

EPSC 520. EARTHQUAKE PHYSICS AND GEOLOGY.

Credits: 3

Offered by: Earth & Planetary Sciences (Faculty of Science)

Terms offered: Winter 2026

[View offerings for Winter 2026 in Visual Schedule Builder.](#)

Description

What are earthquakes and how do we study them? Fundamental mechanics of faulting and earthquake source processes are explored from theoretical and observational perspectives. The lectures cover concepts of earthquake source mechanism, including seismic waves, earthquake energy budget, fracture and friction mechanics, earthquake cycle deformation, earthquake triggering and prediction, and seismic hazards. This is complemented by in-class discussion on recent major discoveries and challenges in the field. Students learn to investigate earthquake source process by using seismic, geodetic and geological data in computer labs and course projects supervised by the instructor(s).

- Prerequisite(s): EPSC 320 and MATH 222

Most students use Visual Schedule Builder (VSB) to organize their schedules. VSB helps you plan class schedules, travel time, and more.

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