**EARTH SCIENCES, B.S.**

This major is not highly sequential or course intensive. Although it is advisable to begin taking courses toward the major in the first year, it is not required.

To qualify for any of the Earth sciences majors, students must complete one of the following courses, or their equivalents, with a grade of C or better:

- **EART 5:** *California Geology*
- **EART 10:** *Geologic Principles*
- **EART 20:** *Environmental Geology*

Determine your math placement by completing an assessment in ALEKS as soon as possible, and by July 23 at the very latest. See [https://mathcoach.sites.ucsc.edu](https://mathcoach.sites.ucsc.edu) for information about ALEKS. If you completed a college-level math course, or scored 3 or better on an AP calculus exam, or 5 or better on an IBH mathematics exam, you may be able to use that for placement instead of the ALEKS assessment. See [https://mathcoach.sites.ucsc.edu/courses/course-credit/](https://mathcoach.sites.ucsc.edu/courses/course-credit/) for information on placement based on college courses or AP/IBH.

Students can take the Chemistry Self Assessment ([http://undergrad.pbsci.ucsc.edu/enrollment/chem/chem-assessment.html](http://undergrad.pbsci.ucsc.edu/enrollment/chem/chem-assessment.html)) for assistance in determining when to begin in general chemistry.

Students who have taken college-level transferable classes that may apply to the requirements of this major should submit an unofficial transcript to the adviser prior to July 1, in addition to the official transcript that is required by the UCSC Admissions Office.

The appropriate mathematics course based on placement and EART 5/L. See sample academic plan at: [http://undergrad.pbsci.ucsc.edu/earth/earths-frosh-plans.html](http://undergrad.pbsci.ucsc.edu/earth/earths-frosh-plans.html)

Science majors require skills in critical and logical thought, complex problem solving using scientific rules and methods, and deductive and inductive reasoning.

Concentrations in the major include: Environmental Geology, Ocean, Planet, and Science Education.

### Sample first year plan:

**Fall:**
- MATH 11A: *Calculus with Applications*
- EART 5/L: *California Geology*

**Winter:**
- MATH 11B: *Calculus with Applications*
- CHEM 1A: *General Chemistry*

**Spring:**
- MATH 22: *Intro Calculus of Several Variables*
- CHEM 1B/M: *General Chemistry*