

Advanced petrology



Niveau d'étude
Master 2



ECTS
3 crédits



Volume horaire
26h

Présentation

DESCRIPTION

The aim is to learn how to decipher the dynamics of the Earth by studying rocks.

A quantitative approach to rocks and minerals (15 hours of lectures and tutorials)

- Observation and analysis techniques: Instruments (Microprobe, SEM, Raman)

- Stoichiometry, chemography: application of linear algebra

- P-T evolution of rocks, role of fluids: application of thermodynamics

Reconstruction of pressure-temperature paths of rocks (15 hours of lab practical)

- Individual research mini-projects on natural samples (thin sections)

- Characterization of mineralogy and mineral chemistry (Probe, SEM)

- Calculation of structural formulas

- Introduction to pseudosection modeling and construction of a P-T path

OBJECTIFS

This formation aims at training future PhD students in hard-rock geology and petrology: it provides all the tools and the analytical procedure to reconstruct the history of a rock sample. It also provides the opportunity to all the participants to become familiar with standard analytical techniques such as electron probe and scanning electron microscopy.

HEURES D'ENSEIGNEMENT

Advanced petrology	Cours Magistral	12h
Advanced petrology	Travaux Dirigés	8h
Advanced petrology	Travaux Pratiques	6h

PRÉ-REQUIS NÉCESSAIRES

Knowledge in optical microscopy (mandatory), mineral chemistry, metamorphic petrology

Pour en savoir plus, rendez-vous sur > u-paris.fr/choisir-sa-formation