

## Syllabus Course description

Course title	Philosophy of Science
Course code	29019
Scientific sector	M-FIL/03
Degree	PhD
Semester and academic year	1st semester, a.y. 2023-24
Year	1
Credits	3
Modular	n/a

Total lecture hours	18
Total lab hours	n/a
Total exercise hours	n/a
Attendance	recommended
Prerequisites	none
Course page	n/a

Specific educational objectives	The course focuses on the acquisition of analytical abilities and the development of critical thinking with regard to basic epistemological problems. It combines various theoretical and methodological approaches in view of fostering the students' awareness and capacity for autonomous judgement in methodological and ethical questions related to scientific research.
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Lecturer	Ivo De Gennaro
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	http://www.unibz.it/en/economics/people/StaffDetails.html?personid=5188&hstf=5188
Scientific	
sector of the	M-FIL/03
lecturer	
Teaching	English
language	
Office hours	please refer to the lecturer's web page
Lecturing assistant	n/a
Teaching	
assistant	n/a
Office hours	upon request
List of topics	Following a consideration on the incentives to do "bad science" in the system of academic publishing, the module introduces to a fundamental reflection on scientific
covered	explanatory models and, more generally, on hypothetical thinking. To do so, it will



	<ul> <li>economic theory: What is a hypothesis or basic assumption? What is an operative concept? What is the scope and what are the implications of a scientific definition? What kind of choices does model building involve? The discussion of these questions aims, not least, at raising the awareness of the scientist's responsibility in society.</li> <li>Topics: <ul> <li>"good science" vs. "bad science"</li> <li>falsificationism, the methodology of scientific research programmes, methodological anarchism</li> <li>the structure of hypothetical knowledge</li> <li>explicit and implicit assumptions</li> <li>model building and experienced reality</li> <li>motivations for model building</li> <li>operative ends and ends in themselves</li> <li>the operative concepts of needs, the human being, time</li> <li>welfare- and scarcity-based definitions of economics</li> <li>scientific responsibility and the ethical scope of scientific knowledge</li> </ul> </li> </ul>
Teaching format	The course will be taught in a seminar style. Students will be provided with readings and asked to prepare these readings in view of class discussion.

Learning outcomes	<ul> <li><u>Knowledge and understanding</u>:</li> <li>1. knowledge and understanding of the scope and task of scientific research;</li> <li>2. knowledge of the structure of hypothetical knowledge;</li> <li>3. knowledge of basic ethical issues of scientific research.</li> </ul>
	<ul> <li><u>Applying knowledge and understanding</u>:</li> <li>1. development of the capacity for distinguishing between scientific performance and scientific truth;</li> <li>2. development of the ability to discern between relations of cause and effect and the truth of a phenomenon;</li> <li>3. development of the capacity for critically assessing the formulation and implementation of a research endeavour.</li> </ul>
	<ul> <li><u>Making judgments</u>:</li> <li>1. understanding the peculiarity of scientific judgments;</li> <li>2. understanding and applying the difference between making a judgment and evaluating;</li> <li>3. understanding and applying the difference between making a judgment and expressing an opinion.</li> </ul>
	Learning skills: 1. autonomous reasoning; 2. interpretive abilities exercised on economic texts; 3. oral and written expression of autonomous thinking.



Assessment	Short essay based on course readings and/or class discussion.
Assessment language	English
Evaluation criteria and criteria for awarding marks	The short essay provides the opportunity for an exercise of autonomous reflection on one of the course topics or related questions. Students can critically assess methodological aspects of scientific literature in their field or of their own scientific work. The essay will be assessed based on the capacity of recognizing and interrogating implicit and explicit assumptions of scientific practice.
Required readings	All texts, as well as further readings and lecture notes, will be made available through the digital course repository.
Supplementary readings	Will be indicated upon request.