

2.00 credits

30.0 h

Q2

Teacher(s)	Guay Alexandre ;
Language :	English
Place of the course	Louvain-la-Neuve
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <p>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.</p>
Evaluation methods	<p>The evaluation consists of two elements: a written exam (50% of the final grade) and an oral presentation in small groups (50%).</p> <p>During the second session, the evaluation consists of an exam (50%) plus the presentation grade (50%). If the presentation grade is absent or has already been included in the June evaluation, this grade will be replaced by a personal research essay. Note that it is possible to make the presentation during the semester, asked for a presence grade in June and therefore use the presentation grade in the September evaluation.</p>
Teaching methods	<p>The first part of the course consists in lectures on the three themes. In the meantime, students will register on the course's website and form teams of maximum three members. Each team will choose a presentation subject in relation with one of the themes. The subject, the related list of references and the oral presentation plan will have to be approved by the professor. He shall be available to help students develop their presentation. The second part of the class will be devoted to the oral presentations. The final exam will cover all lectures and presentations.</p>
Content	<p>The three themes for 2024-25 are::</p> <ol style="list-style-type: none"> 1. Elements of the philosophy of mathematics. What is the purpose of mathematics? Why can mathematics be used to model the empirical world? 2. Philosophical approaches to causality. What is causality? How do we recognize a causal link? What role does causality play in scientific explanations? 3. Philosophical approaches to symmetry. What is symmetry? What is an argument by symmetry?
Inline resources	See course Moodle site.
Bibliography	Voir site Moodle du cours.
Faculty or entity in charge	SC

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Data Science : Statistic	DATS2M	2		
Master [120] in Geography : Climatology	CLIM2M	2		
Master [120] in Biology of Organisms and Ecology	BOE2M	2		
Master [60] in Physics	PHYS2M1	2		
Master [120] in Environmental Science and Management	ENVI2M	2		
Master [60] in Geography : General	GEOG2M1	2		
Master [120] in Biochemistry and Molecular and Cell Biology	BBMC2M	2		
Master [120] in Statistics: Biostatistics	BSTA2M	2		
Master [60] in Biology	BIOL2M1	2		
Master [120] in Mathematics	MATH2M	2		
Master [60] in Mathematics	MATH2M1	2		
Interdisciplinary Advanced Master in Science and Management of the Environment and Sustainable Development	ENVI2MC	2		
Master [120] in Chemistry	CHIM2M	2		
Master [120] in Statistics: General	STAT2M	2		
Master [120] in Philosophy	FILO2M	2		
Master [120] in Physics	PHYS2M	2		
Master [60] in Chemistry	CHIM2M1	2		
Master [120] in Geography : General	GEOG2M	2		
Master [120] in Medical Physics	PHMD2M	2		