

COURSE OUTLINE

Course Code / Title : HS2019 Sociology of Science and Technology

Pre-requisites : HS1001 Person and Society

No. of AUs. : 3

Contact Hours : 39

Course Aims

Our contemporary life is marked by rapid developments in science and technology. Science and technology change not only the way we live, interact, and work, they remarkably shape how we organize our society. The profound impact of science and technology on society calls for a sociological inquiry into this important field to understand the role and consequences of technoscience. This course explores a range of sociological concepts that explain the dynamic relationship between science, technology and society. The course critically examines social, cultural, and political aspects of modern science and technology by observing the structures and cultures underpinning the foundation of scientific production and technological systems. Using a variety of concepts developed by scholars of Science and Technology Studies (STS), this course provides students with a set of analytical tools to observe how science and technology are socially constructed across contexts. Examining the ways in which science and technology are influenced by ideological regimes, the course asks students to analyze unintended consequences of the utilization of science and technology. Reading materials cover works from various approaches in STS including sociology of scientific knowledge, constructivism, actor- network theory, culturalism, social movements, and postcolonial studies. To complement these readings, a topic on democratic studies of science and technology is discussed to understand the role of the public in shaping the direction of science and technology development.

A sociological study of science and technology revolves around such questions:

- How is a scientific fact constructed?
- What determines the direction of scientific development?
- What social conditions allow one scientific regime rule over the others?
- How does a technological system get its form?
- What are the social and political implications of technoscience?

Intended Learning Outcomes (ILO)

By the end of this course, you should be able to:

1. Analyze science and technology from sociological perspectives in which science and technology are treated as social phenomena.
2. Critically examine the production, dissemination, and utilization of science and technology in contemporary society.

Course Content

Introduction: Science and Technology As Social Phenomena
Science as Social Institution
The Scientific Revolutions
Sociology of Scientific Knowledge
Cultural Construction of Science
The Social Shaping of Technology
The Politics of Artifacts
Actor-Network Theory
Sociotechnical Systems
Technoscience And Risk
Science, Technology, And Democracy
Global STS

Course Assessment

CA1	Class Participation	: 10%
CA2	10 x Weekly notes	: 20%
CA3	Poster	: 20%
	Final Examination	: 50%
Total		----- 100%