



DEPARTMENT OF EARTH SCIENCES

GVG210 Mineralogy, 7.5 credits

Mineralogi, 7,5 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Earth Sciences on 2012-09-27 and was last revised on 2018-07-26 to be valid from 2018-07-26, autumn semester of 2018.

Field of education: Science 100%

Department: Department of Earth Sciences

Position in the educational system

The course is included in the Bachelor's programme in Earth sciences. The Course can also be read as a single subject course.

The course can be part of the following programmes: 1) Bachelor's Programme in Earth Sciences (N1GVS) and 2) Master's Programme in Earth Sciences (N2GVS)

Main field of studies

Earth Sciences

Specialization

G1F, First Cycle, has less than 60 credits in first-cycle course/s as entry requirements

Entry requirements

For admission to the course, 60 credits are required completed courses in the main field of study earth sciences of which 75 % with the grade lowest Approved or the equivalent knowledge.

Learning outcomes

Upon successful completion of the course, the student will be able to:

Knowledge and understanding

- describe and explain crystallographic concepts as symmetric elements, Miller index and shapes
- describe and distinguish the most common groups of minerals that form rocks and soil and explain the concept of endmembers from a crystal-chemical perspective

Competence and skills

- identify minerals in handpieces
- identify minerals in thinsections on the basis of their optical criteria
- use scanning electron microscopes and x-ray diffractometer to identify minerals
- calculate endmembers from microanalyses of the most common groups of minerals
- use scanning electron microscopes to characterise microstructures in specific minerals
- separate minerals
- read a scientific article in the subject summarise this and be linked to acquired knowledge

Judgement and approach

- solve mineralogic problems by searching and use relevant scientific literature
- distinguish fields of use for specific minerals

Course content

The course goes full-time and consists of lectures compulsory exercises in identification of mineral by means of different instruments and microscopes. Independent written assignments can occur.

Form of teaching

Theory 4.5 credits Written examination Fail/Pass/Pass with distinction (Decide the final grade of the course)

handpieces 1.5 credits Test Fail/Pass

Microscopy 1.5 credits Test Fail/Pass

Language of instruction: Swedish

Assessment

A student has the right to request a change of examiner if failed twice on the same exam, if this is practically possible. The application shall be sent to the board of the department and has to be in writing.

Grades

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

To obtain a final course grade all parts must have the grade at least Pass

To obtain a final course grade Pass with Distinction The Theory part must have the grade Pass with Distinction and the other parts must have the grade Pass.

Course evaluation

Course evaluation is carried out partly in connection with examination seminar and partly via GUL where the student can participate anonymously. A compilation of the result of the course evaluation is available via the study administration at the department.

Additional information

Students at N1GVS have precedence to the course.