UNIVERSITY OF GOTHENBURG

DEPARTMENT OF EARTH SCIENCES

GV0340 Earth System Sciences, 7.5 credits

Geosystemvetenskap, 7,5 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Earth Sciences on 2015-09-24 and was last revised on 2019-06-10 to be valid from 2019-09-01, autumn semester of 2019.

Field of education: Science 90% and Social Sciences 10%
Department: Department of Earth Sciences

Position in the educational system

The course can be part of the following programmes: 1) Master's Programme in Geography (N2GEO) and 2) Bachelor's Programme in Earth Sciences (N1GVS)

Main field of studies	*Specialization*
Environmental Science	G2F, First cycle, has at least 60 credits in first-cycle course/s as entry requirements
Earth Sciences	G2F, First cycle, has at least 60 credits in first-cycle course/s as entry requirements

Entry requirements

For admission to the course, at least 90 credits are required in the main field of Earth Sciences, Environmental Sciences
or Geography. Applicants with equivalent education can, after examination, be given access to course.

Learning outcomes

On successful completion of the course the student will be able to holistic understand the interaction between the Earth's spheres, relevant processes and environmental changes. The student is expected to:

Knowledge and understanding

- Recapitulate processes in the different spheres
- Define basic concepts and theories in Earth System Science
- Describe the connections and feedback between the Earth's spheres
- Explain the connection between Earth System processes and global environmental changes

Competence and skills

- critically evaluate the scientific literature in the field of Earth System Science

Judgement and approach

- Critically analyze and evaluate society's measures to solve global environmental problems

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 knowledge of Earth System in its entirety, including the atmosphere, biosphere, and hydrosphere lithosphere. Special focus will be placed on how the different spheres influence each other and interact to create the Earth System. The course also addresses current and anticipated changes in Earth System. The course combines lectures and seminars.

Form of teaching

Written examination on several occasions, lectures, Flipped Classrooms and seminars with presentation.
For Flipped Classrooms, the students should have read and prepared the relevant chapter in the course book.
For literature seminars, students will, after reconciliation with one of the teachers, choose a scientific article for presentation at a seminar.

Language of instruction: English

Assessment

Section 1. Theory (5 hec): Written exam U/G/VG
Section 2. Seminar (2.5 hec): Oral presentation U/G

If a student, who has failed the same examined component twice, wishes to change examiner before the next examination, a written application shall be sent to the department responsible for the course and shall be granted unless there are special reasons to the contrary (Chapter 6, Section 22 of Higher Education Ordinance).

In cases where a course has been discontinued or has undergone major changes, the student shall normally be guaranteed at least three examination occasions (including the ordinary examination) during a period of at least one year from the last time the course was given.

Under outstanding circumstances, the examiner may authorize a different form of examination than is listed in the course plan for a specific section of the course.

In order to pass the course or an individual course section a complementary assignment can be offered after an assessment and decision by the examiner.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).
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To pass the course all obligatory components must be completed. Seminars and Flipped Classrooms are mandatory.
To achieve the grade Pass (G) for the entire course requires grade G for all sections.. and for the grade Pass with Distinction (VG) for the entire course requires VG for section Theory and G for all other sections..

Course evaluation

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