| UCL <br> Université catholique de Louvain |  | Advanced Studies in the Philosophy of |  |  |
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|  | 2016-20 | Natural Sciences B |  |  |
|  | 5.0 credits | 30.0 h | $2 q$ | This biannual course is taught on years 2014-2015, 2016-2017, ... |
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| Teacher(s) : | Guay Alexandre ; |
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| Language : | Français |
| Place of the course | Louvain-la-Neuve |
| Prerequisites : | Basic instruction in philosophy of natural science ; <br> Reading knowledge of English sufficient to allow for study of contemporary texts in the philosophy of natural science. |
| Main themes : | Philosophical analysis of contemporary scientific practices in accordance with a two-fold approach. Methodologically, to ask <br> questions about the applicability and the limits of validity of scientific explanations, relative to other approaches to reality. In terms <br> of content, to learn to see the contributions of natural science as a more general means of comprehending particular phenomena. |
| Aims : | Upon completion of the course the student should be able <br> - to pose critical questions about the importance and the limits of the validity of natural science <br> -to connect scientific discourse with other forms of discourse about the same phenomenon <br> The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) <br> 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: an in class oral presentation about a research article (50\% of the final grade) and a <br> personal research essay (50\%). <br> In second session, the evaluation consists of a personal research essay (50\%) plus the oral presentation (50\%). If the presentation <br> grade is absent or has already been used, this part of the grade will be replaced by an exam. |
| Teaching methods : | This course will mostly be based on traditional lessons. The main method will be the systematic comparison between approaches <br> and positions. Because of the diversity of authors and approaches studied, the students have to prepare for the lessons by carefully <br> reading the suggested materials. Participation during discussions in class is also essential. |
| Content: | Physical symmetries: epistemological and ontological aspects. Symmetry considerations dominate modern physics, both in <br> quantum mechanics and in relativity. This course is designed to give students the opportunity to explore the philosophical aspects <br> of such theoretical developments. A special effort will be made to keep the conceptual issue. |
| Faculty or entity in |  |
| charge: | A list or references and reading material will be available via Moodle. <br> Bibliography : |
| EFIL |  |


| Programmes / formations proposant cette unité d'enseignement (UE) |  |  |  |  |  |
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| Intitulé du programme | Sigle | Credits | Prerequis | Acquis d'apprentissage |  |
| Master [120] in Philosophy | FILO2M | 5 | - | $a$ |  |
| Master [120] in Ethics | ETHI2M | 5 |  | a |  |
|  | FILA9CE | 5 |  | a |  |
| Master [60] in Philosophy | FILO2M1 | 5 |  | $a$ |  |
| Master [120] in Environmental <br> Science and Management | ENVI2M | 5 |  |  |  |

