

**Earth Systems Sciences**  
**Environmental Studies Advising Sheet CORE CURRICULUM<sup>†</sup>**

Name: \_\_\_\_\_

Date \_\_\_\_\_

Course #	Course	Units	Semester Taken	Grade	Instructor
<b>MAJOR CORE: 13-15 units</b>					
ENVS 300	Introduction to Environmental Studies (FS)	3			
ENVS 380*	Chemistry Behind Env. Pollution (F)	3			
ENVS 600* <sup>^</sup>	Environmental Problems & Solutions (E) (III)	3			
ENVS 680*	Internship (FS)	1-3			
ENVS 690*	Senior Seminar ENVS (S)	3			
<b>Major Core units taken:</b>					
<b>MAJOR ELECTIVES (Select one from each category): 23-33 units</b>					
<b><i>Physical Environment</i></b>					
GEOG 101	Our Physical Environment (E)	3			
GEOL 270 <sup>^</sup>	Environmental Geology (F)	3			
<b><i>Human Environment</i></b>					
GEOG 102	The Human Environment (E)	3			
ANTH 120	Intro to Social & Cultural Anthropology (E)	3			
<b><i>Environmental Justice/Urban Issues</i></b>					
ANTH 321 <sup>^</sup>	Endangered Cultures (S+) (III)	3			
RAZA 450 <sup>^</sup>	Indegenismo:IndigenousCultures/Personality (FS) (III)	3			
URBS 514 <sup>^</sup>	Sustainable Development in Cities (F) (III)	4			
URBS 515 <sup>^</sup>	Race, Poverty, and the Environment (S) (III)	4			
<b><i>Economics and Public Policy</i></b>					
ECON 425 <sup>^</sup>	Economic Geography (S)	4			
ECON 550* <sup>^</sup>	Environmental Economics (S)	3			
ENVS 450 <sup>^</sup>	Environmental Law and Policy (S+) (III)	3			
IR 331* <sup>^</sup>	Global Env. Crisis: Challenges/ Responses (F) (III)	4			
<b><i>Ecology</i></b>					
BIOL 230* and	Introductory Biology I (E)	5			
BIOL 240* <sup>^</sup> or	Introductory Biology II(E)	5			
BIOL 313* <sup>^</sup>	Principles of Ecology (E) (III)	3			
<b><i>Environmental Chemistry</i></b>					
CHEM 115	General Chemistry I: Essential Concepts (FS)	5			
<b><i>Human Values and Environmental Ethics</i></b>					
BECA 502 <sup>^</sup>	Env. Communication on the Electronic Media (F) (III)	3			
ENG 535* <sup>^</sup>	Literature and Ecology (R)	3			
NEXA 392 <sup>^</sup>	Nature, Culture, and Technology (F) (III)	3			
PHIL 470 <sup>^</sup>	Environmental Ethics (S?)(III)	3			
PLSI 354* <sup>^</sup>	Politics, the Environment, and Social Change (F) (III)	4			
<b>Major Electives units taken:</b>					
<b>Total for core: 36-46</b>					

**GE Segment III Courses:** \_\_\_\_\_

Note: only two of three courses can also count units toward major

\* = Prerequisite, or consent of instructor, III = segment 3

F = Fall, S = Spring, + = Plus other semesters occasionally, A = Alternate years (i.e. every 2 years),

E = Every Semester (FS and Summer), R = rare, if ever, ? = Your guess is as good as mine

<sup>^</sup> = Course, **NOT UNITS**, can be double counted (core & concentration or III), but **NOT** triple counted (core, & concentration, & III)

<sup>†</sup> = based on 2005-2006 Bulletin

# Advising Sheet Concentration in ESS

Name: \_\_\_\_\_

<b>CONCENTRATION CORE: 23 units</b>		<b>Units</b>	<b>Semester</b>	<b>Grade</b>	<b>Instructor</b>
CHEM 215*	General Chemistry II (E)	3			
GEOG 652*	Environmental Impact Analysis (F)	4			
MATH 226*	Calculus and Analytical Geometry I (E)	4			
MATH 227*	Calculus and Analytical Geometry II (E)	4			
PHYS 111/112* or PHYS 220/222*	General Physics I/Lab. (E) General Physics with Calculus I/Lab (E)	3/1			
PHYS 121/122* or PHYS 230/232* or PHYS 240/242*	General Physics II/Lab (E) General Physics II with Calculus II/Lab (FS) General Physics III with Calculus III/Lab (FS)	3/1			
<b>Concentration Core units taken:</b>					
<b>ELECTIVES: 23-25 units</b>					
BIOL 401/402*	General Microbiology/Laboratory (FS)	3/2			
BIOL 411	Environmental and Industrial Microbiology (R)	4			
BIOL 582*	Biological Oceanography (F)	4			
BIOL 482* or BIOL 529* or BIOL 585*	Animal Ecology (F?) Plant Ecology (F) Marine Ecology (R)	4 4 4			
BIOL 535*	Remote Sensing of Wetlands (R)	4			
CHEM 216*	General Chemistry II Laboratory (E)	2			
CHEM 320*	Modern Methods of Quantitative Analysis (FS)	4			
CHEM 333/334*	Organic Chemistry I/Lab. (E)	3/2			
CHEM 335/336*	Organic Chemistry II/Lab. (E)	3/2			
CHEM 420*	Instrumental Analysis of Env. Samples (R)	3			
ENGR 434*	Principles of Environmental Engineering (S)	3			
ENVS 450^	Environmental Law and Policy (S+) (III)	3			
GEOG 317* or GEOL 456*	Geography of Soils (FA) Soils Geology (R)	4 3			
GEOG 611*	Remote Sensing of the Environment II (S)	4			
GEOG 647*	Geography of Water Resources (S)	4			
GEOL 102/103	Introduction to Oceanography and Lab. (FS+)	3/1			
GEOL 310*	Planetary Climate Change (?)	4			
GEOL 450* or GEOG 312*	Geomorphology (R) Geography of Landforms (F)	4 4			
GEOL 452*	Coastal Processes (R)	3			
GEOL 454*	Quaternary Geology (R)	3			
GEOL 465*	Introduction to Physical Oceanography (FA)	3			
GEOL 475*	Hydrogeology (F)	4			
GEOL 476*	Groundwater Contamination (S)	3			
MATH 324*	Probability and Statistics with Computing (FS+)	3			
METR 100/101 or METR 200*	Introduction to Meteorology and Lab. (FS+) Intro to Physical, Dynamic, Synoptic Meteor. (?)	3/1 4			
METR 201*	Basic Weather Chart Analysis (SA)	4			
METR 206*	Use of Computers in Meteorology/Oceanography (?)	2			
METR 401*	Atmospheric and Oceanic Physics (FA)	4			
XXXX 699	Special Study (BIOL, CHEM, ENGR, ENVS, etc.)	1-3			
<b>Concentration Elective units taken:</b>					
<b>Total for Concentration: 46-48</b>					
<b>Total for Major: 82-94</b>					

<b>ESS Elective Courses for Sample Specializations:</b>		
<b><i>Coastal Studies</i></b>		<b>Units</b>
BIOL 585*	Marine Ecology (R)	4
GEOG 611* or METR 490*	Remote Sensing of the Environment (S) Principles of Remote Sensing for Geosciences (R)	4 3
GEOL 102/103	Introduction to Oceanography/Laboratory (FS+)	4
GEOL 452*	Coastal Processes (R)	3
GEOL 465*	Introductory Physical Oceanography (FA)	3
GEOL 475*	Hydrogeology (F)	3
ENGR 434*	Principles of Environmental Engineering (S)	3
<b><i>Hydrologic Studies</i></b>		
CHEM 114*	General Chemistry II Laboratory (CHEM216) (E)	2
GEOG 647*	Geography of Water Resources (S)	4
GEOL 450* or GEOG 312*	Geomorphology (R) Geography of Landforms (F)	4 4
GEOG 642*	Watershed Assessment and Restoration (S)	4
GEOL 475 * and GEOL 476*	Hydrogeology (F) Groundwater Contamination (S)	4 3
ENGR 434*	Principles of Environmental Engineering (S)	3
METR 100/101 or METR 200* and METR 201*	Introduction to Meteorology/Laboratory (FS+) Intro. to Atmospheric Physic/Thermodynamics (?) Intro. to Dynamic and Synoptic Meteorology (SA)	3/1 4 4
<b><i>Climate Studies</i></b>		
GEOG 611* or METR 490*	Remote Sensing of the Environment II (S) Principles of Remote Sensing for Geoscientists (R)	4 3
GEOL 450* or GEOG 312* and GEOL 454* or GEOL 475* or GEOG 647*	Geomorphology (R) Geography of Landforms (F) Quaternary Geology (R) Hydrogeology (F) Geography of Water Resources (S)	4 4 3 4 4
GEOL 465*	Introduction to Physical Oceanography (FA)	3
METR 200*	Intro. to Atmospheric Physics /Thermodynamics (?)	4
METR 201*	Intro. to Dynamic and Synoptic Meteorology (SA)	4
METR 206*	Intro. to Use of Computers in Meteorology (?)	1
METR 401*	Introductory Atmospheric Physics (FA)	4
<b><i>Chemical Analysis</i></b>		
CHEM 216*	General Chemistry II Laboratory (E)	2
CHEM 320*	Modern Methods of Quantitative Analysis (FS)	4
CHEM 420*	Instrumental Analysis of Environmental Samples (R)	3
CHEM 333/334*	Organic Chemistry I/Laboratory (E)	3/2
CHEM 335/336*	Organic Chemistry II/Laboratory (E)	3/3
GEOL 476*	Groundwater Contamination (S)	3
<b><i>Remediation</i></b>		
CHEM 216*	General Chemistry II Laboratory (E)	2
CHEM 320*	Modern Methods of Quantitative Analysis (FS)	4
BIOL 401/402*	General Microbiology and Laboratory (FS)	3/2
BIOL 411	Environmental and Industrial Microbiology (R)	4
GEOL 475* and GEOL 476*	Hydrogeology (F) Groundwater Contamination (S)	4 3
ENGR 434*	Principles of Environmental Engineering (S)	3