HS353   Science, Technology and Society

Credit: 3-0-0-3   Approval: Approved in 2nd Senate

 Students intended for: B.Tech

Prerequisite: Consent of the faculty member

Elective or Core: Elective   Semester: Even

Course objective: Science and technology influence almost every aspect of human life. This course focuses on the increasing complexities of the interrelationship between science, technology and society. Social, political and cultural values affect scientific research and technological innovations, and in turn scientific research affects society, politics and culture. This course deals with philosophical and sociological aspects of technological change in society. The central focus of this course is to highlight the active role of society, culture and politics in the field of science & technology.

Course Content

- Importance of science and technology; The nature and philosophy of science; Structure of scientific revolution; Science and Scientific community; The rights and wrongs of science – Case studies   **(10 HOURS)**

- The nature and philosophy of technology; Technology and the character of everyday life; Humans versus computers; The technological life world; Technology as a shadow constitution   **(10 HOURS)**

    Mid-semester

- Controversies regarding science and technology; Science, technology and the less-developed countries; technology and transformation of work; Science, technology and economic theory; Science, democracy and stem cells   **(10 HOURS)**

- The Science wars: Debating scientific knowledge and technology; History of Indian science and technology; Science and Technology policy making in India: An overview
                                                                                        (8HOURS)

Recommended Reading

Albert Borgmann, 1987; Technology and the Character of Contemporary Life.Chicago; University of Chicago Press.

Bruno Latour, 1986, Laboratory Life: The Construction of Scientific Facts. Princeton University Press

Chalmers A.F. 1999.What is this thing called Science. St. Lucia; University of Queensland Press

Don Ihde. 1983. Existential Technics. Albany; State University of New York Press2001.

American Philosophy of Technology: The Empirical Turn.Indianapolis; Indiana University

 Press;

Jacques Ellul. 1967; The Technological Society; Vintage Books.

Keith Parsons.2003. The Science Wars: Debating Scientific Knowledge and Technology. Prometheus Books.

Martin Bridgstock. 1998. (Ed).Science, Technology and Society: An Introduction. Cambridge: Cambridge University Press.

Rudi Volti. 2008. Society and Technological Change. New York; Worth Publishers.(6th Edition)

Wenda K. Bauchspies. 2005. Science, Technology and Society: A Sociological Approach. Blackwell Publishers