

# Environmental Systems Analysis

Programme course

6 credits

Miljösystemanalytiska verktyg

TKMJ47

Valid from: 2017 Spring semester

**Determined by**

Board of Studies for Mechanical  
Engineering and Design

**Date determined**

2017-01-25

## Main field of study

Energy and Environmental Engineering, Mechanical Engineering

## Course level

Second cycle

## Advancement level

A1X

## Course offered for

- Energy-Environment-Management
- Industrial Engineering and Management - International, M Sc in Engineering
- Industrial Engineering and Management, M Sc in Engineering

## 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

Environmental Technology, Industrial Ecology

## Intended learning outcomes

The course aims to give advanced level knowledge about environmental system analysis tools. After fulfilment of the course the student should be able to

- describe and use different environmental system analysis tools,
- assess strengths and weaknesses for different tools,
- in a group plan and apply an environmental system analysis tool in order to quantify and analyse environmental impacts for a specific case,
- present and critically discuss the results from a environmental system analysis.

## Course content

Lice cycle assessment, material flow analysis, total material requirement, substance flow analysis, system boundaries, evaluation of different environmental impacts, allocation

## Teaching and working methods

A larger environmental systems analysis group project and literature seminars

## Examination

UPG2	Seminars	2 credits	U, G
PRA1	Project Assignment	4 credits	U, 3, 4, 5

Active involvement in all group activities

## Grades

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

## Other information

Supplementary courses: Sustainable City Development

## Department

Institutionen för ekonomisk och industriell utveckling

## Director of Studies or equivalent

Niclas Svensson

## Examiner

Niclas Svensson

## Course website and other links

## Education components

Preliminary scheduled hours: 24 h

Recommended self-study hours: 136 h

## Course literature

Vetenskapliga artiklar och rapporter.

## Common rules

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://stydokument.liu.se/Regelsamling/Innehall/Utbildning\\_pa\\_grund-\\_och\\_avancerad\\_niva](http://stydokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva).