UNIB10002 Logic: Language and Information

Credit Points:	12.50
Level:	1 (Undergraduate)
Dates & Locations:	2014, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 2 x 1-hour lectures each week and 1 x 2-hours workshops for 11 weeks. Total Time Commitment: an average of 8 hours each week; total 102 hours
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/
Coordinator:	Prof Greg Restall
Contact:	**Professor Greg Restall (http://philosophy.unimelb.edu.au/about/staff/restall/)** **restall@unimelb.edu.au (mailto:restall@unimelb.edu.au)**
Subject Overview:	Information is everywhere: in our words and our world, our thoughts and our theories, our devices and our databases. Logic is the study of that information: the features it has, how it's represented, and how we can manipulate it. Learning logic helps you formulate and answer questions about information: * Does this hypothesis clash with the evidence we have or is it consistent with the evidence? * Is this argument watertight, or do we need to add more to make the conclusion to really follow from the premises? * Do these two sentences say the same things in different ways, or do they say something subtly different? * Is this information belong to in my database, and what procedure could we use to get the answer quickly? * Is there a more cost-effective design for this digital circuit? And how can we specify what the circuit is meant to do so we could check that this design does what we want? These are questions about Logic. When you learn logic you'll learn to recognise patterns of information and the way it can be represented. These skills are used whether we're dealing with theories, databases, digital circuits, meaning in language, or mathematical reasoning, and they will be used in the future in ways we haven't yet imagined. If you take this subject, you will learn how to use the core tools in logic: the idea of a formal language, which gives us a way to talk about logical structure; and we'll introduce and explain the central logical concepts such as consistency and validity; models; and proofs in propositional and predicate logic. But you won't just learn concepts and tools. We will also

	explore how these techniques connect with problems in linguistics, computer science, electronic engineering, mathematics and philosophy.
Learning Outcomes:	Students who successfully complete this subject will have: # examined critically, synthesised and evaluated knowledge across a broad range of disciplines # expanded their analytical and cognitive skills through learning experiences in diverse subjects # the capacity to participate fully in collaborative learning and to confront unfamiliar problems
Assessment:	Homework tasks equivalent to 1,000 words 15% (completed throughout the semester). Two group work project tasks, one completed mid-semester and one completed at the end of semester 20%. A written test 10% (mid-semester). workshop participation 5%. and a 3 hour written exam 50% (examination period). This subject has a minimum hurdle requirement of 75% workshop attendance. Regular participation in workshops is required. Assessment submitted late without an approved extension will be penalised at 10% per day. After 5 working days, late assessment without an approved extension will not 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:	Greg Restall, Logic (Routledge 2006). A collection of other texts will be made available online.
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2014/B-ARTS)** # **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)** 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:	Upon completion of this subject, students should: # Be able to think critically and to organise information in clear and precise ways # Have developed analytical skills through participation in lecture, tutorial and other assignments # Have improved skills in formal reasoning # Have developed an appreciation of and a familiarity with cross-disciplinary techniques # Have developed experience and skills in working in a group
Links to further information:	http://www.philosophy.unimelb.edu.au/courses/undergrad/breadth.html
Related Breadth Track(s):	Logic, meaning and computation