laboratory	1
BIOL 1305	General Biology	3
BIOL 1306	Organismal Biology	3
BIOL 3316 & BIOL 3117	Ecology and Ecology Laboratory	4
GEOL 1211 & GEOL 1111	Principles of Earth Sciences and Principles of Earth Sci - Lab	3
GEOL 1212 & GEOL 1112	Principles of Earth Science and Laboratory for Geology 1212	3
PHYS 2320	Introductory Mechanics	3
PHYS 2120	Laboratory for PHYS 2320	1
PHYS 2321	Introductory Electromagnetism	3
PHYS 2121	Laboratory for PHYS 2321	1
Additional Semester Hours		**5**
Select 5 hours from courses in BIOL, BOT, CHEM, ESCI, GEOG, GEOL, GEOP, MICR, ZOOL		
Secondary Education Minor		
Required Courses:		
BED 4317	Tch & Empwr ELLs in Sec Schls	3
EDPC 3300	Intro to Youth Dev & Spec Ed	3
RED 3342	Content Area Literacy	3
SCED 3311	Curriculum Plan-Secondary Schl	3
SCED 4368	Teaching Science in Sec School	3
SCED 4691	Student Teaching in Sec School	6
Upper Division Requirement		
Select a total of thirty-seven hours of upper division course work [2]		
Total Hours		**120**

1 Although the UTEP choice is larger, the choices satisfy the requirements of both the core and the major.
2 A total of thirty-seven hours of upper division coursework is required for all Bachelor of Science degrees.

University Core Curriculum

The department may make specific suggestions for courses which are most applicable towards your major.

All courses require a C or better

I. Communication (six hours)

Code	Title	Hours
Courses in this category focus on developing ideas and expressing them clearly, considering the effect of the message, fostering understanding, and building the skills needed to communicate persuasively. Courses involve the command of oral, aural, written, and visual literacy skills that enable people to exchange messages appropriate to the subject, occasion, and audience.		
Select six hours of the following:		6
For students whose secondary education was in English:		
COMM 1611	Written and Oral Communication	
ENGL 1313	Writing About Literature	
RWS 1301	Rhetoric & Composition I	
RWS 1302	Rhetoric & Composition 2	
RWS 1601	Rhetoric, Composition & Comm	
For students whose secondary education was not in English:		
ESOL 1311	Expos Engl Compos-Spkr Esl	
ESOL 1312	Res & Crit Writng Spkr Esl	
Total Hours		**6**

II. American History (six hours)

Code	Title	Hours
Courses in this category focus on the consideration of past events and ideas relative to the United States, with the option of including Texas History for a portion of this component area. Courses involve the interaction among individuals, communities, states, the nation, and the world, considering how these interactions have contributed to the development of the United States and its global role.		
HIST 1301	History of U.S. to 1865	3
HIST 1302	History of U.S. Since 1865	3
Total Hours		**6**

III. Language, Philosophy & Culture (three hours)

Code	Title	Hours
Courses in this category focus on how ideas, values, beliefs, and other aspects of culture express and affect human experience. Courses involve the exploration of ideas that foster aesthetic and intellectual creation in order to understand the human condition across cultures.		
Select one of the following:		3
AFST 2300	Intro-African Amer Studies	
CHIC 2302	Latina/o Presence in the U.S.	
ENGL 2311	English Literature	
ENGL 2312	English Literature	
ENGL 2313	Intro to American Fiction	
ENGL 2314	Intro to American Drama	
ENGL 2318	Intro to American Poetry	
FREN 2322	Making of the "Other" Americas	
HIST 2301	World History to 1500	
HIST 2302	World History Since 1500	
PHIL 1301	Introduction to Philosophy	
PHIL 2306	Ethics	
RS 1301	Introduct to Religious Studies	
SPAN 2340	Seeing & Naming: Conversations	
WS 2300	Introduction to Womens Studies	
WS 2350	Global Feminisms	
Total Hours		**3**

IV. Mathematics (three hours)

Code	Title	Hours
Courses in this category focus on quantitative literacy in logic, patterns, and relationships. Courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.		

Select one of the following:		3
MATH 1309	College Algebra	
MATH 1310	Trigonometry and Conics	
MATH 1319	Math in the Modern World	
MATH 1320	Math for Social Sciences I	
MATH 1411	Calculus I	
MATH 1508	Precalculus [1,2]	
MATH 2301	Math for Social Sciences II	
STAT 1380	Statistical Literacy	
STAT 2480	Elementary Statistical Methods	
1 A higher-level course in the calculus sequence can be substituted.		
2 TCCN MATH 1314 will also satisfy this requirement.		
Total Hours		**3**

V. Life & Physical Sciences (six hours)

Code	Title	Hours
Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on experiences.		
Select one of the following:		1-4
ASTR 1107	Astronomy Lab I	
ASTR 1307	Elem Astronomy-Solar System	
ASTR 1308	Elem Astr Stars & Galaxies	
BIOL 1103	Introductory Biology Lab	
BIOL 1104	Human Biology Laboratory	
BIOL 1107	Topics in Study of Life I	
BIOL 1108	Organismal Biology Laboratory	
BIOL 1203	Introductory Biology	
BIOL 1304	Human Biology	
BIOL 1305	General Biology	
BIOL 1306	Organismal Biology	
BIOL 2111	Human Anat/Physio Lab I	
BIOL 2113	Human Anat/Physio Lab II	
BIOL 2311	Human Anat/Physiology I	
BIOL 2313	Human Anat/Physiology II	
CHEM 1105	Laboratory for CHEM 1305	
CHEM 1106	Laboratory for CHEM 1306	
CHEM 1107	Intro General Chemistry Lab	
CHEM 1108	Intro Organic & Biochem Lab	
CHEM 1305	General Chemistry	
CHEM 1306	General Chemistry	
CHEM 1307	Intro to General Chemistry	
CHEM 1308	Intro Organic & Biochemistry	
ESCI 1101	Environmental Sci. Lab	
ESCI 1102	Non-major Lab for ESCI 1301	
ESCI 1202	Intro to Environment Science 2	
ESCI 1301	Intro to Environmental Sci	
GEOG 1106	Laboratory for GEOG 1306	
GEOG 1306	Physical Geography	
GEOL 1103	Lab for GEOL 1313	
GEOL 1104	Lab for GEOL 1314	
GEOL 1111	Principles of Earth Sci - Lab	
GEOL 1112	Laboratory for Geology 1212	

GEOL 1211	Principles of Earth Sciences	
GEOL 1212	Principles of Earth Science	
GEOL 1230	The Blue Planet	
GEOL 1231	Natural Hazards	
GEOL 1313	Intro to Physical Geology	
GEOL 1314	Intro to Historical Geol	
HSCI 2302	Fundamentals of Nutrition	
HSCI 2303	Wellness Dynamics	
MICR 2330	Microorganisms and Disease	
PHYS 1403	General Physics I	
PHYS 1404	General Physics II	
PHYS 2120	Laboratory for PHYS 2320	
PHYS 2121	Laboratory for PHYS 2321	
PHYS 2320	Introductory Mechanics	
PHYS 2321	Introductory Electromagnetism	
Total Hours		**6**

VI. Political Science (six hours)

Code	Title	Hours
Courses in this category focus on consideration of the Constitution of the United States and the constitutions of the states, with special emphasis on that of Texas. Courses involve the analysis of governmental institutions, political behavior, civic engagement, and their political and philosophical foundations.		
Required Courses:		
POLS 2310	Introduction to Politics	3
POLS 2311	American Gover & Politics	3
Total Hours		**6**

VII. Social and Behavioral Sciences (three hours)

Code	Title	Hours
Courses in this category focus on the application of empirical and scientific methods that contribute to the understanding of what makes us human. Courses involve the exploration of behavior and interactions among individuals, groups, institutions, and events, examining their impact on the individual, society, and culture.		
Select one of the following:		3
ANTH 1301	Intro-Phys Anth/Archeolog	
ANTH 1302	Intro-Cultural Anthropology	
ANTH 1310	Cultural Geography	
ANTH 2320	Intro to Linguistics	
CE 2326	Econ for Engrs & Scientists	
CHIC 2311	Intro to Chicano Studies	
ASIA 2300	Asian American Studies	
COMM 2350	Interpersonal Communication	
COMM 2372	Mass Media and Society	
ECON 2303	Principles of Macroeconomics	
ECON 2304	Principles of Microeconomics	
EDPC 1301	Introduction to Ed Psychology	
EDU 1342	Action Research in Classrooms	
ENGL 2320	Introduction to Linguistics	
GEOG 1310	Cultural Geography	
LEAD 2300	Leadership in Action	
LING 2320	Introduction to Linguistics	
LING 2340	Lang. Inside & Out: Sel Topics	
PSYC 1301	Introduction to Psychology	
SOCI 1301	Introduction to Sociology	

SOCI 1310	Cultural Geography	
Total Hours		**3**

VIII. Creative Arts (three hours)

Code	Title	Hours
Courses in this category focus on the appreciation and analysis of creative artifacts and works of the human imagination. Courses involve the synthesis and interpretation of artistic expression and enable critical, creative, and innovative communication about works of art.		
Select one of the following:		3
ART 1300	Art Appreciation	
ARTH 1305	History of Art I	
ARTH 1306	History of Art II	
CHIC 1311	Chicana/o Fine Arts Appreciat	
DANC 1304	Introduction to Dance	
FILM 1390	Intro-Art of Motion Pict.	
MUSL 1324	Music Appreciation	
MUSL 1327	Jazz to Rock	
MUSL 2321	Music, Culture, and Society	
THEA 1313	Introduction to Theatre	
Total Hours		**3**

IX. Component Area Option (six hours)

Code	Title	Hours
a. A minimum of 3 SCH must meet the definition and corresponding Core Objectives specified in one of the foundational component areas. b. As an option for up to 3 semester credit hours of the Component Area Option, an institution may select course(s) that: (i) Meet(s) the definition specified for one or more of the foundational component areas; and (ii) Include(s) a minimum of three Core Objectives, including Critical Thinking Skills, Communication Skills, and one of the remaining Core Objectives of the institution's choice.		
BUSN 1301	Intro to Global Business	
COMM 1301	Public Speaking	
COMM 1302	Business/Profession Comm	
CS 1310	Intro-Computational Thinking	
CS 1320	Computer Programming Sci/Engr	
EL 1301	Eng Innovation and Leadership	
ENGR 1302	Engineering Design Experience	
ENGR 1303	Applied Engineering Analysis	
LEAD 1300	Introduction to Leadership	
SCI 1301	Inquiry in Math & Science	
SPLP 1312	Comm. Var. Across the Lifespan	
UNIV 1301	Seminar/Critical Inquiry	
Total Hours		**0**

4-Year Sample Degree Plan

BS in Environmental Science- 7-12 Science (Starting with Calculus)

Code	Title	Hours
BS ENVIRONMENTAL SCIENCE- 7-12 SCIENCE (STARTING WITH CALCULUS)		
FRESHMAN		
Fall		
BIOL 1305 & BIOL 1107	General Biology and Topics in Study of Life I	4
ESCI 1301 & ESCI 1101	Intro to Environmental Sci and Environmental Sci. Lab	4
MATH 1411	Calculus I (*)	4
UNIV 1301	Seminar/Critical Inquiry	3
Spring		

BIOL 1306 & BIOL 1108	Organismal Biology and Organismal Biology Laboratory	4
ESCI 1310	Field Methods in Env Science	3
HIST 1301	History of U.S. to 1865	3
MATH 1312	Calculus II	3
RWS 1301	Rhetoric & Composition I (*)	3
SOPHOMORE		
Fall		
HIST 1302	History of U.S. Since 1865 (*)	3
ART 1300	Art Appreciation (*)	3
ESCI 3204	Research Exp in Envi Science 1	2
CHEM 1305 & CHEM 1105	General Chemistry and Laboratory for CHEM 1305	4
STAT 2480	Elementary Statistical Methods	4
ESCI 3192	Prof. Development in ESCI	1
Spring		
RWS 1302	Rhetoric & Composition 2	3
ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3201	Environmental Policy & Law	2
CHEM 1306 & CHEM 1106	General Chemistry and Laboratory for CHEM 1306	4
GEOL 1211 & GEOL 1111	Principles of Earth Sciences and Principles of Earth Sci - Lab	3
PHYS 2320 & PHYS 2120	Introductory Mechanics and Laboratory for PHYS 2320	4
JUNIOR		
Fall		
COMM 1301	Public Speaking (*)	3
BIOL 3316 & BIOL 3117	Ecology and Ecology Laboratory	4
GEOL 1212 & GEOL 1112	Principles of Earth Science and Laboratory for Geology 1212	3
RED 3342	Content Area Literacy	3
PHYS 2321 & PHYS 2121	Introductory Electromagnetism and Laboratory for PHYS 2321	4
Spring		
POLS 2310	Introduction to Politics	3
PHIL 2306	Ethics	3
PSYC 1301	Introduction to Psychology (*)	3
SCED 4368	Teaching Science in Sec School	3
BED 4317	Tch & Empwr ELLs in Sec Schls	3
Environmental Science Elective		3
SENIOR		
Fall		
POLS 2311	American Gover & Politics	3
ESCI 4301	Senior Project	3
EDPC 3300	Intro to Youth Dev & Spec Ed	3
SCED 3311	Curriculum Plan-Secondary Schl	3
ESCI 4320	Monitoring Regional Sust	3
Environmental Science Elective		2
Spring		
SCED 4691	Student Teaching in Sec School	6
Total Hours		**123**

BS in Environmental Science- 7-12 Science (Starting with Pre-Calculus)

Code	Title	Hours
BS ENVIRONMENTAL SCIENCE- 7-12 SCIENCE (STARTING WITH PRE-CALCULUS)		
FRESHMAN		
Fall		
BIOL 1305 & BIOL 1107	General Biology and Topics in Study of Life I	4
ESCI 1301 & ESCI 1101	Intro to Environmental Sci and Environmental Sci. Lab	4
MATH 1508	Precalculus	5
UNIV 1301	Seminar/Critical Inquiry	3
Spring		
BIOL 1306 & BIOL 1108	Organismal Biology and Organismal Biology Laboratory	4
ESCI 1310	Field Methods in Env Science	3
HIST 1301	History of U.S. to 1865	3
MATH 1411	Calculus I (*)	4
CHEM 1305 & CHEM 1105	General Chemistry and Laboratory for CHEM 1305	4
SOPHOMORE		
Fall		
RWS 1301	Rhetoric & Composition I (*)	3
ESCI 3204	Research Exp in Envi Science 1	2
MATH 1312	Calculus II	3
STAT 2480	Elementary Statistical Methods	4
PHYS 2320 & PHYS 2120	Introductory Mechanics and Laboratory for PHYS 2320	4
Spring		
HIST 1302	History of U.S. Since 1865 (*)	3
ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3201	Environmental Policy & Law	2
CHEM 1306 & CHEM 1106	General Chemistry and Laboratory for CHEM 1306	4
GEOL 1211 & GEOL 1111	Principles of Earth Sciences and Principles of Earth Sci - Lab	3
PHYS 2321 & PHYS 2121	Introductory Electromagnetism and Laboratory for PHYS 2321	4
ESCI 3192	Prof. Development in ESCI	1
JUNIOR		
Fall		
RWS 1302	Rhetoric & Composition 2 (*)	3
COMM 1301	Public Speaking (*)	3
BIOL 3316 & BIOL 3117	Ecology and Ecology Laboratory	4
GEOL 1212 & GEOL 1112	Principles of Earth Science and Laboratory for Geology 1212	3
RED 3342	Content Area Literacy	3
ESCI 4320	Monitoring Regional Sust	3
Spring		
POLS 2310	Introduction to Politics	3
PHIL 2306	Ethics	3
ART 1300	Art Appreciation (*)	3
BED 4317	Tch & Empwr ELLs in Sec Schls	3

SCED 4368	Teaching Science in Sec School	3
Environmental Science Elective		3
SENIOR		
Fall		
POLS 2311	American Gover & Politics	3
PSYC 1301	Introduction to Psychology (*)	3
ESCI 4301	Senior Project	3
EDPC 3300	Intro to Youth Dev & Spec Ed	3
SCED 3311	Curriculum Plan-Secondary Schl	3
Environmental Science Elective		2
Spring		
SCED 4691	Student Teaching in Sec School	6
Total Hours		**128**

BS in Environmental Science- Environmental Biology (Starting with Calculus)

Code	Title	Hours
BS ENVIRONMENTAL SCIENCE- ENVIRONMENTAL BIOLOGY (STARTING WITH CALCULUS)		
FRESHMAN		
Fall		
UNIV 1301	Seminar/Critical Inquiry	3
HIST 1301	History of U.S. to 1865	3
MATH 1411	Calculus I (*)	4
BIOL 1305 & BIOL 1107	General Biology and Topics in Study of Life I	4
ESCI 1301 & ESCI 1101	Intro to Environmental Sci and Environmental Sci. Lab	4
Spring		
RWS 1301	Rhetoric & Composition I (*)	3
HIST 1302	History of U.S. Since 1865 (*)	3
ART 1300	Art Appreciation (*)	3
BIOL 1306 & BIOL 1108	Organismal Biology and Organismal Biology Laboratory	4
ESCI 1310	Field Methods in Env Science	3
SOPHOMORE		
Fall		
RWS 1302	Rhetoric & Composition 2 (*)	3
COMM 1301	Public Speaking (*)	3
ESCI 3204	Research Exp in Envi Science 1	2
STAT 2480	Elementary Statistical Methods	4
CHEM 1305 & CHEM 1105	General Chemistry and Laboratory for CHEM 1305	4
Spring		
POLS 2310	Introduction to Politics	3
PSYC 1301	Introduction to Psychology (*)	3
ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3201	Environmental Policy & Law	2
BIOL 3316 & BIOL 3117	Ecology and Ecology Laboratory	4
Lower Division Elective		3
JUNIOR		
Fall		
POLS 2311	American Gover & Politics	3

CHEM 1306 & CHEM 1106	General Chemistry and Laboratory for CHEM 1306	4
Lower Division Elective		4
Upper Division Elective		4
Spring		
ESCI 4398	Environmental Sci. Internship	3
BIOL 4428	Global Change Ecology	4
ESCI 3192	Prof. Development in ESCI	1
Upper Division Elective		3
Upper Division Elective		3
SENIOR		
Fall		
PHIL 2306	Ethics	3
ESCI 4301	Senior Project	3
ESCI 4320	Monitoring Regional Sust	3
Upper Division Elective		3
Spring		
Open Elective		4
Upper Division Elective		3
Upper Division Elective		3
Upper Division Elective		3
Total Hours		**120**

BS in Environmental Science- Environmental Biology (Starting with Pre-Calculus)

Code	Title	Hours
BS ENVIRONMENTAL SCIENCE- ENVIRONMENTAL BIOLOGY (STARTING WITH PRE-CALCULUS)		
FRESHMAN		
Fall		
UNIV 1301	Seminar/Critical Inquiry	3
HIST 1301	History of U.S. to 1865	3
MATH 1508	Precalculus	5
BIOL 1305 & BIOL 1107	General Biology and Topics in Study of Life I	4
ESCI 1301 & ESCI 1101	Intro to Environmental Sci and Environmental Sci. Lab	4
Spring		
RWS 1301	Rhetoric & Composition I (*)	3
HIST 1302	History of U.S. Since 1865 (*)	3
BIOL 1306 & BIOL 1108	Organismal Biology and Organismal Biology Laboratory	4
ESCI 1310	Field Methods in Env Science	3
MATH 1411	Calculus I (*)	4
SOPHOMORE		
Fall		
RWS 1302	Rhetoric & Composition 2 (*)	3
ART 1300	Art Appreciation (*)	3
ESCI 3204	Research Exp in Envi Science 1	2
STAT 2480	Elementary Statistical Methods	4
CHEM 1305 & CHEM 1105	General Chemistry and Laboratory for CHEM 1305	4
Spring		
COMM 1301	Public Speaking (*)	3
PSYC 1301	Introduction to Psychology (*)	3

ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3201	Environmental Policy & Law	2
BIOL 3316 & BIOL 3117	Ecology and Ecology Laboratory	4
Lower Division Elective		3
JUNIOR		
Fall		
POLS 2310	Introduction to Politics	3
ESCI 4398	Environmental Sci. Internship	3
CHEM 1306 & CHEM 1106	General Chemistry and Laboratory for CHEM 1306	4
Lower Division Elective		4
Upper Division Elective		3
Spring		
POLS 2311	American Gover & Politics	3
BIOL 4428	Global Change Ecology	4
ESCI 3192	Prof. Development in ESCI	1
Upper Division Elective		3
Upper Division Elective		3
SENIOR		
Fall		
PHIL 2306	Ethics	3
ESCI 4301	Senior Project	3
ESCI 4320	Monitoring Regional Sust	3
Upper Division Elective		3
Spring		
Open Elective		4
Upper Division Elective		3
Upper Division Elective		3
Upper Division Elective		4
Total Hours		**125**

BS in Environmental Science- Environmental Chemistry (Starting with Calculus)

Code	Title	Hours
BS ENVIRONMENTAL SCIENCE- ENVIRONMENTAL CHEMISTRY(STARTING WITH CALCULUS)		
FRESHMAN		
Fall		
UNIV 1301	Seminar/Critical Inquiry	3
HIST 1301	History of U.S. to 1865	3
MATH 1411	Calculus I (*)	4
CHEM 1305 & CHEM 1105	General Chemistry and Laboratory for CHEM 1305	4
ESCI 1301 & ESCI 1101	Intro to Environmental Sci and Environmental Sci. Lab	4
Spring		
RWS 1301	Rhetoric & Composition I (*)	3
HIST 1302	History of U.S. Since 1865 (*)	3
CHEM 1306 & CHEM 1106	General Chemistry and Laboratory for CHEM 1306	4
ESCI 1310	Field Methods in Env Science	3
MATH 1312	Calculus II	3
SOPHOMORE		
Fall		

ART 1300	Art Appreciation (*)	3
ESCI 3204	Research Exp in Envi Science 1	2
PHYS 2320 & PHYS 2120	Introductory Mechanics and Laboratory for PHYS 2320	4
CHEM 2321 & CHEM 2221	Organic Chemistry I and Organic Chemistry I Lab	5
Spring		
RWS 1302	Rhetoric & Composition 2 (*)	3
PSYC 1301	Introduction to Psychology (*)	3
ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3201	Environmental Policy & Law	2
PHYS 2321 & PHYS 2121	Introductory Electromagnetism and Laboratory for PHYS 2321	4
CHEM 2322	Organic Chemistry II	3
JUNIOR		
Fall		
COMM 1301	Public Speaking (*)	3
MATH 2313	Calculus III	3
CHEM 3351 & CHEM 3151	Physical Chemistry I and Lab for Chemistry 3351	4
CHEM 3310 & CHEM 3110	Analytical Chemistry and Lab for Chemistry 3310	4
Spring		
PHIL 2306	Ethics	3
STAT 2480	Elementary Statistical Methods	4
Course Elective		3
CHEM 4211 & CHEM 4212	Instrumental Meths Analyt Chem and Lab for Chemistry 4211	4
ESCI 3192	Prof. Development in ESCI	1
SENIOR		
Fall		
POLS 2310	Introduction to Politics	3
ESCI 4301	Senior Project	3
ESCI 4398	Environmental Sci. Internship	3
CHEM 3330	Biochem I:Struc & Function	3
Upper Division Elective		3
Spring		
POLS 2311	American Gover & Politics	3
ESCI 4320	Monitoring Regional Sust	3
Upper Division Elective		3
Course Elective		3
Total Hours		**120**

BS in Environmental Science- Environmental Chemistry (Starting with Pre-Calculus)

Code	Title	Hours
BS ENVIRONMENTAL SCIENCE- ENVIRONMENTAL CHEMISTRY (STARTING WITH PRE-CALCULUS)		
FRESHMAN		
Fall		
UNIV 1301	Seminar/Critical Inquiry	3
MATH 1508	Precalculus	5
CHEM 1305 & CHEM 1105	General Chemistry and Laboratory for CHEM 1305	4

ESCI 1301 & ESCI 1101	Intro to Environmental Sci and Environmental Sci. Lab	4
Spring		
RWS 1301	Rhetoric & Composition I (*)	3
HIST 1301	History of U.S. to 1865	3
CHEM 1306 & CHEM 1106	General Chemistry and Laboratory for CHEM 1306	4
ESCI 1310	Field Methods in Env Science	3
MATH 1411	Calculus I (*)	4
SOPHOMORE		
Fall		
HIST 1302	History of U.S. Since 1865 (*)	3
ESCI 3204	Research Exp in Envi Science 1	2
PHYS 2320 & PHYS 2120	Introductory Mechanics and Laboratory for PHYS 2320	4
CHEM 2321 & CHEM 2221	Organic Chemistry I and Organic Chemistry I Lab	5
Spring		
RWS 1302	Rhetoric & Composition 2 (*)	3
ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3201	Environmental Policy & Law	2
PHYS 2321 & PHYS 2121	Introductory Electromagnetism and Laboratory for PHYS 2321	4
CHEM 2322	Organic Chemistry II	3
MATH 1312	Calculus II	3
JUNIOR		
Fall		
COMM 1301	Public Speaking (*)	3
ART 1300	Art Appreciation (*)	3
MATH 2313	Calculus III	3
CHEM 3310 & CHEM 3110	Analytical Chemistry and Lab for Chemistry 3310	4
CHEM 3351 & CHEM 3151	Physical Chemistry I and Lab for Chemistry 3351	4
Spring		
PHIL 2306	Ethics	3
PSYC 1301	Introduction to Psychology (*)	3
ESCI 4398	Environmental Sci. Internship	3
CHEM 4211 & CHEM 4212	Instrumental Meths Analyt Chem and Lab for Chemistry 4211	4
ESCI 3192	Prof. Development in ESCI	1
Upper Division Elective		3
SENIOR		
Fall		
POLS 2310	Introduction to Politics	3
ESCI 4301	Senior Project	3
ESCI 4320	Monitoring Regional Sust	3
CHEM 3330	Biochem I:Struc & Function	3
STAT 2480	Elementary Statistical Methods	4
Spring		
POLS 2311	American Gover & Politics	3
Course Elective		3
Upper Division Elective		3

Course Elective	3
Total Hours	**125**

BS in Environmental Science- Environmental Geoscience (Starting with Calculus)

Code	Title	Hours
BS ENVIRONMENTAL SCIENCE- ENVIRONMENTAL GEOSCIENCE (STARTING WITH CALCULUS)		
FRESHMAN		
Fall		
UNIV 1301	Seminar/Critical Inquiry	3
HIST 1301	History of U.S. to 1865	3
MATH 1411	Calculus I (*)	4
ESCI 1301 & ESCI 1101	Intro to Environmental Sci and Environmental Sci. Lab	4
GEOL 1313 & GEOL 1103	Intro to Physical Geology and Lab for GEOL 1313	4
Spring		
RWS 1301	Rhetoric & Composition I (*)	3
CHEM 1305 & CHEM 1105	General Chemistry and Laboratory for CHEM 1305	4
ESCI 1310	Field Methods in Env Science	3
MATH 1312	Calculus II	3
GEOL 1314 & GEOL 1104	Intro to Historical Geol and Lab for GEOL 1314	4
SOPHOMORE		
Fall		
HIST 1302	History of U.S. Since 1865 (*)	3
ESCI 3204	Research Exp in Envi Science 1	2
STAT 2480	Elementary Statistical Methods	4
GEOL 2309 & GEOL 2109	Mineralogy & Petrology and Mineralogy & Petrology Lab	4
GEOL 3312 & GEOL 3112	Geoscience Processes and Geoscience Processes Lab	4
Spring		
RWS 1302	Rhetoric & Composition 2 (*)	3
Component Area		3
CHEM 1306 & CHEM 1106	General Chemistry and Laboratory for CHEM 1306	4
ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3201	Environmental Policy & Law	2
JUNIOR		
Fall		
POLS 2310	Introduction to Politics	3
PHYS 2320 & PHYS 2120	Introductory Mechanics and Laboratory for PHYS 2320	4
GEOL 3326 & GEOL 3126	Sedimentology & Stratigraphy and Lab for Sedim & Stratigraphy	4
GEOL 3323 & GEOL 3123	Structural Geology and Structural Geology Lab	4
Spring		
POLS 2311	American Gover & Politics	3
Language, Philosophy, and Culture		3
PHYS 2230	Thermal and Fluid Physics	2
ESCI 4398	Environmental Sci. Internship	3
ESCI 3192	Prof. Development in ESCI	1

SENIOR		
Fall		
Creative Arts		3
Social and Behavioral Science		3
ESCI 4301	Senior Project	3
GEOL 4375	Field Geology I	3
Upper Division Elective		3
Spring		
GEOP 4336	Intro. to Remote Sensing	3
GEOL 4376	Field Geology II	3
ESCI 4320	Monitoring Regional Sust	3
Upper Division Elective		3
Total Hours		**119**

BS in Environmental Science- Environmental Geoscience (Starting with Pre-Calculus)

Code	Title	Hours
BS ENVIRONMENTAL SCIENCE- ENVIRONMENTAL GEOSCIENCE (STARTING WITH PRE-CALCULUS)		
FRESHMAN		
Fall		
UNIV 1301	Seminar/Critical Inquiry	3
HIST 1301	History of U.S. to 1865	3
MATH 1508	Precalculus	5
GEOL 1313 & GEOL 1103	Intro to Physical Geology and Lab for GEOL 1313	4
ESCI 1301 & ESCI 1101	Intro to Environmental Sci and Environmental Sci. Lab	4
Spring		
HIST 1302	History of U.S. Since 1865 (*)	3
GEOL 1314 & GEOL 1104	Intro to Historical Geol and Lab for GEOL 1314	4
ESCI 1310	Field Methods in Env Science	3
MATH 1411	Calculus I	4
CHEM 1305 & CHEM 1105	General Chemistry and Laboratory for CHEM 1305	4
SOPHOMORE		
Fall		
RWS 1301	Rhetoric & Composition I	3
ESCI 3204	Research Exp in Envi Science 1	2
STAT 2480	Elementary Statistical Methods	4
GEOL 2309 & GEOL 2109	Mineralogy & Petrology and Mineralogy & Petrology Lab	4
GEOL 3312 & GEOL 3112	Geoscience Processes and Geoscience Processes Lab	4
Spring		
RWS 1302	Rhetoric & Composition 2 (*)	3
ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3201	Environmental Policy & Law	2
CHEM 1306 & CHEM 1106	General Chemistry and Laboratory for CHEM 1306	4
MATH 1312	Calculus II	3
JUNIOR		
Fall		
POLS 2310	Introduction to Politics	3

ESCI 4398	Environmental Sci. Internship	3
PHYS 2320 & PHYS 2120	Introductory Mechanics and Laboratory for PHYS 2320	4
GEOL 3323 & GEOL 3123	Structural Geology and Structural Geology Lab	4
Spring		
POLS 2311	American Gover & Politics	3
Language, Philosophy, and Culture		3
PHYS 2230	Thermal and Fluid Physics	2
GEOL 3326 & GEOL 3126	Sedimentology & Stratigraphy and Lab for Sedim & Stratigraphy	4
ESCI 3192	Prof. Development in ESCI	1
Upper Division Elective		3
SENIOR		
Fall		
Creative Arts		3
ESCI 4301	Senior Project	3
ESCI 4320	Monitoring Regional Sust	3
GEOL 4375	Field Geology I	3
GEOP 4336	Intro. to Remote Sensing	3
Spring		
Component Area		3
Social & Behavioral Sciences		3
GEOL 4376	Field Geology II	3
Upper Division Elective		3
Total Hours		**124**

BS in Environmental Science- Environmental Hydroscience (Starting with Calculus)

Code	Title	Hours
BS ENVIRONMENTAL SCIENCE- ENVIRONMENTAL HYDROSCIENCE (STARTING WITH CALCULUS)		
FRESHMAN		
Fall		
UNIV 1301	Seminar/Critical Inquiry	3
HIST 1301	History of U.S. to 1865	3
MATH 1411	Calculus I (*)	4
GEOL 1313	Intro to Physical Geology	3
ESCI 1301 & ESCI 1101	Intro to Environmental Sci and Environmental Sci. Lab	4
Spring		
HIST 1302	History of U.S. Since 1865 (*)	3
GEOL 1314	Intro to Historical Geol	3
ESCI 1310	Field Methods in Env Science	3
MATH 1312	Calculus II	3
CHEM 1305 & CHEM 1105	General Chemistry and Laboratory for CHEM 1305	4
SOPHOMORE		
Fall		
RWS 1301	Rhetoric & Composition I (*)	3
ESCI 3204	Research Exp in Envi Science 1	2
MATH 2326	Differential Equations	3
ESCI 3306 & ESCI 3106	Principles of Hydrology and Principles of Hydrology Lab	4

GEOL 3312 & GEOL 3112	Geoscience Processes and Geoscience Processes Lab	4
Spring		
RWS 1302	Rhetoric & Composition 2 (*)	3
COMM 1301	Public Speaking (*)	3
ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3201	Environmental Policy & Law	2
CHEM 1306 & CHEM 1106	General Chemistry and Laboratory for CHEM 1306	4
JUNIOR		
Fall		
POLS 2310	Introduction to Politics	3
ART 1300	Art Appreciation (*)	3
PHYS 2320 & PHYS 2120	Introductory Mechanics and Laboratory for PHYS 2320	4
GEOL 4335	Soil Properties & Genesis	3
or GEOL 4373	Grndwater Contam and Reclam	
GEOP 3320A	Introduction to Geophysics	3
Spring		
POLS 2311	American Gover & Politics	3
PHIL 2306	Ethics	3
STAT 2480	Elementary Statistical Methods	4
ESCI 3192	Prof. Development in ESCI	1
GEOL 4383	General Hydrogeology	3
Upper/Lower Division Elective		2
SENIOR		
Fall		
PSYC 1301	Introduction to Psychology (*)	3
ESCI 4301	Senior Project	3
PHYS 2230	Thermal and Fluid Physics	2
GEOL 4375	Field Geology I	3
or GEOP 4350	Field Geophysics	
Upper/Lower Division Elective		3
Spring		
ESCI 4398	Environmental Sci. Internship	3
ESCI 4320	Monitoring Regional Sust	3
Upper/Lower Division Elective		3
Upper/Lower Division Elective		3
Total Hours		**120**

BS in Environmental Science- Environmental Hydroscience (Starting with Pre-Calculus)

Code	Title	Hours
BS ENVIRONMENTAL SCIENCE- ENVIRONMENTAL HYDROSCIENCE (STARTING WITH PRE-CALCULUS)		
FRESHMAN		
Fall		
UNIV 1301	Seminar/Critical Inquiry	3
HIST 1301	History of U.S. to 1865	3
MATH 1508	Precalculus	5
GEOL 1313	Intro to Physical Geology	3
ESCI 1301 & ESCI 1101	Intro to Environmental Sci and Environmental Sci. Lab	4
Spring		
HIST 1302	History of U.S. Since 1865 (*)	3

GEOL 1314	Intro to Historical Geol	3
ESCI 1310	Field Methods in Env Science	3
MATH 1411	Calculus I (*)	4
CHEM 1305 & CHEM 1105	General Chemistry and Laboratory for CHEM 1305	4
SOPHOMORE		
Fall		
RWS 1301	Rhetoric & Composition I (*)	3
ESCI 3204	Research Exp in Envi Science 1	2
MATH 1312	Calculus II	3
ESCI 3306 & ESCI 3106	Principles of Hydrology and Principles of Hydrology Lab	4
GEOL 3312 & GEOL 3112	Geoscience Processes and Geoscience Processes Lab	4
Spring		
RWS 1302	Rhetoric & Composition 2 (*)	3
COMM 1301	Public Speaking (*)	3
ESCI 3105	Research Exp in Envi Science 2	1
ESCI 3201	Environmental Policy & Law	2
CHEM 1306 & CHEM 1106	General Chemistry and Laboratory for CHEM 1306	4
MATH 2326	Differential Equations	3
JUNIOR		
Fall		
POLS 2310	Introduction to Politics	3
ART 1300	Art Appreciation (*)	3
PHYS 2320 & PHYS 2120	Introductory Mechanics and Laboratory for PHYS 2320	4
GEOL 4335	Soil Properties & Genesis	3
or GEOL 4373	Grndwater Contam and Reclam	
GEOP 3320A	Introduction to Geophysics	3
Spring		
POLS 2311	American Gover & Politics	3
PHIL 2306	Ethics	3
PSYC 1301	Introduction to Psychology (*)	3
STAT 2480	Elementary Statistical Methods	4
GEOL 4383	General Hydrogeology	3
SENIOR		
Fall		
ESCI 4301	Senior Project	3
ESCI 4398	Environmental Sci. Internship	3
PHYS 2230	Thermal and Fluid Physics	2
GEOL 4375	Field Geology I	3
or GEOP 4350	Field Geophysics	
Upper/Lower Division Elective		3
Spring		
ESCI 3192	Prof. Development in ESCI	1
ESCI 4320	Monitoring Regional Sust	3
Upper/Lower Division Elective		2
Upper/Lower Division Elective		3
Upper/Lower Division Elective		3
Total Hours		**125**