UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Science, Technology and Society

2627-2-F8804N020

Learning objectives

The course pursues the following objectives:

- Knowledge and understanding of the technical terminology and core features of Science and Technology Studies (STS), acquired through: (1) the exploration of key themes, texts, and authors in the field; and (2) the examination of the questions addressed by STS, together with a comparison with the history of the sociology of science, with particular attention to practices of public debate and communication.
- Ability to apply knowledge and understanding by using conceptual tools and methodological approaches to analyze social phenomena characterized by a significant scientific and technological dimension.
- Independent judgment in assessing the suitability, potential, and limitations of concepts and methods in relation to research hypotheses and fields of application.
- Communication skills in presenting and discussing the terminology and concepts covered in the course through the reading and critical discussion of key texts, as well as through research-based exercises.
- Learning skills, demonstrated through practical assignments that require the independent application of the knowledge and competencies developed during the course

Contents

The course is structured in three parts: lectures on the main themes, methods, and concepts developed within the sociology of science; reading seminars focused on texts of particular significance to the field; application of methods and concepts to a case study representative of the topics covered in the course, through an individual or group project.

Detailed program

The course is structured in three parts.

1. Lectures
   The first part consists of lectures covering the following topics:

1. The definition of the sociology of science as a distinct field of study.
2. The historical development of the sociology of science, with particular attention to how it differs from traditional history and philosophy of science.
3. The place of Science and Technology Studies (STS) within this history, the kinds of questions it seeks to address, and the methods it employs.
4. Laboratory studies, with a focus on scientific practices and the construction of the boundaries of science.
5. The conception of technological artifacts developed by the Social Construction of Technology (SCOT) approach and the proposal advanced by Actor-Network Theory (ANT), with particular attention to the research methods associated with these traditions.
6. The relationship between science and politics, and the issue of the expertise.
7. Science, ideology, and an Italian history of the sociology of science and technology.
8. Contemporary practices of participation and communication in science, including Living Labs and Citizen Science initiatives.
   (More specific topics within these areas may be selected in accordance with students' interests, allowing some lectures to focus on issues addressed in other courses and, more broadly, within the degree programme.)

2. Seminars
   The second part consists of regular seminar sessions in which students will read and discuss texts of particular significance for a critical understanding of the topics covered in the lectures, including themes such as innovation, controversies, stabilization, and expertise.
3. Research Project
   The third part consists of a research project to be carried out either individually or in groups, depending on the number of students attending the course. The project will be developed throughout the course and discussed during class sessions. Its purpose is to provide an opportunity to apply the main concepts and methods introduced in the course.
   At the beginning of the course, various project options will be discussed with students (for example, contributing to ongoing research projects, proposing an original project, or participating in a collective research activity). By way of illustration, examples of research projects undertaken in previous editions of the course include:

- Interviews with laboratory technicians about their everyday practices.
- The communication strategies of experts during a scientific controversy (e.g., the withdrawal of a vaccine batch).
- The uses and meanings of personal protective equipment during periods of labour conflict in Italian factories.
- The role of technology in factory work and the research method of inchiesta operaista ("workers' inquiry).

Prerequisites

No particular prerequisites are required, but an ability to read English and knowledge of the history of sociology would be appreciated.

Teaching methods

The course is taught in Italian.
Lectures: approximately 30% of the course consists of lectures covering the main methods and concepts of Science and Technology Studies.
Interactive teaching: approximately 70% of lessons will be based on alternating reading/discussion seminars and presentations/group discussions on the progress of the proposed research exercise.
The course will be held in person.

Assessment methods

In-person oral examination.
For attending students, the exam will consist in the discussion of the research work and questions about the topics covered in class. Attendance and active participation during the course will be assessed.
Non-attending students will be examined on a textbook and a couple of articles/chapters chosen from a list that will be provided at the beginning of the course.

Textbooks and Reading Materials

Gobo, G., Marcheselli, V. 2021, Sociologia della scienza e della tecnologia. Un’introduzione. Roma, Carocci.
Magaudda, P., Neresini, F. (eds.). 2020, Gli studi sociali sulla scienza e la tecnologia. Bologna, Il Mulino.
Additional texts that are part of the examination material will be made available on the course's e-learning page before the start of classes.

Sustainable Development Goals

QUALITY EDUCATION | AFFORDABLE AND CLEAN ENERGY | DECENT WORK AND ECONOMIC GROWTH | REDUCED INEQUALITIES