

General Information:

Name of Course:	RESEARCH PROJECT
Course Code:	SZBO36AN
Semester:	2nd
Number of Credits:	2
Allotment of Hours per Week:	2 Lectures /Week
Evaluation:	Signature (with grade)
Prerequisites:	None

Instructor: **Dr. Zoltan ORBAN, associate professor**
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Co-instructor: **Dr. Adél LEN, assistant professor**

Introduction, General Course Description:

By completing the course student will have the opportunity to investigate problems and questions they are interested in from the field of engineering. The selected research subject should have relevance to sustainable development. Through experimental research or exploration, instructors help students learn new ways to solve engineering problems or answer questions. Students take ownership of the details and course of the research, while mentors guide students on best practices in research within their competency fields. Students will have the chance to explore research in laboratory, under the guidance of graduate students and faculty staff.

Learning Objectives:

Students will have the knowledge and skills to:

- plan and engage in an independent and sustained critical investigation and evaluation of a chosen research topic,
- engage in systematic discovery and critical review of appropriate and relevant information sources,
- propose, develop and evaluate different approaches for solving a research problem related to civil engineering,
- communicate research concepts and contexts clearly and effectively both in writing and orally.

Methodology:

- **Practical class (in group work):** Groups of 2-3 students each will be created. Each group will be assigned tasks to complete. These tasks have “research components” where students need to gather information, discuss and make conclusions together.
- **Students’ presentations:** Each student (or groups) will give a short presentation on the results of the selected research project.

Schedule:

Week	Topic of lecture
Week 1	Course description. Orientation. Introduction.
Week 2	Methodology of research I.

Week 3	Methodology of research II.
Week 4	Selection of topics
Week 5	Literature survey – selection of topics
Week 6	Literature survey – discussions
Week 7	Team work- consultancy
Week 8	<i>Break – no class</i>
Week 9	Team work- consultancy
Week 10	Team work- consultancy
Week 11	Team work- consultancy
Week 12	Presentations
Week 13	Presentations
Week 14	Presentations – submission of written essay
Week 15	Course summary

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:

20% - Attendance, active work at classes

60% - Assignments

20% - Presentation

Grade:	5	4	3	2	1
Evaluation in percents:	89%-100%	77%-88%	66%-76%	55%-65%	0-54%

Students with Special Needs:

Students with a disability and needs to request special accommodations, please, notify the Deans Office. Proper documentation of disability will be required. All attempts to provide an equal learning environment for all will be made.

Readings and Reference Materials:

<https://www.sciencedirect.com/>

Reference materials will be provided in printed or digital form by the instructors.