




2.00 credits

30.0 h

Q2

Teacher(s)	Verdée Peter ;
Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	<i>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".</i>
Evaluation methods	Due to the COVID-19 crisis, the information in this section is particularly likely to change. A written assignment on one of the course topics followed by an individual oral defence of that assignment. It is possible to do the written work in group. The oral defence will take place in the exam period.
Teaching methods	Due to the COVID-19 crisis, the information in this section is particularly likely to change. This course will be co-taught with Pilar Terrés and Pierre Saint-Germier. The teachers present the paradoxes and the students try to propose solutions. Then, the teachers develop some solutions present in the literature. Part of the sessions will be taught in English, but it will still be possible to ask questions in French and to be evaluated in French.
Content	<p>This course will present some themes in contemporary philosophy related to the concept of paradox. Starting from a certain number of principles that seem quite acceptable (intuitively acceptable or belonging to well-established theories), a paradox allows us to arrive at a counterintuitive or even logically contradictory conclusion. Many famous paradoxes have led philosophers and scientists to question their preconceptions and to devise new solutions. The course will explore the very concept of paradox and will treat the following paradoxes in detail</p> <ul style="list-style-type: none"> • The paradox of the heap, and the paradoxes of vagueness • The liar paradox and paradoxes of truth • Paradoxes of set theory • The paradoxes that problematize the principles of intensionality • Paradoxes related to conditionals or logical implication • Paradoxes related to knowledge and belief • Paradoxes of infinity (the paradoxes of Cantor, Hilbert and Skolem) • Paradoxes in decision theory and social choice theory (the paradox of Arrow and others) • The paradoxes of time, space and time travel • Paradoxes related to probability <p>We will also discuss the dialetheist strategy to resolve certain paradoxes, i.e. the idea of accepting the possibility of the existence of sentences that are true and false at the same time.</p>
Bibliography	Chang, Mark, <i>Paradoxes in Scientific Inference</i> , CRC Press, 2013 Cook, Roy T., <i>Paradoxes</i> , Polity, 2013. Delahaye, Jean-Paul, <i>Logique, informatique et paradoxes</i> , Belin, 1995 Delahaye, Jean-Paul, <i>Au pays des paradoxes</i> , Belin 2008 Quine, W.V., "Les voies du paradoxe" in <i>Les voies du paradoxe et autres essais</i> , Vrin, 2011. Sainsbury, R. M., <i>Paradoxes</i> , Cambridge University Press, 2009.
Faculty or entity in charge	SC

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Geography : General	GEOG2M	2		
Master [120] in Statistics: General	STAT2M	2		
Master [120] in Chemistry	CHIM2M	2		
Master [120] in Mathematics	MATH2M	2		
Master [120] in Statistics: Biostatistics	BSTA2M	2		
Master [120] in Geography : Climatology	CLIM2M	2		
Master [120] in Biology of Organisms and Ecology	BOE2M	2		
Master [120] in Physics	PHYS2M	2		
Master [60] in Mathematics	MATH2M1	2		
Master [60] in Geography : General	GEOG2M1	2		
Master [120] in Biochemistry and Molecular and Cell Biology	BBMC2M	2		
Master [60] in Biology	BIOL2M1	2		
Master [60] in Chemistry	CHIM2M1	2		
Master [60] in Physics	PHYS2M1	2		
Master [120] in Data Science : Statistic	DATS2M	2		