364BU Master of Telecommunications Engineering

Year and Campus:	2010 - Parkville
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:	Dept of Electrical & Electronic Engineering Program Director Ass. Prof Bill Shieh E: shiehw@unimelb.edu.au
Contact:	Melbourne School of Engineering Building 173, Grattan Street The University of Melbourne VIC 3010 Australia General telephone enquiries + 61 3 8344 6703 + 61 3 8344 6507 Facsimiles + 61 3 9349 2182 + 61 3 8344 7707 Email **eng-info@unimelb.edu.au (mailto:eng-info@unimelb.edu.au)** **(http://eng-unimelb.custhelp.com/)**
Course Overview:	The Master of Telecommunications Engineering by coursework has been designed for graduates with a good quality degree in electrical and electronic engineering or equivalent, who wish to develop their knowledge and skills base in optimal network design, network management and network security for modern telecommunications networks.
Objectives:	This program aims to provide students with the technological and competitive skills needed in the design and engineering of modern telecommunications systems and networks. In particular, it will provide students with opportunities to: # Develop a fundamental understanding of the principles of telecommunications engineering; # Develop an understanding of the basic principles underlying the planning and management of telecommunications networks; # Acquire a broad knowledge of telecommunications networks; # Obtain the mathematical and computational skills necessary for the solution of theoretical and practical problems; # Develop high-level analytical, problem-solving and design skills applicable to telecommunications engineering; # Develop high-level oral and written communication skills specific to the needs of the telecommunications industry.
Course Structure & Available Subjects:	-
Subject Options:	Eight single-semester subjects of 12.5 points each. With prior written consent from the course coordinator and the Department concerned, students may be able to take a maximum of two relevant subjects from another department or faculty. **Masters coursework subjects:**

Subject	Study Period Commencement:	Credit Points:
ELEN90002 Fundamentals of Network Design	Semester 1	12.50
ELEN90003 Multimedia Network Design	Semester 2	12.50
ELEN90004 Applied Queueing Theory	Semester 1	12.50

	ELEN90005 Broadband Networks	Semester 1	12.50
	ELEN90006 Internet Engineering	Semester 1	12.50
	ELEN90007 Mobile and Wireless Communications	Semester 1	12.50
	ELEN90008 Signalling and Network Management	Semester 2	12.50
	ELEN90009 Transmission Systems	Semester 2	12.50
	ELEN90010 Optical Fibre Communications Systems	Semester 2	12.50
	ELEN90011 Current Research Topics 1	Semester 1	12.50
	ELEN90012 Current Research Topics 2	Semester 2	12.50
	ELEN90013 Mobile and Wireless Networks	Semester 2	12.50
	ELEN90014 Multimedia Content Delivery	Semester 1	12.50
	ELEN90034 Optical Networking	Semester 1	12.50
	ELEN90016 Broadband Access Networks	Semester 2	12.50

Entry Requirements:

Entry Requirements
A four-year electrical engineering degree with a minimum of third-class honours, or equivalent .
Language Requirements
International students and students whose prior qualifications are from a university overseas where English is not the official language of instruction and examination need to supply proof of academic English language competency. Proof acceptable to the University includes:
Original evidence of an English Language test score at a sitting within the last 24 months of either -
TOEFL - at least 577 and a TWE of at least 4.5 (paper based) or a TOEFL of at least 233 with an Essay Rating of at least 4.5 (computer based)
or
IELTS - at least 6.5. with no band less than 6
Entry under a slightly lower Engineering alternative* English Language entry requirement is available as follows:
TOEFL - at least 550, with a TWE of 4 or the computer based TOEFL of at least 213 with an Essay Rating Score of at least 4 and agreeing in writing to undertake and pass an ESL subject in the first semester of study at the University of Melbourne
or
IELTS - at least 6 and agreeing in writing to undertake and pass an ESL subject in the first semester of study at the University of Melbourne.

The Melbourne School of Engineering's English Language alternative may affect the duration and cost of your course.

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/

Graduate Attributes:

The Melbourne School of Engineering has mapped the University of Melbourne graduate attributes with Engineers Australia graduate attributes and Melbourne School of Engineering graduate attributes.

Generic Skills:

On completion of this subject, the students should have developed:

- Problem solving and analytical skills,
- Critical and creative thinking, with an aptitude for continued self-directed learning;
- Sense of intellectual curiosity;

	# Ability to interpret data and research results; # Ability to learn in a range of ways, including through information and communication technologies; # Capacity to confront unfamiliar problems; # Ability to evaluate and synthesise the research and professional literature; # Ability to develop models of practical applications and evaluate their performance by rigorous analytical means;
Notes:	**Equipment Required by Students** Students will be required to supply their own computers (e.g. PCs or Macs) and their own software (e.g. PC standard O/S and software).