EARTH SCIENCES B.S. with Planetary Sciences concentration

Name: ___________________________ Date: ___________________________

(Quarter offered: F=Fall, W=Winter, S=Spring, *=Not offered this year)

NOTE: Courses appearing in more than one category can fulfill only one requirement.

INTRODUCTORY REQUIREMENTS

Calculus: MATH 11A (FWS) ___ OR MATH 19A (FWS) ___
MATH 11B (FWS) ___ OR MATH 19B (FWS) ___

Advanced Mathematics: EART 111 (F) ___ (recommended) OR MATH 22 (W) ___ OR MATH 23A (FWS) ___

General Chemistry: CHEM 1A (FWS) ___ + CHEM 1B/M (FWS) ___ + CHEM 1C/N (FWS) ___

Geology: ONE from the following...
EART 5/L California Geology Laboratory (F) ___
EART 10/L Geological Principles Laboratory (W) ___ (preferred)
EART 20/L Environmental Geology Laboratory (S) ___

Physics: PHYS 6A/L (FWS) ___ + PHYS 6B/M (WS) ___
OR PHYS 5 A/L (F) ___ OR PHYS 5B/M (W) ___

ADVANCED REQUIREMENTS

EART 110A/L Evolution of the Earth (F) ___
EART 110B/M Earth as a Chemical System (W) ___
EART 110C/N The Dynamic Earth (S) ___
EART 119 Introduction to Scientific Computing (FS) ___
EART 160 Planetary Science (F) ___

Topical Electives: ONE from the following...
EART 162 Planetary Interiors(*) ___
EART 163 Planetary Surfaces (*) ___
EART 164 Planetary Atmospheres (W) ___
EART 165 History and Geochemistry of the Solar System (S) ___

Electives: Complete three elective courses (5+ credits each) from upper-division Earth Sciences or Ocean Sciences offerings or from the recommended list below.

Recommended Electives:
EART 107 Remote Sensing of the Environment (*) ___
EART 109/L Elements of Field Geology/ Lab (FS) ___
EART 116 Hydrology (F) ___
EART 121 The Atmosphere (F) ___
EART 125 Statistics and Data Analysis in the Geosciences (W) ___
EART 128 Isotopes (*) ___
EART 130/L Magmas and Volcanoes Laboratory (*) ___
EART 140/L Geomorphology (W) ___
EART 148 Glaciology (*) ___
EART 150/L Structural Geology (F) ___
EART 152 Tectonics (W) ___
EART 162 Planetary Interiors (*) ___
EART 163 Planetary Surfaces (*) ___
EART 164 Planetary Atmospheres (W) ___
EART 165 Planetary Atmospheres (W) ___
EART 172 Geophysical Fluid Dynamics (S) ___
EART 209 Solid Earth Geochemistry (*) ___
EART 210 Stellar & Planetary Formation & Evolution (*) ___
ASTR 112 Physics of Stars (S) ___
ASTR 118 Physics of Planetary Systems (*) ___
MATH 130 Celestial Mechanics (*) ___

DC Requirement:
Two of the three required courses must be completed from courses that are part of the Earth Sciences Disciplinary Communication Curriculum:
EART 100 Vertebrate Paleontology (W) ___
EART 101 Invertebrate Paleobiology (F) ___
EART 102 Marine Geology (W) ___
EART 104 Geologic Hazards (F) ___
EART 109 Elements of Field Geology (FS) ___
EART 120 Sedimentology and Stratigraphy (S) ___
EART 140 Geomorphology (W) ___
EART 146 Ground Water (S) ___
EART 148 Glaciology (*) ___
EART 150 Structural Geology (F) ___
EART 160 Planetary Sciences (F) ___
EART 189A Summer Field Internship (S) ___
EART 191A Climate Change Science and Policy (*) ___
EART 195 Senior Thesis (FWS) ___

NOTE: Courses may simultaneously satisfy both the upper-division elective and DC requirement.

COMPREHENSIVE REQUIREMENT OPTIONS

ONE from the following list of Senior Capstone options:
EART 189A (S) ___ AND EART 189B (Summer) ___ Summer Senior Field (EART 109/L, 110A/L and 110B/M are prerequisites)
EART 195 Senior Thesis (FWS) ___ enroll in 195 the quarter that the thesis will be completed (required)
EART 191A Climate Change Science & Policy (*) ___ (or other approved senior seminar course)
EART 191B Planetary Capstone (*) ___ (or other approved senior seminar course)
EART 191C Practical Geophysics (F) ___ (or other approved senior seminar course)
EART 198 Internship (FWS) ___ Must complete written report

NOTE: none of the above may count toward fulfilling an upper-division elective if used as a capstone.