LUNDS UNIVERSITET
Lunds Tekniska Högskola

Course syllabus

Programarbete och bygglov
Programwork, Social Planning and Building-design

VBEF30, 7,5 credits, G2 (First Cycle)

Valid for: 2023/24
Faculty: Faculty of Engineering, LTH
Decided by: PLED V
Date of Decision: 2023-03-21

General Information

Compulsory for: IBYA3
Language of instruction: The course will be given in Swedish

Aim

The pedagogical idea and the overall goal for the course series (VBEF25-VBEF40) is to give the students insight and understanding of construction industry working conditions and to train on practical problem solving and collaboration.

This module aims at highlighting society's control of the built environment and the construction process' early stages, from raw land to the building permits application.

Learning outcomes

Knowledge and understanding
For a passing grade the student must

- familiarise with the law and regulations that control construction projects and its application by the public authorities and construction sector,
- be acquaint with the types of planning and different efforts required in the planning and building permits stages.
- knowledge how to work in construction projects with BIM

Competences and skills
For a passing grade the student must

- establish programme and planning permission process for a simple construction project with BIM technique
- demonstrate and justify appropriate design solution,
- familiarise with central principles of climate estimations, environmental certification, structual engineering, of soil mechanics and HVAC:s

Judgement and approach
For a passing grade the student must

- acquire an overall engineering viewpoint of the early stages of construction process and the actors of the construction industry, their roles, responsibilities and cooperation throughout the planning work including building permits application.
- gain an understanding of the role of the industries' different actors. For example, the respective work and opinions of the architect and the engineers in the project group and the need for consensus and cooperation.

Contents

With the community's and client's responsibility in view, the course deals with rules and regulations pertaining to detached house and group house areas. The planning and building law, the environmetal codes together with legislations and authorities' advice is related to the project work. Special attention is directed towards the processes of community planning and building permits. The requirements regarding a sustainable society has to be considered when designing the built environment where knowledge of climate estimations and environmental certification including sustainable use of materials and of energy is of vital importance.

An adequate formulation of the client's needs in a program is an important starting point for the production of the documents needed in a building permit application. Architectural design digitally through BIM and adaptation to the surroundings are other central objectives of the course including questions of availability and media supply.

Knowledge from several areas, not only those earlier mentioned, has to be acquired and be put together in order to be able to solve the task and produce a complete set of building permit
documents. Lectures, exercises and teaching materials supports the ongoing project work on a general level while it is the students' task to transform and adapt this to the project in question. Guest lectures and external cooperation is part of the project work.

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)
Assessment: The final grades will be based on graded exams (50%) and graded project assignments (50%). Final grades will be granted only when all assignments are approved and after 80% participation of all lectures, seminars, visits and the like.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Admission

Admission requirements:

- VBEA20 The Construction Process with Business Economy or VBEA25 Construction Process and Construction Law

Assumed prior knowledge: Construction technique and architecture,BIM- Modelling and Visualisation, Environmental science, Architecture and construction history.
The number of participants is limited to: No
The course overlaps following course/s: VBE680

Reading list

- Designated study material (distributed or via the internet), lecture material and any literature or complementing documentation by reason of the project in question.
- Bodin A. et al: Arkitektens handbok. Studentlitteratur, 2019, ISBN: 978-91-44-13097-2.
- Hansson, B., Olander, S., Landin, A., Aulin, R., Persson, U.: Byggledning, Projektering. Studentlitteratur, 2015, ISBN: 978-91-44-10572-7.

Contact and other information

Course coordinator: Urban Persson, urban.persson@construction.lth.se
Course administrator: Kolbrun Arnadottir, kolbrun.arnadottir@construction.lth.se
Course homepage: http://www.bekon.lth.se/utbildning/grundutbildning/
Further information: The course is related to the courses VBEF25, VBEF35 and VBEF40. Some parts of the course may be taught in English.