

- Faculté des sciences
- [www.unine.ch/sciences](http://www.unine.ch/sciences)

**Geodynamics, earthquake physics and geothermics (3GH2203)**

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
<b>Master en hydrogéologie et géothermie</b>	<b>Cours: 56 pg</b>	Voir ci-dessous	6

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

**Période d'enseignement:**

- Semestre Automne

**Equipe enseignante**

Prof. S. Miller

**Contenu**

Topics that will be covered in detail are:

- The dynamics of the solid earth
- The physics of flow
- Global heat flow
- The processes controlling volcanism and heat transport towards the surface
- Tectonophysics
- Geothermal energy exploitation in deep, shallow, and mid-range reservoirs
- The hydrologic cycle of the solid earth
- The physics of earthquakes
- Brittle and ductile rock mechanics

**Forme de l'évaluation**

Class participation.  
Two hour, closed book final exam.

**Documentation**

Powerpoint presentations,  
Published literature.

**Pré-requis**

None

**Forme de l'enseignement**

Lectures  
In-class exercises  
Evaluating/discussing publications