EARTH AND PLANETARY SCIENCES LIBERAL PROGRAM - CORE SCIENCE COMPONENT (B.SC.) (45 CREDITS)

Offered by: Earth & Planetary Sciences (Faculty of Science)
Degree: Bachelor of Science
Program credit weight: 45

Program Description

The B.Sc. (Liberal) program in Earth and Planetary Sciences provides the graduate with a solid core of knowledge of Geology, Geophysics, Earth Systems Science, and Planetary Science while allowing for a broadening of the student's educational experience with courses from the other sciences or the arts. The program is flexible, allowing students to assemble a truly interdisciplinary degree.

Degree Requirements — B.Sc.

This program is offered as part of a Bachelor of Science (B.Sc.) degree.

To graduate, students must satisfy both their program requirements and their degree requirements.

- The program requirements (i.e., the specific courses that make up this program) are listed under the Course Tab (above).
- The degree requirements—including the mandatory Foundation program, appropriate degree structure, and any additional components—are outlined on the Degree Requirements page.

Students are responsible for ensuring that this program fits within the overall structure of their degree and that all degree requirements are met. Consult the Degree Planning Guide on the SOUSA website for additional guidance.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Required Courses (21 credits)

Expand allContract all

Course	Title	Credits
EPSC 210	Introductory Mineralogy.	3
EPSC 212	Introductory Petrology.	3
EPSC 220	Principles of Geochemistry.	3
EPSC 231	Field School 1.	3
EPSC 233	Earth and Life Through Time	3
EPSC 303	Structural Geology.	3
EPSC 320	Elementary Earth Physics.	3

Complementary Courses (24 credits)

3 credits, one of:

Expand allContract all

Course	Title	Credits
EPSC 331	Field School 2.	3
EPSC 341	Field School 3.	3

plus 21 credits chosen from the following:

Note: Courses at the 300 or higher level in other departments in the Faculties of Science and Engineering may also be used as complementary credits, with the permission of the Director of undergraduate studies.

Expand allContract all

Course	Title	Credits
EPSC 334	Invertebrate Paleontology.	3
EPSC 340	Earth and Planetary Inference.	3
EPSC 350	Tectonics.	3
EPSC 355	Sedimentary Geology.	3
EPSC 423	Igneous Petrology.	3
EPSC 425	Sediments to Sequences.	3
EPSC 435	Applied Geophysics.	3
EPSC 445	Metamorphic Petrology.	3
EPSC 452	Mineral Deposits.	3
EPSC 501	Crystal Chemistry.	3
EPSC 519	Isotopes in Earth and Environmental Science.	3
EPSC 530	Volcanology.	3
EPSC 547	Modelling Geochemical Processes.	3
EPSC 548	Igneous Petrogenetic Mechanisms.	3
EPSC 549	Hydrogeology.	3
EPSC 550	Selected Topics 1.	3
EPSC 551	Selected Topics 2.	3
EPSC 552	Selected Topics 3.	3
EPSC 561	Ore-forming Processes.	3
EPSC 567	Advanced Volcanology.	3
EPSC 570	Cosmochemistry.	3
EPSC 590	Applied Geochemistry Seminar.	3
ESYS 300	Earth Data Analysis.	3
ESYS 301	Earth System Modelling.	3
ESYS 500	Collaborative Research Project.	3