



PHILOSOPHY OF SCIENCE

Enrollment year	2015/2016
Academic year	2017/2018
Regulations	DM270
Academic discipline	M-FIL/02 (LOGIC AND PHILOSOPHY OF SCIENCE)
Department	DEPARTMENT OF HUMANITIES
Course	PHILOSOPHY
Curriculum	PERCORSO COMUNE
Year of study	3°
Period	2nd semester (26/02/2018 - 01/06/2018)
ECTS	12
Lesson hours	72 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	MAGNANI LORENZO (titolare) - 12 ECTS
Prerequisites	General knowledge about the history of philosophical thought.
Learning outcomes	<p>Philosophy of science</p> <p>The classes will introduce students to the issues connected with the multiplicity of philosophical interpretations about the significance and value of science, through the study of general and specific texts and with punctual references to the historical development of science. The classes will further analyze the topic of human science's cognitive value, paying particular attention to those disciplines that study interactive dynamics between individuals and groups.</p>
Course contents	<p>Philosophy of science</p> <p>Some of the concerned topics will be: what relationship is there between science and philosophy? What does one mean with "progress" and "objectivity of science"? Can we tell scientific statements from</p>

pseudo-scientific ones? What are scientific revolutions? Observation, experiment, induction. Verification, falsification, research programs, methodological anarchism. Further issues: is scientific discovery a process of rational reasoning? What kinds of reasoning are at play in scientific discovery? We will analyze these topics both from the perspective of traditional philosophical notions and from the point of view of the challenges set by contemporary research on the traditional accounts.

Teaching methods

Lectures and seminars.

Reccomended or required readings

THE FINAL EXAM PROGRAM WILL BE PROVIDED DURING THE CLASSES..

Further details about what materials should be actually considered will be provided during classes.

Students who do not attend the classes would have to contact Lorenzo Magnani, to get the final program for the exams.

Provisional bibliography, please see final program available on April A.F. CHALMERS, *What is This Thing Called Science?*, Third Edition, Hackett, Indianapolis/Cambridge, 1999.

Or A.F. Chalmers, *Che cos'è questa scienza* in Italian

L. MAGNANI, *Abductive Cognition. The Epistemological and Eco-Cognitive Dimensions of Hypothetical Reasoning*, Springer, Berlin/New York.

Or

L. MAGNANI, *Reason, and Science. Processes of Discovery and Explanation*, Kluwer Academic/Plenum Publishers, New York, 2001 2001.

Or L. MAGNANI, *Ingegnerie della conoscenza*, Marcos y Marcos, Milan, 1977.

Or L. MAGNANI, *Filosofia e geometria*, Guerini, Milano, 1990 o L. Magnani, *Philosophy and Geometry. Theoretical and Historical Issues*, Kluwer Academic, Dordrecht.

Or

P. THAGARD, *Rivoluzioni concettuali. Le teorie scientifiche alla prova dell'intelligenza artificiale*, italian edition, L. Magnani editor, Guerini & Associati, Milano, 1994.

Or

L. MAGNANI, *Understanding Violence. The Intertwining of Morality, Religion, and Violence: A Philosophical Stance*, Springer, Heidelberg/Berlin, 2011. (Also available in Italian *Filosofia della violenza*, Il Melangolo, Genova, 2012).

The parts which will have to be studied will be indicated during the classes.

L. MAGNANI, *Conoscenza come dovere. Moralità distribuita in un mondo tecnologico*, Associated International Academic Publishers, Pavia, 2005.

Students are allowed to change one of the aforementioned texts with an alternative one of particular interest, upon agreement with the professor.

Classes will also involve seminars about philosophy of technology and/or philosophy of mathematics and/or philosophy and/or philosophy of cognition and/or philosophy of heuristic reasoning.

Standard selection of texts to be studied for the exam (the student who will not attend the classes have to check the final actual program) on April.

Assessment methods

Oral and/or written exams (these ones eventually negotiated with the students).

Further information

If the student participates to this class for a second time special texts will be negotiated or a different choice of texts inside the present scheme will be adopted.

Sustainable development goals - Agenda 2030

[Sbl legenda sviluppo sostenibile](#)