

Earth and planetary materials and dynamics



Instruction period in Oslo: **June 2-7, 2013**

Further information: r.g.tronnes@nhm.uio.no

R.G. Trønnes,
Centre for Earth Evolution and Dynamics (CEED)
and Natural History Museum, Univ. of Oslo
www.mn.uio.no/ceed/english/
www.earthdynamics.org/
[www.nhm.uio.no/english/about/organization/
research-collections/people/rtronnes](http://www.nhm.uio.no/english/about/organization/research-collections/people/rtronnes)

Application deadline: Tuesday, **April 30**
Apply to: r.g.tronnes@nhm.uio.no

5 ECTS, based on attendance, oral presentation and home exam.

Content

Composition and structure of the solar system
Accretion, core segregation and dynamic evolution of the terrestrial planets and asteroids
Seismological constraints on Earth's structure
Geochemical models of planetary formation and evolution
Pressure-induced modification of mineral structures
High-pressure experimental methods
Phase relations of silicates, oxides, peridotite and basalt under mantle conditions
Phase relations of Fe-Ni-dominated alloys under core conditions
Mineral physics and seismic velocity models
Seismic tomography of the Earth's mantle
The geodynamo and core-mantle interaction
Comparative planetology - the roles of plume and plate tectonics

Instructors

Reidar G. Trønnes, Stephanie C. Werner, Bernhard Steinberger

