

1. Course Description

COURSE DESCRIPTION FORM	
Course Code and Title	KM374 Air Pollution and Removal Method
Course Semester	6
Catalog Description (Content) of the Course	The ability of application of main concepts of air pollution methodology. Make a design for air pollution removal systems The ability of written presentation The ability of doing group study
Main Textbook	Heinsohn R.J, Kabel R.L, Sources and Control of Air pollution, Prentice Hall, 1999
Supporting Textbooks	Kirkwood R.C. Clean technology and The Environmet, Blackie Aca. and Professional, 1995.
Course Credit (ECTS)	3
Prerequisites of the Course (Compulsory attendance should be indicated here.)	-
Type of the Course	Elective
Instruction Language of the Course	Turkish
Object and Target of the Course	The ability of application of main concepts of air pollution methodology. Make a design for air pollution removal systems The ability of written presentation The ability of doing group study
Learning Outcomes of the Course	To gain the ability of define, formulate and to solve the engineering problems. To gain the concisnous about the social and global effects of the engineering applications. To gain the knowledge about the effects of air pollution on enviromental and human health. To learn the removal methods of air pollutants
Mode of Delivery	
Weekly Schedule of the Course	--COURSE CONTENT
	1. Week General information about control of air pollution
	2. Week Exponential Growth and ecology
	3. Week Air pollution and affects
	4. Week Air pollution and affects
	5. Week Pollutant Types
	6. Week Atmospheric chemicals and reactions
	7. Week Air pollution limitations and standart
	8. Week Form of pollutions and Industries
	9. Week Control of pollutions
	10. Week Removal Methods of pollution fromEgsos gases and flue gases
	11. Removal Methods of pollution fromEgsos gases and flue

	Week	gases		
	12. Week	Dust emissions and Particules		
	13. Week	Models for the pollutants dispersion in the atmosphere		
	14. Week	Models for the pollutants dispersion in the atmosphere		
Educative Activities <i>(Credit will be determined based on the time given for these activities. Should be filled carefully.)</i>	Theoretical Study Hours of Course Per Week Reading Searching in Internet and Library Preparing Reports Mid-Term and Studying for Mid-Term Final and Studying for Final			
Assessment Criteria		Quantity	Total Contribution (%)	
	Midterm	1	30	
	Homework	3	10	
	Assignment	0	0	
	Projects	1	20	
	Practice	0	0	
	Quiz	0	0	
	Contribution of In-term Studies to Overall Grade		60	
	Contribution of Final Examination to Overall Grade		40	
Attendance				
Workload of the Course	Activity	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			0
	Reading	14	1	14
	Searching in Internet and Library	14	1	14
	Designing and Applying Materials			0
	Preparing Reports	1	3	3
	Preparing Presentation			0
	Presentation			0
	Mid-Term and Studying for Mid-Term	1	5	5
	Final and Studying for Final			0
	Other			0
	Total work load			78
	Total work load/25			3,12
ECTS of the course			3	

Course's Contribution To Program	Number	Program Outcomes	1	2	3	4	5
	1	Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied information in these areas to model and solve engineering problems.				X	
	2	Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.			X		
	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. (Realistic constraints and conditions may include factors such as economic and environmental issues, sustainability, manufacturability, ethics, health, safety issues, and social and political issues, according to the nature of the design.)					
	4	Ability to devise, select, and use modern techniques and tools needed for engineering practice; ability to employ information technologies effectively.	X				
	5	Ability to design and conduct experiments, gather data, analyze and interpret results for investigating engineering problems.			X		
	6	Ability to work efficiently in intra-disciplinary teams.			X		
	7	Ability to work efficiently in multi-disciplinary teams.					
	8	Ability to work individually.					
	9	Ability to communicate effectively in Turkish, both orally and in writing; knowledge of a minimum of one foreign language.	X				
	10	Prepare design and production reports, 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.					
	12	Awareness of professional and ethical responsibility.			X		
	13	Information about business life practices such as project management, risk management, and change management.					
	14	Information about awareness of entrepreneurship, innovation, and sustainable development.					
	15	Knowledge about contemporary issues and the global and societal effects of engineering practices on health, environment, and safety.				X	
	16	Knowledge about awareness of the legal consequences of engineering solutions.					
17	Knowledge on standards used in engineering practice.						
Name of Lecturer(s) and Contact Information	1. Prof.Dr.İrfan Ar 2. Prof. Dr. Çiğdem Güldür						