

COURSE SYLLABUS SEMESTER SPRING 2021/2022

<i>Name of Course</i>	<i>Steel-Concrete Composite Structures</i>
<i>Course Code</i>	MSB391AN
<i>Allotment of hours per week</i>	1/1/0
<i>Number of credits</i>	2
<i>Program</i>	Civil Engineering (BSc)
<i>Evaluation</i>	Course mark
<i>Semester</i>	6th
<i>Prerequisites</i>	Reinforced Concrete Structures 2, Steel Structures 2
<i>Department</i>	Civil Engineering
<i>Instructor</i>	András Dormány

INTRODUCTION, GENERAL COURSE DESCRIPTION

The aim of the course is to present the types of composite structures, working mechanism of them and the construction methods. The students have to learn the design methods according to Eurocode.

LEARNING OBJECTIVES

The working mechanism of composite structures. Load bearing capacity of steel-composite structures in case of partial and full interaction. Longitudinal shear and shear connections. Effects of slip on stresses and deflection. Design of simply supported beam and slab. Design of multi-supported beams and slabs. Composite columns and frames. Serviceability Limit States.

Schedule:

Lecture:

1. Types of Steel-concrete composite structures, plastic analysis of simply supported composite structures
2. Plastic analysis of multi-supported composite structures, interaction of bending and shear
3. Plastic analysis of multi-supported beams and bridges
4. Stability of composite structures, longitudinal shear, full and partial interaction
5. Design of shear connection, serviceability Limit States
6. Composite columns

Practice:

1. Effect of shrinkage and creep in Steel-concrete composite structures
2. Calculation of simply supported beam
3. Design of shear connection
4. Full and partial interaction
5. Serviceability Limit States
6. Consultation

ATTENDANCE AND GRADING

Attendance:

Attending is required all classes, and will impact the grade (max. 10%). Unexcused absences will adversely affect the grade, and in case of absence from more than 30% of the total number of lesson will be grounds for failing the class. To be in class at the beginning time and stay until the scheduled end of the lesson is required, tardiness of more than 20 minutes will be counted as an absence. In the case of an illness or family emergency, the student must present a valid excuse, such as a doctor's note.

Grading:

Offered exam grade:

Evaluation in percents	Numeric grade
85 p – 100 p 100%	5
71 p – 84 p 84%	4
60 p – 70 p 70%	3
50 p – 59 p 59%	2
0 p – 49 p 49%	1

READING AND REFERENCE MATERIALS

- [1.] R.P. Johnson: Composite Structures of Steel and Concrete, third edition, 2004
ISBN 1-4051-0035-4

FURTHER INSTRUCTION

Masking required indoors

The University of Pécs requires masking indoors for both vaccinated and unvaccinated individuals per the following:

- Masks should properly cover both the nose and mouth.
- More protective surgical, KN95 or N95 masks are highly recommended; bandanas and gators are not permitted.

- Faculty may unmask while teaching if 4 m of distance is maintained. All students must always wear masks.
- Individuals may only remove masks indoors when:
 - o in an enclosed room alone.
 - o actively eating or drinking.

SCHEDULE

		STUDY PERIOD, WEEKS															EXAM PERIOD				
SEMESTER SPRING 2020/2021		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	1.	2.	3.	4.	5.
Lecture number		1		2		3		4		5				6							
Practice number			1		2				3		4		5		6						
Semester assignment	publishing								X												
	submission															X					
Course mark																	M				

07.02.2022

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responsible lecturer