

COURSE INFORMATION					
Course Title	Code	Semester	L+P+L Hour	Credits	ECTS
Special Topics in Civil Engineering	CE 580	-	3+0+0	3	10

Prerequisites	-
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Language of Instruction	English
Course Level	Master's Degree (Second Cycle Programmes)
Course Type	Departmental Elective
Course Coordinator	-
Instructors	-
Assistants	-
Goals	The aim of this course is to help graduate students specialize in their area of research. Students are expected to ensure maximum benefits from the courses for their research interests and thesis study. The courses can be supported with assigned scientific articles, discussion periods and laboratory exercises with reports.
Content	Course content depends on the course topic. Course topics may include but not limited to: Engineering Seismology, Dynamics and Structure of Earth, Advanced Space Geodesy, Application of GIS in Hydrology, Coastal and Air Pollution, Marine Hazards and Tsunamis, Assessment of Seismic Hazards, Transportation Data and Risk Evaluation, Design of Timber Structures, Fibre Reinforced Cementitious Composite Materials, Laboratory Techniques for Geotechnical Engineering, Introduction to Nano and Micro Mechanics, Introduction to Railroad Engineering, Ground Improvement Methods, Advanced Transportation Materials, Advanced Water Resources Engineering, Construction Risk Management, Theory and Design for Measurements in Structural Engineering, Theory of Plates and Shells, Introduction to Theory of Elasticity, Advanced Fluid Mechanics, Analysis of Effective Stress and Seepage through Soils, Engineering Viscoelasticity and Rheology, Advanced Computational Hydraulics and Applications, Environmental Geotechnics, Sediment Transport and River Engineering, Pavement Materials and Management System, Bridge Engineering, Building Energy Physics, Lifecycle Assessment for Sustainable and Resilient Built Environment and Unified Theory of Concrete Structures.

Course Learning Outcomes	Program Learning Outcomes	Teaching Methods	Assessment Methods
1) Depends on the course content	Depends on the course	Depends on the course and the Instructors	Depends on the course and Instructors

Teaching Methods:	1: Lecture, 2: Question-Answer, Lab, 4: Case study
Assessment Methods:	A: Testing, B: Experiment, C: Homework, D: Project

COURSE CONTENT		
Week	Topics	Study Materials
1	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
2	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
3	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
4	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
5	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
6	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
7	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
8	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
9	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
10	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
11	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
12	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
13	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
14	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor
15	Weekly course schedule varies by the course content	Depends on the choice of the course Instructor

RECOMMENDED SOURCES	
Lecture Notes	Notes may be prepared by the instructor
Textbook	Textbooks depend on the choice of the course instructor

MATERIAL SHARING	
Documents	Depends on the choice of the course instructor
Assignments	Depends on the choice of the course instructor
Exams	Exams questions can be solved if requested

ASSESSMENT			
	IN-TERM STUDIES	NUMBER	PERCENTAGE
Mid-terms (The course assessment depends on the choice of the course instructor)		-	-
Quizzes (The course assessment depends on the choice of the course instructor)		-	-
Assignment (The course assessment depends on the choice of the course instructor)		-	-
Lab Work (The course assessment depends on the choice of the course instructor)		-	-
Term Project (The course assessment depends on the choice of the course instructor)		-	-
	Total		100
CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE			-
CONTRIBUTION OF IN-TERM STUDIES TO OVERALL GRADE			-
	Total		100

COURSE CATEGORY	Expertise/Field Courses
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COURSE'S CONTRIBUTION TO PROGRAM (Depends on the course content)						
No	Program Learning Outcomes	Contribution				
		1	2	3	4	5
1	Attains knowledge through wide and in-depth investigations his/her field and surveys, evaluates, interprets, and applies the knowledge thus acquired.					
2	Has a critical and comprehensive knowledge of contemporary engineering techniques and methods of application.					

3	By using unfamiliar, ambiguous, or incompletely defined data, completes and utilizes the required knowledge by scientific methods; is able to fuse and make use of knowledge from different disciplines.					
4	Has the awareness of new and emerging technologies in his/her branch of engineering profession, studies and learns these when needed.					
5	Defines and formulates problems in his/her branch of engineering, develops methods of solution, and applies innovative methods of solution.					
6	Devises new and/or original ideas and methods; designs complex systems and processes and proposes innovative/alternative solutions for their design.					
7	Has the ability to design and conduct theoretical, experimental, and model-based investigations; is able to use judgment to solve complex problems that may be faced in this process.					
8	Functions effectively as a member or as a leader in teams that may be interdisciplinary, devises approaches of solving complex situations, can work independently and can assume responsibility.					
9	Has the oral and written communication skills in one foreign language at the B2 general level of European Language Portfolio.					
10	Can present the progress and the results of his investigations clearly and systematically in national or international contexts both orally and in writing.					
11	Knows social, environmental, health, safety, and legal dimensions of engineering applications as well as project management and business practices; and is aware of the limitations and the responsibilities these impose on engineering practices.					
12	Commits to social, scientific, and professional ethics during data acquisition, interpretation, and publication as well as in all professional activities					

ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION			
Activities	Quantity	Duration (Hour)	Total Workload (Hour)
Course Duration (Excluding the exam weeks: 14x Total course hours)	14	3	42
Hours for off-the-classroom study (Pre-study, practice)	-	-	-
Midterm examination	-	-	-
Homework	-	-	-
Project	-	-	-
Final examination	-	-	-
Total Work Load			240
Total Work Load / 25 (h)			10
ECTS Credit of the Course			10