



Faculty of Arts and Social Sciences
Economics

Syllabus

Environmental and Natural Resource Economics

Course Code: NEGC32

Course Title: Environmental and Natural Resource Economics
Miljö- och naturresursekonomi

Credits: 7.5

Degree Level: Undergraduate level

Progressive Specialisation: First cycle, has less than 60 credits in first-cycle course/s as entry requirements (G1F)

Major Field of Study:

NAA (Economics)

Course Approval

The syllabus was approved by the Faculty of Arts and Social Sciences 2025-09-04, and is valid from the Spring semester 2026 at Karlstad University.

Prerequisites

Economics 52.5 ECTS credits, or equivalent

Learning Outcomes

Upon completion of the course, students should be able to

1. give an account of when market price formation leads to an efficient allocation of resources and when markets fail in this regard, particularly due to environmental problems causing negative externalities,
2. give an account of the role of the public sector in correcting environmental economic problems through quantitative regulations or economic instruments such as taxes and subsidies, and be able to calculate optimal environmental taxes,
3. give an account of and reflect upon different methods for valuing the environment, life, and health in monetary terms,
4. give an account of how benefits and costs, as well as social economic profitability, are

calculated to reduce environmental problems,

5. calculate the value of renewable and non-renewable natural resources,
6. reflect upon sustainable development, and
7. reflect upon and give an account of how economists analyse climate change.

Content

The course covers the following:

Market failures and various economic concepts of efficiency

Public sector tools for addressing market failures such as negative externalities in the form of environmental problems

Cost-benefit analysis and the significance of the discount rate for monetary valuation

The energy sector

Global issues such as sustainable development, climate change, energy, demography, poverty, and economic growth

Biodiversity and monetary valuation of life, health, environment, and natural resources

Valuation of renewable and non-renewable resources

Moral philosophy and ethics applied to environmental issues and sustainable development

The course concludes with students presenting, in writing and in seminar form as a group, an economic analysis of an environmental and/or sustainability-related development problem.

Reading List

See separate document.

Examination

Assessment is based on a written exam and a written hand-in assignment completed in groups and presented in a seminar.

Submissions for assessment must clearly indicate individual contributions.

If students have a decision from Karlstad University entitling them to Targeted Study 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 Distinction (VG), Pass (G), or Fail (U) 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.