

COURSE DESCRIPTION FORM	
Course Code and Title	CE454 RIVER TRAINING
Semester	8
Catalog description	The aim and objectives of stream regulation, Planning of stream regulation, Preliminary studies on regulation, Selection of stream regulation route, River protection and regulating building materials and elements, Structures for the regulation of rivers, Other constructions used in the regulation of rivers, benefit-cost analysis in flood control projects, stability of riprap
Required reading	Jansen P., Ph. et al., "Principles of River Engineering", Pitman, 1979
Recommended reading	Course notes
ECTS	4
Prerequisites and co-requisites	No prerequisite Required attendance to lectures is at least 70%
Compulsory/Elective	Technical elective course
Language of instruction	English
Aim of course	To teach the basic concepts related to river regulation, to teach the planning of river regulation and types of regulation structures, to be able to make benefit cost analysis
Learning outcomes of the course unit	Learn basic concepts related to river Learn planning approach in river regulation Recognizes streamlined construction elements Learn the use of flexible construction elements Perform cost benefit analysis
Mode of delivery	The mode of delivery of this course is face to face.
Course content	1. Stream regulation purposes and targets 2. Stream regulation purposes and targets 3. Planning of river regulation 4. Preliminary studies on river regulation 5. Selection of river regulation route 6. Building Engineering Stability 7. River protection and regulating building materials and elements 8. 1. Midterm 9. Structures belonging to the regulation of rivers 10. Structures belonging to the regulation of rivers 11. Other structures used in the regulation of rivers 12. Benefit-cost analysis in flood control project 13. Benefit-cost analysis in flood control project 14. 2. Midterm exam, Riprap stability

	15. Riprap stability							
Planned learning activities and teaching methods	3 lecture hours per week (3+0) Reading activities Preparing reports Midterm exam and required works Final exam and required works							
Assessment methods and criteria		Quantity		Percentage (%)				
	Mid-terms	2		55				
	Assignment	2		5				
	Exercises	-		-				
	Projects	-		-				
	Practice	-		-				
	Quiz	-		-				
	Contribution of In-term Studies to Overall Grade %			60				
	Contribution of Final Examination to Overall Grade (%)			40				
Attendance								
Workload	Efficiency		Total Week Count	Weekly Duration (in hour)	Total Workload in Semester			
	Theoretical Study Hours of Course Per Week		14	3	42			
	Practicing Hours of Course Per Week		14	0	0			
	Reading		14	3	42			
	Searching in Internet and Library		14	0	0			
	Designing and Applying Materials		0	0	0			
	Preparing Reports		2	6	12			
	Preparing Presentation		0	0	0			
	Presentation		0	0	0			
	Mid-Term and Studying for Mid-Term		2	2	4			
	Final and Studying for Final		1	3	3			
	Other		0	0	0			
	Total Workload:				103			
	Total Workload / 25:				4.12			
	ECTS:				4			
	Course's contribution to program	No	Program Learning Outcomes		1	2	3	4
1		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.		X				
2		Ability to identify, formulate, and solve				X		

		complex civil engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.					
	3	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.	X				
	4	Ability to devise, select, and use modern techniques and tools needed for analyzing and solving complex problems encountered in civil engineering practice; ability to employ information technologies and to use at least one computer programming language effectively.	X				
	5	Ability to design and conduct experiments, gather data, analyze and interpret results for investigating complex civil engineering problems or discipline specific research questions.	X				
	6	Ability to work efficiently in intra-disciplinary and multi-disciplinary teams.	X				
	7	Ability to work individually.			X		
	8	Ability to communicate effectively in Turkish, both orally and in writing; ability to write effective reports and comprehend written reports.				X	
	9	Knowledge of English of B1 level according to <u>Common European Framework of Reference</u> .	X				
	10	Prepare design and production reports, make effective presentations, and give and receive clear and intelligible instructions.	X				
	11	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.	X				
	12	Consciousness to behave according to ethical principles and professional and ethical responsibility.	X				
	13	Knowledge on standards used in civil engineering practice.				X	
	14	Knowledge about business life practices such as project management, risk management, and change management.			X		
	15	Awareness in entrepreneurship, innovation; knowledge about sustainable development.	X				
	16	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.					X
	17	Awareness of the legal consequences of engineering solutions.	X				
Name of lecturer(s) and contact information		Doç.Dr. Nihat Eroğlu, enihat@gazi.edu.tr					