UCLouvain

lsc2220

2018

Philosophy of science

2 credits	30.0 h	Q2

Teacher(s)	Guay Alexandre ;Martens Johannes (compensates Guay Alexandre) ;
Language :	French
Place of the course	Louvain-la-Neuve
Aims	1 The aim of the course is to invite Master students in science to reflect on some of the current central themes in the philosophy of science, which are related to their interests and the scientific discipline in which they have specialised. They will have to analyze, alone or in a group, a specific philosophical issue that they will choose in relation to the themes addressed in the classroom lectures. Students will have to convey the results and conclusions of their investigations in a written essay as well as through an oral presentation. - - - - *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 will consist of two elements: a written essay (50% of the final grade) and a final exam (50%).
Teaching methods	The course will alternate between traditional lessons and collective discussions of philosophical texts/problems, related to the philosophy of biology. Participation during discussions in class is essential.
Content	Philosophy of biology is a quite recent discipline. Originated in the 1970s, it belongs to the analytic trend in philosophy, and is mostly concerned with the theoretical and ontological issues related to the biological sciences. A particular emphasis is put on the problems related to the theory of evolution. In this seminar, we will address some of its main topics, such as: the logic of Darwin's argument in the Origin of Species, the debate over adaptationism, the problem of the confirmation of scientific hypotheses in evolutionary biology, the controversy about group selection, the reductionism issue, the nature/culture issue, and the debate over the significance of the notion of gene in both molecular and evolutionary biology.
Bibliography	• Les incontournables : Sterelny, Kim & Griffiths, Paul. Sex and Death, Chicago: Chicago University Press, 1999. Sober, Elliott. The Nature of Selection, Cambridge, MA: MIT Press, 1984. Sober, Elliott (ed.). Conceptual Issues in Evolutionary Biology (2nd ed.) Cambridge, MA: MIT Press, 1994. • Pour ceux qui voudraient revoir les fondamentaux en philosophie générale des sciences: Barberousse, Kistler & Ludwig. La philosophie des sciences au XXe siècle, Champ Flammarion 2011. Popper, La logique de la découverte scientifique, chapitre I à IV, Payot, 1973.
Faculty or entity in charge	SC

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Mathematics	MATH2M	2		
Master [60] in Mathematics	MATH2M1	2		
Master [60] in Philosophy	FILO2M1	2		
Master [120] in Philosophy	FILO2M	2		
Master [120] in Biochemistry and Molecular and Cell Biology	BBMC2M	2		
Master [60] in Geography : General	GEOG2M1	2		
Teacher Training Certificate (upper secondary education) - Philosophy	FILO2A	2		
Master [120] in Environmental Science and Management	ENVI2M	2		
Master [120] in Chemistry	CHIM2M	2		
Master [120] in Geography : General	GEOG2M	2		
Master [120] in Physics	PHYS2M	2		
Master [60] in Physics	PHYS2M1	2		
Master [60] in Chemistry	CHIM2M1	2		
Master [60] in Biology	BIOL2M1	2		
Master [120] in Biology of Organisms and Ecology	BOE2M	2		
Master [120] in Geography : Climatology	CLIM2M	2		
Master [120] in data Science: Statistic	DATS2M	2		