

HPSC10001 From Plato to Einstein

Credit Points: 12.5

Level: 1 (Undergraduate)

Commencement Date & Location: 2011, Parkville
This subject commences in the following study period/s:
Semester 2 - Taught on campus.
Standard

Time Commitment: Contact Hours: 3 (2x1 Hour Lectures and 1x1 hour tutorial each week.)
Total Time Commitment: An average of 8 hours each week.

Prerequisites: None.

Corequisites: None.

Recommended Background Knowledge: None.

Non Allowed Subjects: None.

Core Participation Requirements: For the purposes of considering request for Reasonable Adjustments under the disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements.

Subject Overview: In this subject, we embark on a fascinating journey through the history of science, exploring changing ideas about the physical world from antiquity to the present day. Beginning with the birth of natural philosophy in Greece in the 6th century BC, this subject traces the central place of Aristotle's physics in ancient and medieval thought, before examining new attitudes to nature in Renaissance and early modern thought, culminating with the scientific view of the Enlightenment. We then turn our attention to different approaches to natural philosophy that emerged in the 19th century, before concluding our story with the dramatic shift in the physicist's conception of reality in the 20th century. Students taking this subject will be introduced to the ideas of

thinkers like Plato, Aristotle, Kepler, Galileo, Descartes, Newton, Faraday and Einstein. The subject will focus on themes such as the search for an underlying unity in nature, different attempts throughout history to understand the nature of gravity, and the view that physical world can be understood mathematically. Students taking this subject will gain a wide-ranging introduction to the history of science and an appreciation of the way in which it has been shaped by wider cultural and intellectual movements.

Students who successfully complete this subject will:

- Objectives:**
- have an understanding of the major conceptual shifts that occurred in the history of physical thought.
 - appreciate the way in which different intellectual and cultural movements such as the Renaissance and the Enlightenment helped to shape people's views about the cosmos.
 - become aware of the difficulties in understanding the thoughts and attitudes of people historically remote from us.
 - have practice at writing clear, coherent and persuasive analyses of ambiguous and difficult issues.

Assessment: An essay of 2000 words 50% (due at during the examination period) and three short written assignments (totalling 50%) to be submitted throughout the semester. This subject has a minimum hurdle requirement of 75% tutorial attendance. Regular participation in tutorials is required. Assessment submitted late without an approved extension will be penalised at 10% per day. In-class tasks missed without approval will not be marked. All pieces of written work must be submitted to pass this subject.

Prescribed Texts: A subject reader will be available for purchase from the University Book Shop.

HPSC10002 Science and Pseudoscience

Credit Points: 12.50

Level: 1 (Undergraduate)

Commencement Date & Location: 2011, Parkville
This subject commences in the following study period/s:
Semester 1 - Taught on campus.
Standard

Time Commitment: Contact Hours: 3 (2x 1 Hour Lectures and 1x 1 hour tutorial each week.)
Total Time Commitment: An average of 8 hours per week.

Prerequisites: None.

Corequisites: None.

Recommended Background Knowledge: None.

Non Allowed Subjects: None.

Core Participation Requirements: For the purposes of considering request for Reasonable Adjustments under the disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements.

Subject Overview: Is there a good way to decide which ideas, theories and practices belong to science and which do not? This so-called demarcation problem is a central issue in the philosophy of science. As modern societies rely on science, in our daily lives as well as in policy decisions, this issue is much more than an academic debate: Which kind of evidence should we trust and which kind of research should we spend money on? On the other hand, should we discard knowledge that does not fulfil the standards of science? Is it justified to call such knowledge fields 'pseudoscience'? Does a demarcation between scientific and non-scientific knowledge say anything about the truth of both kinds of knowledge? This subject will discuss which (if any) criteria we should use to distinguish between science and non-science. In particular, we will scrutinise the claims for a scientific basis of various ideas and fields of knowledge, among them Newtonian gravitation, astrology, acupuncture, Darwinian evolution, creationism, and the Continental drift theory.

Objectives: Students who have successfully completed the subject will

- have good understanding of the differences between scientific and non-scientific knowledge.
- understand the role this demarcation has in modern societies.

- have a reasonable knowledge of central theories in the philosophy of science.
- Be able to reflect on the role of academic discourse in the wider public

Assessment: Tutorial assignments (worth 30%), a 1500 word essay during the semester (worth 30%) and a 1 hour written examination (worth 40%). This subject has a minimum hurdle requirement of 75% tutorial attendance. Regular participation in tutorials is required. Assessment submitted late without an approved extension will be penalised at 10% per day. In-class tasks missed without approval will not be marked. All pieces of written work must be submitted to pass this subject.

Prescribed Texts: A subject reader will be available from the University Bookshop at the start of semester.

MULT10007 Knowing Nature

Credit Points: 12.50

Level: 1 (Undergraduate)

Commencement Date & Location: 2011, Parkville
This subject commences in the following study period/s:
Semester 1 - Taught on campus.

Time Commitment: Contact Hours: Two 1-hour lectures and one 1-hour tutorial per week. The subject will also run optional screenings throughout the semester.
Total Time Commitment: 3 contact hours per week , 5 additional hours per week. Total of 8 hours per week.

Prerequisites: None.

Corequisites: None.

Recommended Background Knowledge: None.

Non Allowed Subjects: None.

Core Participation Requirements: For the purposes of considering request for Reasonable Adjustments under the disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements.

Subject Overview: This subject introduces students to different ways that humans come to know and think about the natural world, understand their place in relation to that world, and define what they mean by Nature, including human nature. The subject draws on contributions from Anthropology, Geography, History and Philosophy of Science and Gender Studies to locate contemporary scientific understandings of the natural world alongside ways nature has been understood in the past and within different cultures. Debates over the relationship between Nature and Culture lie at the heart of all humanities and social sciences. By questioning the idea of Nature itself, in a world where people can change not just the genetics of organisms but the climate of the globe, the subject addresses the possibilities of a future that may be not merely post-Nature but post-human.

Students who complete this subject should:

- Objectives:**
- Have a sound grasp of different ways that knowledge of the natural world is produced and used;
 - Appreciate how different understandings of the relationship between Nature and Culture are produced by, and affect, social and cultural practices;
 - Understand how different disciplines contribute to both knowledge of nature and knowledge about the ways people understand nature;
 - Be able to understand and analyse current debates about the evolving relationship between humans and nature.

- Assessment:**
1. One essay of 800 words (20%) due early in semester.
 2. One essay or tutorial assignment of 1200 words (30%) due by end of semester.
 3. A two-hour examination (50%) in the examination period.

Students must attend a minimum of nine tutorials, demonstrate familiarity with online resources and participate in the Faculty of Arts online learning community in order to qualify to have their written work assessed.

Prescribed Texts: A subject reader will be available.

