LUNDS UNIVERSITET
Lunds Tekniska Högskola

Course syllabus

Byggstyrning
Production, Planning and Control

VBEF40, 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 course aims to furnish students with the knowledge on construction management disciplines. The subject also extends to impart knowldege on how to execute a construction project with regard to time and resource planning, purchase and material management, quality assurance, environmental management, health and safety and calculation of building quantity. The overall aim of the course is to provide knowledge on management and production control of a construction project.

Learning outcomes

Knowledge and understanding
For a passing grade the student must

- explain and apply the basic knowledge on managing of project at different stages.
- develop an understanding on the importance for quality and environment during the production stages.
- familiarise with the types of planning and different efforts required in planning of production.
- develop an understanding on the importance of health and safety work environment for a project

Competences and skills
For a passing grade the student must

- be able to manage the contract and procurement for construction project.
- be able to perform project cost estimation and design a planning schedule for a small scale construction project.
- be able to choose a suitable quality and environmental plan for a construction project
- be able to plan for a construction project with consideration for health and safety work environment with focus on the rules and regulations.
- be able to interpret tender document and draw up a tender.

Judgement and approach
For a passing grade the student must

- acquire the engineering viewpoint of the construction process and the industry actors and their roles, responsibilities and cooperation throughout the construction process.
- gain an understanding of the contributions of the industry's actors in different discipline. For example the architect and the engineer's respective work and opinions in the project group and the demand for their cooperation.

Contents

With the perspective of the constructors responsibility in view, the course deals with planning and control of resources that is demanded in a construction project. The course deepens the knowledge on documentation that forms the basis for contracting and procurement. Project estimation, time scheduling, planning of health and safety work environment for resources, machines and materials is performed to the actual project work. Special consideration is focused on the following parts: Quantity estimation, price setting/estimation, time estimation, quotation/tender, method statement, health and safety risk analysis, quality plan and documentation management systems.

The pedagogical idea and the overall goal for the course is to expose students on the insight and understanding of construction industry working conditions by working on project work that is linked to an actual on-going project in the region. Work is performed with the help of different type of authorities and industries contact. Students are guided through the whole construction process and work on their own with different working elements that occurs throughout the construction phase from inception till completion. This exposes the students on the actual working environment. Guest lectures and external cooperation is part of the project work.

Lectures, workshops, exercises and course material support the ongoing case work and relate to the detail parts in general. Great emphasis lies in the integration of education of an overall view of the detailed parts. The course deals with standard and determined associated to the detailed parts.

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)
Assessment: Passing mark will be based on graded exams, project assignments, seminars participation and supplementary document. Final grades will be granted only when all assignments, seminars and project work meets the passing grades. The final grade will be based on 50% of project assignment and 50% of written examination.

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: FMIA01 Environmental science.
The number of participants is limited to: No
The course overlaps following course/s: VBE690

Reading list

- AB04 Allmänna bestämmelser för byggnads-, anläggnings-, och installationsentreprenader. Svensk Byggtjänst.
- Hansson B, Olander S, Landin A, Aulin R, Persson U & Persson M: Byggledning - Produktion. Studentlitteratur., 2016, ISBN: 978-91-44-10573-4.
- Hansson B, Olander S, Landin A, Aulin R, Persson U & Persson M: Byggledning Produktion övningsbok. Studentlitteratur.

Contact and other information

Course coordinator: Radhlinah Aulin, radhlinah.aulin@construction.lth.se
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Course homepage: https://kurser.lth.se/kursplaner
Further information: Compulsory for: IBYA3. The course is conducted and linked with course that deal with project work and construction process VBEF25, VBEF30 and VBEF35. Compulsory parts of the course may occur. Compulsory parts of the course may occur. Some parts of the course may be taught in English.