

HPSC40016 Contemporary Approaches in HPS

Credit Points:	12.5
Level:	4 (Undergraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 1 x 2-hour seminar each week for 12 weeks Total Time Commitment: 170 hours
Prerequisites:	Admission to fourth year Honours or the Postgraduate Diploma in the discipline of History and the Philosophy of Science
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/
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Subject Overview:	In the opening sentence of his landmark work <i>The Structure of Scientific Revolutions</i> , Thomas Kuhn proclaimed, "history of science...could produce a decisive transformation in the image of science by which we are now possessed". Kuhn's vision of a historically informed philosophy of science inspired a number of new approaches in the 1970s. But it also met with considerable resistance from many scholars. In this subject we critically examine a range of new approaches that have emerged in recent years, which have renewed the attempt to integrate history and philosophy of science. In the first part of the subject we examine these new perspectives through a series of episodes of scientific change. These include the shift from medieval to early modern conceptions of space, the chemical revolution of the late 18th century, the invention of the concept of temperature, the changing conceptions of the gene and the electron, and the rise of molecular biology after the Second World War. In the second part of the subject we look at some of the projects to reconstruct the 'big picture' of science, including Peter Galison's notion of 'trading zones', Jonathan Pickstone's 'ways of knowing' and Ian Hacking's 'styles of reasoning'.
Learning Outcomes:	Students who successfully complete this subject will: <ul style="list-style-type: none"> # possess a critical understanding of some of the major themes in HPS # become familiar with a range of different historiographical and philosophical approaches to the understanding of the dynamics of scientific change # develop the ability to engage in critical analysis of important texts # develop a critical perspective on recent attempts to develop a 'big picture' of the sciences # gain the necessary critical acumen and relevant knowledge to be able to engage in contemporary debates in the history and philosophy of science # develop an ability to conduct independent critical research at fourth year Honours level

Assessment:	Two seminar papers of 1250 words, 25% each (to be submitted during the semester on dates to be determined) and a research essay of 2500 words, 50% (due during the examination period) Hurdle Requirements: Students are required to attend a minimum of 75% of classes in order to pass this subject. Regular participation in class is required. Assessment submitted late without an approved extension will be penalised at 2% per working 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:	To be advised
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Students who successfully complete this subject will <ul style="list-style-type: none"> # develop skills in written communication. # conduct independent research. # make appropriate use of primary and secondary sources in mounting an argument. # develop skills in synthesizing and analysing literature relevant to a specific discipline or topic # form defensible judgements based on a critical evaluation of conflicting arguments
Links to further information:	http://hps.unimelb.edu.au/students/honours/
Related Course(s):	M.A.History & Philosophy of Science (Advanced Seminars & Shorter Thesis)
Related Majors/Minors/Specialisations:	History and Philosophy of Science History and Philosophy of Science History and Philosophy of Science History and Philosophy of Science History and Philosophy of Science History and Philosophy of Science History and Philosophy of Science History and Philosophy of Science