

HPSC10001 From Plato to Einstein

Credit Points:	12.50
Level:	1 (Undergraduate)
Dates & Locations:	This subject is not offered in 2011. 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 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. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Contact:	Dr Kristian Camilleri (http://www.pasi.unimelb.edu.au/hps/staff/camilleri/) kcam@unimelb.edu.au (mailto:kcam@unimelb.edu.au)
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.
Objectives:	Students who successfully complete this subject will: <ul style="list-style-type: none"> # 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.

Breadth Options:	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> # Bachelor of Biomedicine (https://handbook.unimelb.edu.au/view/2011/B-BMED) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2011/B-COM) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2011/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2011/B-MUS) # Bachelor of Science (https://handbook.unimelb.edu.au/view/2011/B-SCI) # Bachelor of Engineering (https://handbook.unimelb.edu.au/view/2011/B-ENG) <p>You should visit learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<p>Students who successfully complete this subject will:</p> <ul style="list-style-type: none"> # Engage in critical reflection about the past and its connection to the present # Develop skills in written and oral communication # Conduct independent research # Make use of appropriate primary and secondary sources in mounting an argument # Form defensible judgments on the basis of a critical evaluation of arguments in the secondary literature
Links to further information:	http://www.pasi.unimelb.edu.au/hps/
Notes:	This subject is available for science credit for students enrolled in the BSc (pre-2008 degree only), or a combined BSc course (except for the BA/BSc).
Related Majors/Minors/Specialisations:	<p>History and Philosophy of Science History and Philosophy of Science History and Philosophy of Science History and Philosophy of Science Major Media and Communications Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses</p>
Related Breadth Track(s):	Understanding the Development of Science