Course Abstract

This course is designed to encourage students to understand, explore and analyze ways in which science and technology relate to society. Science and technology studies (STS) is a growing field of study around the world that seeks to understand how science and technology shape human lives and livelihoods and how society and culture, in turn, shape the development of science and technology.

Course Objectives and Outcomes

By focusing attention on science and technology as human institutions, situated in wider historical, social, and political contexts, STS seeks to provide insights into the deep relationship between science and technology and such basic categories of social thought as race, gender, class, the environment, democracy and development and human rights among others. This course in other words, intends to introduce students to some of the key philosophical, sociological and historical approaches towards understanding the workings of science and technology in our times.

By the end of the course it is expected that students will be raising questions and finding their own answers to the meanings of science and technology in their varied epistemological, social, political and cultural contexts. They will be able to generate critical discussion around the impact of STS studies on their received ideas about science and reflect upon their own responsibilities in communicating these ideas to society at large.
Course Structure and Content

The course will be organized around two basic segments. The first segment will introduce students to the historical and sociological approaches to the understanding of science and technology. They will be introduced to the ideas and works of some of the key thinkers and writers in this field and the nature of contemporary debate on the subjects raised by them. By the end of this segment they would be able to explore their own answers to questions such as: a) what are the questions that STS studies raise about science and technology that compel us to question our received ideas and assumptions? b) How have the questions and problems raised by historical and sociological studies of science and technology impacted on our understanding of the career of modern science in India? c) In what ways does politics and culture work to define our received images of science and technology?

Following this broad introduction to STS, students will be introduced to one of the major fields of research within it viz, science communication. This segment will focus on the ways in which science and technology seek or do not seek democratic legitimation in contemporary societies. It will raise questions relating to the understanding of the assumptions and operations of expert-knowledge in society, the techniques and strategies of communicating scientific knowledge, the role of public participation and engagement in the ownership, production and access to science and technology.

Part One

Introduction to STS as a field of study and research in the twentieth century

• Philosophical, Historical and Sociological Approaches to Science and Technology and Society.
• The growth and identity of Modern Science and Technology in India

Part Two

Science Communication- Institutions, ideologies, practices

• The diversity of science communication in colonial India
• Science communication and the Nehruvian Agenda
• The ideology and image of developmental science
• The agenda of People’s Science
• Liberalization and the commoditization of science and technology

**Evaluation**. Each unit will first introduce students to the general theoretical and conceptual ideas invoked by the segment and then ask them to reflect upon and develop their own understanding and analysis of the theme based on the readings provided to them.

The instructor will assign students (as a group) to lead certain discussion sessions, or make presentations. This is a course requirement and each group would be graded on the quality and depth of their research work and their skills in organizing a group presentation. This would constitute 25% of their final grade.

The remaining 75% of their individual grades will be derived from the mid-semester and end semester exams. These will be mainly objective, multiple choice type questions based on course material, lectures, and class presentations. Most of the questions will test your understanding of ideas, concepts and your ability to make connections between these basic facts.

**Class Organization**

The entire class will be randomly broken up into ten groups and each one assigned to the group identified by number will continue to be in the assigned group. The group leader (either elected or volunteered) must provide the name, ID numbers and @mail addresses of all members by the second week of the course. It will the responsibility of the selected individual to interface with the faculty on behalf of the group, make sure the assigned tasks are undertaken efficiently and on time.
Select Bibliography

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Reading tips

Find answers to the following questions

• What is the reading about?
• Why and how the reading fits into the course theme and sequence of lecture?
• What is the specific argument the author intends to communicate?
• What methodology does he deploy to build up his argument?
• What are author’s sources and points of reference?
• Can you relate the author’s views with your own understanding of the issue?
• How do you reflect upon the reading? What are your points of agreement and disagreement?

Honors Code:

*Academic dishonesty, cheating, plagiarism or any kind of deceit*—will not be tolerated, and will result in a zero for the assignment. If you have any questions about what constitutes plagiarism, please ask. All ideas and words that you did not generate yourself must be cited in your papers. I do not anticipate this scenario for the work required in this class, but in extreme cases I reserve the right to assign a failing grade for the course or a specific assignment.