



UNIVERSITÀ DI PISA

HISTORY OF SCIENCE

MAURO CAPOCCI

Anno accademico

2023/24

CdS

PHILOSOPHY AND FORMS OF
KNOWLEDGE

Codice

385MM

CFU

12

Moduli	Settore/i	Tipo	Ore	Docente/i
STORIA DELLA SCIENZA	M-STO/05	LEZIONI	72	MAURO CAPOCCI

Learning outcomes

Knowledge

Students at the end of the course will be able to connect the philosophical and life science fields with critical analysis skills. They will also have acquired the ability to navigate the main biomedical theories that have emerged from European culture.

Assessment criteria of knowledge

The main mode of evaluation will be the final interview. Depending on the numbers of the course, reports from students, and on-going tests could be included.

Skills

Students will be able to produce an organized analysis of a historical-epistemological issue.

Assessment criteria of skills

In the examination, the ability to navigate the history of the life sciences will be tested.

Behaviors

By the end of the course, the ability to evaluate the relevance of scientific theories for philosophical elaboration may be acquired.

Assessment criteria of behaviors

At the final exam, you will be asked to show this ability.

Prerequisites

Working knowledge of English language.

Co-requisites

None

Prerequisites for further study

None

Teaching methods

Face-to-face lectures with the use of slides.

Syllabus

The course aims at exploring the issues related to the definition of life and death throughout the history of European science. Such concepts have been central to the thinking of the biological and medical sciences since antiquity, and have interacted in relevant ways with the evolution of philosophical thought. Moreover, the possibilities opened up by scientific development to intervene in human and nonhuman living things provide new historical and epistemological questions. The lectures will address the topics of generation, reproduction, inheritance, evolution, all



UNIVERSITÀ DI PISA

the way to the living in the age of algorithms and big data. Bioethical dilemmas that change throughout history and must necessarily interact with scientific developments, will then be raised. Keeping at the center the Darwinian revolution that radically altered our understanding of the living and its history, important themes that also run through Darwinian thought will be traced, without creating artificially progressive paths. Rather, it will be shown how much The Natural Sciences has been concerned with issues of philosophical relevance as they help define what nature, the individual, and societies, are, as well as the interactions between them.

Bibliography

MANDATORY READINGS

Duris P., Gohau, G., Storia della biologia (Einaudi, 1999).

S.Parigi, Magia e scienza nell'età moderna, limitatamente al cap. 2 'La natura curiosa e la storia naturale' (Carocci, 2022).

Capocci M., L'ornitolite di Montmartre. La fake news dell'ultima catastrofe. In corso di stampa (verrà reso disponibile il pdf).

Capocci M., "New Eugenics, Genomics and Human Big Data. A Perspective on the Marketing and the Use of Genes in Society," *Contemporanea*, 2018, 21/3:487-498

Lecture notes.

SUGGESTED READINGS

M. Morange, The Black Box of Biology: A History of the Molecular Revolution (Harvard University Press, 2020)

S. de Chadrevian, Heredity under the Microscope. Chromosomes and the Study of the Human Genome (Univ. of Chicago Press, 2020)

L. E. Kay, Who wrote the book of life? (Stanford University Press, 2000)

M. Turda, M.S. Quine, Historicizing race (Bloomsbury, 2018)

Non-attending students info

All the mandatory readings plus one text from the suggested ones.

Assessment methods

Oral examination. Depending on the size of the course, we may include student-led seminars.

Work placement

No

Class web page

<https://elearning22.humnet.unipi.it/course/view.php?id=781>

Additional web pages

Please, subscribe to the moodle page linked above: lecture notes and other material will be shared there.

Notes

For Erasmus students: the course will be in Italian, though a bibliography in other languages (English, French, Spanish) may be provided upon request.

If needed, the final exam may be taken in English, French or Spanish.

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