University of South Australia

Experience. The Difference.

Master of Engineering
(with Specialisations)

Program Information	Location	English	2009 Fees	Further Information
Program code: LMEE **Program content:** 54 units **Duration**: 1.5 years **Program CRICOS code**: 049095C **Intake:** Study Periods 2 and 5	Mawson Lakes campus School of Electrical and Information Engineering www.unisa.edu.au/eie	**IELTS overall** 6.0 (minimum 6.0 in each band) **TOEFL overall** 575 paper based 232 computer based 90 internet based **CELUSA** Successful completion of an Academic English Program to the required standard	**Total program fee:** A$29,700 (for 54 units) (see Note 2)	**Email:** International.office@unisa.edu.au **Web:** **Program** www.unisanet.unisa.edu.au/programs/?Year=2008 (insert Program Code LMEE) **General** www.unisa.edu.au/international

Specialisations

- Computer Systems Engineering
- Electrical Power Engineering
- Microsystems Technology
- Telecommunications
- General

This program is comprised of information technology oriented engineering disciplines. Upon graduating from one of these disciplines you will have an advanced understanding of the current practices and technologies in the specialisation that you chose.

A General stream **without** a specialisation is available by negotiating a program of study with the Program Director. The General stream comprises 54 units of study from the schedule on page 3.

Entry requirements
Applicants will ideally hold an appropriate four year engineering degree. Alternatively, applicants with undergraduate degrees in other engineering disciplines or an appropriate applied science degree and appropriate work experience will be considered on a case by case basis. Applicants should have completed their undergraduate degree at a level equivalent to Australian honours.

Professional accreditation and recognition
For information regarding accreditation of this program within Australia please contact Engineers Australia: www.engineersaustralia.org.au

Industry
South Australia has 1,100 Information and Communications Technology (ICT) companies, employing an estimated 19,000* people. It has a world class telecommunications infrastructure and a highly skilled productive workforce supported by ongoing training and education through the University and technical and further education systems.

A recent survey conducted by KPMG ranked Adelaide the third most cost competitive city in the world for software and multimedia development and as such South Australia continues to attract multinational companies that include EDS, DHP, General Dynamics, and DMR Consulting Group.

Adjacent to the University campus is Technology Park, a world-class knowledge-based development for technology-related businesses; integrated with an innovative new urban precinct, town centre, the University and recreation facilities.

Global organisations such as BAE Systems, Optus Communications and SAAB Systems are located within Technology Park and these organisations, and a myriad of others in the IT sector including the nearby Defence Science and Technology Organisation (DSTO), are often able to supply industry based projects to the students.

* based on the *ICT Industry Measurement Project*, commissioned by the ICT Council for SA in May/June 2005

Engineers Australia membership
If you intend to seek membership in Australia's engineering profession, we strongly advise that you have your current educational qualifications assessed by Engineers Australia, our peak professional body. Such an assessment will advise you of likely entry to the profession in Australia on completion of your studies. Information about how to apply for a skills assessment can be found at www.engineersaustralia.org.au

Recognition of prior learning
University of South Australia may grant course credit, exemption or studies-in-lieu on the basis of previous study or work experience. Credit will not normally be granted for more than one third of the total units of the program. For University of South Australia policy on credit please visit http://www.unisa.edu.au/policies/policies/academic/A13.asp

Graduate Certificate and Graduate Diploma
Exit options exist at Graduate Diploma level (after the completion of 36 units of core courses) and Graduate Certificate level (after the completion of 18 units of core courses).

Contacting University of South Australia

General Enquiry
International students can either telephone or email to obtain information about study opportunities at University of South Australia:
Telephone: +61 3 9627 4854
Email: international.office@unisa.edu.au

Program Enquiry
International students should contact UniSA International or visit the website www.unisa.edu.au/international/default.asp for information about application procedures and specific study opportunities.
UniSA International
Telephone: +61 8 8302 1114
Fax: +61 8 8302 0233
Email: international.students@unisa.edu.au

How to Apply
International students wishing to apply for a program can do so through Apply Online via the weblink below or via email directly to UniSA International.
Email: international.applications@unisa.edu.au
Web: www.unisa.edu.au/international/apply/default.asp#step2

Notes:

1. The information contained in this publication is indicative only and is designed as an aid to students contemplating enrolment at University of South Australia. While every effort is made to provide full and accurate information at the time of publication, the University does not give any warranties in relation to the accuracy and completeness of the contents. The University does not accept responsibility for any loss or damage occasioned by use of the information contained in this publication. The University also reserves the right to discontinue or vary arrangements, programs, courses (units), assessment requirements and admission requirements without prior notice. While the University will try to avoid or minimise any inconvenience, changes may also be made to programs, courses (units), assessment requirements and staff after enrolment. The University may also set limits on the number of students in a program or course (unit). Program and course (unit) information is also published in the University Handbooks, see www.unisa.edu.au/prospective/Program/fees.asp
2. All tuition fees are shown in Australian dollars and are for commencing students for the particular program. Please note that the fee can vary according to the annual program load and total duration. The total program fee must be considered as the cost of the program.
3. Prior to applying to University of South Australia, please refer to the following website for further information on studying in Australia including visa and government requirements, facilities and resources, campus lifestyle, accommodation, living costs, and support services: www.unisa.edu.au/international/predeparture
4. Depending on demand, not all elective courses in the schedule may be offered in any one year. Elective courses are offered subject to student demand and staff availability. Postgraduate courses offered within the University of South Australia or from other universities may be substituted for the elective course(s) with permission of the Program Director.
5. Subject to market demand, other courses may be selected with the approval of the Program Director.
6. Where a course is substantially equivalent to a course taken in gaining another award, then an alternative course must be chosen, in consultation with the Program Director.
7. Students must complete courses to the value of 27 units from a nominated stream in order to graduate with a stream specialisation.
8. A maximum of 2 courses may be taken from Group B courses in Schedule A in the Telecommunications stream.
9. Courses not listed in Schedule A may also be undertaken, with the approval of the Program Director.
10. Course work courses must form a coherent discipline stream subject to the approval of the Program Director.
11. Engineering Research Practice is a compulsory course for students who will undertake Engineering Minor Thesis 1 and 2. Students not undertaking the Engineering Minor Thesis may choose any course listed in any stream. Eligible students for the Engineering Minor Thesis will be identified and notified after the first study period by the Program Director of the particular stream. Students will normally be eligible to enrol in Minor Thesis 1 and Minor Thesis 2 subject to achieving a Grade Point Average of 5.5 (on a 7 point scale) and subject to the approval of the Program Director.

Program content
You will need to complete 54 units of study as outlined in the various streams.

Computer Systems Engineering stream

Computer Hardware Design N	4.5 units
System Design Techniques	4.5 units
Advanced Internet Technology	4.5 units
Digital Devices and Systems	4.5 units
VLSI Design G	4.5 units
Knowledge-Based Paradigms and their Engineering Applications	4.5 units
Computer Communications and Networks	4.5 units
Real Time Systems and Control	4.5 units
Option 2 only	
Engineering Research Practice	4.5 units
Engineering Minor Thesis 1	9.0 units
Engineering Minor Thesis 2	9.0 units

Option 1 – No Thesis
27 units from Computer Systems stream
27 units from any stream, including Engineering Research Practice as core course

Option 2 – With Thesis
27 units from Computer Systems stream
4.5 units from any stream
4.5 units Engineering Research Practice
18 units from Thesis 1 and 2

Electrical Power Engineering stream

Electrical Energy Systems	4.5 units
Intelligent and Digital Control	4.5 units
Mechatronics 2	4.5 units
Electromagnetic Compatibility	4.5 units
Advanced Power Electronics	4.5 units
Dynamics of Electrical Machines	4.5 units
Power Systems Operation and Control	4.5 units
Virtual Instrumentation Programming	4.5 units
Renewable Energy Systems	4.5 units
Option 2 only	
Engineering Research Practice	4.5 units
Engineering Minor Thesis 1	9.0 units
Engineering Minor Thesis 2	9.0 units

Option 1 – No Thesis
27 units from Electrical Power stream
27 units from any stream, including Engineering Research Practice as core course

Option 2 – With Thesis
27 units from Electrical Power stream
4.5 units from any stream
4.5 units Engineering Research Practice
18 units from Thesis 1 and 2

Microsystems Technology stream

Introduction to Microelectromechanical Systems	4.5 units
Microengineering Technology	4.5 units
VLSI Design G	4.5 units
Digital Devices and Systems	4.5 units
Computational Physics	4.5 units
Electromagnetic Compatibility	4.5 units
Optical Communications G	4.5 units
Computer Hardware Design N	4.5 units
Option 2 only	
Engineering Research Practice	4.5 units
Engineering Minor Thesis 1	9.0 units
Engineering Minor Thesis 2	9.0 units

Option 1 – No Thesis
27 units from Microsystems Technology
27 units from any stream, including Engineering Research Practice as core course

Option 2 – With Thesis
27 units from Microsystems stream
4.5 units from any stream
4.5 units Engineering Research Practice
18 units from Thesis 1 and 2

Telecommunications stream

Group A	
Advanced Internet Technology	4.5 units
Computer Communications and Networks	4.5 units
Satellite Communications G	4.5 units
Speech Processing G	4.5 units
Optical Communications G	4.5 units
System Design Techniques	4.5 units
Telecommunications Networks M	4.5 units
Group B	
WCDMA for Third Generation Mobile Communications G	4.5 units
Mobile Communications Fundamental G	4.5 units
Intelligent Mobile Internet Services & Wireless Infrastructure **	4.5 units
Option 2 only	
Engineering Research Practice	4.5 units
Engineering Minor Thesis 1	9.0 units
Engineering Minor Thesis 2	9.0 units

Option 1 – No Thesis
27 units from Telecommunications stream Group A or B
27 units from any stream, including Engineering Research Practice as core course

Option 2 – With Thesis
27 units from Telecommunications stream Group A or B
4.5 units from any stream
4.5 units Engineering Research Practice
18 units from Thesis 1 and 2
note: A maximum of 9 units may be taken from Group B

No Specialisation stream

You must complete 7 courses from any stream	31.5 units
Engineering Research Practice	4.5 units
Engineering Minor Thesis 1	9.0 units
Engineering Minor Thesis 2	9.0 units

If you are not eligible to do Thesis 1 and 2 you will need to choose

Four courses from any stream in Group A	18.0 units

Students not wishing to study Engineering Research Practice may substitute this with a fifth course from Group A.

Systems Engineering and Test and Evaluation *courses* are available as courses "from any stream"

Group A	
Principles of Systems Engineering	4.5 units
Principles of Test and Evaluation	4.5 units
Operational Test and Evaluation	4.5 units
System Design Techniques	4.5 units

NOTE:
Systems Engineering and **Test and Evaluation** are **NOT** available as streams