

Syllabus for the course Interdisciplinarity in environmental research NMV001F

Swedish title: Kurs i tvärvetenskaplig miljöforskning

The course syllabus was confirmed by the Faculty board for graduate studies 14 June 2018. The course is in the third cycle and amounts to 3 credits.

The course syllabus is formally approved in Swedish. This is a translation.

Learning outcomes

On completion of the course, participants shall be able to:

Knowledge and understanding

- Superficially describe a framework for interdisciplinary research, and to apply the framework in interdisciplinary research projects. The framework is based on three parts: i) an integration of research questions from different disciplines, ii) an integration of non-academic parties in interdisciplinary research projects, and iii) assessing criteria for credible research in interdisciplinary settings
- Identify challenges and opportunities to combine different disciplines into interdisciplinary research by understanding fundamentals in different research methods and reflecting on normative differences between disciplines

Skills and abilities

- Identify how the definition of a research question can generate partially overlapping research questions between disciplines
- Navigate across disciplinary boundaries, and between boundaries between scientific and societal realms
- Apply the framework in interdisciplinary research by respecting, accepting and creatively using different approaches that various disciplines offer

Course content and teaching

This course gives an introduction in how interdisciplinary environmental research can be conducted. As a research area, environmental science is based on the notion that complex environmental problems typically demand an interdisciplinary approach to be holistically understood and potentially solved. In this context, interdisciplinarity denotes both collaborative efforts between scientific disciplines and between scientists and a variety of societal actors. During the course we will revise why interdisciplinary research across these dimensions is needed and how it can be pursued.

The teaching is carried out in the form of reading assignments, lectures, group- and individual assignments.

Reading material will be sent out two weeks before the group meets and the course participants prepare by reading the assigned literature.

The physical meetings of the course are divided in three parts, which together form a framework for conducting interdisciplinary (environmental) research. Each part is based on lectures and on group work in which participants discuss given topics and work on assignments. The three parts referred to above consist of the following themes: 1) which characteristics unite different disciplines? This part deals with attitudes and respecting other disciplines with the focus on how to avoid hierarchical disciplinary perceptions. 2) Hands-on examples on how different disciplines can contribute to common research questions, uniting researchers across disciplines. 3) How can one creatively combine methods from various disciplines?

After the physical meetings of the course, individual assignments in the form of written reflections around interdisciplinary questions of relevance for the course participants will be carried out.

Assessment

Assessment is based on active participation, on oral presentations of group exercises and on written assignments.

Grading scale

Possible grades are Pass and Fail. To pass the course, the student must actively participate in all components, pass the oral presentations and pass all written assignments.

Language of instruction

The course is given in English.

Entry requirements

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Additional information

The course is open for PhD students from different disciplines. Priority will be given to PhD students in environmental science and PhD students enrolled in the ClimBEco Graduate Research School. Other PhD students will be conditional on places being available.