



DEPARTMENT OF EARTH SCIENCES

GVG270 Petrology, 7.5 credits

Petrologi, 7,5 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Earth Sciences on 2011-10-06 and was last revised on 2022-08-18 to be valid from 2023-04-28, spring semester of 2023.

Field of education: Science 100%

Department: Department of Earth Sciences

Position in the educational system

The course includes 7.5 credits at undergraduate level and is part of a Bachelor's degree in Earth Sciences. The course is offered as an elective course subject to availability.

The course can be part of the following programme: 1) Bachelor's Programme in Earth Sciences (N1GVS)

Main field of studies

Earth Sciences

Specialization

G2F, First cycle, has at least 60 credits in first-cycle course/s as entry requirements

Entry requirements

Admission to the course requires completion of the course GVG210 Mineralogy or equivalent and at least 60 credits in the main field of Earth Sciences. Students with equivalent qualifications can, after review and approval, be admitted to the course.

Learning outcomes

On successful completion of the course the student will be able to:

Knowledge and understanding

- define petrological concepts.

- describe the classification, origin and development of crystalline rocks.

Competence and skills

- classify and name igneous and metamorphic rocks.
- identify crystalline rocks and their field relations in field, in hand sample and in thin section.

Judgement and approach

- interpret the igneous or metamorphic origin, classification and possible protolith of crystalline rocks based on its mineralogical characteristics and its field characteristics.

The course is sustainability-related, which means that at least one of the learning outcomes clearly shows that the course content meets at least one of the University of Gothenburg's confirmed sustainability criteria.

Course content

The course provides basic knowledge of igneous and metamorphic petrology, i.e. the origin of rocks.

Nomenclature, interpretation of rock texture, field properties, phase diagrams for main rock types, chemographic diagrams, origin and fractionation of basaltic rocks, metamorphic protoliths, metamorphic facies concepts, metabasites in various facies as well as petrography.

Form of teaching

The teaching consists of lectures, exercises and field work.

Language of instruction: English

Assessment

The course is divided into three modules:

Module 1: Exam (Theory), 4.5 credits: U/G/VG

Module 2: Microscopy, 1.5 credits: U/G

Module 3: Field exercises, 1.5 credits: U/G

A student who has taken two exams in a course or part of a course without obtaining a pass grade is entitled to the nomination of another examiner. The student needs to contact the department for a new examiner, preferably in writing, and this should be

approved by the department unless there are special reasons to the contrary (Chapter 6 Section 22 of the Higher Education Ordinance).

If a student has received a recommendation from the University of Gothenburg for special educational support, where it is compatible with the learning outcomes of the course and provided that no unreasonable resources are required, the examiner may decide to allow the student to sit an adjusted exam or alternative form of assessment.

In the event that a course has ceased or undergone major changes, students are to be guaranteed at least three examination sessions (including the ordinary examination session) over a period of at least one year, but no more than two years, after the course has ceased/been changed. The same applies to placements and professional placements (VFU), although this is restricted to just one additional examination session.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).

For the grade Pass (G) in the course the grade Pass (G) is required for all modules. The exam and the assignments are equally important for the final grade on the course.

Course evaluation

The students are given the opportunity to make an anonymous written evaluation of the course.

The result of and possible changes to the course will be shared with students who participated in the evaluation and students who are starting the course.

Additional information

Students admitted to the NIGVS Bachelor's Programme in Earth Sciences have priority for admission to the course.