

GEOV355 - Applied Earthquake Seismology

Department of Earth Science
University of Bergen, Norway

2018

Course given by: Lars Ottemöller, email lars.ottemoller@uib.no

Introduction

The course gives an introduction to practical methods in earthquake seismology: seismic instruments, seismic source parameters and their determination, fault plane solutions, seismic waves and the Earth's interior.

The time of teaching is set up in agreement with the students. The students may be asked to prepare parts of the material in advance and give short presentations during the lectures.

A term paper is written during the semester. The topics will be given before mid September. Then the students can choose a topic and prepare a plan by the beginning of October. The final version is to be handed in by the end of October.

There will be a 4 hour exam at the end counting for 100%.

Teaching material

Stein S. and M. Wysession, 2003. An introduction to seismology, earthquakes, and earth structure, Blackwell Publishing.

The figures of this book and presentation files can be found on
<http://epscx.wustl.edu/seismology/book/>

The pensum and order of teaching

Introduction

p 1-28

Instruments

p 398-412

Phases and rays

p 162-176

The earthquake source

p 215-251

Source parameters

p 263-282

Inverse problems, location and moment tensor

p 415-434

Attenuation

p 185-198