

EESC26 Seismology and Seismic Methods

Professor Phil Heron

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Office: EV344 (UTSC)

Lecture 1: Tuesday (1-2pm) EV140

Lecture 2: Thursday (1-3pm) EV502

Course description: A course describing how seismology is used to probe both shallow layers near the surface as well as Earth's deep interior. Topics covered will include refraction and reflection methods, surface waves, tomography, magnitude and the Richter scale. Concepts including travel times and anisotropy will be discussed.

Learning outcomes:

Students should leave this course with:

1. an understanding of different seismic topics covered (see below);
2. experience in using computational software related to seismology;
3. analyze and interpret different forms of seismic data, focussing on reflection and tomography data;
4. communicate seismic

Lectures:

Lectures will be in person throughout the term, split into one hour on a Tuesday and 2 hours on a Thursday. From week 11 onwards classes will take the form of tutorials/office hours for students to work on their final projects. Lecture slides will be available online before the class starts and for the exclusive use of enrolled students. Public sharing of the material is not permitted.

Office hours:

Office hours will be available by appointment.

Grading, purpose, timing, and submission guidelines for assignments:

Assignment	Purpose	Assessment	Where	%	Date given	Due date	Time
BR: Background reading	Clear on course objectives	Multiple-choice questions	Online, quercus	5%	12/1	19/1	7 days
A1: Stress and strain problem set	Understanding						

Mini: Participation in mini conference A5: Oral presentation on chosen t/.025 44.(Science communication training	In class	In class	5%	23/3	23/3	In class
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Participation and engagement

Please stay on task if you choose to use laptops or other mobile devices during class. These tools can be useful to take notes, refer to class readings, or look up important course concepts. However, checking social media, texting or other non-course specific activity distracts from your learning and can ultimately result in receiving a lower grade in this course.

Recording or photographing any aspect of a university course - lecture, tutorial, seminar, lab, studio, practice session, field trip etc. – without prior approval of all involved and with written approval from the instructor is not permitted. For further information on University policies, please refer to the following links for details.

The university has a responsibility to provide academic accommodations, including the use of technology to access the lecture in a way that will be accessible to them (e.g. recording lectures, using laptops, etc).

Equity, Diversity and Inclusion

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

Contact

For any questions, large or small, please do not hesitate to email me: Philip.heron@utoronto.ca