Course Unit Descriptor

Study Programme: Civil Engineering

Course Unit Title: Timber structures

Course Unit Code: 029

Name of Lecturer(s): Assistant Professor Ljiljana M. Kozarić

Type and Level of Studies: Undergraduate academic studies

Course Status (compulsory/elective): Compulsory

Semester (winter/summer): Winter

Language of instruction: English

Mode of course unit delivery (face-to-face/distance learning): Face-to-face

Number of ECTS Allocated: 6

Prerequisites: Strength of Materials 1 and 2

Course Aims:

This course introduces students to timber constructions. Students are gaining knowledge about basic procedures for design and construction of timber structures and mastering the methodology of designing technical solutions for these purposes. They are introduced to application of valid national regulations and with the new European regulations.

Learning Outcomes:

Realization of the foreseen goals.

Syllabus:

Theory

1st week	The permissible stress design.
2nd week	Fasteners. Design principles and calculations.
3rd week	Types of splice joints for timber structural members.
4th week	Timber frame shed roof. Design principles and calculations.
5th week	Timber frame gable roof. Design principles and calculations.
6th week	Timber roof trusses. Design principles and calculations.
7th week	Timber roof trusses. Connection details.
8th week	Glued laminated timber.
9th week	Glued laminated timber structures. Design principles and calculations.
10th week	Timber halls. Layout design.
11th week	Timber halls. Structural elements. Design principles and calculations.
12th week	Timber-steel composite structures.
13th week	Timber bridges.
14th week	EC-5.
15th week	Guidelines for preparing a seminar paper. Summarizing course content.

Practice

Week by week practice is following lectures

Required Reading:

1. Gojković Milan: Drvene konstrukcije, Građevinska knjiga, Beograd, 1990.
2. Gojković Milan: Boško Stevanović : Drvene konstrukcije, Građevinska knjiga, Beograd, 1990.

3. Važeći propisi i standardi, EC-5 4. Romić: Lepljene lamelirane konstrukcije, Građevinska knjiga, Beograd, 1994.			
Weekly Contact Hours: 5	**Lectures**: 2	**Practical work:** 2	
Teaching Methods: Lectures, exercises, seminars, consultations			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	**Final exam**	points
Active class participation	5	written exam	30
Practical work	5	oral exam	30
Preliminary exam(s)	/	…….	
Seminar(s)	30		
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			