Instruction Division
Second Semester 2015-2016

Course Handout (Part II)

In addition to Part-I (general handout for all courses appended to the time table) this portion gives further details pertaining to the course.

Course No: **BITS F399**
Course Title: **Humanistic Theories of Science and Technology**
Instructor: **SUNITA RAINA**

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1. Objective and scope of the course:

In this course, students will be introduced to an interdisciplinary study of the relationship between science, technology and society. They will learn how social scientists---such as philosophers, historians, sociologists, and political scientists---think about the processes and outcomes of science and technology. Thus, science and engineering students will be exposed to alternate ways of thinking about technical fields. One objective of the course is to encourage the students to question the taken for granted scientific knowledge and technological artifacts, which opens up a space for their democratic engagement with technoscience. A related objective is to humanize technical fields of science, technology and engineering. These fields will be understood as human, thus social, enterprises that cannot be separated from their context of production and use.

2. Text Book:

Sismondo, Sergio. 2004. *An introduction to Science and Technology Studies*. UK: Blackwell Publishing .

3. Reference File (in the library). The instructor will send soft-copies of some of these articles by email.

4. Course Plan:

Lecture No.	Learning Objective	Topics to be covered	Text Book and Ref. material
1-2	Understanding the core concepts	Science; Technology; Technoscience; Humanities.	Relevant chapters and readings
3-7	Humanistic view of science in the first half of the 20th century	Central issues in the philosophy of science; Thomas Kuhn's concept of "Paradigm" and the "Scientific Revolution."	Relevant chapters and readings
8-9	Shift to Sociology of Science	Robert Merton's institutional view of science.	Relevant chapters and readings
10-30	Central questions concerning Technology	Defining Technology; Is technology applied science? Is technology autonomous? Does technology drive history? Social Construction of Technology (SCOT) perspective; Actor network Theory and Technoscience. Understanding the mutual shaping of science, technology and society.	Relevant chapters and readings
31-40	Critical and Cultural Studies of science and technology	Gender, science and Technology; Role of science and technology in colonial and postcolonial situations; Expertise and the public	Relevant chapters and readings

		understanding of science and technology; Political Economies of Knowledge	

5. Evaluation Scheme:

EC No.	Evaluation Component (EC)	Duration	Points	Date, Time and Venue
1.	Mid-Semester test	90 minutes	30	18/3 2:00 -3:30 PM
2.	Quizzes / Assignments		25	
3.	Class participation		5	
4.	Comprehensive Examination	180 minutes	40	13/5 FN

6. Course Notices: Notices, if any, concerning the courses will be displayed on Nalanda, and will also be communicated to the students through email.

7. Make-up: For the components of the evaluation, makeup will be allowed on the basis of documented proof to support the case. If you have a personal or medical emergency, provide copies of the appropriate paperwork to your instructor as soon as you can. Missing a due date, forgetting an assignment, or simply getting behind is not a valid reason.

8. Cheating and Plagiarism: Please be aware that cutting and pasting from websites is considered plagiarism. Students are advised to document all sources. If you are not sure that you need to document a source, then please ask the instructor. Any hint of plagiarism in an assignment will fetch a zero

9. Office Hours: Saturday (11:00-12:00), or by prior appointment

Instructor BITS F399

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