

UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II

PHD PROGRAM IN INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

PHD PROGRAM IN INFORMATION AND COMMUNICATION TECHNOLOGY FOR HEALTH

PHD PROGRAM IN COMPUTATIONAL AND QUANTITATIVE BIOLOGY

PhD course announcement

Title: **Scienza moderna e disciplina giuridica dell'Intelligenza Artificiale**

Lecturer: **Prof. Lucio Franzese**

Università degli Studi di Napoli Federico II

Dipartimento di Ingegneria Elettrica e delle Tecnologie dell'Informazione

Email: lucio.franzese@unina.it

Short bio notes: *Lucio Franzese is professor of Philosophy of Law at DIETI, UniNA. He has taught at the Universities of Padua and of Trieste.*



Overview

The course investigates the structure of scientific knowledge, the way in which science proceeds, starting from the intuition of Galileo Galilei according to whom "*the book of nature is written in mathematical language, and the characters are triangles, circles and other geometric figures*", which gave rise to the development of modern science. Referring to contemporary scientists and epistemologists, the *hypothetical-deductive character* and the *operational function* of scientific reflection will be highlighted, the aporias of which can be identified and overcome through philosophy, which etymologically expresses the love of knowledge. In particular, the claim of science to grasp the truth while it masters the phenomena it deals with will be refuted: *scientia propter potentiam*.

The legal system represents the field in which the distinction between science and philosophy will be used. Modern legal science identifies law with the law, understood as *auctoritas non veritas facit legem*. In this way, however, the complexity of contemporary law expressed by economic and technical globalization escapes. Reducing the right to the law would not understand, on the one hand, the new *lex mercatoria* and, on the other, the regulation of the digital world. After all, the individual as a social atom is only the hypothesis from which modern legal science starts to support that law is an expression of state power. Juridical experience demonstrates, however, that law is a social phenomenon, which arises from society itself. Thus, the European AI Regulation currently being approved will not affect a *tabula rasa*, finding social practices functional to the development of the human person to be implemented, or rather to be overcome, because they express the dominion of economic and technological power over the human consortium.

There will be a final assessment.

Schedule

Lecture	Date	Time	Topics
1	07/06/2023	14:30 – 16:30	The Intuition of Galileo Galilei and the Development of Modern Science
2	09/06/2023	14:30 – 16:30	The Hypothetical-Deductive Character of Scientific Reflection
3	14/06/2023	14:30 – 16:30	The Operational Function of Science and Philosophy in Overcoming Aporias
4	16/06/2023	14:30 – 16:30	Refuting the Claim of Science to Grasp Truth: Scientia Propter Potentiam
5	21/06/2023	14:30 – 16:30	The Legal System: Science vs Philosophy
6	23/06/2023	14:30 – 16:30	Understanding the Complexity of Contemporary Law
7	28/06/2023	14:30 – 16:30	The Regulation of the Digital World and the New Lex Mercatoria
8	30/06/2023	14:30 – 16:30	Law as a Social Phenomenon
9	06/07/2023	14:30 – 16:30	The European AI Regulation and the Dominion of Economic and Technological Power.
10	07/07/2023	14:30 – 16:30	Final assessment
11	10/07/2023	14:30 – 16:30	Final assessment

Content details

1. This lesson will explore Galileo's intuition that the natural world can be understood through mathematical language and geometric figures. It will discuss how this intuition led to the development of modern science and how it differs from previous understandings of the natural world.
2. This lesson will focus on the hypothetical-deductive method, which is a way of testing scientific hypotheses by deriving predictions from them and then testing those predictions against empirical data. The lesson will also explore the role of imagination and creativity in scientific reflection.
3. This lesson will examine the limitations and uncertainties of scientific knowledge and how philosophy can help overcome these aporias. It will also discuss the different ways in which science and philosophy approach questions of truth and certainty.
4. This lesson will argue that science cannot claim to grasp the truth, but rather only to provide models that are useful for predicting and explaining phenomena. It will explore the relationship between power and knowledge and how scientific knowledge can be used for both good and bad purposes.
5. This lesson will discuss the relationship between law, science, and philosophy. It will explore how different legal theories have attempted to define the nature of law and how they have been influenced by scientific and philosophical thinking.

6. This lesson will focus on the complexity of contemporary law, particularly in the context of economic and technical globalization. It will examine the challenges of regulating new forms of economic activity and the ways in which law must adapt to keep pace with technological change.

7. This lesson will discuss the challenges of regulating the digital world, particularly in the context of emerging forms of global economic activity. It will explore the concept of the new *lex mercatoria* and how it is being used to develop legal frameworks for international commerce.

8. This lesson will argue that law is a social phenomenon that arises from the values and norms of a particular society. It will explore the ways in which legal systems reflect the social and cultural context in which they operate and how they are influenced by changing social attitudes and values.

9. This lesson will focus on the European AI Regulation and its implications for the regulation of artificial intelligence. It will examine the ways in which economic and technological power shape the development of AI and the challenges of regulating this emerging technology in a way that promotes human values and protects human rights.

CFU: 6

Participants are requested to send an e-mail to Prof. Lucio Franzese by **June 5th, 2023**, with the following information:

Student name and surname, name of the PhD course, PhD cycle.

All Course lectures will be held in the “**Seminar Room**”, 1st floor building 3, DIETI, with the exception of the date of 23 June which will be announced later

For information: Prof. Lucio Franzese (DIETI, UniNA) – lucio.franzese@unina.it