

**SYLLABUS**

# **Indoor and Outdoor Environment 7.5 credits Q0056B**

**Inre och yttre miljö**

**Course syllabus admitted: Autumn 2018 Sp 1 - Present**

**DECISION DATE  
2018-06-08**

# Indoor and Outdoor Environment 7.5 credits Q0056B

## Inre och yttre miljö

### First cycle, Q0056B

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Miljöteknik	Environmental Care and Environmental Protection

## Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and Q0024B Mineral Processing Technology I and Q0026B Rock Engineering I or equivalent.

## Selection

The selection is based on 1-165 credits.

## Examiner

Anders Lagerkvist

## Course Aim

Upon completion of the course, students should be able to

- communicate knowledge, orally and in writing, on environmental engineering regarding mining, mineral, and civil engineering;
- conduct environmental and work environmental consequence analyses of mining, mineral, and civil engineering project, and compare alternatives using either traditional or recycled materials;
- suggest suitable measures to reduce or prevent undesired environmental or work environmental consequence; and
- apply the basics of systematic work environment management.

## Contents

The course contents are divided into basic environmental science, waste management, and work environment. The focus in basic environmental science is on environmental consequences resulting from the use of material and energy resources, and how they can be treated. Waste management includes a general introduction to waste generation and management, waste characterization, and use of waste as construction materials. Work environment includes basic knowledge on work environment issues, systematic work environment management, and methods for investigating and managing work environment questions. These areas of study, together with exercises, provide the basis for the student projects. The projects include environmental and work environmental consequences and comparisons between use of either traditional or waste material.

## Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

In the theoretical parts of the course, the students read assigned material. From the material, the formulate questions and answers. The material and the answers are then discussed with the teacher. Group projects are conducted in discrete steps. Each is reported and evaluated separately, and includes independent studies of relevant literature.

## Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. Examination is in the form of assignments, written and oral reports of the group projects, and a written exam. Active participation in discussions is included in the examination. Grading is based on an overall assessment of all course activities.

## Overlap

The course Q0056B is equal to Q0033B

## Literature. Valid from Autumn 2018 Sp 1

Ammenberg och Hjelm, 2017, Miljöteknik, Studentlitteratur, ISBN 978-91-44-092275-1.

Jakobsson, R., Aronsson, G., Eriksson, K. (2010) Bättre arbetsmiljö. 6 uppl. Stockholm: Prevent. (259 s). ISBN 978-91-7365-102-8

Ovanstående kompletteras med vetenskapliga artiklar som söks inom projekten och kompendiematerial och föreläsningmaterial som delas ut.

## Course offered by

Department of Civil, Environmental and Natural Resources Engineering

## Items/credits

Number	Type	Credits	Grade
0003	Written exam	2.5	TG G U 3 4 5
0004	Assignment reports	1	TG U G#
0005	Group work	4	TG U G#

## Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

## Last revised

by Assistant Director of Undergraduate Studies Eva Gunneriusson, Department of Civil, Environmental and Natural Resources Engineering 2018-06-08

## Syllabus established

by Assistant Director of Undergraduate Studies Eva Gunneriusson, Department of Civil, Environmental and Natural Resources Engineering 2017-02-13