

COURSE OUTLINE

1. GENERAL

SCHOOL	PHILOSOPHY		
ACADEMIC UNIT	PHILOSOPHY AND SOCIAL STUDIES		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	ΦA310.2	SEMESTER	5-8
COURSE TITLE	Science and Rationality		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>	WEEKLY TEACHING HOURS	CREDITS	
	3	10	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Specialised general knowledge, Skills development Seminar		
PREREQUISITE COURSES:	Philosophy of Science (recommended)		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (Erasmus students can be given tutorials as well as write their essays in English or German)		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (see above)		
COURSE WEBSITE (URL)			

1. LEARNING OUTCOMES

<p>Learning outcomes <i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i> 								
<p>After successfully completing the seminar, the students</p> <ul style="list-style-type: none"> • will have deepened their understanding of subjects introduced in the mandatory course “Philosophy of Science“ • will have reflected on a crucial question of our time: the place of sciences in our societies, their relation to other domains of human culture, their particular claims of rationality • will have developed the skills required for literature search and oral presentation in class (individually or in small teams) • will have developed the skills required for writing an academic essay 								
<p>General Competences <i>Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?</i></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i></td> <td style="width: 50%; border: none;"><i>Project planning and management</i></td> </tr> <tr> <td style="border: none;"><i>Adapting to new situations</i></td> <td style="border: none;"><i>Respect for difference and multiculturalism</i></td> </tr> <tr> <td style="border: none;"><i>Decision-making</i></td> <td style="border: none;"><i>Respect for the natural environment</i></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;"><i>Showing social, professional and ethical responsibility and</i></td> </tr> </table>	<i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i>	<i>Project planning and management</i>	<i>Adapting to new situations</i>	<i>Respect for difference and multiculturalism</i>	<i>Decision-making</i>	<i>Respect for the natural environment</i>		<i>Showing social, professional and ethical responsibility and</i>
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<i>Adapting to new situations</i>	<i>Respect for difference and multiculturalism</i>							
<i>Decision-making</i>	<i>Respect for the natural environment</i>							
	<i>Showing social, professional and ethical responsibility and</i>							

<i>Working independently</i>	<i>sensitivity to gender issues</i>
<i>Team work</i>	<i>Criticism and self-criticism</i>
<i>Working in an international environment</i>	<i>Production of free, creative and inductive thinking</i>
<i>Working in an interdisciplinary environment</i>	<i>.....</i>
<i>Production of new research ideas</i>	<i>Others...</i>
	<i>.....</i>

Working independently
Team work
Engagement in interdisciplinarity
Practicing criticism and self-criticism
Promotion of independent, creative and constructive thought
Respect for difference
Respect for the natural environment

1. SYLLABUS

Science is considered to be the rational human enterprise par excellence. But what does that rationality consist in? Is science rational because it is an effective tool, a means for whatever human purposes, or because it serves some “essential purposes of human reason” (Kant)? How does science differ from alternative forms of explaining or understanding the world, such as myth or art? What kind of relation between conceptual, rational thought, on the one hand, and experience, on the other, do scientific theories rest upon? In what sense can we view the historical change of such theories as rational? The seminar elaborates on subjects introduced in the mandatory course “Philosophy of Science“. We will turn to a rich variety of texts from 20th century authors (Cassirer, Schlick, Husserl, Horkheimer, Bachelard, Popper, Quine, Kuhn, Lakatos, Feyerabend).

1. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>		
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i> <i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	Activity	Semester workload
	Seminar attendance	39
	Lesson preparation	40
	Study of literature	40
	Presentation preparation	60
	Writing essay	71
	Course total	250
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i> <i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i> <i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	<ul style="list-style-type: none"> • Oral presentation • Written essay • Participation in class discussion 	

1. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- (1) Thomas S. Kuhn, *The structure of scientific revolutions*, University of Chicago Press, Chicago 1962 (Greek translation: Synchrona Themata, Athens 1997).
- (2) Imre Lakatos, *The Methodology of Scientific Research Programmes (Philosophical Papers, vol. I)*, Cambridge UP, Cambridge 1978 (Greek translation: Synchrona Themata, Athens 1986)
- (3) Paul Feyerabend, *Against Method. Outline of an Anarchistic Theory of Knowledge*, New Left Books, London/New York 1975 (Greek translation: Synchrona Themata, Thessaloniki 1983).
- (4) Paul Feyerabend, *Naturphilosophie*, Suhrkamp, Frankfurt/M. 2009.
- (5) Ernst Cassirer, *Die Begriffsform im mythischen Denken*, Teubner, Leipzig 1922.
- (6) Edmund Husserl, *Die Krisis der europäischen Wissenschaften und die transzendente Phänomenologie* (1936), *Gesammelte Schriften* Bd. 8, Meiner, Hamburg 1992 (Greek translation: nissos, Athens 2012).

- Related academic journals:

1. *Studies in History and Philosophy of Science*
2. *Erkenntnis*
3. *Science in Context*