136-208 History and Philosophy of Mathematics

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	This subject is not offered in 2008. *
Time Commitment:	Contact Hours: Approximately twenty four 60-minute lectures and twelve 60 minute tutorials Total Time Commitment: *
Prerequisites:	Usually 75 points of first-year study including at least 25 points of Philosophy and/or HPS and/or Math (statistics).
Corequisites:	*
Recommended Background Knowledge:	*
Non Allowed Subjects:	*
Core Participation Requirements:	*
Coordinator:	Prof Graham Priest
Subject Overview:	Mathematics, in addition to being a source of important knowledge in its own right, is key to much of science. This class examines theories of what mathematical knowledge is, how it evolves, and how it can apply to the physical world. It examines such questions as: Why do the standards of mathematic rigour change? What is mathematical truth? Is mathematics reducible to logic? Can mathematics by itself tell us anything about the world? Why is mathematics often so crucial in the natural sciences? Where did the notion of axiom come from and how has it evolved? What are the implications of Godel's theorems? How much of mathematics can be axiomatised? How does mathematics progress? On completion of the subject students should have a sophisticated understanding of philosophical and historical issues relating to mathematics as well as further develop their skills in critical and theoretical thinking.
Assessment:	Written work totalling 4000 words, consisting of 2000 words 50% in short weekly mini-papers and 2000 words 50% in a major final paper (due during the exam period).
Prescribed Texts:	*
Recommended Texts:	*
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:	# develop skills in written and oral communication; # conduct independent research; # make appropriate use of primary and secondary sources in mounting an argument; # form defensible judgements based on a critical evaluation of conflicting arguments.
Notes:	Students enrolled in the BSc (pre-2008 BSc), or a combined BSc course (except for the BA/ BSc) will receive science credit for the completion of this subject.
Related Course(s):	Bachelor of Arts Diploma in Arts (History and Philosophy of Science Graduate Certificate in Arts (History & Philosophy of Science) Graduate Diploma in Arts (History and Philosophy of Science) Graduate Diploma in Arts (Logic and Philosophy of Science)