



# UNIVERSITÀ DI PISA

---

## PHILOSOPHY OF SCIENCE

**ROBERTO GRONDA**

Anno accademico 2021/22  
CdS PHILOSOPHY  
Codice 099MM  
CFU 12

Moduli	Settore/i	Tipo	Ore	Docente/i
FILOSOFIA DELLA SCIENZA A	M-FIL/02	LEZIONI	72	ROBERTO GRONDA
FILOSOFIA DELLA SCIENZA B	M-FIL/02	LEZIONI	72	ROBERTO GRONDA

### Learning outcomes

#### *Knowledge*

By paying attention to the initial phases of the Anglo-American debate on the nature of scientific explanation, the course aims to offer an introduction to some of the most relevant concepts of contemporary philosophy of science (explanation, theory, confirmation, models, understanding). It also aims to provide students with knowledge of how the philosophical debate on that topic has evolved, as well as with information that should enable them to orient themselves in the ongoing debate.

#### *Assessment criteria of knowledge*

Knowledge acquisition will be assessed informally through discussion and debate in class. Formal ascertainment and evaluation will take place in the final examination through interviews.

#### *Skills*

The course aims at developing:

- appropriate understanding and use of philosophical vocabulary specific to contemporary philosophy of science;
- capacity to read texts in the philosophy of science;
- reliable knowledge concerning the early and middle stages of the history of analytic philosophy.

#### *Assessment criteria of skills*

Informal checks, through dialogue and debate, during lessons; dialogue at office hours. Final examination through interview.

#### *Behaviors*

It is an aim of the course also to promote social behavior, exchange of knowledge, critical debate, and argumentative defense of one's own positions.

#### *Assessment criteria of behaviors*

Observation of behavior in the classroom and in the office hours. Formal verification during the final examination through interview.

#### *Prerequisites*

No prerequisites are required though some knowledge of formal logic may be useful,

#### *Prerequisites for further study*

The course will provide useful knowledge to those who are interested in studying contemporary analytic philosophy

#### *Teaching methods*

The course is structured in frontal lectures and will be mainly devoted to presenting the texts.

All the texts to which the teacher will refer during the lessons will be uploaded (or indicated) on the moodle page of the course. Students are strongly encouraged to contact the teacher for any doubt or question regarding the course and their study.



## UNIVERSITÀ DI PISA

---

### Syllabus

#### Scientific explanation

One of the central themes in the philosophy of science concerns the nature of scientific explanation. The course aims to clarify what an explanation is and under what conditions it can be properly called scientific. By considering four classic texts, we will investigate some relevant conceptions of scientific explanation that have been formulated within the Anglo-American tradition.

More precisely, the course will highlight the philosophical relevance of the concept of scientific explanation, by showing its connections with other important concepts such as those of cause, theory, model, understanding, confirmation.

Translated with [www.DeepL.com/Translator](http://www.DeepL.com/Translator) (free version)

### Bibliography

K. R. Popper, *La logica della scoperta scientifica*, Einaudi, Torino, pp. 5-108.

C. G. Hempel, *Aspetti della spiegazione scientifica*, il Saggiatore, Milano, pp. 17-134.

M. Hesse, *Modelli e analogie nella scienza*, Feltrinelli, Milano.

B. van Fraassen, *L'immagine scientifica*, Clueb, Bologna, cap. 5.

Further readings (which are not part of the course material).

R. Campaner, M.C. Galavotti, *La spiegazione scientifica. Modelli e problemi*, Archetipolibri, Bologna.

L. Felling, *Che cos'è una spiegazione scientifica*, Carocci, Roma

### Non-attending students info

The examination is the same for both attending students and non-attending ones.

### Assessment methods

The final exam will be through interviews.

### Class web page

<https://teams.microsoft.com/l/team/19%3aAZr2nM5zOCmgf4QBwfVT1C7itkiYi6zCmKNI2gJuenE1%40thread.tacv2/conversations?groupId=bd815b6b-a2d8-4b14-a452-78bb3fa5072a&tenantId=c7456b31-a220-47f5-be52-473828670aa1>

### Notes

Composition of the Committee:

Examination Committee: dott. Roberto Gronda, prof. Pierluigi Barrotta, prof. Luca Bellotti.

Substitute Committee Members: prof. Enrico Moriconi, dott. Giacomo Turbanti, dott. Mauro Capocci.

Updated: 11/02/2022 12:35