

**GEOGRAPHY-EARTH SCIENCE PROGRAM
GEOENVIRONMENTAL STUDIES MAJOR – B.S.**

NAME: _____

<p>Geography-Earth Science (42+ Cr)</p> <p><u>Geoenvironmental Core (15 Cr)</u> ESS 355 Meteorology (if ESS111, see †) ESS 210 Phy. Geology (if ESS110, see ‡) GEO 224 Soils GEO 226 Hydrology GEO 391 Geography Seminar</p> <p><u>Geography Electives (6 Cr)</u> GEO 230 Economic Geography GEO 244 Land Use GEO 305 Geography of Europe GEO 308 Geography of Latin America GEO 310 Transportation Geography GEO 313 Geography of South-Southeast Asia GEO 314 Industrial Geography GEO 317 Geography of East Asia GEO 320 Historical Geography GEO 322 Urban Geography GEO 415 Regional Geographic Studies GEO 450 Geography-Geology Field Studies*</p> <p><u>Geoenvironmental Complex Systems (9 Cr)</u> ESS 404 Applied Meteorology/Climatology ESS 410 Sed Geology & Paleoenvironments ESS 413 Mineral and Rock Resources ESS 442 Environmental Geology ESS 452 Coastal Env Oceanography ESS 490 Selected Topics GEO 301 Introduction to Biogeography GEO 306 Geomorphology GEO 402 Medical Geography GEO 404 Hydrogeology GEO 421 Environmental Law GEO 444 Environmental Land Use Planning GEO 446 Water Resource Management GEO 450 Geography-Geology Field Studies* GEO 490 Selected Topics</p> <p><u>Geoenvironmental Electives (3+ Cr)</u> ESS 212 Historical Geology ESS 214 Geology of National Parks ESS 220 Oceanography GEO 203 Climatology GEO 306 Geomorphology GEO 397 Intro to Research GEO 450 Geography-Geology Field Studies*</p>	<p><u>Geoenvironmental Electives cont. (3+ Cr)</u> GEO 490 Selected Topics Marine Science Consortium Course</p> <p><u>Technique Electives (6+ Cr)</u> GEO 202 GIS I: Intro to GIS GEO 339 Remote Sensing GEO 352 Cartography GEO 363 GIS II: Intermediate GIS GEO 420 GIS III: Advanced GIS GEO 425 Image Processing GEO 440 Field Techniques GEO 441 Quantitative Methods GEO 463 Applied Geophysical Imaging</p> <p><u>Internship (3+ cr)</u> GEO 360 Internship (2.0 GPA, Junior status)</p> <p>Allied Sciences (10+Cr) (R) Recommended courses</p> <p><u>Biology (6-7 Cr)</u> BIO 142 Intro to Ecology (R) BIO 208 Field Biology BIO 210 Field Zoology (162 req) (R) BIO 242 Ecology (162 req) BIO 442 Aquatic Ecology (162 req) (R) BIO 448 Field Botany and Plant Tax (162 req)</p> <p><u>Chemistry/Physics (4 Cr)</u> CHM 121 Chemical Bonding CHM 125 Lab IB Stoichiometry and Reactions (1) CHM 122 Chemical Dynamics CHM 126 Lab IIB Equilibrium and Instruments (1) (R) PHY 121 Intro Physics (3) + 123 Lab (1)</p>	<p>General Education Requirements (45 CR)</p> <p>Courses filled-in below are <i>DIRECTED general education classes that MUST be taken for the major.</i> All other general education courses can be chosen from the list on the back of this page.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Foundations^a (15 cr total)</th> <th style="text-align: center;">Cr</th> <th style="text-align: left;">Course(s)</th> </tr> </thead> <tbody> <tr><td>U</td><td style="text-align: center;">3</td><td></td></tr> <tr><td>W</td><td style="text-align: center;">3</td><td></td></tr> <tr><td>O</td><td style="text-align: center;">3</td><td></td></tr> <tr><td>H</td><td style="text-align: center;">3</td><td></td></tr> <tr><td>Q</td><td style="text-align: center;">3</td><td>MAT 117</td></tr> </tbody> </table> <p>^a One course in each area are required.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Interconnections (9 cr total)</th> <th style="text-align: center;">Cr</th> <th style="text-align: left;">Course(s)</th> </tr> </thead> <tbody> <tr><td>D^b</td><td style="text-align: center;">3+</td><td></td></tr> <tr><td>G^b</td><td style="text-align: center;">3+</td><td></td></tr> <tr><td>F</td><td style="text-align: center;">e</td><td></td></tr> </tbody> </table> <p>^b At least 1 course each from D and G.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Citizenship^c (6 cr total)</th> <th style="text-align: center;">Cr</th> <th style="text-align: left;">Course(s)</th> </tr> </thead> <tbody> <tr><td>S</td><td style="text-align: center;">e</td><td></td></tr> <tr><td>E</td><td style="text-align: center;">e</td><td></td></tr> <tr><td>R</td><td style="text-align: center;">e</td><td></td></tr> </tbody> </table> <p>^c 1 course from two different categories.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Natural World (9cr total)</th> <th style="text-align: center;">Cr</th> <th style="text-align: left;">Course(s)</th> </tr> </thead> <tbody> <tr><td>N^d</td><td style="text-align: center;">6+</td><td>BIO 162 and CHM 105</td></tr> <tr><td>T</td><td style="text-align: center;">e</td><td>CSC 103 or 180</td></tr> </tbody> </table> <p>^d BIO 162 and CHM 105 required. Either CSC 103 or 180 also required.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Creativity (6 cr total)</th> <th style="text-align: center;">Cr</th> <th style="text-align: left;">Course</th> </tr> </thead> <tbody> <tr><td>L^e</td><td style="text-align: center;">3</td><td></td></tr> <tr><td>A</td><td style="text-align: center;">e</td><td></td></tr> <tr><td>C</td><td style="text-align: center;">e</td><td></td></tr> </tbody> </table> <p>^e At least 1 L course.</p>	Foundations^a (15 cr total)	Cr	Course(s)	U	3		W	3		O	3		H	3		Q	3	MAT 117	Interconnections (9 cr total)	Cr	Course(s)	D ^b	3+		G ^b	3+		F	e		Citizenship^c (6 cr total)	Cr	Course(s)	S	e		E	e		R	e		Natural World (9cr total)	Cr	Course(s)	N ^d	6+	BIO 162 and CHM 105	T	e	CSC 103 or 180	Creativity (6 cr total)	Cr	Course	L ^e	3		A	e		C	e	
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*Only 3cr for category, 6cr total for major.

† If ESS111 taken, sub GEO203 or ESS404.

‡ If ESS110 taken, sub ESS212, GEO306 or ESS214.