



## FACULTY OF SCIENCE

### **Master's Programme in Earth Sciences, 120 credits**

Geovetenskap, Masterprogram, 120 högskolepoäng

Programme code: N2GVS

*Second cycle / Avancerad nivå*

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#### **1. Confirmation**

This programme syllabus was confirmed by the Faculty of Science on 17-10-2006 (Dnr G 217 4313/06) and was last revised on 14-02-2023 (GU 2023/316) by the Dean of the Faculty to be valid from 14-02-2023, Autumn semester 2023.

*Responsible Department/equivalent:* Department of Earth Sciences

#### **2. Purpose**

The program aims to provide in-depth geoscientific knowledge for a successful career in industry, the public sector or academia.

The programme offers courses in fundamental Earth Sciences as well as applied courses focusing on the environment, climate change, natural resources, and geology. Depending on the student's focus, this program can be tailored to meet the student's specific interests in one or more of the study fields.

A Degree of Master of Science with a major in Earth Sciences prepares students for further postgraduate studies in Earth Sciences.

#### **3. Entry requirements**

Admission to the N2GVS Master's Programme in Earth Sciences, requires a university or college degree consisting of at least 180 credits, with at least 120 credits within Earth Sciences. Applicants with equivalent education may be admitted to the programme after review and approval.

International applicants must prove their knowledge of English corresponding to English 6/English B from Swedish Upper Secondary School. For more information, see English language requirements on [Universityadmissions.se](http://Universityadmissions.se)

Other entry requirements are documented in the respective syllabus

#### **4. Higher education qualification and main field of study**

This programme leads to a Degree of Master of Science (120 credits) with a major in Earth Sciences (Naturvetenskaplig masterexamen med huvudområdet Geovetenskap).

Master's degree in the Earth Sciences is obtained after the student has completed course requirements of 120 credits, of which at least 90 credits must be with the N2GVS Master's Programme in Earth Sciences.

For a Master's degree, the student must have completed an independent project (thesis) of at least 30 credits within the main study field of the programme.

A Master's degree may contain a maximum of 30 credits from the undergraduate level. However, the same credits that are included in a Bachelor's degree or an equivalent may not be included in a Master's degree.

The courses included in the Master's degree must be completed courses. The requirements also include a Bachelor's degree of at least 180 credits or an equivalent foreign degree.

#### **5. Outcomes**

##### **General outcomes for Degree of Master (120 credits)**

###### *Knowledge and understanding*

For a Degree of Master (120 credits) the student shall

- demonstrate knowledge and understanding in the main field of study, including both broad knowledge of the field and a considerable degree of specialised knowledge in certain areas of the field as well as insight into current research and development work, and
- demonstrate specialised methodological knowledge in the main field of study.

###### *Competence and skills*

For a Degree of Master (120 credits) the student shall

- demonstrate the ability to critically and systematically integrate knowledge and analyse, assess and deal with complex phenomena, issues and situations even with limited information
- demonstrate the ability to identify and formulate issues critically, autonomously and creatively as well as to plan and, using appropriate methods, undertake advanced tasks within predetermined time frames and so contribute to the formation of knowledge as well as the ability to evaluate this work
- demonstrate the ability in speech and writing both nationally and internationally to clearly report and discuss his or her conclusions and the knowledge and arguments on which they are based in dialogue with different audiences, and
- demonstrate the skills required for participation in research and development work or autonomous employment in some other qualified capacity.

### ***Judgement and approach***

For a Degree of Master (120 credits) the student shall

- demonstrate the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues and also to demonstrate awareness of ethical aspects of research and development work
- demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.

### **Local outcomes**

Upon completion of the programme, in addition to theoretical in-depth studies in Earth Sciences, the student will have acquired sufficient knowledge and skills in an area of the Earth Science field to critically evaluate and contribute to research within Earth Science.

In addition, the student should have acquired sufficient skills to be able to:

- analyse complex earth scientific problems and plan and carry out projects using suitable experimental and/or e.g. computer-based methods.
- carry out analysis of independently collected or other data using relevant analysis tools.
- synthesise results and conclusions in the form of written reports and oral presentations and decide on appropriate measures.

### **Sustainability labelling**

The programme is sustainability-focused, which means that at least one of the outcomes clearly shows that the programme content meets at least one of the University of Gothenburg's confirmed sustainability criteria. The content also constitutes the programme's main focus.

## **6. Content and structure**

The program comprises two years of study (120 credits), of which at least 90 credits must be courses at advanced level in Earth Sciences including the degree project.

The teaching consists of lectures, exercises, laboratory sessions, excursions, project work and training in presentation techniques.

The programme includes a compulsory independent degree project of 30, 45 or 60 credits and should preferably be carried out in close cooperation with current research projects, but can also be carried out in cooperation with industry and public authorities.

The degree project can be started in the second semester of the programme and may be divided over several semesters.

## **7. Guaranteed admission**

Students admitted to the N2GVS Master's Programme in Earth Sciences are guaranteed a place in all program courses in Earth Sciences, provided that the student is eligible and has applied by

the official application.

## 8. Transitional regulations

Students who began their studies on or before the fall 2022 are permitted to follow the programme syllabus from 2012-05-28. Ref: G 2012/275

## 9. Other information

All master's students participate in the Master's Seminar's course that is given during year 1 and year 2 as a common course with guest lectures, presentations of student projects and Master's theses.

The programme is open to international applicants.

The language of instruction is English.

Excursions may incur additional costs for the student. Students in the programme have the opportunity to apply for stipend for travel expenses.

The study programme will be followed up and evaluated in accordance with the applicable Policy for the Quality Assurance and Continuous Quality Improvement of Education at the University of Gothenburg (*Policy för kvalitetssäkring och kvalitetsutveckling av utbildning vid Göteborgs universitet*).