# 136-308 History and Philosophy of Maths (Sci.3)

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| **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<br>Total Time Commitment: Not available |
| **Prerequisites:** | Two second year HPS subjects. |
| **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 Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: <a href="http://services.unimelb.edu.au/disability">http://services.unimelb.edu.au/disability</a> |
| **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 6000 words, consisting of 2000 words 33% in short weekly mini-papers and two final papers of 2000 words 33% each (due during the exam period). |
| **Prescribed Texts:** | None |
| **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;<br># conduct independent research;<br># make appropriate use of primary and secondary sources in mounting an argument;<br># 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. |

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| | This subject is only available to science students for credit at third-year level.This subject is based on 136-208 but involves additional work (due during the exam period). |