



PHILOSOPHY OF SCIENCE - ADVANCED

Enrollment year	2017/2018
Academic year	2018/2019
Regulations	DM270
Academic discipline	M-FIL/02 (LOGIC AND PHILOSOPHY OF SCIENCE)
Department	DEPARTMENT OF MATHEMATICS "FELICE CASORATI"
Course	MATHEMATICS
Curriculum	PERCORSO COMUNE
Year of study	2°
Period	2nd semester (04/03/2019 - 14/06/2019)
ECTS	6
Lesson hours	36 lesson hours
Language	Italian
Activity type	WRITTEN AND ORAL TEST
Teacher	MAGNANI LORENZO (titolare) - 6 ECTS
Prerequisites	General knowledge about the history of philosophical thought,
Learning outcomes	The course will analyze in depth crucial issues to the philosophy of science and technology, encouraging students to conduct research and studies about the different kinds of scientific reasoning, about the cognitive aspects of epistemology and about the relationship between science, technology and values. Furthermore, the course will also specifically deal with recent issues from computational philosophy, stressing the cognitive and epistemological aspects of scientific discovery.
Course contents	The course will analyze in depth some issues that are crucial to the philosophy of science and technology, and it aims at introducing students to the different kinds of scientific reasoning, to the cognitive aspects of science and to the relationships between science, technology and values. Furthermore, the course will also include advanced

investigations of certain actual issues in computational philosophy, stressing cognitive and epistemological aspects of scientific creativity, of abduction and of evaluation among scientific theories.

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.

The student who will not attend the classes have to contact the professor to get (or to negotiate) the actual final program for the exams.

Provisional bibliography (please see the final exam program on April).

Philosophers:

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

Should one have already attended courses in Epistemology a, b or 10 credits should instead work on:

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

P. THAGARD, *Rivoluzioni concettuali*, Guerini, Milan, 1994.

LAKATOS, *Dimostrazioni e confutazioni*, Feltrinelli, Milan, 1978.

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

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 Italiano (presso CLU, via S. Fermo 3, tel. 0382 29130)

Mathematicians:

I. LAKATOS, *Dimostrazioni e confutazioni*, Feltrinelli, Milano, 1978.

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.

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	<p>For everyone: Material chosen by the student, concerning a particular study project, upon agreement with the professor.</p> <p>All the student will have to check the actual final programs for the exams on April.</p>
Assessment methods	Written exam
Further information	Written exam
Sustainable development goals - Agenda 2030	\$lbl_legenda_sviluppo_sostenibile