

Department of Humanities and Social Sciences

Course Profile

Course Number : STS 303	Course Title : History of Science and Technology
Required / Elective : Required	Pre / Co-requisites : -
Catalog Description: Development of science and technology from Enlightenment to present. Industrial Revolution. Emergence of engineering. Interdependence of science and technology. Development of medical sciences and information technologies. Science and technology in the Ottoman Empire and Turkey in context of global developments.	Textbook / Required Material : - James E. McClellan III & Harold Dorn, Science and Technology in World History (London: The John Hopkins University Press, 1999); John Henry, The Scientific Revolution and the Origins of Modern Science (2008)Palgrave Macmillan.
Course Structure / Schedule : (3+0+0) 3 / 5 ECTS	
<p>Extended Description : Today we go through a period where our technology is deeply diffused into and integrated with our life styles. It is imagine our daily routines without our computers, I-pods, cell phones, mobile internet connections, automobiles, and jeans. Besides its prominent place in our lives, technology is also identified with progress and an important role is assigned to it in the shaping of the future and technological change is seen as the main driving force of history. This course will discuss this role that is assigned to technology in human history. In the first part of the course, we will focus on the social history of technology in a chronological fashion and examine some key transitions related to technology in history such as the emergence of the human kind as the agent of history, the emergence of agriculture based civilizations, and the industrial revolution. We will also discuss the twentieth century technologies. In this part of the course we will both discuss the mutual ways technology and society have shaped each other throughout human history. In the second part of the course we will shift to a thematic discussion of the social history of technology. These topics will be studied through the assigned readings, documentary films, lectures, class discussions, and student presentations.</p>	
Course Outline	
Week	Topics
1	Introduction
2	What is technology?
3	Emergence of the humans
4	Agricultural Revolution
5	Industrial Revolution 1: 1st Industrial Revolution and Coal
6	Industrial Revolution 2: Industry, Time and Clocks
7	Industrial Revolution 3: Train
8	Industrial Revolution 4: 2nd Industrial Revolution and Electricity
9	Technology and Militarism
10	Biotechnology
11	Genetically Modified Food
12	Technology and Environmental Change
13	Gender and Technology
14	Technology in Turkey
15	Overview & Conclusion

Design content : none	Computer usage: No particular computer usage required
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Course Outcomes:

	Program Outcomes	*Level of Contribution				
		1	2	3	4	5
1	Apply analytical and critical thinking skills to contemporary global issues.			X		
2	Describe the interrelationships between science, technology, and society.					X
3	Describe the interrelationships between art, culture, and society.			X		
4	Explain the historical, political and economic conditions in which science and technology emerge.				X	
5	Explain the historical, political and material conditions in which art and cultural expression emerge.					X
6	Analyze how modes of thought are shaped by socio-cultural, historical, political and economic variables.			X		
7	Apply discipline-relevant methods to HSS research assignments.					
8	Summarize and assess current developments in their subject area.			X		
9	Recognize ethical issues and social responsibilities in the contemporary world.					X
10	Synthesize complex ideas in clear and concise ways.				X	
11	Generate creative solutions to local and/or global problems.				X	
12	Recognize relevance of coursework to personal experiences, lifelong learning, and job security.	X				
13	Demonstrate an ability to function on teams.	X				
14	Demonstrate an ability to communicate effectively with written, oral and visual means.				X	

Recommended reading:-

Teaching methods: Class participation: Pre-class readings, lecture and class discussions, individual readings and research and team work for presentation.

Assessment methods: Exams, class presentation, class survey.

Student workload:

Pre-reading	25 hrs
Lectures	45 hrs
Preparatory reading	30 hrs
Literature review for presentation.....	15 hrs
Team work for presentation	10 hrs
TOTAL	125 hrs ... to match 25x5 ECTS

Course Category:

ISCED General Area Codes	General Areas	ISCED Basic Area Codes	Basic Educational Areas	Percentage
1	Education	14	Teacher Training and Educational Sciences	
2	Humanities and Art	21	Art	
2	Humanities and Art	22	Humanities	
3	Social Sciences, Management and Law	31	Social and Behavioral Sciences	40
3	Social Sciences, Management and Law	32	Journalism and Informatics	
3	Social Sciences, Management and Law	38	Law	
4	Science	42	Life Sciences	30
4	Science	44	Natural Sciences	30
4	Science	46	Mathematics and Statistics	
4	Science	48	Computer	
5	Engineering, Manufacturing and Civil	52	Engineering	
5	Engineering, Manufacturing and Civil	54	Manufacturing and Processing	
5	Engineering, Manufacturing and Civil	58	Architecture and Structure	
6	Agriculture	62	Agriculture, Forestry, Livestock, Fishery	
6	Agriculture	64	Veterinary	
7	Medicine and Welfare	72	Medical	
7	Medicine and Welfare	76	Social Services	
8	Service	81	Personal Services	
8	Service	84	Transport Services	
8	Service	85	Environment Protection	

8	Service	86	Security Services	
Prepared by : Dr. Gülhan Balsoy			Revision Date : 11.07.2013	