

SYLLABUS

Engineering Architecture

15 credits F0007B

Teknisk Arkitektur

Course syllabus admitted: Autumn 2024 Sp 1 - Present

DECISION DATE
2024-02-14

Engineering Architecture 15 credits F0007B

Teknisk Arkitektur

First cycle, F0007B

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Arkitektur	Architecture

Main field of study

Architecture

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 + Swedish upper secondary school courses Physics 2, Chemistry 1, Mathematics 4 or Mathematics E.

Selection

The selection is based on final school grades or Swedish Scholastic Aptitude Test.

Course Aim

Knowledge and understanding

After passing the course, the student will be able to:

- 1.1 Demonstrate basic knowledge of the appropriate use of scales and drawing types
- 1.2 Demonstrate basic knowledge of the appropriate representation techniques and layouts (Bygghandlingar 90)
- 1.3 Describe the different stages of sustainable construction, design and planning processes
- 1.4 Describe the actors and areas of responsibility in sustainable construction, design and planning processes
- 1.5 Describe the basic concepts of gender and equality in working life (Gender equality module)

Competence and skills

After passing the course, the student will be able to:

- 2.1 Apply basic sketching and representation techniques
- 2.2 Design and represent a simple project by hand
- 2.3 Prepare basic presentation materials on computer, also by using in a basic way a CAD software
- 2.4 Build a simple architectural model by using basic tools and materials
- 2.5 Structure and write a simple technical report
- 2.6 Present orally a simple project and give and take criticism on a project
- 2.7 Search basic information online and in databases and make source references (Library module)

Judgement and approach

After passing the course, the student will be able to:

- 3.1 Demonstrate capacity to work individually
- 3.2 Demonstrate capacity to work in groups
- 3.3 On a comprehensive level describe the prerequisites for gender and equality in community building (Gender equality module)

Contents

The course covers the stages of the planning and construction process.

You will get to meet different areas of knowledge that are represented within the Department of Civil Engineering and Natural Resources as well as how these interact with the planning and construction process. The course deals with architecture and the planning and construction process as well as the combination of creativity and logical work and thinking sequence.

Overview of and connection between the areas of construction, urban planning and architecture as well as its bearing on house construction and urban construction. Review of goals, regulations and examples of prerequisites for sustainability and gender equality.

Review and processing of examples of construction documents, drawings and reports. Use of sketches as work tools. Planning and design of a simple building in a larger context. Planning a simple urban structure. CAD and computer tools for production and presentation of project work

Realization

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

The teaching is carried out as lessons, field exercises, workshops and presentations. The teaching is carried out over two periods.

The first period is characterized by knowledge acquisition, knowledge tests, individual tasks and teaching in basic tool management. This provides an understanding of the sequence and conditions of the planning, design and construction process, as well as a program explanation of the future professional role.

The second period is characterized by the application of acquired knowledge and experience gained with a project task that is solved in a group related to a common geographical and social context. The period ends with a presentation, where different media and tools are used to present the project task.

Skills that are trained are oral / written presentation, project work, group work / collaboration, open issues, field work.

Mandatory attendance at lectures, workshops, oral presentations.

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. For a passing grade, active participation in the implementation and presentation of project assignments as well as submission of individual assignments is required.

The course is examined through individual and group assignments which include project work, drawings, written texts, online tests and oral presentations.

In module 0014, learning objectives 1.3 and 1.4 will be examined through online tests, learning objective 2.5 through a written report (grading scale: U G #)

In module 0015, learning objectives 1.1 and 1.2 will be examined through a field exercise including measuring and representation tasks, together with learning objective 2.1 and 3.2 (grading scale: U G #)

Learning objectives 1.1, 1.2, 2.1 and 2.2 will be examined through different project assignments in module 0016 and 0017, respectively at the building and urban scale, together with learning objective 3.1 and 3.2 depending on the assignment (grading scale: G U 3 4 5)

In module 0021, learning objectives 2.3, 2.4 will be examined through dedicated practical assignments while learning objective 2.6 will be examined in a final oral presentation (grading scale: G U 3 4 5)

Learning objectives 2.7 will be assessed in module 0019, managed by LTU university library, while learning objectives 1.5 and 3.3 will be assessed in a dedicated online module (0020) and test.

All included examination parts must be completed for the final grade on the course.

Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term "unauthorized aids" refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

Overlap

The course F0007B is equal to S0002B

Course offered by

Department of Civil, Environmental and Natural Resources Engineering

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0014	Lectures and theory	U G#	2	Mandatory	A23	
0015	Field exercise	U G#	2.5	Mandatory	A23	
0016	Building design	G U 3 4 5	3.5	Mandatory	A23	
0017	Urban design	G U 3 4 5	3.5	Mandatory	A23	
0019	Library module	U G#	0.5	Mandatory	A23	
0020	Gender equality	U G#	0.5	Mandatory	A23	
0021	Representation and communication	G U 3 4 5	2.5	Mandatory	A24	

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 2024-02-14

Syllabus established

Kursplanen är fastställd av Institutionen för samhällsbyggnad 2008-01-22 att gälla från H08.