

# Department of Biology Education

# **Syllabus**

for course at advanced level

Social-Ecological Systems: Challenges and Approaches Social-ekologiska system: utmaningar och förhållningssätt

15.0 Higher Education Credits
15.0 ECTS credits

 Course code:
 BL7028

 Valid from:
 Autumn 2019

 Date of approval:
 2010-08-20

 Changed:
 2019-05-13

**Department** Department of Biology Education

Main field: Social-Ecological Resilience for Sustainable Development

Specialisation: A1N - Second cycle, has only first-cycle course/s as entry requirements

#### Decision

This syllabus has been approved by the Board of the Faculty of Science at Stockholm University.

# Prerequisites and special admittance requirements

Admission to the course requires knowledge equivalent to a Bachelor's degree. Swedish upper secondary school course English B or equivalent.

# **Course structure**

Examination code	Name	Higher Education Credits
7A28	Challenges of anthropocene	4
7E28	Linking theory to research questions and design	4
7F28	Ecosystem support of humanity	7

# Course content

a) This course introduces students to the anthropocene, one of several proposed terms for the new geological era in which we live, in which humanity has become the dominate force structuring the biosphere. It will address what this means for critical subsystems in the earth system, for humanity, and for the development of earth system governance. This course will define the research challenges that the Master's Programme Resilience in Social-Ecological Systems will address. The course will then explore alternative approaches to coupled social-ecological systems from several disciplinary backgrounds in, for example, anthropology, geography, economics, and ecology. Then the course will look at current approaches to measuring and monitoring how ecosystems support human well-being. Students will be introduced to theoretical concepts, methods for analysis, and conduct group and individual research projects that utilize these concepts and methods.

- b) The course consists of the following course units:
- 1. Antropocens utmaningar (Challenges of anthropocene), 4 credits
- 2. Att länka teori med forskningsfrågor och forskningsdesign (Linking theory to research questions and design), 4 credits
- 3. Ekosystemens bidrag till mänskligheten (Ecosystem support of humanity), 7 credits.

# **Learning outcomes**

Upon completion of the course, students are expected to be able to:

• understand and explain how humanity has changed the functioning of the earth system (unit 1, 2 and 3)

- explain what key research areas for sustainability science are (unit 1 and 3)
- compare and contrast different disciplinary approaches to social-ecological systems, and explain in what contexts they are more or less useful (unit 1, 2 and 3)
- apply methods for estimating human support from ecosystems, such as ecosystem services and ecological footprinting (unit 3).

# **Education**

Instruction consists of lectures, group exercises and seminars.

Participation in group exercises, seminars and any associated integrated instruction is compulsory. In the event of special circumstances, the examiner may, after consultation with the teacher concerned, grant a student exemption from the obligation to participate in certain compulsory instruction.

# Forms of examination

a. The course is examined as follows: Knowledge assessment takes the form of written and oral presentations as well as activity during seminars.

b. Grades will be set according to a seven-point scale related to the learning objectives of the course:

A = Excellent

B = Very Good

C = Good

D = Satisfactory

E = Adequate

Fx = Fail, some additional work required

F = Fail, much additional work required

- c. The grading criteria will be distributed at the beginning of the course.
- d. In order to pass the course, students must receive a passing grade on all course units and participate in all mandatory instruction.

The final grade on the course is determined by weighting the grades from all course units, where each grade is weighted in relation to the scope of the course unit.

e. Students who receive a failing grade on a regular examination are allowed to retake the examination as long as the course is still provided. The number of examination opportunities is not limited. Other mandatory course elements are equated with examinations. A student who has received a passing grade on an examination may not retake the examination to attain a higher grade. A student who has failed the same examination twice is entitled to have another examiner appointed, unless there are special reasons to the contrary. Such requests should be made to the department board.

The course includes at least two examination opportunities for each course unit per year when the course is given. At least one examination opportunity will be offered during a year when the course is not given.

f. Students awarded the grade Fx are given the opportunity to improve their grade to E. The examiner decides the supplementary assignments to be performed and the pass mark criteria. The supplementary assignments will take place before the next examination session.

#### Interim

Students may request that the examination be conducted in accordance with this course plan even after it has ceased to be valid. However, this may not take place more than three times over a two year period after course instruction has ended. Requests must be made to the departmental board. The provision also applies in the case of revisions to the course plan (and the revisions of the course literature).

### Limitations

The course may not be included in a degree together with the course Natural Resources and Society 15 hp (BL7013) or the equivalent.

#### Misc

The course is part of the Master's Programme in Social-ecological resilience for sustainable development, but can also be read as a separate course.

# Required reading

The course literature is decided by the department board and published on the course page in the course catalogue at least two months before the start of the course.