



Course syllabus

Faculty Board of Science and Engineering
School of Engineering

1BY000 Grunder för anläggningsteknik, 7,5 högskolepoäng
Geosciences, 7.5 credits

Main field of study

Civil Engineering

Subject Group

Building Technology

Level of classification

First Level

Progression

G1F

Date of Ratification

Approved by Organisational Committee 2009-07-24

The course syllabus is valid from spring semester 2010

Prerequisites

NO VALUE DEFINED

Expected learning outcomes

After completing the course the student is expected to have acquired:

- basic knowledge on Geology
- basic knowledge on Geotechnics
- introductory knowledge on Water & Wastewater Handling
- introductory knowledge on Road Engineering

Content

The course comprises the following elements:

Geology

- The structure of the earth: earth's materials (minerals, rocks, soils).
- Glacial geology
- Hydrology: hydrological cycle, hydrologic processes & ground water

Geotechnics

- Soil properties
- Stress analysis
- Sheer strength of soil
- Lateral earth pressure

Water and Wastewater Technology

- Terminology of Water & Wastewater Systems
- Historical aspects and changes in priorities
- Water distribution network
- Sewer & stormwater net
- Water & wastewater treatment in central system
- Local water supply treatment
- Wastewater treatment in local systems

Road Technology

- Road and Traffic terminology
- Road structure
- Maintenance of road structure

Type of Instruction

The teaching consists of lectures, workshops, laboratory work, exercises. Some of the items are compulsory. The extent of the compulsory parts appears from the schedule.

Examination

The course is assessed with the grades U,3,4 or 5.

The assessment of student performances usually takes place during special examination periods and may take the form of project work, laboratory work, written assignments and written examinations. The examination can be both written and oral.

Course Evaluation

When the course has finished, an evaluation is compiled. The results are reported to the students and then archived according to the rules of the school.

Required Reading and Additional Study Material

Required reading

1)Jägryd, Anders, 2003. 1)Geologi: Kompendium i geologi, Övningar

2)Bengt Langesten,1992. 2)Geoteknik: kompendium, geotekniska grundbegrepp

3)Sällfors, Göran, 2001. 3)samt utdrag av geoteknik: jordmateriallära och jordmekanik VA-teknik delen: utdrag av:

4:1)Chalmers, inst. För vattenförsörjning- och avloppsteknik 1995. 4:1)kompendium "VA-ledningsteknik".

4:2) KTH, avd för vattenvårdsteknik.1985. 4:2) kompendium om ledningsnät

4:3)Thomas Weglert , och Rune Regné. 4:3) Vatten och avlopp för småhus

4:4) KTH, Nasik Al-Najjar, 1999. 4:4) utbildningspaket inom vatten och avlopp

5)Vägverket. 5)Vägteknik: Kurspärm sammanställd av utdrag av Vägverkets publikationer av

6)Anders Bengtsson mm, 1995. 6)av SRS vägteknik för 90-talet.