Structures Project Work - BMEEOHSMsFST06-00 - 2025/26/2

I. Subject Specification

1. Basic Data

1.1 Title

Structures Project Work

1.2 Code

BMEEOHSMSFST06-00

1.3 Type

Module without associated contact hours

1.4 Contact hours

Type	Hours/week / (days)
Seminar	2

1.5 Evaluation

Midterm grade

1.6 Credits

5

1.7 Coordinator

name	Dr. Vigh László Gergely
academic rank	Associate professor
email	vigh.laszlo.gergely@emk.bme.hu

1.8 Department

Department of Structural Engineering

1.9 Website

epito.bme.hu
https://edu.epito.bme.hu/course/view.php?id=5372

1.10 Language of instruction

hungarian

1.11 Curriculum requirements

Compulsory in the Specialization of Structures, Strcutural Engineering (MSc) programme

1.12 Prerequisites

1.13 Effective date

1 September 2025

2. Objectives and learning outcomes

2.1 Objectives

The objective of the course is that the student shall solve a structure-specific problem, by which his/her problem solving skills are improved, gains the skill of literature review, aims the comprehensive thinking. Aim is that the student becomes able to efficiently solve problems arising during design or research tasks. The subject of the study can be any structure-related problem discussed and agreed with the supervisor; not exclusively: modelling, analysis and/or design of part of or whole structural system, experimental analysis; research, research and development or expert design task; based on individual problem statement or joining to ongoing research program. The aim is that during the semester, students will acquire a complex knowledge of structural analysis and problem solving at a level that will allow them to present this competence as an element of their portfolio.

2.2 Learning outcomes

Upon successful completion of this subject, the student:

A. Knowledge

1) understands the background and theoretical background of the problem, 2) is aware of the most important literature of the problem, 3) knows the major computational, numerical methods related to the problem, 4) is aware of the benefits, disadvantages and limitations of the selected method,

B. Skills

1) applies the selected methods, tools, 2) evaluates the obtained results, 3) is able to assess the regulations and standards related to the problem,

C. Attitudes

1) collaborates with the teacher in gaining knowledge, 2) is continuously gaining knowledge, 3) is open to the use of IT tools and equipments, 4) makes effort to understand and to use the tools in use, 5) aims accuracy in his/her calculations/solutions, 6) aims understanding the criticism, 7) applies self-checking of his/her calcuations, corrects the mistakes,

D. Autonomy and Responsibility

1) is independent in problem statements and solutions, 2) aims understanding the complexity, comprehensiveness of the problems and recognizing the synergies.

2.3 Methods

Under continuous supervision individually solves homework, communication in oral and written form, use IT tools and equipments. The knowledge of the subject helps to synthesise knowledge from previous subjects, and therefore the subject also uses the Research Based Learning method.

2.4 Course outline

1. Introduction, project work assignment. 2. Literature review, topic options. 3. Literature review, consultation. 4. Finalization of topic selection and literature review. Summary. 5. Project-specific consultation. 6. Project-specific consultation. 7. Project-specific consultation. 8. Summary, consultation. 9. Project-specific consultation. 10. Project-specific consultation. 11. Project-specific consultation. 12. Project-specific consultation. 13. Project-specific consultation. 14. Summary.
The above programme is tentative and subject to changes due to calendar variations and other reasons specific to

the actual semester. Consult the effective detailed course schedule of the course on the subject website.

2.5 Study materials

a) Textbooks, literature: project-specific, consult with the supervisor b) Online materials: materials uploaded to the web site of the subject, e.g.: general presentation slides guidelines

2.6 Other information

0

2.7 Consultation

The instructors are available for consultation during their office hours, as advertised on the department website. Special appointments can be requested via e-mail.

This Subject Datasheet is valid for:

II. Subject requirements

Assessment and evaluation of the learning outcomes

3.1 General rules

The achievements of this course will enable the student to demonstrate mastery of the structural engineering profession on completion of the full course if the final grade is excellent (5). The assessment of the learning outcomes specified in clause 2.2. above and the evaluation of student performance occurs via homework and active consultation work.

3.2 Assessment methods

Assessment Name (Type)	Code	Assessed Learning Outcomes
Homeworkof the progress presentations are accepted by the supervisor.	HW	
active consultations	A	
Progress presentations are assigned to the homework; the actual schedule is announced on the web site of the subject. Criterion for final submission of the homework is that at least 50		

The dates of deadlines of assignments/homework can be found in the detailed course schedule on the subject's website.

3.3 Evaluation system

Code	Weight
HW	80%
A	20%
Total	100%

3.4 Requirements and validity of signature

No signature can be obtained.

3.5 Grading system

Grade	Score (P)
excellent (5)	85≤P
good (4)	75≤P<85%
satisfactory (3)	60≤P<75%
pass (2)	50≤P<60%
fail (1)	P<50%

3.6 Retake and repeat

1) Each progress presentation can be repeated one week after the normal deadline. (penalty fee applies) 2) Late submission of HF is possible on the last day of the supplementary week by 12:00, electronically via the website

of the subject. (penalty fee applies) 3) “Active consultation” A cannot be repeated, cannot be substituted with other forms of activity.

3.7 Estimated workload

Activity	Hours/Semester
contact hours	14×2=28
homework	84
preparation for progress presentation	6
home studying of the written material	30

3.8 Effective date

1 September 2025

This Subject Datasheet is valid for: