

2.00 credits

30.0 h

Q2

Teacher(s)	Guay Alexandre ;Thyssen Pieter (compensates 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 2021-22 are taken from, respectively, the philosophy of physics, the philosophy of chemistry, and general philosophy of science/metaphysics. They are:</p> <ol style="list-style-type: none"> 1. The measurement problem. What is the measurement problem of quantum mechanics? How do different interpretations of quantum mechanics attempt to answer the measurement problem? 2. The problem of molecular structure. What is the problem of molecular structure in chemistry? How does it relate to the measurement problem of quantum mechanics? 3. Laws of nature. What are laws of nature? Are they descriptive or prescriptive in nature? Are they imposed upon Nature ('from the outside') or inherent in Nature ('from the inside')?
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 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 Philosophy	FILO2M	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 Philosophy	FILO2M1	2		
Master [60] in Geography : General	GEOG2M1	2		
Master [120] in Biochemistry and Molecular and Cell Biology	BBMC2M	2		
Interdisciplinary Advanced Master in Science and Management of the Environment and Sustainable Development	ENVI2MC	2		
Master [120] in Environmental Science and Management	ENVI2M	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		