

**COURSE SYLLABUS AND COURSE REQUIREMENTS**  
**ACADEMIC YEAR 2022/2023 SEMESTER 2ND**

<i>Course title</i>	<i>Organization of structural assemblies</i>
<i>Course Code</i>	MSM052AN
<i>Hours/Week: le/pr/lab</i>	2/0/0
<i>Credits</i>	2
<i>Degree Programme</i>	Structural Engineering MSc
<i>Study Mode</i>	full time course
<i>Requirements</i>	signature (with grade)
<i>Teaching Period</i>	2 <sup>nd</sup>
<i>Prerequisites</i>	-
<i>Department(s)</i>	<i>Department of Engineering Studies</i>
<i>Course Director</i>	Balázs Füredi dr.
<i>Teaching Staff</i>	<i>Balázs Füredi dr.</i>

**COURSE DESCRIPTION**

*Neptun: Instruction/Subjects/Subject Details/Basic data/Subject description*

By the syllabus of the subject, students will learn about the organizational issues of construction processes, with particular regard to buildings affected by technological design. The construction know-how, assembly and organizational solutions of prefabricated building systems will be discussed.

**SYLLABUS**

*Neptun: Instruction/Subjects/Subject Details/Syllabus*

**1. GOALS AND OBJECTIVES**

*Neptun: Instruction/Subjects/Subject Details/Syllabus/Goal of Instruction*

Further development of the knowledge acquired during the bachelor's degree, placing it on a practical basis at the engineering level. The transfer and acquisition of hands-on practical knowledge that can be applied in everyday life. The knowledge acquired during the semester deals with the design and implementation of general and special technologies.

**2. COURSE CONTENT**

*Neptun: Instruction/Subjects/Subject Details/Syllabus/Subject content*

**TOPICS**

<b>LECTURE</b>	<b>TOPICS</b>
	<ol style="list-style-type: none"> <li>1. <i>topic : Relationship between main construction processes and service processes</i></li> <li>2. <i>topic: Solutions for transport processes, concrete transport, examination of mixer truck turnaround time</i></li> <li>3. <i>topic: Preparation of delivery plans, modern deliveries</i></li> <li>4. <i>topic: Construction mechanization, analysis of machine work time distribution</i></li> <li>5. <i>topic: Responsibilities of workplace organization</i></li> <li>6. <i>topic: Resolutions of prefabricated structures, analysis of junctions from the contractor's point of view</i></li> <li>7. <i>topic: The basics of creating an assembly technology sequence plan</i></li> <li>8. <i>topic: Installation of steel structures, frame and lightweight system</i></li> </ol>

During the lectures students will learn all of the topics which are in the previous "TOPICS" schedule. Besides the lectures, they are going to attend construction site visits where they can learn the practical knacks of the trade.

*Important note: Taking into account the meteorological conditions and the currently valid legal regulations and the possible pandemic situation in Hungary, as well as the mandatory university closures, the practical site visits may be modified.*

The requirements are issued according to the course syllabus, which are uploaded to the Neptun and MS Teams interfaces of the course, as well as to the "witch" server of the Faculty, together with the lecture materials and help documents. Information related to the subject will also be available on these interfaces.

## DETAILED SYLLABUS AND COURSE SCHEDULE

### LECTURE

week	Topic	Compulsory reading; page number (from ... to ...)	Required tasks (assignments, tests, etc.)	Completion date, due date
1.	Relationship between main construction processes and service processes.	lecture notes	-	06.02.2023.
2.	Transport process solutions, concrete transport. Examination of mixer trolley turning time.	lecture notes	preparation from the previous lecture	13.02.2023.
3.	Preparation of delivery plans, modern deliveries.	lecture notes	preparation from the previous lecture	20.02.2023.
4.	Construction mechanization, analysis of machine work time distribution.	lecture notes	preparation from the previous lecture	27.02.2023.
5.	Responsibilities of workplace organization.	lecture notes	preparation from the previous lecture	06.03.2023.
6.	Resolutions of prefabricated structures, analysis of junctions from the contractor's point of view I.-II. Issuance of an organizational task.	lecture notes	preparation from the previous lecture	13.03.2023.
7.	Load grips, lifting loads, assembly aids (change of position, taking on additional loads, temporary bracing).	lecture notes	preparation from the previous lecture	20.03.2023.
8.	The basics of creating an assembly technology sequence plan.	lecture notes	preparation from the previous lecture	27.03.2023.
9.	SPRING BREAK	lecture notes	preparation from the previous lecture	03.04.2023.
10.	EASTER DAY	lecture notes	preparation from the previous lecture	10.04.2023.
11.	The basics of creating an assembly technology sequence plan.	lecture notes	preparation from the previous lecture	17.04.2023.
12.	Installation of steel structures, frame and lightweight systems. Submission of an organizational task.	lecture notes	preparation from the previous lecture	24.04.2023.
13.	LABOUR DAY	lecture notes	preparation from the previous lecture	01.05.2023.
14.	Midsemester test	lecture notes	Midsemester test during the time of the lecture	08.05.2023.
15.	Replied midsemester test	lecture notes	Replied midsemester test during the time of the lecture	15.05.2023.

### 3. ASSESSMENT AND EVALUATION

(Neptun: Instruction/Subjects/Subject Details/Syllabus/Examination and Evaluation System)

#### ATTENDANCE

In accordance with the Code of Studies and Examinations of the University of Pécs, Article 45 (2) and Annex 9. (Article 3) a student may be refused a grade or qualification in the given full-time course if the number of class absences exceeds 30% of the contact hours stipulated in the course description.

#### Method for monitoring attendance

Method for monitoring attendance: attendance sheet, which led to lectures and practices, every time

## ASSESSMENT

### Course-unit with final examination

#### Mid-term assessments, performance evaluation and their weighting as a pre-requisite for taking the final exam

Type	Assessment	Weighting as a proportion of the pre-requisite for taking the exam
1. <i>Semi-annual task</i>	<i>max 38 points</i>	50%
2. <i>Test</i>	<i>max 40 points</i>	
3. <i>Attendance at lectures and laboratory practices</i>	<i>max 14 points</i>	
4. <i>Visiting optional construction site tours</i>	<i>max 8 points</i>	
5. <i>Exam</i>	<i>max 100 points</i>	50 %

#### Requirements for the end-of-semester signature

The conditions for successful completion of the semester are active class attendance, attendance at construction site visits in appropriate protective equipment, and successful completion of the mid-semester test and the exam.

Certified attendance at practical sessions is done in accordance with the regulations laid down in the topic! The practice leaders keep an attendance sheet/consultation sheet, with published and not attended/didn't prepare for class. The maximum number of absences allowed during practical classes is 30% according to the 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>), 2 occasion.

During the semester, students report on their work and knowledge several times.

Attendance at lectures are worth a total of 14 points during the semester.

During the semester, we organize on-site visits and construction visits, with an educational purpose. Their time and group assignments are determined individually and announced during the first education week. During the semester, the student can confirm his participation in two optional tours of the construction site at a time determined in advance by the instructors by signing the attendance led by the Organizer. Therefore, 4-4 points are awarded, which are included in the semester score.

#### Re-takes for the end-of-semester signature

The semester closes at the end of the 15th week. Mid-semester tests that do not reach the minimum score can be corrected once during the due diligence period.

Points of exam:

85 p – 100 p	85-100% (5, excellent)
70 p – 85 p	70-85% (4, good)
55 p – 70 p	55-70% (3, average)
40 p – 55 p	40-55% (2, satisfactory)
0 p – 40 p	-40% (1, fail)

**Type of examination** (written, oral): **written**

**The exam is successful if the result is minimum 40 %.**

#### Calculation of the grade

The mid-term performance accounts for **50 %**, the performance at the exam accounts for **50 %** in the calculation of the final grade.

#### Calculation of the final grade based on aggregate performance in percentage.

Course grade	Performance in %
excellent (5)	85 % ...
good (4)	70 % ... 85 %
satisfactory (3)	55 % ... 70 %
pass (2)	40 % ... 55 %
fail (1)	below 40 %

The lower limit given at each grade belongs to that grade.

## 4. SPECIFIED LITERATURE

*In order of relevance. (In Neptun ES: Instruction/Subject/Subject details/Syllabus/Literature)*

### **COMPULSORY READING AND AVAILABILITY**

[1.] R. Chudley, R. Greeno - Building construction handbook seventh edition (2008), ISBN: 978-0-7506-86228

### **RECOMMENDED LITERATURE AND AVAILABILITY**

[1.] Sidney Levy - Construction process planning and Management (2010), ISBN : 978-1-85617-548-7

[2.] Emad Elbeltagi - Lecture notes on construction project management (2009)

[3.] S.W. Nunnally – Construction Methods and Management (2007), ISBN 0-13-171685-9

[4.] Frank R. Dagostino, Steven J. Peterson - Estimating in Building Construction (2011), ISBN-13: 978-0-13-119952-1

[5] Københavns Erhvervsakademi and VIA University College, Horsens(E-BOOK) (2011)