Programa | Course Description 2022/2023

Unidade Curricular | *Course Unit*

Metafísica das ciências da natureza / Metaphysics of the natural sciences

Código da Unidade Curricular | *Course ID*

???

ECTS | *Credits*

6

Ciclo de Estudos | *Level*

1º

Semestre | *Semester*

2º

Docente(s) | *Instructor(s)*

David Yates

Língua de ensino | *Language of instruction*

Inglês / English (students may write exams and give presentations in Portuguese)

Programa (na língua de ensino) | *Course description (in language of instruction)*

The metaphysics of science is a wide-ranging and recent discipline that can involve (1) metaphysical issues that arise in all sciences (such as the nature of laws, natural kinds, causality and properties); (2) metaphysics applied to specific sciences such as physics, chemistry, biology and psychology; and (3) issues concerning the relationship between sciences at different levels (emergence, grounding and reduction). We will cover a selection of these issues in the present course, focusing on laws and properties, the nature of causation, space and time, and the reduction / emergence debate as it applies to the relationship between the special sciences and physics. No background knowledge of science is presupposed or required, and the course will be non-technical and accessible to all.

Avaliação (na língua de ensino) | *Grading and Assessment (in language of instruction)*

Classes will be divided into lectures and seminar sessions at which we will discuss either set readings or the material presented in the lecture. Students must submit an essay of around 2000 words and sit a term-time examination. Provisionally the essay is worth 50% and the examination 50%. It is also possible for students to give presentations at the seminar sessions, to be decided in conjunction with students. In this case the marks breakdown will be 20-40-40 (20% for the presentation). Students may also sit the final examination if they fail the term-time assessments with a mark of 7 or above. It is necessary to complete all term-time assessments in order to be eligible for the final examination.

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Bibliografia (selection) | *Readings (selection)*

All readings required for the course will be circulated via the course Moodle page. Metaphysics of science is such a wide-ranging discipline that it is hard to recommend a specific book as a course text. However, the following are some suggestions for further and / or preparatory reading:

Beckermann, A., Flohr, H. & Kim, J. eds. (1993). Emergence or Reduction? Essays on the Prospects of Nonreductive Physicalism. De Gruyter.

Bird, Alexander. 2007. Nature's Metaphysics. Oxford: Oxford University Press.

Göhner, J. & Schrenk, M. "The Metaphysics of Science", Internet Encyclopaedia of Philosophy. https://iep.utm.edu/met-scie/

Mumford, S. & Tugby, M. eds. (2013). Metaphysics and Science. Oxford University Press. (Pretty advanced collection of essays but you might find the introduction ("What is the metaphysics of science?", by the editors) useful.

Schrenk, M. (2017). Metaphysics of Science: A Systematic and Historical Introduction. London: Routledge.