

Department of Humanities and Social Sciences

Course Profile

Course Number : HSS 204	Course Title : The Rise of Modern Science
Required / Elective : Required	Pre / Co-requisites : None
Catalog Description: The main theoretical and methodological approaches to study the history of science. Central issues in the history of the physical sciences since the Renaissance. Copernican Revolution, Scientific Revolution, and the Enlightenment.	Textbook / Required Material : Peter J. Bowler & Iwan Rhys Morus, <i>Making Modern Science</i> (Chicago : University of Chicago Press, 2005). Excerpts from <i>Cambridge History of Science, Volume 7, the Modern Social Sciences</i> , edited by Theodore M. Porter & Dorothy Ross (Cambridge: Cambridge University Press, 2008).
Course Structure / Schedule : (3+0+0) 3 / 6 ECTS	
Extended Description : This course focuses on some of the most important scientific thoughts and experiences until the turn of the 20th century. The themes to be recovered will range from the Scientific Revolution to the controversies about the evolutionary theory, the arguments about the human mind, major development in physics, the social impacts of historical developments in the making of science at large.	
<u>Course Outline:</u>	
Week	Topics
1	Introduction
2	The Scientific Revolution and its roots
3	The Age of the Earth
4	The Continental Drift
5	The Birth of Biology
6	Social Darwinism and Eugenics
7	The Mendelian Revolution
8	The Atomic theory and its implications
9	Einstein and the Theory of Relativity
10	Quantum Theory
11	The Chemical Revolution
12	Scientific Theories of the Human Mind I
13	Scientific Theories of the Human Mind II
14	Science and War in historical context

15	Overview					
Design content : none		Computer usage: No particular computer usage required				
<u>Course Outcomes:</u>						
	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.					
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.					
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.					
12	Recognize relevance of coursework to personal experiences, lifelong learning, and job security.					
13	Demonstrate an ability to function on teams.					
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	50 hrs
Lectures	55 hrs
Preparatory reading	35 hrs
Literature review for presentation.....	5 hrs
Team work for presentation	0 hrs
TOTAL	145 hrs ... to match 25x6 ECTS

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