EARTH SCIENCE, B.S, - CONCENTRATION: NATURAL HAZARDS

LIBERAL EDUCATION PROGRAM AND WRITING REQUIREMENTS

**Liberal Education Program**

Students must complete a comprehensive three-tiered Liberal Education Program (LEP). View all requirements of the tiers on the Liberal Education Program.

While the choice of courses that fulfill the requirements is generally left up to students, courses in the major and/or cognate may also satisfy LEP requirements. These shared courses are recommended below to fulfill both areas, although the course credits are only counted once towards the 120 credits required for graduation.

Tier 1 - Quantitative Reasoning (select one):
- MAT 120 — College Algebra
- MAT 122 — PreCalculus
- MAT 150 — Calculus I

Tier 2 – Natural World I: Physical Realm:
- CHE 120 — General Chemistry I

Tier 2 – Natural World II: Life and Environment:
- ESC 201 — Historical Geology (‘C-’ or better)

Tier 2 – Time and Place:
- ESC 210 — Principles of Astronomy (‘C-’ or better)

Tier 3 – Capstone (select one):
- ANT 311 — Applied Anthropology
- ESC 332 — Invertebrate Paleontology (‘C-’ or better)
- IDS 320 — Human Flourishing in the 21st Century
- IDS 405 — In a World: Capstone Experience
- PCH 353 - Global Health
- MAT 342 - Statistical Decision Making

**Writing Requirements (“W-Courses”)**

Three W-courses are required. These may not be taken until after a student has passed ENG 112 — Writing Arguments. W-courses may count toward LEP, major, or cognate requirements, as well as free electives. Course sections that meet this requirement are designated by section numbers ending in “W”.

Transfer students who enter with 60 to 89 credits are required to pass two W-courses, while transfer students who enter with 90 credits or more must pass one W-course.
MAJOR REQUIREMENTS

44 Credits Required
‘C’ or better required

Requirements:
ESC 200 — Physical Geology
ESC 201 — Historical Geology
ESC 205 — Principles of Meteorology
ESC 210 — Principles of Astronomy
ESC 220 — Physical and Chemical Oceanography
ESC 311 — Mineralogy
ESC 312 — Petrology or ESC 325 — Stratigraphy and Sedimentation
ESC 350 — Structural Geology and Tectonics
ESC 430 — Field Methods
6 Credits of ESC at the 200 to 400-level

Select one option from the three listed below:
• ESC 492 — Undergraduate Thesis Proposal and ESC 493 — Undergraduate Thesis
• ESC 492 — Undergraduate Thesis Proposal and ESC 497 — Internship
• Two additional ESC courses above the 300-level

COGNATE REQUIREMENTS

34 Credits Required

Requirements:
BIO 102 - Biology I
BIO 120 or BIO 233 - Microbiology
CHE 120 - General Chemistry I
MAT 107 or MAT 221 - Mathematics Cognate
MAT 120, MAT 122, or MAT 150 - Mathematics Cognate
PHY 200 - General Physics I

Select 3 courses:
ANT 252 - Introduction to Forensic Science
ANT 322 - Forensic Anthropology
ANT 352 - Crime Scene Investigation
ANT 442 - Advanced Forensic Anthropology
PCH 202 - Introduction to Public Health
PCH 259 - Environmental Health
PCH 265 - Illness and Disease
PCH 342 - Introduction to Epidemiology
PCH 358 - Health Policy
PCH 362 - Public Health Management
PCH 370 - Emergency Medical Technician (EMT) Training
PCH 441 - Water Supply and Waste-Water Treatment
PCH 446 - Environmental Hazards
SOC 362 - Criminology
Select one course:
ANT 311 - Applied Anthropology
IDS 320 - Human Flourishing in the 21st Century
IDS 405 - In a World: Capstone Experience
PCH 353 - Global Health
MAT 342 - Statistical Decision Making

FREE ELECTIVES

Remaining credits to reach total Overall Credits Required (listed above).