

COURSE SYLLABUS AND COURSE REQUIREMENTS

ACADEMIC YEAR 2022/2023 SEMESTER II

<i>Course title</i>	Sustainability in Structures
<i>Course Code</i>	SZM009AN/MN
<i>Hours/Week: le/pr/lab</i>	Three hours/week
<i>Credits</i>	3
<i>Degree Programme</i>	MSc Structural Engineers
<i>Study Mode</i>	Full time
<i>Requirements</i>	Mid Term Assessment
<i>Teaching Period</i>	2022/2023 II
<i>Prerequisites</i>	None
<i>Department(s)</i>	Department of Civil Engineering
<i>Course Director</i>	Dr Zoltán Orbán
<i>Teaching Staff</i>	Dr Zoltán Orbán/Tamás Juhász/Marcus Juby

COURSE DESCRIPTION

This course is intended for MSc Structural Engineering students and aims to cover important subjects such as sustainability, research methods, and academic writing. Students will work in teams to conduct research and write an article in the field of structural engineering and sustainability. The course will also be beneficial for students working on their final thesis. The group aspect of the course will provide students with valuable experience in collaborating towards a common goal. The course will include lectures on sustainability, academic writing, and research methods to guide students in their work. Upon completion, students will have acquired the necessary knowledge and skills to conduct high-quality research and contribute to the advancement of their field.

SYLLABUS

1. GOALS AND OBJECTIVES

The course will provide students with many of the knowledge and skills needed to do research and write an academic paper in the field of sustainability and structural engineering.

Objectives:

- Students will go through the stages necessary to write and publish an academic paper as part of a group.

Generic learning outcomes:

The course will focus on:

- teaching students about sustainability in the context of structural engineering
- providing students with the skills and knowledge needed to conduct research and write an article in the field of structural engineering and sustainability
- giving students experience in working in teams towards a specific goal
- providing students with guidance on academic writing and research methods
- helping students develop their abilities to contribute to the advancement of their field.

2. COURSE CONTENT

TOPICS

LECTURE

1. The importance of sustainability
2. Academic Paper Designing a Study
3. Working as part of a team
4. Project Management Software

5. Use of ChatGPT in research
6. Sustainable structural materials
7. Recycling materials
8. Natural Materials and Biomimicry
9. Sustainable construction methods

DETAILED SYLLABUS AND COURSE SCHEDULE

ACADEMIC HOLIDAYS INCLUDED

LECTURE

week	Topic	Compulsory reading; page number	Required tasks (assignments, tests, etc.)	Completion date, due date
1.	Introduction Lecture – The importance of sustainability	Lecture uploaded to Teams		
2.	Structure of an Academic Paper Designing a Study	Lecture uploaded to Teams	Choose topic and write brief overview of study	Feb 21st
3.	Working as part of a team/Project Management Software/ChatGPT	Lecture uploaded to Teams	Literature review	
4.	Writing an Introduction	Morley, John. The Academic Phrasebook: An Academic Writing Resource for Students and Researchers. University of Manchester, 2017. Pg 7-30	Write Introduction Literature Review	March 14th
5.	Referring to Literature	Morley, John. The Academic Phrasebook: An Academic Writing Resource for Students and Researchers. University of Manchester, 2017. Pg 30-43	Write a research question Literature Review	
6.	Describing Methods	Morley, John. The Academic Phrasebook: An Academic Writing Resource for Students and Researchers. University of Manchester, 2017. Pg 43-51	Design and conduct the study	
7.	LCA – Recycling Concrete Consultation	Lecture uploaded to Teams	Design and conduct the study	
8.	Reporting Results Using Natural Materials	Lecture uploaded to Teams Morley, John. The Academic Phrasebook: An Academic Writing Resource for Students and Researchers. University of Manchester, 2017. Pg 51-58	Collect and analyse data	April 25th
9.	<i>Break</i>			
10.	Discussing Findings Consultation Biomimicry Consultation	Lecture uploaded to Teams Morley, John. The Academic Phrasebook: An Academic Writing Resource for Students and Researchers. University of Manchester, 2017. Pg 58-65		
11.	Writing Conclusions	Morley, John. The Academic Phrasebook: An Academic Writing Resource for Students and Researchers. University of Manchester, 2017. Pg 65-75		
12.	Consultation and group work			

13.	Consultation		Complete draft and upload to Teams	May 2nd
14.	Consultation		Revise	
15.	Final deadline for article		Submit finished article	May 16th

Important: All material will be uploaded to Teams

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 or does not participate effectively in groupwork.

Method for monitoring attendance (e.g.: attendance sheet / online test/ register, etc.)

Register

ASSESSMENT

Course resulting in mid-term grade (PTE TVSz 40§(3))

Mid-term assessments, performance evaluation and their ratio in the final grade (The samples in the table to be deleted.)

Type	Assessment	Ratio in the final grade
Submission and Publication of Academic Article	70 points	70%
Presentation of research	30 points	30%
Total	100 points	100%

Please note that assessment is based on groupwork and the writing and submission of a paper suitable for an academic journal. The marks within the group will be based on the contribution of the individual students towards the article.

Opportunity and procedure for re-takes (PTE TVSz 47§(4))

Contact the teacher if you would like to request an extension for late submission of assignments.

Grade calculation as a percentage

based on the aggregate performance according to the following table

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

COMPULSORY READING AND AVAILABILITY

[1.] Unless otherwise notified all course materials and links will be uploaded to MS-Teams

RECOMMENDED LITERATURE AND AVAILABILITY

[2.] Morley, John. The Academic Phrasebook: An Academic Writing Resource for Students and Researchers. University of Manchester, 2017.

- [3.] Dirk Kestner, Jennifer Goupil, Emily Lorenz. Sustainability Guidelines for the Structural Engineer. American Society of Civil Engineers, 2020. ISBN: 978-0-7844-7612-3
- [4.] Bailey, Stephen. Academic Writing: A Handbook for International Students. Routledge, 5th Edition, 2017. ISBN: 978-1138048744
- [5.] Barros, Luiz Otavio. The Only Academic Phrasebook You'll Ever Need. Luiz Otavio Barros, 2021.
- [6.] T. Boake (n.d.). "Design for Deconstruction and Material Reuse in Seattle." Retrieved from https://www.tboake.com/sustain_casestudies/DfDseattle.pdf