



Faculty of Health, Science and Technology
Environmental Science

Syllabus

Local and regional adaptation to climate change

Course Code:	RHG300
Course Title:	Local and regional adaptation to climate change <i>Lokal och regional klimatanpassning</i>
Credits:	15
Degree Level:	Undergraduate level
Progressive Specialisation:	First cycle, has at least 60 credits in first-cycle course/s as entry requirements (G2F)

Major Field of Study:

RHA (Risk Management)

RIM (Risk and Environmental Studies)

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2019-02-13, and is valid from the Autumn semester 2019 at Karlstad University.

Prerequisites

45 ECTS credits in one of the main areas Risk and environmental studies, Environmental science, Risk management, Biology, Spatial and social planning, Energy and environmental systems, Physical geography, Human geography, or Political science, or 30 ECTS credits each in two of these main areas, or equivalent

Learning Outcomes

The aim of the course is that students acquire broad knowledge of climate adaptation and in-depth knowledge of climate-related risks and local and regional prevention, as well as theories in risk and climate studies.

Upon completion of the course, students should be able to

- describe and explain the causes and effects of climate change regionally, nationally, and globally,
- describe the effects of climate change on societal functions and on nature,
- give an account of and discuss measures and strategies for climate adaptation implemented at international, national, regional, and local levels,
- give an account of risk and vulnerability analyses at the municipal level and reflect on how climate risks are addressed in the analyses,
- discuss the challenges of climate adaptation at the local, regional, and national levels,
- give an account of the actors, policies, and strategies in the areas of Disaster Risk Reduction and Climate Change Adaptation at the global and national levels and their impact on efforts at the local level,
- discuss theories on decision-making and the basis for decisions in risk management,
- relate policy efforts and concrete measures in the climate adaptation area to theories in risk and environment studies,
- compile a research survey in a topical area of risk and environment studies,
- make an analysis or assessment using an analytical framework, and
- lead a seminar discussion on these issues.

Content

The course covers two themes:

The climate challenge in Sweden and the world

- Current research on climate change effects globally, regionally, and locally, for instance from the UN climate panel (IPCC)
- Effects of climate change on the natural environment and societal functions in Sweden, Europe, and globally
- Critical infrastructure vulnerability to climate change
- Comparative analyses of local climate adaptation challenges and global strategies
- Actors, policies, and strategies in Disaster Risk Reduction and Climate Change Adaptation at the global level.

Strategies, measures, and actors

- Societal strategies and actors in climate adaptation efforts at the national, regional, and local levels
- Current and comparative examples of societal climate adjustment
- Specialised study of adjustment strategies in a sector of society
- Discussion of strategies for climate adaptation in different places and by different actors
- Municipal risk and vulnerability analysis and planning
- Decision-making, decision processes, and grounds for decisions in risk management
- Resilience and vulnerability as research concepts.

Students develop skills in leading a seminar, compiling information from a large area of expertise, and analysing/assessing on the basis of an analytical framework.

Instruction is in the form of lectures, exercises, study visits, and seminars.

Reading List

See separate document.

Examination

Assessment is based on individual and group hand-in assignments, seminar participation, active participation in study visits and exercises, and a take-home exam.

If students have a decision from Karlstad University entitling them to special pedagogical support due to

a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

Grades

One of the grades Fail (U), Pass (G), or Distinction (VG) is awarded in the examination of the course.

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional information

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.