UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Scienza, Tecnologia e Società

2526-2-F8802N068

Learning objectives

The course pursues the following objectives:

- knowledge and comprehension skills: of the technical terminology and the fundamental characteristics of Science and Technology Studies (STS), acquired both 1) through key themes, texts, and authors, and 2) through an in-depth examination of the questions that STS seeks to answer and a comparison with other forms of knowledge and representations of science and technology, with particular attention to practices of participation and communication in science.
- practical application of knowledge and comprehension skills: in using STS methods and conceptual tools to understand social phenomena with a significant technological and scientific component.
- Autonomy of judgment: in knowing how to evaluate the adequacy, potential and limitations of conceptualisations and methods with respect to research hypotheses and fields of application.
- Communicative capabilities: in presenting and articulating the terminology and concepts covered in the course, through reading and discussing key texts and research exercises.
- Ability to learn: validated through exercises that involve the independent application of the contents covered during lessons.

Contents

The course is divided into three parts: lectures on the main themes, methods and concepts developed in the field of STS; reading seminars around texts of particular relevance; application of methods and concepts to a case study representative of the topics covered (individual or group exercises).

Detailed program

The course is divided into three parts.

1. The first consists of lessons that explore:

1. The types of issues and social areas that STS aims to address.
2. The historical emergence of the sociology of science, with particular attention to what distinguishes it from history and philosophy of science.
3. Laboratory studies; the focus on practices and the definition of the boundaries of science.
4. The STS conception of the technical object and Bruno Latour's Action-Network Theory, with particular attention to the research methods it advances (mapping controversies, identifying mediations and intermediations).
5. The relationship between science and politics and the question of expertise in the light of STS.
6. Contemporary practices of participation and communication in science, from Living Labs to Citizen Science, and why the STS approach may be relevant to these purposes.
   (More specific topics within these areas may be chosen in accordance with the interests of the class, orienting lessons towards issues covered in other courses and in the course of study in general).

2. The second part consists of seminars, in which texts that are particularly significant for the critical understanding of the topics covered in the lectures (including innovation, stabilisation, expertise) will be read and discussed in class.

3. The third part consists of a research exercise to be carried out individually or in small groups (depending on the number of enrolments in the course). The exercise aims to apply the main concepts and methods covered.
   The proposal is to use methods and concepts to investigate the social implications of the major blackout that struck most of Spain and Portugal for about ten hours on 28 April 2025, around midday. While understanding the dynamics and possible causes of the blackout requires expertise in the highly specialised and technically complex field of energy, its infrastructure and economics, its implications and consequences are widespread and general, given the pervasiveness of electrification in our daily lives.
   Based on these assumptions, the exercise will lead to investigate (among other possible lines of research that can be discussed in class):

- Communication of a highly technical and scientific subject (especially in the Italian media) and the controversies it raises.
- The technical subject at the heart of this event: where does it begin and where does it end?
- Mediation and intermediation as conceptual tools for interpreting the energy transition.
- The technical and scientific knowledge involved and its practical applications.
- The role of expertise.
- What kind of research and/or communication project could we imagine with regard to the issues raised and explored in the previous points.
- The usefulness of STS tools for this case, and what research questions they allow us to formulate.
  The various exercise topics will be divided among groups (or individuals) at the beginning of the course, and a schedule of progress presentations will be decided upon, to be discussed in class, with a view to the final submission of a short-written paper.

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 presentation of the research work (in the form of a research paper), and its development during the course will be assessed. The examination may also include questions on topics covered during the lectures, to supplement the practical work.
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.
Latour, B. (2013), Cogitamus, Sei lettere sull'umanesimo scientifico. 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