



ESOGÜ Electrical-Electronics Engineering Department

COURSE CODE: 151225397 - 151245397

COURSE TITLE: Science & Society

Semester	Weekly Hours		COURSE			
	Theoretical	Practical	Credits	ECTS	Type	Language
5	3	0	3	4	Compulsory () Elective (x)	Turkish () English (x)
Write the credit (for non-credit courses weekly hours) below (If necessary distribute the credits.).						
Math and Basic Science		Electrical Engineering [mark (√) if there is high design content]		General Education		Humanities
		()				3
Assessment		THEORETICAL-PRACTICAL COURSES			LABORATORY COURSES	
		Type	Number	%	Activity Type	Number %
Midterm		Midterm	1	40	Quiz	
		Quiz			Lab performance	
		Homework			Report	
		Project			Oral exam	
		Other (.....)			Other (.....)	
Final			1	60		
Makeup exam (Oral/Written)						
Prerequisites						
Brief content of the course		<p><i>Description</i> This is a course to analyze and discuss the Science and Technology in Modern Society through papers, books and PowerPoint presentations about Science and Society subjects, determined for weeks. This course is not only about Science and Technology; it is also about understanding effects of social characteristics on acceptance of Science and Technology and the importance of using this information on production of a new technology.</p>				
Objectives of the course		<p>To make the students have ideas about Science and Society and their effects on each other. To make them understand through these effects how social change and transformation have occurred. It is about drawing a big and simple picture to be understood this process.</p>				
Contribution of the course towards professional education		<p><i>Learning objectives:</i> To teach students how scientific works and technology is related to society; how they affect social life and are affected by social context, making our life more complicated and which characteristics of societies are related to adoption or acceptance of new technologies and scientific developments . In addition, students' language skills (listening and interpreting) will be improved To enable students to grasp how science and technology affects society (i.e. computers, satellites, nuclear power as well as consumer electronics) by using PowerPoint presentations in class. The materials used in the class will help students to understand and interpret ideas in English through active participation in the class</p>				
Outcomes of the course		<p>The students who have taken this class, -will be able to explain the progress and the conceptual dimensions of the science, - will be able to explain the social and the economic relations between technology and society. They have an idea about its historical dimensions and process, -will be able to determine how any technological innovation diffuses</p>				
Textbook of the course		<p>Bridgestock, Martin...[et al.]. 1998. Science, Technology and Society. Cambridge: Cambridge University Press. -Erickson, Mark. 2005. Science, Culture and Society: <i>Understanding science in 21st century</i>. Cambridge, UK: Polity. -Kleinman, Daniel L. 2005. Science and Technology in Society: <i>From biotechnology to the internet</i>. Maiden, Mass: Blackwell Pub.</p>				

	-Rattansi, P.M....[et al.] 1972. Science and Society : 1690-1990.(Edited by Peter Mathias). Cambridge: Cambridge University Press.
Other reference books	
Required material for the course	

WEEKLY PLAN OF THE COURSE	
Week	Topics
1	The Term of Science, its definition and development
2	The Term of Technology, its definition and development
3	Science and Society I - Science, Technology and Society in Ancient Times - Science, Technology and Society in the Middle Ages
4	Science and Society II - The Renaissance, Enlightenment and Industrial Revolution/- Post-industrial Period
5	Social Change Theories and Technology
6	The personal and societal characteristics which affected the diffusion of technological innovations
7	Interaction of Technology and Social Environment I - Mass Communication Medium/- Computer Technology and its effects
8	Midterm
9	Midterm
10	Interaction of Technology and Social Environment II - Genetic Engineering/- Bio-medico and its effects
11	War, Technology and Society
12	The Effects of Technology on Natural Environment
13	Technology, Turkey and History
14	Doomsday Book or another movie about the course (Watching a South Korean Movie About Science, Technology and Society)
15,16	Final

NO	OUTCOMES OF THE PROGRAMME	4	3	2	1
1	Adequate knowledge of mathematics, science and Electrical and Electronic Engineering; ability to practice theoretical and practical knowledge of these areas into modeling and solving problems of Electrical and Electronic Engineering				X
2	Ability to identify complex engineering problems in Electrical and Electronic Engineering and related fields, for this purpose having skills to formulate, select and apply appropriate methods.				X
3	Having skills to apply modern design methods to design a complex system, equipment or product that should work under realistic conditions and constraints and satisfy specific requirements concerning the Electrical and Electronic Engineering.				X
4	Having skills to develop, select and apply modern techniques and tools needed for Electrical and Electronic Engineering applications, skills to use information technology effectively.				X
5	Skills to design and conduct tests, collect data, analyze results, and interpret data for the experimental investigation of Electrical and Electronic Engineering problems				X
6	Ability to function effectively as an individual and as a member of teams within the discipline and in multidiscipline areas.				X
7	Communicating effectively in oral and written form both in Turkish and English.				X
8	Awareness of the necessity of lifelong learning, access to information, monitoring developments in science and technology and the ability to self-renewing		X		
9	Understanding of professional and ethical responsibility		X		
10	Information on project management, change management and risk management practices, awareness on entrepreneurship, innovation and sustainable development.		X		
11	Information about universal and societal effects of engineering applications on health, safety and environment; awareness of the legal consequences of engineering solutions.		X		

Scale for assessing the contribution of the course to the program outcomes:

4: High 3: Medium 2: Low 1:None

Name of Instructor(s):

Signature(s):

Date: