

Department of Humanities and Social Sciences

Course Profile

Course Number : STS 304	Course Title: Philosophy of Science
Required / Elective : Required	Pre / Co-requisites : None
Catalog Description: Introduction to philosophy. Scientific knowledge. Scientific method. Induction and deduction. Scientific theoris and observation. The problem of induction. The demarcation problem. Falsificationism. Basic statements. Paradigms and revolutions. Relativism and Rationalism. Objectivism and Realism	Textbook/Required Material: Bird, Alexander (1998) <u>Philosophy of Science</u> , Routledge, London..
Course Structure / Schedule : (3+0+0) 3 / 6 ECTS	
Extended Description: The philosophy of science is concerned with the assumptions, foundations, methods and implications of science. A basic objective is to determine what distinguishes science from non-science. Two central questions about science are (1) what are the aims of science and (2) how should one interpret the results of science? The field is defined by an interest in one of a set of "traditional" problems or an interest in central or foundational concerns in science. This course will examine these questions and problems and related aspects, such as whether scientific revolutions occur or whether it is more appropriate to regard science (and hence philosophy of science) as inherently cumulative and evolutionary.	
Design content : none	Computer usage: No particular computer usage required
<p>Course Outcomes:</p> <ol style="list-style-type: none"> 1. Be able to distinguish the key distinctions between science and non-science. (8, 10) 2. Describe the major aims of science. (8) 3. Understand how processes of scientific validation operate. (6, 8, 10) 4. Grasp processes of scientific change (evolutionary or revolutionary?), using specific examples in a research project.. (6, 10, 14) <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 the subject area.</p> <p>(10) Synthesize complex ideas in clear, concise ways.</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 : Two papers and oral presentations	

Student workload:

Pre-reading	25 hrs
Lectures	45 hrs
Preparatory reading	45 hrs
Literature review for presentation.....	25 hrs
Team work for presentation	10 hrs
TOTAL	150 hrs

Prepared by : Dr. Mark A. Shields

Revision Date : 03.03.2010