

# 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**

|                          |   |
|--------------------------|---|
| <b>Course code:</b>      | BL7028  |
| <b>Valid from:</b>       | Spring 2012   |
| <b>Date of approval:</b> | 2010-08-20  |
| <b>Changed:</b>          | 2011-09-05  |
| <b>Department</b>        | Department of Biology Education   |
| <b>Subject</b>           | Biology   |
| <b>Specialisation:</b>   | 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

Admittance to the course requires knowledge equivalent to a Bachelor's degree. Swedish upper secondary school course English B or equivalent or one of the following tests. Cambridge CPE och CAE: Pass. IELTS : 6.0 (with no part of the test below 5.0). TOEFL (paper based): 550 (with minimum grade 4 on the written test part). TOEFL (computer based): 213. TOEFL (internet based): 79.

## Course structure

| Examination code | Name   | Higher Education Credits |
|------------------|--|--------------------------|
| 7028             | Social-ecological systems: challenges and approaches | 15                       |
| 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 includes the following three elements:  
 I: Challenges of anthropocene (4 hp),  
 II: Linking theory to research questions and design (4 hp),

### III: Ecosystem support of humanity (7 hp).

#### **Learning outcomes**

It is expected that the student, after taking the course, will be able to:

- understand and explain how humanity has changed the functioning of the earth system
- explain what key research areas for sustainability science are
- compare and contrast different disciplinary approaches to social-ecological systems, and explain in what contexts they are more or less useful
- apply methods for estimating human support from ecosystems, such as ecosystem services and ecological footprinting.

#### **Education**

The education consists of lectures, group exercises and seminars.

Participation in group exercises, seminars and group education associated with this is compulsory. An examiner may rule that a student is not obliged to participate in certain compulsory education if there are special grounds for this after consultation with the relevant teacher.

#### **Forms of examination**

a. Examination for the course is in the following manner:

measurement of knowledge for the three elements takes place through:

b. Grading is carried out according to a 7-point scale related to learning objectives:

A = Excellent

B = Very Good

C = Good

D = Satisfactory

E = Sufficient

F<sub>x</sub> = Fail

F = Fail

c. Grading criteria for the course will be distributed at the start of the course.

d. A minimum grade of E is required to pass the course, together with:

- participation in all compulsory education.

e. Students who fail to achieve a pass grade in an ordinary examination have the right to take at least further four examinations, as long as the course is given. The term “examination” here is used to denote also other compulsory elements of the course. Students who have achieved a pass grade on an examination may not retake this examination in order to attempt to achieve a higher grade. Students who have failed to reach a pass grade on two occasions have the right to request that a different teacher be appointed to set the grade of the course. A request for such appointment must be sent to the departmental board.

f. Students awarded the grade F<sub>x</sub> 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 is carried out in accordance with this syllabus even after it has ceased to apply. This right is limited, however, to a maximum of three occasions during a two-year-period after the end of giving the course. A request for such examination must be sent to the departmental board.

#### **Limitations**

The course may not be included in a degree together with the courses Natural Resource Management, Governance and Globalization 40 p (BI4660) and Natural Resources and Society 15 hp (BL7013) or the equivalents.

#### **Misc**

The course is a component of the Master's Programme in Resilience in Social-Ecological Systems, and it can also be taken as an individual course.

#### **Required reading**

Course literature is decided by the departmental board and is described in an appendix to the syllabus.