

# Engineering (Transport Systems Engineering)

- + Masters Degree
- + Graduate Diploma
- + Graduate Certificate

Experience. The Difference.



Are you passionate about traffic management, traffic systems design, intelligent transport systems and transport planning? Do you have an undergraduate degree in science and engineering, and want to advance your knowledge and potential in pursuing specialised post graduate education? Then the Master of Engineering in Transport Systems Engineering might be just what you are looking for.

## About the program

The postgraduate programs in Transport Systems Engineering are designed to provide Masters level expertise in managing, designing and planning of transport systems and continuing education for graduate students with professional interests in the area of transport systems engineering and transport planning. The coursework will enhance the concepts and theories in different aspects of traffic/transport engineering. In addition, students will develop the capacity and skills to undertake independent research and the ability to analyse and report on research procedures and findings.

University of South Australia's Transport Systems Engineering programs will help to develop skills:

- to understand, design, manage and plan current and future transport systems
- of multi disciplinary approach
- of using traffic/transport software
- of spatial data analysis and management.

## Entry requirements

Applicants will ideally possess a four year engineering or science degree. Applicants should have completed their undergraduate degree at a level equivalent to Australian honours or be able to demonstrate equivalent work experience.

## Industry

The Transport Systems Centre (TSC) has become one of Asia-Pacific's leading centres for academic excellence in traffic engineering, transport planning and environmental studies. The Centre prides itself on its multi-disciplinary approach – its strong links with government, industry and community, its strong national and international collaborative links, and its inclusivity and capability for lateral thinking. Activities include strategic and applied research, expert consultancy, teaching and learning at postgraduate and undergraduate levels, and professional development programs. TSC is an international node of excellence in transport systems modelling, transport-land use-environment interaction, intelligent transport systems, transport policy analysis and logistics.

The Centre's research and its graduates are having a significant impact throughout our region in developing more sustainable transport and logistics systems. The Centre was one of the first research centres at UniSA to gain formal recognition by the University and is now working with key UniSA centres with expertise in systems and technologies as part of the Institute for Sustainable Systems and Technologies. The Institute provides advanced multi-disciplinary capability across a range of systems and technologies which underpin Sustainable Human Settlements.

TSC is dedicated to the long term solution of transport related problems through academic and research endeavour. For more information on the Transport Systems Centre: [www.unisa.edu.au/tsc](http://www.unisa.edu.au/tsc)



## School of Natural and Built Environments

[www.unisa.edu.au/nbe](http://www.unisa.edu.au/nbe)

### Further Information

**Program Code:**  
IMEN

**Location:**  
City East

**Program Duration:**  
Standard – 2 years  
Fast track – 1.5 years

**Program Content:**  
54 units

**Program Support Officer:**  
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and Built Environments  
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UniSA's postgraduate programs in Transport Systems Engineering are Commonwealth Supported.

Domestic Students must apply through GradStart at [www.satac.edu.au](http://www.satac.edu.au)

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CRICOS provider number 00121B

## Program Content

The degree requires the completion of courses comprising 54 units. The formal study component must include Engineering Research Methods (ENGG 5006) and Minor Thesis courses. At least 18 units must be from core courses. The remaining units may be obtained from elective courses to the value of 18 units in a particular engineering discipline area. Applicants are referred to the school most appropriate to their academic background and professional interests in order to choose a particular program of study.

Course name	Area + Cat. No.	Units	EFTSL
<b>CORE COURSES:</b>			
Introduction to Geographical Information Systems	GEOE 5001	4.5	0.125
Road Safety Engineering	CIVE 5021	4.5	0.125
Traffic Systems Engineering N	CIVE 5022	4.5	0.125
Transport Data Analysis and Statistics	CIVE 5015	4.5	0.125
Transport Network Analysis N	CIVE 5025	4.5	0.125
Transport Survey Methods	CIVE 5016	4.5	0.125
Engineering Research Methods	ENGG 5006	4.5	0.125
Minor Thesis TS 1	CIVE 5045	9	0.250
Minor Thesis TS 2	CIVE 5046	9	0.250

<b>ELECTIVES (subject to availability)</b>			
Case Studies in Transport	CIVE 5019	4.5	0.125
Directed Project in Transport	CIVE 5020	4.5	0.125
ITS Technology and Integration	CIVE 5003	4.5	0.125
Geo-Spatial Applic in Transportation	CIVE 5047	4.5	0.125
Transport and Logistics	CIVE 5023	4.5	0.125
Transport Economics	ECON 5009	4.5	0.125
Transport, Land Use and Environment N	CIVE 5024	4.5	0.125
Transport and Planning	ARCH 5014	4.5	0.125
Transport Policy	BUSS 5127	4.5	0.125
Transport Systems Planning	CIVE 5026	4.5	0.125

*\*No course which is substantially equivalent to a course taken in gaining another award may be included in the program of study unless the previous award is surrendered. Credit will not normally be granted for more than one third of the total units of the program.*

*\*Individual programs of study to satisfy the overall formal study requirements of 54 units may be constructed by choice of electives. Such electives shall be drawn mainly from within existing master degree, graduate diploma or graduate certificate programs and shall be approved by the Program Director.*

## 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.ieaust.org.au](http://www.ieaust.org.au)