

# Advanced Project Course in Ecosystem Service Valuation

Programme course

6 credits

Avancerad projektkurs i värdering av ekosystemtjänster

TFBI17

Valid from: 2019 Spring semester

**Determined by** 

Board of Studies for Industrial Engineering and Logistics

**Date determined** 

2018-08-31

Offered for the last time

Autumn semester 2020

Replaced by

NBID79

# Main field of study

**Biology** 

## Course level

Second cycle

## Advancement level

A<sub>1</sub>X

# Course offered for

- Industrial Engineering and Management International, M Sc in Engineering
- Industrial Engineering and Management, M Sc in Engineering
- Master's Programme in Ecology and the Environment

# Specific information

This course cannot be included in the same degree as the course NBID69.

# **Entry requirements**

Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

# **Prerequisites**

Ecology and the Environment or corresponding.



# Intended learning outcomes

Ecosystem services is defined as the goods and services that intact ecosystems provide for free to the society. The course will give knowledge and understanding in how such ecosystem services can be estimated economically. After the course, the student should be able to:

- identify different ecosystem services for a given site, and evaluate how they are affected by different land uses, by applying knowledge of ecological principles behind ecosystem services. Describe different processes, dynamics and functionality of ecosystems.
- identify potential economical instruments and political decisions that can affect ecosystem valuation
- make an economic evaluation and quantification of ecosystem services for a given place and business
- discuss how effects on ecosystem services in the area are related to the UN sustainable development goals
- independently choose and critically analyze the content in relevant scientific literature and relate this to the given subject
- create a project plan and run a project in a group
- criticize and evaluate its own and other students work
- communicate the project orally and in text

## Course content

The project consist of a case in which ecosystem services are identified and evaluated. The project is presented in a written report and is discussed during a seminar. In connection to the seminar, the students will act as opponents, in text as well orally, on other projects. The lectures and seminars will be based on ecological processes, ecosystem services and how functional ecosystems are related to sustainable development in the society.

# Teaching and working methods

The course is based on two parts. The student works in groups on a project based upon a given case. In parallel, there are lectures and seminars that connects to relevant parts in the case. It is expected that the students takes a large own responsibility for the quality of the case project.

## Examination

UPG1	Seminars	1 credits	U, G
PRA1	Project work	5 credits	U, 3, 4, 5

## Grades

Four-grade scale, LiU, U, 3, 4, 5



# Department

Institutionen för fysik, kemi och biologi

# Director of Studies or equivalent

Agneta Johansson

# **Examiner**

Lars Westerberg

# **Education components**

Preliminary scheduled hours: o h Recommended self-study hours: 160 h

# Course literature

#### Other

The course literature will be decided in collaboration with responsible teacher for the course.



## **Common rules**

## Course syllabus

A syllabus has been established for each course. The syllabus specifies the aim and contents of the course, and the prior knowledge that a student must have in order to be able to benefit from the course.

## **Timetabling**

Courses are timetabled after a decision has been made for this course concerning its assignment to a timetable module. A central timetable is not drawn up for courses with fewer than five participants. Most project courses do not have a central timetable.

## Interrupting a course

The vice-chancellor's decision concerning regulations for registration, deregistration and reporting results (Dnr LiU-2015-01241) states that interruptions in study are to be recorded in Ladok. Thus, all students who do not participate in a course for which they have registered must record the interruption, such that the registration on the course can be removed. Deregistration from a course is carried out using a web-based form: www.lith.liu.se/for-studenter/kurskomplettering?l=sv.

#### **Cancelled courses**

Courses with few participants (fewer than 10) may be cancelled or organised in a manner that differs from that stated in the course syllabus. The board of studies is to deliberate and decide whether a course is to be cancelled or changed from the course syllabus.

#### Regulations relating to examinations and examiners

Details are given in a decision in the university's rule book: http://styrdokument.liu.se/Regelsamling/VisaBeslut/622678.

#### Forms of examination

#### **Examination**

Written and oral examinations are held at least three times a year: once immediately after the end of the course, once in August, and once (usually) in one of the re-examination periods. Examinations held at other times are to follow a decision of the board of studies.

Principles for examination scheduling for courses that follow the study periods:

• courses given in VT1 are examined for the first time in March, with re-



- examination in June and August
- courses given in VT2 are examined for the first time in May, with reexamination in August and October
- courses given in HT1 are examined for the first time in October, with reexamination in January and August
- courses given in HT2 are examined for the first time in January, with reexamination at Easter and in August.

The examination schedule is based on the structure of timetable modules, but there may be deviations from this, mainly in the case of courses that are studied and examined for several programmes and in lower grades (i.e. 1 and 2).

- Examinations for courses that the board of studies has decided are to be held in alternate years are held only three times during the year in which the course is given.
- Examinations for courses that are cancelled or rescheduled such that they are not given in one or several years are held three times during the year that immediately follows the course, with examination scheduling that corresponds to the scheduling that was in force before the course was cancelled or rescheduled.
- If teaching is no longer given for a course, three examination occurrences are held during the immediately subsequent year, while examinations are at the same time held for any replacement course that is given, or alternatively in association with other re-examination opportunities. Furthermore, an examination is held on one further occasion during the next subsequent year, unless the board of studies determines otherwise.
- If a course is given during several periods of the year (for programmes, or on different occasions for different programmes) the board or boards of studies determine together the scheduling and frequency of re-examination occasions.

#### **Registration for examination**

In order to take an examination, a student must register in advance at the Student Portal during the registration period, which opens 30 days before the date of the examination and closes 10 days before it. Candidates are informed of the location of the examination by email, four days in advance. Students who have not registered for an examination run the risk of being refused admittance to the examination, if space is not available.

Symbols used in the examination registration system:

- \*\* denotes that the examination is being given for the penultimate time.
- \* denotes that the examination is being given for the last time.

#### Code of conduct for students during examinations

Details are given in a decision in the university's rule book: http://styrdokument.liu.se/Regelsamling/VisaBeslut/622682.

#### Retakes for higher grade



Students at the Institute of Technology at LiU have the right to retake written examinations and computer-based examinations in an attempt to achieve a higher grade. This is valid for all examination components with code "TEN" and "DAT". The same right may not be exercised for other examination components, unless otherwise specified in the course syllabus.

#### Retakes of other forms of examination

Regulations concerning retakes of other forms of examination than written examinations and computer-based examinations are given in the LiU regulations for examinations and examiners,

http://styrdokument.liu.se/Regelsamling/VisaBeslut/622678.

#### **Plagiarism**

For examinations that involve the writing of reports, in cases in which it can be assumed that the student has had access to other sources (such as during project work, writing essays, etc.), the material submitted must be prepared in accordance with principles for acceptable practice when referring to sources (references or quotations for which the source is specified) when the text, images, ideas, data, etc. of other people are used. It is also to be made clear whether the author has reused his or her own text, images, ideas, data, etc. from previous examinations.

A failure to specify such sources may be regarded as attempted deception during examination.

#### Attempts to cheat

In the event of a suspected attempt by a student to cheat during an examination, or when study performance is to be assessed as specified in Chapter 10 of the Higher Education Ordinance, the examiner is to report this to the disciplinary board of the university. Possible consequences for the student are suspension from study and a formal warning. More information is available at https://www.student.liu.se/studenttjanster/lagar-regler-rattigheter?l=sv.

#### **Grades**

The grades that are preferably to be used are Fail (U), Pass (3), Pass not without distinction (4) and Pass with distinction (5). Courses under the auspices of the faculty board of the Faculty of Science and Engineering (Institute of Technology) are to be given special attention in this regard.

- 1. Grades U, 3, 4, 5 are to be awarded for courses that have written examinations.
- 2. Grades Fail (U) and Pass (G) may be awarded for courses with a large degree of practical components such as laboratory work, project work and group work.

#### **Examination components**

- 1. Grades U, 3, 4, 5 are to be awarded for written examinations (TEN).
- 2. Grades Fail (U) and Pass (G) are to be used for undergraduate projects and other independent work.



- 3. Examination components for which the grades Fail (U) and Pass (G) may be awarded are laboratory work (LAB), project work (PRA), preparatory written examination (KTR), oral examination (MUN), computer-based examination (DAT), home assignment (HEM), and assignment (UPG).
- 4. Students receive grades either Fail (U) or Pass (G) for other examination components in which the examination criteria are satisfied principally through active attendance such as other examination (ANN), tutorial group (BAS) or examination item (MOM).

The examination results for a student are reported at the relevant department.

# Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning\_pa\_grund\_och\_avancerad\_niva.

