

COURSE SYLLABUS AND COURSE REQUIREMENTS

ACADEMIC YEAR 2022/2023 SEMESTER I

<i>Course title</i>	International Engineering Project
<i>Course Code</i>	SZB068AN
<i>Hours/Week: le/pr/lab</i>	3 hr/week
<i>Credits</i>	3
<i>Degree Programme</i>	All
<i>Study Mode</i>	Full time
<i>Requirements</i>	Open to Undergraduate students only
<i>Teaching Period</i>	2022/2023 I
<i>Prerequisites</i>	2 semesters study and a good level of English
<i>Department(s)</i>	Department of Civil Engineering
<i>Course Director</i>	Dr Zoltán Orbán
<i>Teaching Staff</i>	Dr Zoltán Orbán, Marcus Juby

COURSE DESCRIPTION

The course 'International Engineering Project' is a multidisciplinary project that runs in cooperation with the University of Brunel and Engineers without Borders (EWB) UK. It is based on the Engineers without Borders Design Challenge where students need to work together to solve a real world issue affecting an impoverished community chosen by EWB. One part of the course will be made up of lectures from the organisers and guest lecturers and the other component of the course will be aimed at solving the design challenge. The course provides future engineers with experience in working together to solve problems and also taking into account what it means to be a globally responsible engineer.

SYLLABUS

1. GOALS AND OBJECTIVES

The generic aim of the course is to provide students with international networking opportunities, awareness of wider engineering practices, technical and interpersonal skills.

Objectives:

- Take part in an international student design project working with students from multiple countries
- Develop industry-relevant experience working on international engineering projects
- Investigate design projects in their wider context
- Develop awareness of international engineering practices, teamworking skills and effective communication skills

Generic learning outcomes:

- Ability to integrate and apply knowledge and understanding within engineering and related disciplines
- Investigate the design task in its wider context, for example client/stakeholder needs, codes of practice and standards, ethics
- Effectively communicate with team members
- Effectively convey engineering information
- Providing the opportunity for reflection about how you participate in group projects.

2. COURSE CONTENT

TOPICS

LECTURE

1. *Introduction*
2. *The importance of context*
3. *Working as part of a team*

4. *Engineers without Borders Workshop*
5. *Technical solutions for housing*
6. *Recycling building materials*
7. *Nature based solutions*
8. *Communication skills (creating videos, sources of royalty free material)*
9. *Introduction to Surveying*
10. *Project management*
11. *Report writing*
12. *Humanitarian Engineering*

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 of Engineers without Borders (EWB) Design Challenge and the instructors.	Design Challenge Brief	Log on to the EWB Website Read the Design Challenge Brief (see compulsory reading below)	September 20th
2.	Discussion on the EWB project book.			
3.	Joining of Students from Brunel, working as part of a team			
4.	EWB workshop			
5.	Technical solutions for housing			
6.	Recycling and repurposing building materials and spaces			
7.	Nature based solutions for building			
8.	Communication skills and sources of royalty free material			
9.	Autumn Break			
10.	Presentation of draft proposal		Video presentation of proposals	November 8 th
11.	Project management			
12.	Humanitarian engineering			
13.	Group tutorials			
14.	Presentation of Designs		Presentation of Final Designs	December 6 th
15.	Feedback		Personal Development Report submission	December 13 th

Important: Because this course is a cooperation between three organisations and will have numerous guest speakers, the timetable of the course syllabus is subject to change. You will be notified of any changes through Teams. All course material will be uploaded to Teams.

3. ASSESSMENT AND EVALUATION

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

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
Comprehension assignment on Design Challenge Brief	5 points	5 %
Presentation of proposal (week 10)	15 points	15 %
Presentation of final design (week 14)	40 points	40 %
Personal development journal (week 15)	40 points	40 %

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

Students need to contact the teacher in the case of late submission of assessment or resubmission of assessment tasks.

Grade calculation as a 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

COMPULSORY READING AND AVAILABILITY

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

[2.] Engineering for People Design Challenge Design Brief 2022-23 Govan Scotland, UK (available on teams or through the EWB link below)

RECOMMENDED LITERATURE AND AVAILABILITY

[3.] Engineers without Borders Design Challenge Site Login: <https://www.ewb-uk.org/upskill/design-challenges/engineering-for-people-design-challenge/govan/>

[4.] United Nations Sustainable Development Goals <https://sdgs.un.org/goals>