

364AA Master of Telecommunications Engineering

Year and Campus:	2012 - Parkville
CRICOS Code:	027900G
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.
Coordinator:	Prof Bill Shieh
Contact:	<p>Melbourne School of Engineering Ground Floor, Old Engineering (Building 173)</p> <p>Current Students: Email: 13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au) Phone: 13 MELB (13 6352) +61 3 9035 5511</p> <p>Prospective Students: Email: eng-info@unimelb.edu.au (mailto:eng-info@unimelb.edu.au) Phone: + 61 3 8344 6944</p>
Course Overview:	The Master of Telecommunications Engineering is designed for graduates with a high standard degree in electrical and electronic engineering or equivalent, who wish to develop their knowledge and skills base in the design and management of telecommunications networks.
Objectives:	<p>This program aims to provide students with the technological and competitive skills needed in the design and engineering of modern telecommunications systems and networks. It will provide students with opportunities to:</p> <ul style="list-style-type: none"> # 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. # Apply their knowledge to design, investigate and solve specific problems in the area of telecommunications and their applications through directed studies or projects in the form of internships with industry or research providers
Course Structure & Available Subjects:	<p>The total of 100 credit points are taken through eight elective subjects each worth 12.5 credit points.</p> <p>Up to 8 subjects could be selected from the Master of Telecommunications Engineering Electives, and</p> <p>up to 2 recommended subjects from other master level programs below</p> <p>Master of Nanoelectronic Engineering</p> <ul style="list-style-type: none"> # ELEN90050 RF Systems and Architecture (../view/2011/ELEN90050) <p>Master of Engineering in Distributed Computing</p> <ul style="list-style-type: none"> # COMP90017 Sensor Networks and Applications (../view/2011/COMP90017) # COMP90024 Cluster and Grid Computing (../view/2011/COMP90024) # SWEN90003 IT Project management (../view/2011/SWEN90003)

Subject Options:	<p>Master of Telecommunications Engineering Electives :</p> <table border="1"> <thead> <tr> <th data-bbox="387 264 1074 353">Subject</th> <th data-bbox="1074 264 1348 353">Study Period Commencement:</th> <th data-bbox="1348 264 1481 353">Credit Points:</th> </tr> </thead> <tbody> <tr> <td data-bbox="387 353 1074 409">ELEN90003 Network Design and Optimisation</td> <td data-bbox="1074 353 1348 409">Semester 2</td> <td data-bbox="1348 353 1481 409">12.50</td> </tr> <tr> <td data-bbox="387 409 1074 465">ELEN90006 Internet Engineering</td> <td data-bbox="1074 409 1348 465">Semester 1</td> <td data-bbox="1348 409 1481 465">12.50</td> </tr> <tr> <td data-bbox="387 465 1074 521">ELEN90007 Wireless Communication Systems</td> <td data-bbox="1074 465 1348 521">Semester 2</td> <td data-bbox="1348 465 1481 521">12.50</td> </tr> <tr> <td data-bbox="387 521 1074 577">ELEN90008 Signalling and Network Management</td> <td data-bbox="1074 521 1348 577">Semester 2</td> <td data-bbox="1348 521 1481 577">12.50</td> </tr> <tr> <td data-bbox="387 577 1074 633">ELEN90011 Directed Studies</td> <td data-bbox="1074 577 1348 633">Semester 1, Semester 2</td> <td data-bbox="1348 577 1481 633">12.50</td> </tr> <tr> <td data-bbox="387 633 1074 689">ELEN90013 Mobile and Wireless Networks and Design</td> <td data-bbox="1074 633 1348 689">Semester 1</td> <td data-bbox="1348 633 1481 689">12.50</td> </tr> <tr> <td data-bbox="387 689 1074 745">ELEN90014 Multimedia Content Delivery</td> <td data-bbox="1074 689 1348 745">Semester 1</td> <td data-bbox="1348 689 1481 745">12.50</td> </tr> <tr> <td data-bbox="387 745 1074 801">ELEN90016 Broadband Access Networking and Design</td> <td data-bbox="1074 745 1348 801">Semester 2</td> <td data-bbox="1348 745 1481 801">12.50</td> </tr> <tr> <td data-bbox="387 801 1074 857">ELEN90034 Optical Networking and Design</td> <td data-bbox="1074 801 1348 857">Semester 2</td> <td data-bbox="1348 801 1481 857">12.50</td> </tr> <tr> <td data-bbox="387 857 1074 913">ELEN90059 Lightwave Systems</td> <td data-bbox="1074 857 1348 913">Semester 1</td> <td data-bbox="1348 857 1481 913">12.50</td> </tr> <tr> <td data-bbox="387 913 1074 969">ELEN90051 Advanced Communication Systems</td> <td data-bbox="1074 913 1348 969">Semester 1</td> <td data-bbox="1348 913 1481 969">12.50</td> </tr> <tr> <td data-bbox="387 969 1074 1037">ELEN90068 Business of Telecommunications</td> <td data-bbox="1074 969 1348 1037">Semester 1</td> <td data-bbox="1348 969 1481 1037">12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	ELEN90003 Network Design and Optimisation	Semester 2	12.50	ELEN90006 Internet Engineering	Semester 1	12.50	ELEN90007 Wireless Communication Systems	Semester 2	12.50	ELEN90008 Signalling and Network Management	Semester 2	12.50	ELEN90011 Directed Studies	Semester 1, Semester 2	12.50	ELEN90013 Mobile and Wireless Networks and Design	Semester 1	12.50	ELEN90014 Multimedia Content Delivery	Semester 1	12.50	ELEN90016 Broadband Access Networking and Design	Semester 2	12.50	ELEN90034 Optical Networking and Design	Semester 2	12.50	ELEN90059 Lightwave Systems	Semester 1	12.50	ELEN90051 Advanced Communication Systems	Semester 1	12.50	ELEN90068 Business of Telecommunications	Semester 1	12.50
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Entry Requirements:	<p>Entry Requirements A four-year electrical engineering degree with a minimum of third-class honours, or equivalent .</p> <p>Language Requirements 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)</p> <p>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)</p> <p>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</p> <p>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.</p> <p>The Melbourne School of Engineering's English Language alternative may affect the duration and cost of your course.</p>																																							

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:	<p>On completion of this course, the students should have developed:</p> <ul style="list-style-type: none"> # 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:	<p>Equipment Required by Students</p> <p>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).</p>