GEOENVIRONMENTAL STUDIES-B.S.

General Education Requirement

I. Required Skills and Competencies 15 cr
___ ENG 106 Writing Intensive First Year Seminar OR
ENG 110 Advanced Placement Writing (3 cr)
May need ENG 050 Basic Writing first, based on test results
___ HCS 100 Intro to Human Communication (3 cr)
___ Mathematical Competency-Schedule highest level possible
___ HIS 105 Historical Foundations of Global Cultures (3 cr) AND
___ HIS 106 Thinking Historically in a Global Age (3 cr)

II. Categories of Knowledge 33 cr
A: Logic/Numbers for Rational Thinking (3 cr)

B: Literary, Artistic & Cultural Traditions (9 cr)

C: Biological & Physical Sciences (9 cr)
Note the course options under BIO, CHM and PHY

D: Political, Economic & Geographic Science (6 cr)

E: Social & Behavioral Science (6 cr)

III. Library Skills Complete via writing course
Required GeoEnvironmental Studies Courses 15 cr
___ ESS 210 Physical Geology (3 cr)
If ESS 110 taken, select ESS 212, GEO 306, or ESS 214
___ ESS 355 Meterology
___ GEO 224 Soils must be after ESS 210 or ESS 110 (3 cr)
___ GEO 226 Hydrology (3 cr)
___ GEO 391 Geography Seminar (3 cr)

Geography Electives Select 2 courses: 6 cr
___ GEO 230 Economic Geography (3 cr)
___ GEO 244 Land Use (3 cr)
___ GEO 305 Geography of Europe (3 cr)
___ GEO 308 Geography of Latin America (3 cr)
___ GEO 310 Transportation Geography (3 cr)
___ GEO 313 Geography of S. and S.E. Asia (3 cr)
___ GEO 317 Geography of East Asia (3 cr)
___ GEO 320 Historical Geography (3 cr)
___ GEO 322 Urban Geography (3 cr)
___ GEO 415 Regional Geographic Studies (3 cr)
___ GEO 450 Geog. – Geology Field Studies (3 cr)

GeoEnvironmental Complex System Electives Select 3 courses: 9 cr
___ ESS 404 Applied Meteorology and Climatology (3 cr)
___ ESS 413 Mineral & Rock Resources (3 cr)
___ ESS 442 Environmental Geology (3 cr)
___ GEO 301 Biogeography (3 cr)
___ GEO 306 Geomorphology (3 cr)
___ GEO 402 Environmental Health (3 cr)
___ GEO 404 Groundwater and Hydro-Geology (3 cr)
___ GEO 444 Environmental Land Use Planning (3 cr)
___ GEO 450 Geog. – Geology Field Studies (3 cr)
___ GEO 446 Water Resources Management (3 cr) (GEO 226 is pre-req)
___ GEO 490 Selected Topics By advisement (3 cr)
Technique Course Electives Select 2 courses: 6 cr
___ GEO 202 GIS I (3 cr)
___ GEO 339 Remote Sensing (3 cr)
___ GEO 352 Cartography (3 cr)
___ GEO 363 GIS II (3 cr)
___ GEO 420 GIS III (3 cr)
___ GEO 425 Image Processing (3 cr)
___ GEO 440 Field Techniques (3 cr)
___ GEO 441 Quantitative Methods (3 cr)
___ GEO 450 Geog. – Geology Field Studies (3 cr)
___ GEO 490 Selected Topics (3 cr)

GeoEnvironmental Electives 3 cr
Any 200-400 level courses listed above and not taken may be counted as an elective or select 1 course:
___ ESS 212 Historical Geology (3 cr)
___ ESS 214 Geology of National Parks (3 cr)
___ ESS 220 Oceanography (3 cr)
___ GEO 203 Climatology (3 cr)
___ GEO 306 Geomorphology (3 cr)
___ GEO 450 Geog. – Geology Field Studies (3 cr)
___ GEO 490 Selected Topics
___ Marine Science Consortium Courses (3 cr)

Geoenvironmental Field Experience
___ Internship Junior Status: 60 cr - 2.0 Required 3 cr

Biology Requirement at least one 200-level or higher 9 or 10 cr
___ BIO 162 Principles of Biology: Organismal Diversity **
___ BIO 145 Environmental Biology (3 cr) **
___ BIO 210 Field Zoology (3 cr)
___ BIO 242 Ecology (3 cr)
___ BIO 448 Field Botany & Plant Taxonomy (3 cr) **
** Required for 200 level or above biology courses. If student has a special interest in zoology or botany, they should follow sequential courses in that area.

Chemistry and/or Physics Requirement 7 - 9 cr
Choose 2 courses Include lab where appropriate
___ CHM 105 Chemistry: Observational Approach (3 cr) [recommended]
___ CHM 121 Chemical Bonding (3 cr)
___ CHM 125 Lab IB (1 cr)
___ CHM 122 Chemical Dynamics (3 cr)
___ CHM 126 Lab IIB (3 cr)
___ PHY 121 Physics I and PHY 125 Physics I lab (4 cr) [recommended]

Computer Science Requirement Select 1 course: 3 or 4 cr
___ MIS 142 Intro to Business Computer Systems (3 cr)
___ CSC 103 Overview of Computer Science (3 cr)
___ CSC 180 Microcomputer Basic (3 cr)

Math Requirement Select 1 course: 3 or 4 cr
___ MAT 117 Applied Statistics (4 cr)
___ MAT 140 College Algebra (3 cr)
___ MAT 175 Pre-Calculus (4 cr)
___ MAT 211 Calculus I (4 cr)
___ MAT 212 Calculus II (4 cr)

Geographic Information Systems GIS Certification (optional) 12 cr
Required:
___ GEO 202 GIS I (3 cr)
___ GEO 363 GIS II (3 cr)

Select any two courses:
___ GEO 339 Remote Sensing (3 cr)
___ GEO 352 Cartography (3 cr)
___ GEO 420 GIS III (3 cr)
___ GEO 425 Image Processing (3 cr)
___ GEO 440 Field Techniques (3 cr)
GEO 441 Quantitative Methods (3 cr)
Total Graduation Requirements 120 cr

GPA Needed to Declare: 2.0
Helpful Hints for Advising
Year I: Hydrology; Physical Geology; Biology 162; World Geography or Geography U.S. and Canada.
Gen Eds should be completed as soon as possible