## Environmental Science: Geographic and Cartographic Sciences, B.S.

Please see the Courses section of this catalog for complete course descriptions.

Fall Semester:	Hrs	Spring Semester:	Hrs
ESC 1500/1500L: Intro to Environmental Science I/Lab	1113	ESC 1510/1510L: Intro to Environmental Science II/Lab	1113
(Natural Science)	4	(Natural Science)	4
MATH 1710: Precalculus I	3	MATH 1720: Precalculus II	3
GEOG 1030: World Geography (Non-Western Culture)	3	CPSC 1100: Fundamental of Computer Science	4
ENGL 1010 or 1011 (Rhetoric and Writing I)	3-4	ENGL 1020 (Rhetoric and Writing II)	3
		Behavioral and Social Science	3
	13-14		17
Second Year – 31-32 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
ENGL 2820: Scientific Writing *	3	GEOL 1110/1110L: Physical Geology/Lab	4
MATH 1950: Calculus with Analytic Geometry I (Mathematics)		ASTR 1010/L: Intro to Astronomy-The Solar System/Lab,	
	3	GEOG 2060: Atmosphere, Weather & Climate, or GEOG	3-4
		2250/L: Oceanography/Lab	
BIOL 1110/1110L: Principles of Biology I/Lab	4	BIOL 1120/1120L: Principles of Biology II/Lab	4
GEOG 2210: Maps and Mapping	3	MATH 2100: Introductory Statistics (Statistics)	3
GEOG 1010: Physical Geography	4		
	17		14-15
Third Year – 30-31 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
ESC/GEOG 4650: Remote Sensing & Imagery Analysis	3	BIOL 3060/3070: Ecology/Lab	4
GEOG Elective or CPSC 1110: Data Structure and Program Design	3-4	ESC/GEOG 4660: Geographic Info Systems	3
FAH: Historical Understanding	3	Approved GEOG Elective (3000-4000 Level)	3
Behavioral and Social Science	3	Approved GEOG Elective (3000-4000 Level)	3
Elective (3000-4000 Level)	3	FAH: Literature	3
	15-16		16
Fourth Year – 25-28 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
ESC 3400/3400L: Environmental Survey Methods/Lab	4	ESC 4100: Environmental Law and Agencies	3
ESC 4920: Advanced Applications of Remote Sensing and Geographic Info Systems	3	ESC 4840: Values and the Environment	3
Approved GEOG Elective (3000-4000 Level)	2	Approved GEOG Elective (3000-4000 Level)	3
FAH: Thought, Values and Beliefs	3	FAH: Visual and Performing Arts	3
Elective	1-3	Elective	0-1
Elective	1-2	Liective	10 +

<sup>\*</sup>Students can substitute ESC 4495r: Departmental Thesis for ENGL 2820

Completed:				
Graduation Requirements:	Hrs	Degree Requirements:	Hrs	
120 Total Hours		24-25 General Education Hours		
39 Upper Division (3000-4000) Hours*		89-91 Program (Major) Hours		
30 Hours at UTC		Minor (Not Required)		
60 Hours at 4-year Institution		4-7 Elective Hours		
		Foreign Language (Not Required)		