Courses in bold are strongly recommended during the year/semester listed. Courses surrounded by dashed lines may be easily substituted for one another across years/semesters. Courses surrounded by normal lines indicate ideal years/semesters, but some variations can be made.

**Earth Systems Science (BS) Course Timeline**

**YEAR 1**

**Fall** (14 hours)
- GEOL A101 or 103
- MATH A108 or A111
- CHEM A111
- ENGL A101

**Spring** (16-17 hours)
- GEOL A101 or 103
- BIOL A122
- MATH A122 or A141
- ENGL A102

**YEAR 2**

**Fall** (14 hours)
- 300-level GEOL COURSE*
- Social Science
- FOREIGN LANGUAGE I
- HIST A101/102

**Spring** (15 hours)
- 300/400-level GEOL COURSE*
- BIOL A122
- FOREIGN LANGUAGE II
- COMM A201/241

**YEAR 3**

**Fall** (14-15 hours)
- 300-level GEOL COURSE
- 300-level GEOL COURSE
- COGNATE COURSE
- HUMANITIES

**Spring** (14-18 hours)
- 300-level GEOL COURSE
- 400-level GEOL COURSE
- COGNATE COURSE
- HUMANITIES

**YEAR 4**

**Fall** (16-17 hours)
- 400-level GEOL COURSE
- COGNATE COURSE
- SOCIAL SCIENCE
- POLI A201

**Spring** (14-15 hours)
- GEOL A499
- BIOL/GEOL A490
- 300/400-level GEOL COURSE
- COGNATE COURSE (if needed)

*Fall of Odd Years: Geol 325, Geol 326
Fall Even Years: Geol 303, Geol 405
Spring Odd Years: Geol 331, Geol 401
Spring Even Years: Geol 301, Geol 431
GEOLOGY RESEARCH TIMELINE

YEAR 1
Get acquainted with the geology faculty. Learn about their research programs, read our student’s research posters in the Science Building hallways, and get a feel for what type of research you find most interesting.

YEAR 2
Join a research lab (pending availability), and get to know the detailed processes involved in conducting geological research. This typically entails attending lab meetings, gaining experience with field and lab techniques, literature review and introduction to data reduction, and narrowing your research focus for a specific project.

YEAR 3
Enroll in GEOL A399: Get a deeper, richer experience with the research process. This will entail identifying and taking ownership of a specific project and becoming familiar with more advanced data analysis, proposal preparation, and practice communicating your science. This is also a good time to consider planning an independent project for your senior year. Qualifying students should speak with your research advisor about applying for a Magellan Award or other research funding opportunities. Students interested in summer internship opportunities in their research field should discuss deadlines (typically early Spring semester) and eligibility with their mentor. Students considering applying for graduate programs should begin the process of investigating programs consistent with your career goals, speaking with faculty for advice, and preparing for the GRE.

YEAR 4
Enroll in GEOL A499/490: Dive into the deep end of geologic research! This is your opportunity to conduct an independent research project based on your accumulated knowledge and skills. Formulate your own hypothesis, and design a study to test it scientifically. This will entail training younger students in the lab, supervising data collection, and collaborating with your mentor to create a product suitable for presentation at a professional conference. This is an excellent "warm-up" for students hoping to further their education in graduate school or for any student who wants to pursue a career in research or science communication.