HPSC30035 Knowledge in the Making

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus. Standard
Time Commitment:	Contact Hours: 3 (1x 90 minute Lecture and 1x 90 minute tutorial each week.) Total Time Commitment: An average of 8.5 hours each week.
Prerequisites:	Students enrolling in this subject must be completing a Bachelor of Arts degree majoring in History and Philosophy of Science.
Corequisites:	None.
Recommended Background Knowledge:	At least 25 points (two subjects) of the following:

Subject	Study Period Commencement:	Credit Points:
HPSC20002 A History of Nature	January	12.50
HPSC20001 Darwinism: history of a very big idea	Semester 1	12.50
HPSC20009 Cybersociety	Semester 2	12.50
PHIL20001 Science, Reason and Reality	Semester 1	12.50
HPSC20010 Intimacy and Technology	Not offered 2012	12.50
HPSC20020 God and the Natural Sciences	Semester 2	12.50
HPSC20015 Astronomy in World History	January	12.50

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/
Coordinator:	Dr Kristian Camilleri
Contact:	**Dr Kristian Camilleri (http://hps.unimelb.edu.au/about/staff/camilleri/)** **kcam@unimelb.edu.au (mailto:kcam@unimelb.edu.au)**
Subject Overview:	How is scientific knowledge made? This question, which lies at the heart of much contemporary history, philosophy and sociology of science, forms the central focus of this subject. In attempting to grapple with this central question, students will explore a range of current issues on the nature of scientific inquiry. Here we focus on questions such as: Are there different styles of scientific reasoning? To what extent is scientific inquiry shaped by social, cultural and political context? How should we understand the process of scientific discovery? How can experiments lead to the formation of new concepts? What epistemological conclusions follow from the view that phenomena are created in the laboratory rather than discovered in nature?

	Are there national styles of science? How has the emphasis on different epistemic virtues historically shaped the practice of science? Can sociopolitical values play a constructive role in ensuring the objectivity of scientific inquiry? 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, Hacking's styles of scientific reasoning, Steinle's notion of exploratory experiments, Rheinberger's concept of epistemic things, and Daston and Galison's history of the scientific self.
Objectives:	Students who successfully complete this subject should: # Be familiar with a range of different historical, philosophical, and sociological approaches to the way knowledge is made in the sciences. # Develop an appreciation of the role that interpretation and imagination play in the construction of scientific knowledge. # Have a good grasp of the contemporary philosophical debates on the use of experiments and thought experiments 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 (totaling 1,500 words) due during the semester, and a 2,500-word essay due at the end of semester. Hurdle requirement: students must attend a minimum of 75% of tutorials in order to pass this subject. Assessment submitted late without an approved extension will be penalised at 10% per day; after five working days, no late assessment will be marked. 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.
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Biomedicine (https://handbook.unimelb.edu.au/view/2012/B-BMED)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2012/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2012/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2012/B-MUS)** # **Bachelor of Science (https://handbook.unimelb.edu.au/view/2012/B-SCI)** # **Bachelor of Engineering (https://handbook.unimelb.edu.au/view/2012/B-ENG)** 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.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Students who successfully complete this subject should: # 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 Course(s):	Bachelor of Arts
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 Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses