



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 2018-09-13, and is valid from the Spring semester 2019 at Karlstad University.

Prerequisites

Attended courses: Introduction to Environment and Safety 15 ECTS credits, Natural Science Basis of Risk and Environmental Issues, 15 ECTS credits, Social Strategies for Environment and Safety 15 ECTS credits, and Environmental risk management 15 ECTS credits, with 50 ECTS credits completed, 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 the basic effects of climate change on the global, regional and local levels,
- give an account of and discuss measures and strategies for climate adaptation implemented at international, national 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 Adaptation at the global and national level and how these 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 adaption 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 in the area.

Content

The course covers three themes:

The climate challenge

- Current research on climate change effects globally, regionally and locally 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

Strategies, measures, and actors

- Societal strategies and actors in climate adaptation efforts at international, national and local levels
- Current and comparative examples of societal climate adjustment
- Specialised study of adjustment strategies in a societal area, or of an actor
- Discussion of strategies for climate adaptation in different places and by different actors
- Municipal risk and vulnerability analysis
- Decision-making, processes and basis for decisions in risk management
- Resilience and vulnerability as research concepts.

Global outlook

- Comparative analyses of local climate adaptation challenges and global strategies
- Actors, policies and strategies in areas of Disaster Risk Reduction and Climate Adaptation at the global and national level.

Students develop skills in leading a seminar, and compiling information from a large knowledge domain and analysing/assessing, using 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 a take-home exam, followed by a seminar.

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.