

COURSE INFORMATION					
Course Title	Code	Semester	L+P+L Hour	Credits	ECTS
<b>CONSTRUCTION PROCESS PLANNING AND MANAGEMENT</b>	CE 560	-	3+0+0	3	10

<b>Prerequisites</b>	
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<b>Language of Instruction</b>	English
<b>Course Level</b>	Master's Degree (Second Cycle Programs)
<b>Course Type</b>	Departmental Elective
<b>Course Coordinator</b>	Assist. Prof. Dr. Özgür Köylüoğlu
<b>Instructors</b>	Assist. Prof. Dr. Özgür Köylüoğlu
<b>Assistants</b>	-
<b>Goals</b>	The goal of this course is to introduce the students to the decision parameters shaping the project delivery methods and to teach the students about design of phases of a construction based on these decisions.
<b>Content</b>	Construction process design, bidding and construction management and organization; systems for scope management; time management; procurement management; human resources management; communication management; change management; risk management; contract management; reporting; approval and commissioning.

Course Learning Outcomes	Program Learning Outcomes	Teaching Methods	Assessment Methods
1) Ability to define the construction process from feasibility to close out	8, 9, 10, 11, 12	1,2	A, B, C
2) Ability to define the roles and responsibilities of the stakeholders in construction	8, 9, 10, 11, 12	1,2	A, B, C
3) Ability to define the decision parameters shaping the selection of tendering and contracting systems	8, 9, 10, 11, 12	1,2	A, B, C
4) Ability to define the key management issues during the construction process	8, 9, 10, 11, 12	1,2	A, B, C

<b>Teaching Methods:</b>	1: Lecture, 2: Class discussion
<b>Assessment Methods:</b>	A: Written Exam, B: Homework, C: Term Project

COURSE CONTENT		
Week	Topics	Study Materials
1	Introduction	Lecture Notes and Textbook
2	Modelling the Process of Construction	Lecture Notes and Textbook
3	Selection of Procurement Methods	Lecture Notes and Textbook
4	Integration of Project Participants.	Lecture Notes and Textbook
5	Scope Management.	Lecture Notes and Textbook
6	Time Management.	Lecture Notes and Textbook
7	1 <sup>st</sup> Midterm Exam	Lecture Notes and Textbook
8	Procurement Management.	Lecture Notes and Textbook
9	Human Resources Management.	Lecture Notes and Textbook
10	Communication Management.	Lecture Notes and Textbook
11	Change Management	Lecture Notes and Textbook
12	Risk Management.	Lecture Notes and Textbook
13	Contract Management.	Lecture Notes and Textbook
14	2 <sup>nd</sup> Midterm Exam	Lecture Notes and Textbook
15	Documenting, Approval, Acceptance and Commissioning	Lecture Notes and Textbook

RECOMMENDED SOURCES	
<b>Lecture Notes</b>	Notes prepared by the instructor
<b>Textbook</b>	<p><b><u>Management of Construction Projects: A Constructor's Perspective</u></b>            Authors: J.E. Schaufelberger, L. Holm; Routledge, Taylor&amp;Francis, 2017</p> <p><b><u>Managing the Construction Process: Estimating, Scheduling and Project Control</u></b>            Authors: F. Gould, Pearson, Prentice Hall, 2012</p> <p><b><u>Successful Contract Administration</u></b>            Authors: C.W. Cook, Routledge, Taylor&amp;Francis, 2014.</p> <p><b><u>Organization Management in Construction</u></b>            Editors: P.S. Chinowsky, A.D. Songer, Spon Press.</p>

<b>MATERIAL SHARING</b>	
<b>Documents</b>	Lecture notes delivered to the students
<b>Assignments</b>	Homeworks are returned to students after they are graded
<b>Exams</b>	Exams questions are solved if demanded

<b>ASSESSMENT</b>			
	<b>IN-TERM STUDIES</b>	<b>NUMBER</b>	<b>PERCENTAGE</b>
Mid-terms		2	60
Assignment		6	20
Term Project		1	20
<b>Total</b>			<b>100</b>
<b>CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE</b>			40
<b>CONTRIBUTION OF IN-TERM STUDIES TO OVERALL GRADE</b>			60
<b>Total</b>			<b>100</b>

<b>COURSE CATEGORY</b>	Expertise Courses
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<b>COURSE'S CONTRIBUTION TO PROGRAM</b>						
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: 13x Total course hours)	13	3	39
Hours for off-the-classroom study (Pre-study, practice)	13	3	39
Midterm examination	2	2	20
Homework	6	15	90
Project	1	40	40
Final examination	1	2	14
<b>Total Work Load</b>			242
<b>Total Work Load / 25 (h)</b>			10
<b>ECTS Credit of the Course</b>			10