1. **Title of the module**

PHIL5800/PHIL6060 (PL580/PL606) – Philosophy of Science

1. **School or partner institution which will be responsible for management of the module**

School of European Culture and Languages

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 5 (PHIL6060) and Level 6 (PHIL5800)

1. **The number of credits and the ECTS value which the module represents**

30 Credits (15 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Autumn or Spring

1. **Prerequisite and co-requisite modules**

None

1. **The programmes of study to which the module contributes**

Optional for BA Philosophy (Single and Joint Honours)

1. **The intended subject specific learning outcomes.  
   On successfully completing the module Level 5 students will be able to:**

8.1 Demonstrate an understanding of some of the major theories of scientific reasoning;

8.2 Demonstrate, through their study of these theories, the ability to critically engage with some of the central philosophical issues in this area concerning the status of scientific claims, the nature of scientific theory change, confirmation of scientific hypotheses, and causal reasoning in science, and enhanced their understanding of them

8.3 Demonstrate their ability to engage in a close critical reading of some of the major texts in the philosophy of science.

**On successfully completing the module Level 6 students will be able to:**

8.4 Demonstrate deep and sustained understanding of some of the major theories of scientific reasoning

8.5 Demonstrate, through their study of these theories, the ability to engage in sustained critical fashion with some of the central philosophical issues in this area concerning the status of scientific claims, the nature of scientific theory change, confirmation of scientific hypotheses, and causal reasoning in science, and significantly enhanced their understanding of them

8.6 Demonstrate their ability to engage in a close and sustained critical reading of some of major texts in the philosophy of science.

1. **The intended generic learning outcomes.  
   On successfully completing the module Level 5 students will be able to:**

9.1 Demonstrate their skills in critical analysis and argument, both through their reading and through listening to others;

9.2 Demonstrate their ability to make complex ideas understandable in their writing;

9.3 Demonstrate their ability to make complex ideas understandable in their public speaking;

9.4 Demonstrate their ability to work autonomously and to take responsibility for their learning.

**On successfully completing the module Level 6 students will be able to:**

9.5 Demonstrate their enhanced skills in critical analysis and argument, both through their reading and through listening to others;

9.6 Demonstrate their deepened ability to make complex ideas understandable in their writing, and focussed on precision and clarity;

9.7 Demonstrate their deepened ability to make complex ideas understandable in their public speaking;

9.8 Demonstrate confidence in working autonomously and taking responsibility for their learning.

1. **A synopsis of the curriculum**

The module will study some of the major works in the history of modern philosophy of science. Texts to be studied will be drawn from a list that includes major works by philosophers such as Popper, Kuhn, Lakatos, Shapere, and Feyerabend. The approach will be philosophical and critical, and will involve the close reading of texts. Students will be expected to engage critically with the works being studied and to formulate and argue for their own views on the issues covered.

An indicative list of themes to be studied: Inductivism versus falsificationism, Research Programmes, Incommensurability, Realism, Instrumentalism, Sociology of Scientific Knowledge, Causal Reasoning and Scientific Explanation.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

Godfrey-Smith, P. (2003). *Theory and Reality*. Chicago: University of Chicago Press.

Kuhn, T. (1962). *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.

Popper, K. (2002). *The Logic of Scientific Discovery*, 2nd edition. London: Routledge.

Salmon, W. (1998). *Causality and Explanation*. Oxford: Oxford University Press.

1. **Learning and teaching methods**

Total Contact Hours: 40

Private Study Hours: 260

Total Study Hours: 300

1. **Assessment methods**
   1. Main assessment methods

* Seminar Participation – 15%
* Article Review (1,800 words) – 30%
* Essay (3,200 words) – 55%

13.2 Reassessment methods

* Reassessment Instrument: 100% Coursework

1. ***Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)***

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| **Module learning outcome** | 8.1 / 8.4 | 8.2 / 8.5 | 8.3 / 8.6 | 9.1 / 9.5 | 9.2 / 9.6 | 9.3 / 9.7 | 9.4 / 9.8 |
| **Learning/ teaching method** |  |  |  |  |  |  |  |
| Private Study | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Lecture | **x** | **x** | **x** |  |  |  |  |
| Seminar | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| **Assessment method** |  |  |  |  |  |  |  |
| Seminar Participation | **x** | **x** | **x** | **x** | **x** |  | **x** |
| Article Review | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Essay | **x** | **x** | **x** | **x** | **x** | **x** | **x** |

1. **Inclusive module design**

The School recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

The principal theme of this module is whether and how it is possible for groups of scholars and experimenters to have very different ideas about the world and about how to enquire into its nature, while managing to argue to a consensus position. In a time when factions in the world seem so divided in political matters, the possibility of clear and rational agreement in another walk of life seems attractive. In this module we come to see, however, that overcoming differences in the natural sciences, even when confronting what we might take to be the same empirical phenomena, is no easy matter. In the historical work of this module, we see how rivalry between communities has developed it the context of national political rivalry, and ask whether science can transcend such differences to achieve globally recognised truths.

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**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

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| Date approved | Major/minor revision | Start date of delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
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