



HASAN KALYONCU UNIVERSITY
Faculty of Engineering
Course Description Form

COURSE: Construction Management					
CODE: CE332		SEMESTER: SPRING			
LANGUAGE: ENGLISH		TYPE: COMPULSORY			
PRE-REQUISITES: - CO-REQUISITES: -		THEORY	PRACTICAL	CREDIT	ECTS
WEEKLY HOURS: 3		3	0	3	5

CONTENT OF THE COURSE:

Study of Construction Management functions including Project Management, Cost Management, Time Management, Quality Management, Contract Administration, and Safety Management. Emphasis is put on the application of each function throughout the project phases.

OBJECTIVE OF THE COURSE:

This course provides students with skills and knowledge in organizing multi-disciplinary teams to achieve successful project outcomes via enabling students

- to understand the key components of a successful project
- to embed necessary processes, components, and attributes into execution of their projects;
- to improve practice of communication skills to organize project teams;

to develop project trouble-shooting capabilities through careful analysis and root cause determinations.

WEEKLY SCHEDULE

Week	Topics
1	Introduction - Construction Project Management
2	Construction Project Management
3	Sustainable Design and Construction
4	Construction Stakeholders, Processes and Organizations
5	Construction Planning
6	Innovation in Construction Managements (BIM)
7	Building Information Modelling Case Study Examples
8	Midterm Week, Essay Submission for midterm assessment
9	Contracts and Tender
10	Students Group study on Projects
11	Tutorial - Students group study on Projects
12	Health and Safety in Construction,
13	Tutorial- Students Group study on Projects
14	Project Monitoring and Quality Control,

- **TEXTBOOK:** K. Knutson, C. J. Schexnayder, C. M. Fiori, R. Mayo, “Construction Management Fundamentals“, McGraw-Hill Series in Civil Engineering, 2nd Edition (2008).
- Arayici, Y. (2015), “Building Information Modelling”, September 2015, Bookboon publisher, ISBN: 978870310986

REFERENCE BOOKS

- Nunnally, S. W., “Construction Methods and Management”, Upper Saddle River, NJ, Prentice-Hall, 2004, 6th Edition.
- E. Allen, J. Iano, “Fundamentals of Building Construction”, John Wiley & Sons, 2003, 4th Edition.

EVALUATION SYSTEM:		
IN-TERM STUDIES	QUANTITY	PERCENTAGE (%)
Midterm Exam	1	40
Homework		
Laboratory works		
Quiz		
Final Exam	1	60
TOTAL		100
CONTRIBUTION OF INTERM STUDIES TO OVERALL GRADE		40
CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE		60
TOTAL		100

COURSE CATEGORY:	PERCENTAGE (%)
Mathematics and Basic Sciences	30
Engineering	40
Engineering Design	30
Social Sciences	

TABLE OF ECTS / WORKLOAD:			
Activities	QUANTITY	Duration (Hour)	Total Workload
Course Duration	13	3	39
Hours for off-the-classroom study (Pre-study, practice)	14	6	84
Laboratory works	0	0	0
Mid-term	1	2	2
Final examination	1	2	2

Homework	0	0	0
Quiz	0	0	0
Total Work Load			127
Total Work Load / 30			4.2
ECTS Credit of the Course			5

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
LO1	0	0	0	0	3	2	0	0	0	3	0
LO2	0	0	0	0	3	2	0	0	0	3	0
LO3	0	0	0	0	3	2	0	0	0	3	0
LO4	0	0	0	0	3	2	0	0	0	3	0
LO5	0	0	0	0	3	2	0	0	0	3	0
LO6	0	0	0	0	3	2	0	0	0	3	0
PO: Program Outcomes LO: Learning Outcomes Values: 0: None 1: Low 2: Medium 3: High											

INSTRUCTOR(S):	Prof. Dr. Yusuf Arayici
FORM PREPARATION DATE:	17.03.2020

LEARNING OUTCOMES OF THE COURSE:	PROGRAM OUTCOMES:
<p>LO1: Critically appraise and evaluate the concepts of project management and the importance of people, processes and techniques</p> <p>LO2: Critically examine and evaluate the implications of Building Information Modelling on projects and organizations</p> <p>LO3: Assess risks and project impact factors on a project proposal, including environmental impacts. Identify and assess the factors and criteria which will be used in the impact assessment and their significance, reviewing alternative solutions to improve environmental quality and producing a report of the assessed environmental impact.</p> <p>LO4: Manage project completion processes, including inspection and handover processes; instigate project review processes and identify and document learning/lessons learned for improved future project performance</p> <p>LO5: Develop Communication and Presentation Skills by</p> <ul style="list-style-type: none"> taking part in group discussions 	<p>PO1: Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied knowledge in these areas in complex engineering problems.</p> <p>PO2: Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.</p> <p>PO3: Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.</p> <p>PO4: Ability to devise, select, and use modern techniques and tools needed for analyzing and solving complex problems encountered in engineering practice; ability to employ information technologies effectively.</p> <p>PO5: Ability to design and conduct experiments, gather data, analyze and interpret results for investigating complex engineering problems or discipline specific research questions.</p> <p>PO6: Ability to work efficiently in intra-disciplinary and multi-disciplinary teams; ability to work individually.</p> <p>PO7: Ability to communicate effectively in Turkish, both orally and in writing; knowledge of a minimum of one foreign language; ability to write effective reports and comprehend written reports, prepare design and production reports, make effective</p>

<ul style="list-style-type: none"> • writing reports for senior management <p>LO6: Numeracy</p> <ul style="list-style-type: none"> • collect, analyze and record data presentation of the findings of research 	<p>presentations, and give and receive clear and intelligible instructions.</p> <p>PO8: Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself.</p> <p>PO9: Consciousness to behave according to ethical principles and professional and ethical responsibility; knowledge on standards used in engineering practice.</p> <p>PO10: Knowledge about business life practices such as project management, risk management, and change management; awareness in entrepreneurship, innovation; knowledge about sustainable development.</p> <p>PO11: Knowledge about the global and social effects of engineering practices on health, environment, and safety, and contemporary issues of the century reflected into the field of engineering; awareness of the legal consequences of engineering solutions.</p>
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