# General Information:

Name of Course: ENGINEERING TIMBER STRUCTURES

Course Code: EPB393ANEP

Semester: 6th

Number of Credits: 2

Allotment of Hours per Week: 2 Lectures /Week 1 Prectice/Week

Evaluation: mid-semester tasks, exam

Prerequisites: Mechanics

Responsible lecturer: Tibor BAKÓ dr., associate professor

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## General Subject Description

The goal of the semester is that the students should learn the conventional timber structures, and should be able to solve the design of the execution drawings independently.

## Examination and evaluation system

*In all cases.* *Annex 5 of the Statutes of the University of Pécs, the* ***Code of Studies and Examinations (CSE) of the University of Pécs*** *shall prevail. https://english.mik.pte.hu/codes-and-regulations*

|  |  |  |
| --- | --- | --- |
| **Exam** |  |  |
| **written exam** | design task, detail drawings and calculation examples (90 minutes) | 50 points |
|  |  |  |
| **Total** |  | **50 points** |

**Mode of the examination:**

* written exam (drawings, calculation example) – 90 minutes

Grading Scale:

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| --- | --- | --- | --- | --- | --- |
| Numeric Grade: | 5 | 4 | 3 | 2 | 1 |
|  | A, excellent | B, good | C, avarage | D, satisfactory | F, Fail |
| Evaluation in points: | 88%-100% | 77%-87% | 66%-76% | 55%-65% | 0-54% |

## Readings and Reference Materials

**Required:** Theodor Hugues-Ludwig Steiger-Johann Weber : Timber construction

Jack Porteous-Abdy Kerman: Structural Timber design according to Eurocode 5

**More:** Julius Natterer-Wolfgang Winter-Thomas Herzog-Roland Schweitzer-Michael Volz : Holzbau Atlas

## Methodology

Lectures are augmented by visual presentations and demonstration models. The material is consecutive; thus no lectures should be missed.

# Detailed requirements and schedule of the Course

## Schedule

|  |  |
| --- | --- |
|  | Lecture |
| 1. | Wood as stuctural material, properties |
| 2. | History of timber structures |
| 3. | Historical timber structures |
| 4. | Engineering joints, timberwork details |
| 5. | Engineering slab structures |
| 6. | Enginering roof structures |
| 7. | Non load bearing structures |
| 8. | Wood protection |
| 9. | Holiday |
| 10. | Basis of structural design |
| 11. | Glue-laminated cross section design |
| 12. | Connection design #1 |
| 13. | Connection design #2 |
| 14. | Moment capacity of connections |
| 15. | Final lecture |

## Task description

During the semester the students will be familiar with the conventional timber structures and the construction method of these structures. Conventional and engineering roof structures, slabs structures, timber frame buildings. Further matherials: basis of structural design, basis of timber design and analysis, connection design.

We reserve the right to make changes to the details of this course syllabus (date / location / clarifications), which will be communicated to the students. In case of questions and problems that arise during the semester contact the responsible lecturer or the study program coordinator.

Tibor BAKÓ dr.

responsible lecturer

Pécs, 28.08.2019