

HPSC30035 Knowledge in the Making

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	This subject is not offered in 2014.
Time Commitment:	Contact Hours: 1 x 2-hour seminar each week for 12 weeks Total Time Commitment: An average of 8.5 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://hps.unimelb.edu.au/about/staff/camilleri/) kcam@unimelb.edu.au (mailto:kcam@unimelb.edu.au)
Subject Overview:	Thomas Kuhn's landmark work <i>The Structure of Scientific Revolutions</i> , published some fifty years ago, exerted a major influence on the philosophical, historical and sociological understanding of science. Yet Kuhn's work represents just one chapter in the much larger story of the different attempts to come to grips with the nature of science throughout the course of the 20th century. This subject explores the recent trends and contemporary debates at the intersection of history, philosophy and sociology of science. Here we focus on questions such as: What is involved in the discovery of a new entity? Are there national styles of scientific thought? How does field science differ from laboratory science? To what extent is the production of scientific knowledge dependent on establishing networks of trust and credibility? Can experiments lead to the formation of new concepts in the absence of theory? Can social or political values play a constructive role in scientific inquiry? What role does human skill play in experimental practice? In exploring questions such as these, students will be introduced to a range of contemporary approaches and theoretical perspectives, including Fleck's idea of thought-collectives, Steinle's notion of exploratory experiments and Gallison's notion of trading zones.
Learning Outcomes:	Students who successfully complete this subject should: <ul style="list-style-type: none"> # Be familiar with a range of different historical, philosophical, and sociological approaches to understanding the process of scientific inquiry # Develop an appreciation of the social, historical and cultural contexts which shape the construction of scientific knowledge. # Have a good grasp of the contemporary philosophical debates on the nature of scientific discovery and role of experiment in science. # Develop an ability to conduct critical research at third year level. # Through the written work develop a method of presenting an argument by developing critical analysis through synthesizing, and distinguishing between, a variety of arguments and ideas. # Gain the necessary critical acumen and store of relevant knowledge to be able to engage confidently and intelligently in contemporary debates in the history and philosophy of science.

Assessment:	Written work totaling 4,000 words comprising three short written assignments (worth 50%) due during the semester, and a 2,000-word essay due at the end of semester worth 50%. Hurdle requirement: students must attend a minimum of 75% of the weekly seminars in order to pass this subject. Assessment submitted late without an approved extension will be penalized at 10% per day; after five working days, no late assessment will be marked. All pieces of written work must be submitted to pass this subject.
Prescribed Texts:	Subject readings will be available online
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/2014/B-BMED) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2014/B-COM) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2014/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2014/B-MUS) # Bachelor of Science (https://handbook.unimelb.edu.au/view/2014/B-SCI) # Bachelor of Engineering (https://handbook.unimelb.edu.au/view/2014/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 should:</p> <ul style="list-style-type: none"> # Develop skills in written and oral communication. # Conduct independent research. # Form defensible judgements on the basis of critical evaluation of conflicting arguments. Understand and analyse key conceptual and theoretical arguments. # Develop their own argument based on empirical evidence. # engage in critical reflection about the past and its connection to the present
Links to further information:	http://hps.unimelb.edu.au/
Notes:	This is the Capstone subject for the major in History and Philosophy of science. All students undertaking the major in History and Philosophy of science must enrol in this subject - normally in their final semester of enrolment.
Related Majors/Minors/Specialisations:	History and Philosophy of Science History and Philosophy of Science History and Philosophy of Science History and Philosophy of Science (pre-2008 Bachelor of Science) History and Philosophy of Science Major Knowledge and Learning Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses