COURSE OUTLINE

(1) GENERAL

SCHOOL			
ACADEMIC UNIT	**Interdisciplinary Graduate Programme in the BRAIN and MIND sciences**		
LEVEL OF STUDIES	7		
COURSE CODE	**B&M-R-132**	SEMESTER	**depending on availability**
COURSE TITLE	Philosophy of Science		

INDEPENDENT TEACHING ACTIVITIES *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*	WEEKLY TEACHING HOURS	CREDITS
Laboratory rotation	6	9-27
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special background, skills development
PREREQUISITE COURSES:	B&M-106 Introduction to Philosophy of Mind
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES
COURSE WEBSITE (URL)	https://elearn.uoc.gr/course/view.php?id=4468

(2) LEARNING OUTCOMES

Learning outcomes

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.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The Bioethics Laboratory of the University of Crete focuses its research activities both on understanding contemporary achievements in the biosciences and on the ethical and, more broadly, practical issues arising from their application in social life. Regarding the first area, emphasis is placed on the fundamental philosophical foundations for understanding the (bio)sciences, methodological and epistemological issues, questions concerning the ontological robustness of theories, and the nature of scientific explanation. The laboratory applies methods of conceptual analysis and philosophical/normative reconstruction of the foundations of the scientific theories under investigation.

Upon completion of the laboratory internship, the student will be able to:

- Apply the knowledge acquired from participation in the compulsory and elective courses of the program to identify, conceptually and analytically, using the

appropriate methodology, the research questions of their internship topic.
- Critically reconstruct contemporary theories of scientific explanation concerning the relationship between mind and brain.
- Apply analytical approaches described in the literature.
- Design and develop rigorous methods for analyzing the theoretical problems under examination.
- Critically evaluate the literature relevant to the subject of their research internship.
- Write a research paper that presents, with conceptual rigor, the research hypothesis, research design, results/findings, and their connection to the current international literature.
- Collaborate with the laboratory team and contribute to the research work produced that is relevant to their internship topic.
- Communicate their research conclusions clearly and rigorously, both at conferences and other specialist fora, as well as in the context of public science communication.

If the laboratory internship constitutes a Master's thesis, the student will additionally be able to:

- Identify and analyze research questions in the field of the internship with rigor and a structured approach.
- Formulate original research questions in the field of scientific explanation, particularly in relation to understanding the mind–brain relationship.
- Formulate new hypotheses and design comprehensive approaches for their examination.
- Defend, before a specialized audience, the research results of their thesis and their implications.

General Competences

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?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Working in an international environment
- Working in an interdisciplinary environment
- Production of new research ideas
- Showing social, professional and ethical responsibility and sensitivity to gender issues
- Criticism and self-criticism
- Production of free, creative and inductive thinking

(3) SYLLABUS

- Topics from the history of the philosophy of science
- Models of scientific explanation regarding the relationship between mind and brain
- The nature of scientific laws; issues of causality with particular reference to psychosomatic causation
- The epistemic status of scientific knowledge
- The ontological foundations of scientific theories: realism and anti-realism; empiricism, conventionalism, constructivisms
- Theory and method in the neurosciences
- Philosophical foundations of the neurosciences
- The "hard problem" of consciousness; consciousness and artificial intelligence—new dimensions to the problem of consciousness?

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	• Use of an electronic platforms • Use of publishers' databases / electronic repositories of scientific articles.
TEACHING METHODS *The manner and methods of teaching are described in detail.* *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.* *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*	

Activity	*Semester workload*
Literature review and analysis	50-150
Project	100-300
Writing of essays/reports	25-75
Independent, self-directed study	50-150
Course total	***225-675***

STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *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* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Evaluation Language: English The student will be evaluated on their consistency in carrying out the study, their creativity and independence of thought in the preparation of essays, their critical analysis and use of the literature, their progress over time, and the rigor, coherence, and overall quality of the final written report. Evaluation criteria are outlined in the study guide and communicated to students at the beginning of the course.

(5) ATTACHED BIBLIOGRAPHY

- **Suggested bibliography:**

Scientific articles in reputable scientific journals and other scholarly publications (monographs and contributions to international collective volumes) related to the topic of the internship within the framework of the Bioethics Laboratory of the University of Crete.