

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: Steven Shapin, <u>The Scientific Revolution</u> (1996) Chicago. Other readings
Course Structure / Schedule : (3+0+0) 3 / 6 ECTS	
Extended Description: This course is divided into two parts. First, it examines the development of modern science within the contexts of the Scientific Revolution and the Enlightenment. Concentrating on the histories of and changes in the different subfields of science (including chemistry, the life sciences, medicine, and the human sciences), we try to answer questions such as: What is science and how is it done? How are discoveries made and accepted? What are the specific characteristics of modern science? How is knowledge produced? The second part of the course shifts to a focus on specific themes (including gender in science, eugenics, science and the military) in order to broaden our understanding of modern science and its social history.	
Design content : none	Computer usage: No particular computer usage required
<p>Course Outcomes:</p> <ol style="list-style-type: none"> 1. Be able to explain the causes and consequences of the Scientific Revolution. (2, 4, 6, 8) 2. Grasp the nature of scientific work, its institutional contexts, and how scientific findings are validated. (2, 8) 3. Understand some of the key characteristics of different scientific disciplines. (2, 4, 8) 4. Be familiar with at least two key ethical controversies in contemporary science. (1, 9, 14) <p>(1) Apply analytical and critical thinking skills to current global issues.</p> <p>(2) Describe interrelationships between science, technology, and society.</p> <p>(4) Explain historical, political, and material conditions in which science and technology emerge.</p> <p>(6) Analyze how modes of thought are shaped by socio-cultural, historical, political, and economic variables.</p> <p>(8) Summarize and assess current developments in subject areas.</p> <p>(9) Recognize ethical issues and social responsibilities in the contemporary world.</p> <p>(14) Demonstrate an ability to communicate effectively with written, oral, and visual means.</p>	
Recommended reading :	
Teaching methods: Lecture and class discussions.	

Assessment methods : Midterm and final exams, one paper

Student workload:

Pre-reading	25 hrs
Lectures	45 hrs
Preparatory reading	40 hrs
Literature review for presentation.....	20 hrs
Team work for presentation	20 hrs
TOTAL	150 hrs

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