



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Tecnoscienza, Comunicazione e Innovazione

2021-2-F8802N028

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#### Learning objectives

Introduce to the social study of science and technics to enhance awareness about the various forms of knowledge and capacity to analyze the complex texture of communicative and innovation processes within the theoretical frame of the *knowledge-society*.

#### Contents

Foundations of sociology of knowledge, science and technics in historical and epistemological perspective. Role and functioning of science within the contemporary, global context. Relationship science-democracy. Risk and innovation. Theory of the *knowledge-society*.

#### Detailed program

##### INTRODUCTION

Sociological imagination and complex society: individuals, institutions, knowledge.  
Knowledge and communication.

##### PART ONE. From the philosophy of science to the sociology of science

Naive model of scientific discovery: events, data, surveys, reconstructions.

Beyond (neo)positivism: how society enters into observations, categorisations, hypothesis formulations and controls.

The question of the "birth" of science: forgotten revolution, pre-modern science, modern science, contemporary science.

The scientific community: Mertonian ethos and its criticisms, post-mertonian theories.

## **PART TWO. Technoscience**

Actual science.

Communication of science: internal & external. Scientific publications and peer review. Deficit, dissemination, engagement, participation. Open science.

Perception of risk: equity, complex choice and delegation of trust. Grill/group, symbolic violence. Outrage and symbolic world.

Contemporary sociological imagination between ancient myths (Gaia naturalistic holism, Kronos absolute order, Athena-abstract rationalism) and modern ones (cognitive reductionism, sociological narcissism, subjective relativism).

Knowledge as a non-natural public good. Production of knowledge by means of knowledge with knowledge surplus.

## **PART THREE. For a sociological theory of the knowledge society**

Foundational dilemmas: society and history, structure and agency. Substance and function.

Social history between psychogenesis, sociogenesis, gnoseogenesis. The concept of stratification, path-dependency, emergency and atavism.

A procedural vision of the knowledge society: incorporation, homeodynamics, plasticity, epigenetics, general intellect, path-dependency.

3x3 sociocognitive matrix of knowledge: intellectual, practical, objective.

Knowledge capitals: personal knowings, social acquaintances, public acknowledges and introjection.

Knowledge circulation and innovation: discovery, institutionalization, communication and socialization.

Knowledge and complexity, politics-history, general relativity of knowledge.

Science and democracy.

## **Prerequisites**

None.

## **Teaching methods**

In the Covid-19 emergency period the lessons will be held remotely asynchronously with synchronous videoconferencing events: <http://unimib.webex.com/webappng/sites/unimib/dashboard/pmr/andrea.cerroni>

## **Assessment methods**

In the Covid-19 emergency period the oral examinations will be only telematic. They will be carried out using the WebEx platform and in the e-learning page of the teaching there will be a public link to access the exam for possible virtual spectators.

## **Textbooks and Reading Materials**

Three texts:

a) Cerroni A. e Simonella Z., *Sociologia della scienza. Capire la scienza per capire la società contemporanea.*

Roma: Carocci 2014.

**b)** Cerroni A., *Understanding the knowledge society. A new paradigm in the sociology of knowledge*. London: Elgar 2020.

**c)** One of the followings:

- Benton T., Craib I., *Filosofia della scienza sociale*, Torino: Utet 2010.
  - Cerroni A., *Il futuro oggi. Immaginazione sociologica e innovazione: una mappa fra miti antichi e moderni*. Milano: FrancoAngeli 2012.
  - Greco P., *La scienza e l'Europa. vol.5 Dal secondo dopoguerra a oggi*, L'Asino d'Oro, Roma 2019.
  - Schatzberg E., *Technology. Critical history of a concept*. Chicago: University of Chicago Press 2018.
  - Ziman J., *La vera scienza*, Bari: Dedalo 2002.
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