EARTH SCIENCES B.S. with Planetary Sciences concentration

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

Name: ___________________________ Date: ___________________________

ID#: ___________________________

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 (S) ___ 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) ___

Astronomy: ASTR 12 (F) ___ OR ASTR 16 (S) ___ OR ASTR 18 (W) ___

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

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 (W) ___
EART 160 Planetary Science (F) ___
EART 190 Earth Science Mentorship (F) ___ (One Credit; Optional)

Topical Electives: ONE from the following...
- EART 162 Planetary Interiors (W) ___
- EART 163 Planetary Surfaces (*) ___
- EART 164 Planetary Atmospheres (*) ___

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 (W) ___
- EART 109/L Elements of Field Geology/ Lab (FS) ___
- EART 116 Hydrology (S) ___
- EART 121 The Atmosphere (W) ___
- EART 125 Statistics and Data Analysis in the Geosciences (W) ___
- EART 128 Isotopes (W) ___
- EART 130/L Magmas and Volcanoes Laboratory (S) ___
- EART 140/L Geomorphology (W) ___
- EART 148 Glaciology (S) ___
- EART 150/L Structural Geology (F) ___
- EART 152 Tectonics (S) ___
- EART 162 Planetary Interiors (W) ___
- EART 163 Planetary Surfaces (S) ___
- EART 164 Planetary Atmospheres (*) ___
- EART 172 Geophysical Fluid Dynamics (S) ___
- EART 209 Solid Earth Geochemistry (*) ___
- EART 210 Stellar & Planetary Formation & Evolution (*) ___
- ASTR 112 Physics of Stars (W) ___
- ASTR 118 Physics of Planetary Systems (W) ___
- 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 (*) ___
- 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 (W) ___
- EART 148 Glaciology (S) ___
- EART 150 Structural Geology (F) ___
- EART 152 Tectonics (S) ___
- EART 160 Planetary Sciences (F) ___
- EART 188A Summer Field Internship (S) ___
- EART 191 Climate Change Science and Policy (W) ___
- EART 195 Senior Thesis (FWS) ___
- ASTR 112 Physics of Stars (W) ___
- ASTR 118 Physics of Planetary Systems (W) ___
- MATH 130 Celestial Mechanics (*) ___

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:

Summer Senior Field: EART 188A (S) ___ + 188B (S) ___ (EART 109/L is a prerequisite)
Senior Thesis: enroll in EART 195 (FWS) ___ in the quarter that the thesis will be completed (required)
Graduate course or seminar: Must achieve grade of B or better; course must be 5-units and include written report ___
EART 191 Climate Change Science & Policy (S) ___
Internship: Must complete written report, may enroll in EART 198 (FWS) ___ (Required)

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