Structures project - BMEEOHSMS5P - 2024/25/2

I. Subject Specification

1. Basic Data

1.1 Title

STRUCTURES PROJECT

1.2 Code

BMEEOHSMS5P

1.3 Type

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

1.8 Department

Department of Structural Engineering

1.9 Website

https://epito.bme.hu/BMEEOHSMS5P
https://edu.epito.bme.hu/course/view.php?id=2451

1.10 Language of instruction

hungarian and english

1.11 Curriculum requirements

Optional in the Structural Engineering (MSc) programme

1.12 Prerequisites

Recommended prerequisites:

- Structures 1 (BMEEOHSMS51)

1.13 Effective date

5 February 2020

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.

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.

2.4 Course outline

Week	Topics of lectures and/or exercise classes
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

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 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

Evaluation form	Abbreviation	Assessed learning outcomes
Homework	HF	A.1-A.4; B.1-B.3; C.1-C.7; D.1-D.2
active consultations	A	A.1-A.4; B.1-B.3; C.1-C.7; D.1-D.2

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

3.3 Evaluation system

Abbreviation	Score
HF	80%
A	20%
Total in semester	**100%**
Sum	**100%**

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% of the progress presentations are accepted by the supervisor.

3.4 Requirements and validity of signature

No signature can be obtained.

3.5 Grading system

Semester grade is failed, if any of the following applies:

- Less than 50%of the progress presentations are satisfied.
- Homework is failed if the sum of the homework and consultation points HF + A does not reach 50% of the achievable points.

The final grade is computed on the basis of the sum of HF1 + A, as follows:

Grade	Points (P)
excellent (5)	85<=P
good (4)	75<=P<85%
satisfactory (3)	60<=P<75%
passed (2)	50<=P<60%
failed (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
Sum	**150**

3.8 Effective date

5 February 2020

This Subject Datasheet is valid for: