UCLouvain

lfilo1210

2017

Philosophy of Nature

3 credits	30.0 h	Q1

Teacher(s)	Guay Alexandre ;Martens Johannes (compensates Guay Alexandre) ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	The course is organized around the study of some fundamental concepts: matter, space, time, causality. Each of these concepts is studied in the main contexts that marked the development of rational thought: Greek, Classical, and Contemporary philosophy; Classical and Contemporary physics; Contemporary biology. The main emphasis is on the transition from the classical idea of nature, linked to mechanism, to contemporary conceptions (dominated either by the most recent developments in physics or in the social sciences), which more and more regard nature in its evolutionary aspects and place ever greater importance on the phenomena of emergence, of teleonomy, and on what one might call the "historicity" of nature. The course ends with a schematic examination of the problem of the meaning of nature in relation to the human being and attempts also to link this reflection on nature to philosophical anthropology in the context of the problems arising from contemporary ecology.
Aims	1 The aim of the course is to introduce the student to a metaphysical reflection on nature that takes into consideration the main advances of the philosophical tradition and of modern science. By the end of the course, the student is expected to have mastered the central topics and the main authors that have articulated a philosophical approach to nature. The student should be able to present a question, orally or in writing, in a clear, synthetic, and precise manner. The student will be able to argue in a rigorous manner in favor of one of the positions addressed while also taking a critical stance towards that same position. Finally, the student will be able to orient him or herself in the primary and secondary literature in the philosophy of nature. - - - - *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Evaluation methods	The evaluation consists of two elements: a personal essay on a text chosen from a list (50% of the final grade) and a written exam (50%). During the second session, the evaluation consists of the same elements.
Teaching methods	This introductive course will be mostly based on traditional lessons. The main method will be the systematic comparison between approaches and positions. Because of the diversity of authors and approaches studied, the students should prepare lessons by carefully reading suggested materials. Participation during discussions in class will also be essential.
Content	Philosophy of nature is defined as an ontological approach to natural beings and to nature as a whole. This philosophy is strongly influenced by scientific results but is not reducible to science. This course is an introduction to the field. The main objective is to give the students the elementary conceptual tools to understand contemporary research in ontology of physical and biological sciences. The lessons will be divided in eight parts of different length: 1) A reflection on the relation between philosophy and science and, in particular, between philosophy of science and philosophy of nature. 2) Conceptions of nature for the first philosophers and Platon 3) An introduction to Aristotle's science and philosophy of nature. 4) The mechanistic approaches (Copernic, Galileo, Kepler, Descartes) 5) Newton's science and its ontological implications (space, time, causality, matter, the Divinity). Leibniz's critics. 6) Darwin: nature as an historical entity 7) Time and space according to Einstein 8) Quantum physics, a flight from reality?
Bibliography	Une bibliographie et des extraits de textes seront fournis aux étudiants via iCampus.
Other infos	Supporting material: Complete class-notes as well as a bibliography are available. Course Holder/Course Supervision: Exclusively by the lecturer.
Faculty or entity in charge	EFIL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Physics	PHYS1BA	3		
Master [120] in Environmental Science and Management	ENVI2M	3		
Bachelor in Philosophy	FILO1BA	3		
	FILO9CE	3		
Minor in Philosophy	LISP100I	3		