



Faculty of Health, Science and Technology  
Construction Engineering

# Syllabus

## Construction Management 1

<b>Course Code:</b>	BYGB23
<b>Course Title:</b>	Construction Management 1 <i>Byggproduktion 1</i>
<b>Credits:</b>	7.5
<b>Degree Level:</b>	Undergraduate level
<b>Progressive Specialisation:</b>	First cycle, has at least 60 credits in first-cycle course/s as entry requirements (G2F)

**Major Field of Study:**  
BYA (Building Technology)

### Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2021-11-08, and is valid from the Spring semester 2022 at Karlstad University.

### Prerequisites

House Building Technology (7.5 ECTS crEDITS) and Computer Aided Construction Design in a BIM Process (20 ECTS credits), or enrolment in the study programme, or equivalent

### Learning Outcomes

The aim of the course is to provide a survey of the activities involved in a building production project from idea (wish to build) to finished object. The aim is also for students to acquire basic knowledge of and skills in conducting a project towards set goals in terms of time, cost, quality and the environment, as well as the ability to organise and plan a minor project plus estimate cost and perform cost reconciliation.

Upon completion of the course, students should be able to:

- describe the various stages of the building production process,
- identify and define the actors involved in the various stages of the production process,

- identify, define and give an account of different cost items in a tender calculation,
- choose a suitable production method for selected projects in the tendering process based on given conditions,
- give an account of documents included in a tender invitation,
- perform quantity take off and cost calculation on the basis of a tender invitation with the help of drawings and descriptions,
- produce a well structured tender calculation with the help of the current information and description in the Swedish manual AMA on materials and procedures, or other systems,
- calculate direct and onsite operating costs and draw up an overriding time plan in the tender stage,
- plan the use of resources in the production stage and optimise the total resource curve, and
- follow up on activities, resources and costs in the production stage, perform cost reconciliation, and predict final costs and time of completion.

### **Content**

Instruction is in the form of lectures with integrated exercises aimed at practising the methods and techniques used in construction projects, seminars, field trips and supervision in connection with exercises, group work and hand-in assignments.

The course comprises the following main components:

- The building process and its various stages, actors, actor roles and responsibilities in different stages
- Tender procedures, tender from the perspective of the entrepreneur, standards of measurement, materials usage rate, AMA
- Production planning and follow up, choice of production method, production calculation, prognosis, cost reconciliation
- Project management, resource planning, material quantity calculation, time planning, initial run rate figure, primary activities

### **Reading List**

See separate document.

### **Examination**

Assessment is based on a written exam and oral and written presentations of hand-in assignments.

Attendance is mandatory for guest lectures, exercises, and seminars.

If students have a decision from Karlstad University entitling them to Targeted Study Support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

### **Grades**

One of the grades Fail (U), Pass (3), Pass with Some Distinction (4), or Pass with Distinction (5) is awarded in the examination of the course.

### **Quality Assurance**

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

**Course Certificate**

A course certificate will be provided upon request.

**Additional information**

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.