

SYS 557 Sociology of Science and Technology

Objectives:

The objectives of this course is to -

- 1 Understand the relation between sociology and technology
- 2 Learn the interplay between society and science & technology
- 3 Study the social organisation of science
- 4 Analyse the science education in India
- 5 Understand the impact of science and technology on social institutions
- 6 Analyse the growth of science and technology in global situation

Course Outcome:

- CO1. Understand the relation between society and technology
- CO2. Analyse the social organisation of science
- CO3. Understand the science policies in India
- CO4. Relevance of science and technology education in India
- CO5. Self-employment strategies in technology
- CO6. Raising awareness of self-employment as a career option
- CO7. Prominent agencies of science and technology

Course Content:

Unit I: Introduction

Hrs - 12

- a. The Emergence, Scope and Importance of Sociology of Science and Technology
- b. Relationship between Society and Science
- c. Science as a Social System, science and Technology

Unit II : Emergence of Science and Technology

Hrs - 14

- a. Nature of Science and Technology Education in India
- b. Pure and applied Science in India
- c. Society, Science and Technology in India

Unit III: Social Organization of Science

Hrs - 12

- a. The Science Policy in India
- b. Social organization of Science in India
- c. R and D Culture in India

Unit IV: Science Education in India

Hrs - 14

- a. Role of Universities in Development of Science and Technology
- b. Relationship between Science and Industry
- c. The problems of Science education in India

Unit V : Indian Science and Technology in Global Situation

Hrs - 14

- a. Impact of LPG on Indian Science and Technology
- b. WTO and IPR and Indian Science and Technology
- c. MNCs and Indian Industry

Reference:

- Baliga, AV (1972) Science and Society, Bombay, Lalvam Pub. House
- Barber, B (1953) Science and Social order, London, Allen. G
- Barber, B and Walter Hirsch, Walter (1962) Sociology and Science, Glencoe, Ill. Free Press
- Barnes (Barry) Ed. Sociology of Science, Hamands worth: Pengvin
- Chicago: University of Chicago Press
- Gillard, J (1991) Scientists in the Third World, Lexington: Kentucky University Press.
- Goldsmith, Maurice(ed)(1975) Science and Social Responsibility, London, Macmillan
- Jasanoff, S. Markle
- Kothari A.N; and others (1986) Science, Technology and Social Change. New Delhi: Wiley Eastern
- Merton R.K. (1973) The Sociology of Science: Theoretical and Empirical Investigations
- Motwani, Kewal (1945) Science and Society in India: Foundations of Planning Bombay: Hind
- Pinch, G. and Petersen J (Eds) (2002) Handbook of Science, Technology and Society London, Sage
- Sprott. WJH (1954) Science and Social Action London . Watts
- Storer Norman W (1966) Social System of Science, Newyork, Holt
- Uberoi, JPS (1978) Science and Culture, Delhi, Oxford University Press
- Williams R and Edge. D (1966) "The Social Shaping of Technology" Research Policy Vol. 25 pp 856-899(2)