MC-IT100 Master of Information Technology

Year and Campus:	2013 - Parkville
CRICOS Code:	077764G
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Graduate/Postgraduate
Duration & Credit Points:	100 credit points taken over 12 months full time. This course is available as full or part time.
Coordinator:	Assoc Prof Timothy Baldwin Email: tbaldwin@unimelb.edu.au
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Course Overview:	The Master of Information Technology (MIT) is a 100-point program for those interested in a career in technical IT. The key aspects of the course are: # Specialisations in key areas of Information Technology, namely: # Formal studies in project and change management, including risk management, quality assurance and testing. # Optional 25-point industry placement with local IT organisations as part of the course (available on a competitive basis) A 25-point project, qualifying students to advance to a PhD
Objectives:	On completion of this course students should have: # Expertise in a key area of information technology # Analytical skills and competencies in problem solving # A sound fundamental understanding of the principles and methods of information technology # Demonstrable competencies in the educational and professional standards of the professional institutions and boards with which the course is accredited # A broad knowledge base of information technology so as to facilitate effective communication with those involved in the IT industry # Have acquired the computational skills necessary to solve theoretical and practical problems for further professional development and for meeting future changes in IT # Verbal and written communication skills that enable them to make a meaningful contribution to changing face of the IT industry # Professional ethics and responsibility towards the IT profession and the broader community
Course Structure & Available Subjects:	Students must complete 100 points of Advanced Specialisation Subjects .
Subject Options:	**Computing Specialisation** ***Advanced Specialisation Subjects*** *37.5 points core*

Subject	Study Period Commencement:	Credit Points:

ISYS90050 IT Project and Change Management	Not offered 2013	12.50
COMP90055 Computing Project	Not offered 2013	25

62.5 points elective

Students must take 62.5 points of level-9 COMP, SWEN, INFO or ISYS subjects. These subjects include:

Subject	Study Period Commencement:	Credit Points:
ISYS90080 IT Industry Placement	Not offered 2013	25
COMP90050 Advanced Database Systems	Not offered 2013	12.50
COMP90042 Web Search and Text Analysis	Not offered 2013	12.50
COMP90051 Statistical and Evolutionary Learning	Not offered 2013	12.50
COMP90045 Programming Language Implementation	Not offered 2013	12.50
COMP90053 Program Analysis and Transformation	Not offered 2013	12.50
COMP90046 Constraint Programming	Not offered 2013	12.50
COMP90054 Software Agents	Not offered 2013	12.50
COMP90043 Cryptography and Security	Not offered 2013	12.50

Students may also select from the following subjects:

Subject	Study Period Commencement:	Credit Points:
MCEN90031 Applied High Performance Computing	Not offered 2013	12.50
SWEN40004 Modelling Complex Software Systems	Semester 1	12.50
COMP90056 Stream Computing and Applications	Not offered 2013	12.50

Subject to the approval of the course coordinator, students may also take Computing-related subjects from other departments within the University.

Distributed Computing Specialisation

Advanced Specialisation Subjects

37.5 points core:

Subject	Study Period Commencement:	Credit Points:
ISYS90050 IT Project and Change Management	Not offered 2013	12.50
COMP90019 Distributed Computing Project	Semester 1	25

Students must take 62.5 points from among the following subjects:

Subject	Study Period Commencement:	Credit Points:
SWEN90002 Engineering for Internet Applications	Not offered 2013	12.50
COMP90024 Cluster and Cloud Computing	Semester 2	12.50
COMP90017 Sensor Networks and Applications	Not offered 2013	12.50
COMP90020 Distributed Algorithms	Not offered 2013	12.50

COMP90018 Mobile Computing Systems Programming	Not offered 2013	12.50
COMP90025 Parallel and Multicore Computing	Not offered 2013	12.50
MCEN90031 Applied High Performance Computing	Not offered 2013	12.50
ISYS90080 IT Industry Placement	Not offered 2013	25
COMP90056 Stream Computing and Applications	Not offered 2013	12.50

Note:Subject to the approval of the course coordinator, students may also take Distributed Computing-related subjects from other departments within the University.

Health Specialisation

Advanced Specialisation Subjects

62.5 points core

Subject	Study Period Commencement:	Credit Points:
ISYS90069 eHealth & Biomedical Informatics Systems	July	12.50
ISYS90079 Health IT Project	Not offered 2013	25
ISYS90050 IT Project and Change Management	Not offered 2013	12.50
ISYS90077 EHealth Applications and Solutions	Not offered 2013	12.50

Students must take 37.5 points from among the following subjects:

Subject	Study Period Commencement:	Credit Points:
ISYS90080 IT Industry Placement	Not offered 2013	25
SINF90004 Data Warehousing	Not offered 2013	12.50
ISYS90035 Knowledge Management Systems	Not offered 2013	12.50
COMP90018 Mobile Computing Systems Programming	Not offered 2013	12.50

Note: Subject to the approval of the course coordinator, students may also take Health IT-related subjects from other departments within the University

Spatial Specialisation

Advanced Specialisation Subjects

62.5 points core

Subject	Study Period Commencement:	Credit Points:
ISYS90050 IT Project and Change Management	Not offered 2013	12.50
GEOM90006 Spatial Analysis	Not offered 2013	12.50
GEOM90043 Spatial IT Project	Not offered 2013	25
GEOM90007 Spatial Visualisation	Not offered 2013	12.50

In addition, students must complete 37.5 points from the following subjects:

Subject	Study Period Commencement:	Credit Points:
GEOM90033 Satellite Positioning Systems	Not offered 2013	12.50

GEOM90005 Remote Sensing	Not offered 2013	12.50
GEOM90016 Advanced Topics in GIScience	Not offered 2013	12.50
GEOM90017 Geomatics Internship	Winter Term	12.50
ISYS90080 IT Industry Placement	Not offered 2013	25

* Subject to the approval of the course coordinator, students may supplement this list with other advanced Spatial-related subjects from within the University

Note: Credit may not be obtained for both GEOM90017 **and** ISYS90080.

Entry Requirements:

A four year undergraduate degree in Computer Science, Information Technology, Software Engineering or related descipline, with a final year grade average of at least an H3 (65) and either: (a) studies in the area of specialisation at an advanced undergraduate level or higher; or (b) at least two years of documented work experience in the area of specialisation.

Quotas may be applied and preference may be given to applicants with evidence of appropriate preparation or potential to undertake research. Entry is subject to the capacity of the department to provide adequate project supervision.

All students studying at the University of Melbourne must satisfy the University's English language entry requirements in accordance with Regulation 11.1.R3 Principles of Selection for Entry to Courses Academic Board Resolutions on Selection:

http://www.futurestudents.unimelb.edu.au/admissions/entry-requirements/language-requirements (http://www.futurestudents.unimelb.edu.au/admissions/entry-requirements/language-requirements)

For graduate students the University's English language entry requirements are set out at:

http://www.futurestudents.unimelb.edu.au/admissions/entry-requirements/language-requirements/graduate-toefl-ielts (http://www.futurestudents.unimelb.edu.au/admissions/entry-requirements/language-requirements/graduate-toefl-ielts)

Core Participation Requirements:

The Master of Information Technology welcomes applications from students with disabilities. It is University and degree 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 degree. The Master of Information Technology requires all students to enrol in subjects where they will require: The ability to comprehend complex theory and technology-related information; The ability to clearly and independently communicate a knowledge and application of theory, and technology principles and practices during assessment tasks; The ability to actively and safely contribute in IT development and management activities. Students must possess behavioural and social attributes that enable them to participate in a complex learning environment. Students are required to take responsibility for their own participation and learning. They also contribute to the learning of other students in collaborative learning environments, demonstrating interpersonal skills and an understanding of the needs of other students. Assessment may include the outcomes of tasks completed in collaboration with other students. There may be additional inherent academic requirements for some subjects, and these requirements are listed within the description of the requirements for each of these subjects. Students who feel their disability will impact on meeting this requirement are encouraged to discuss this matter with the relevant Subject Coordinator and the Disability Liaison Unit: http://www.services.unimelb.edu.au/disability/

Further Study:

Graduates may progress to a wide range of other graduate coursework degrees as well as research higher degree programs, including the Doctor of Philosophy.

Graduate Attributes:

Graduates have a specialisation in computing, distributed computing, health IT or spatial IT, as well as a solid foundation in programming, algorithms, complexity, network programming, and database systems, project management, and advanced information technology. Elective subjects are available in areas as diverse as bioinformatics, database systems, enterprise computing, geomatics, information systems, machine intelligence, programming languages, project and change management, security, and software engineering.

Generic Skills:

Graduates will:

	# Have the ability to demonstrate advanced independent critical enquiry, analysis and reflection # Have a strong sense of intellectual integrity and the ethics of scholarship # Have in-depth knowledge of their specialist area # Reach a high level of achievement in writing, research or project activities, problem-solving and communication # Be critical and creative thinkers, with an aptitude for continued self-directed learning # Be able to examine critically, synthesise and evaluate knowledge across a broad range of disciplines # Have a set of flexible and transferable skills for different types of employment; and # Be able to initiate and implement constructive change in their communities, including professions and workplaces