

UNIB20005 Language and Computation

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus. On-campus only
Time Commitment:	Contact Hours: Thirty hours of lectures and twenty hours of workshops (ten 2-hour workshops). Total Time Commitment: 120 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	12.5 points of level-1 study in logic, mathematics, informatics, linguistics or equivalent discipline that involves abstract formal reasoning.
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:	Assoc Prof Steven Bird
Contact:	Professor Steven Bird email: sbird@unimelb.edu.au (mailto:sbird@unimelb.edu.au)
Subject Overview:	This subject introduces students to formal and computational methods for analysing language. It covers fundamental concepts in the structure and interpretation of sentences, the philosophy of language, applications of information theory, and the limits of machine intelligence. Workshops and group projects will give students practical experience in solving empirical problems involving ambiguous sentences and massive quantities of text, and with writing simple programs in a high-level programming language.
Objectives:	On completion of this subject students should be able to: # Analyse the structure and content of natural language texts using a combination of formal techniques from linguistics, philosophy and computer science.
Assessment:	Hurdle Requirement: Students are required to attend a minimum of 75% of workshops, and to achieve at least 25/50 for both the continuous assessment and the final exam.
Prescribed Texts:	Natural Language Processing in Python (S Bird, E Klein, E Loper, 2009.)
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/2012/B-ARTS) # 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)

	<ul style="list-style-type: none"> # 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) <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>On completion of this subject students should:</p> <ul style="list-style-type: none"> # Be able to think critically and to organise information in clear and precise ways # Have improved skills in formal reasoning # Be proficient in cross-disciplinary techniques # Have developed experience and skills in working in a group be able to synthesise information and communicate results effectively
Related Breadth Track(s):	Logic, meaning and computation