

Postgraduate programs in
Network Systems and Telecommunications

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SWINBURNE
UNIVERSITY OF
TECHNOLOGY

NET YOURSELF A CAREER IN TELECOMMUNICATIONS



swinburne.edu.au/postgrad

POSTGRADUATE PROGRAMS IN NETWORK SYSTEMS

The convergence of Information Technology and telecommunications is creating a new kind of networking technology based on IP networks and multimedia applications. Networks today are expected to offer multimedia services anywhere and anytime. Within corporations, intranets support the interaction of people and the linking of people to information systems. There is an increasing demand for mobility and seamless access to global networks.

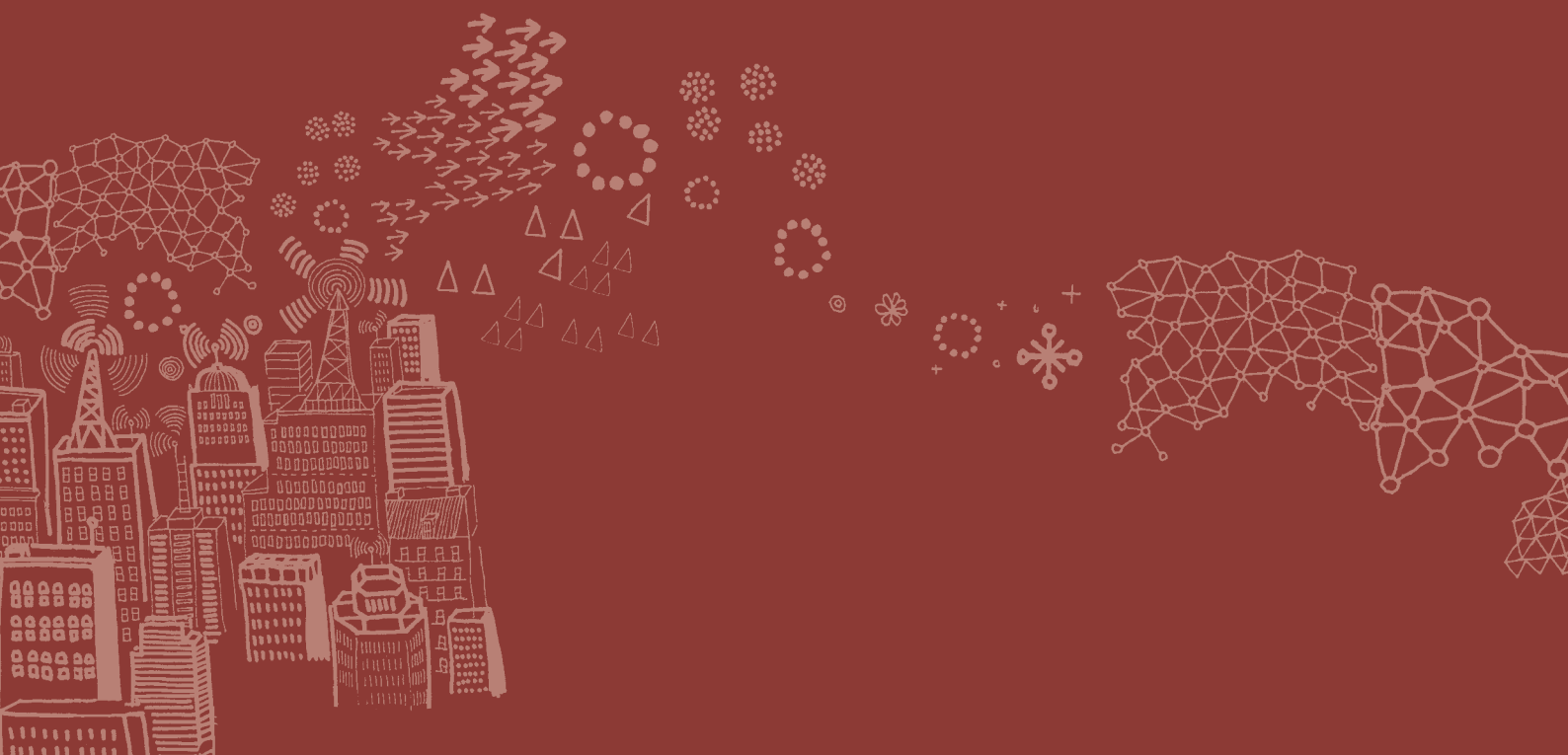
Swinburne's network systems programs are intended for new graduates and for experienced graduates who wish to update their skills or change their area of specialisation. They are concerned with the design, management and maintenance of networks in corporations and government and service provision to public and private networks.

Key features:

- Advanced wired and wireless data networks
- Emerging network security technologies
- Preparation for Microsoft MCITP: Server Administrator and Cisco's CCNA and CCNP certifications

Why study a Master of Science (Network Systems)?

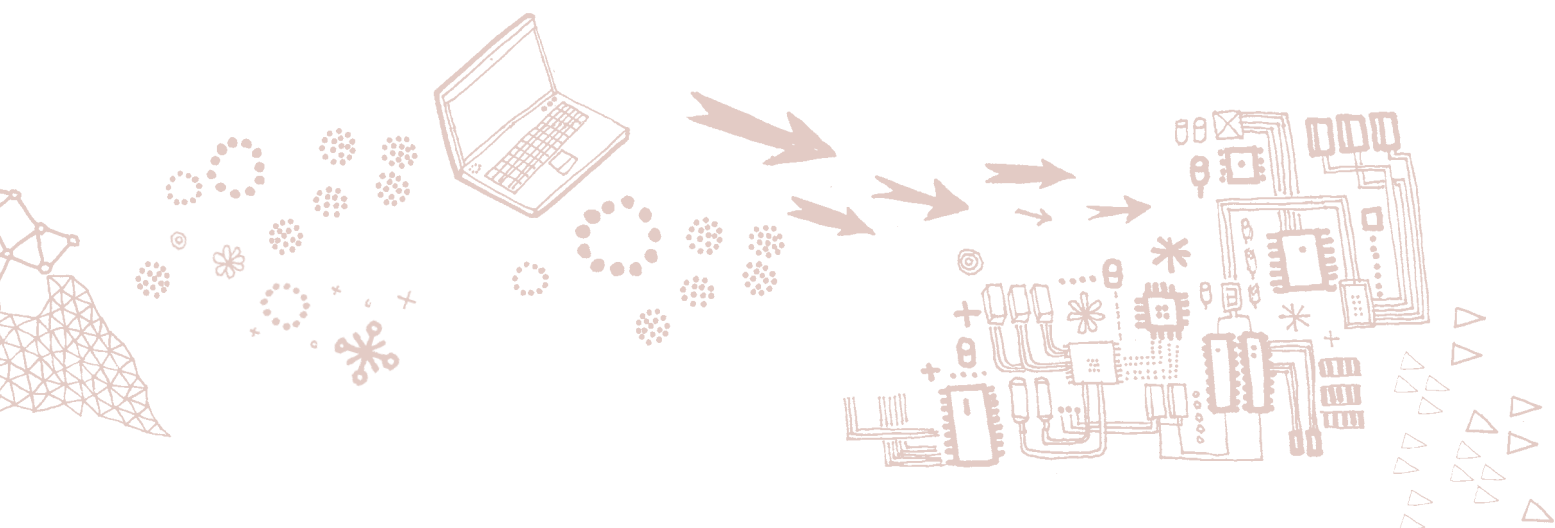
- Improve your existing career path with enhanced ICT expertise
- Seek a new career as part of Australia's National Broadband Network



Program at a glance

NETWORK SYSTEMS AND TELECOMMUNICATIONS	
Award	Master of Engineering Science (Network Systems and Telecommunications) Master of Science (Network Systems) Graduate Diploma of Science (Network Systems) Graduate Certificate of Science (Network Systems)
Focus	The program focus includes advanced wired and wireless data networks, specialising in emerging network technologies.
Suitable for	People employed in the ICT industry or graduates wanting to pursue a career in the Network Systems or Telecommunications fields.
Average duration	Master of Engineering Science (Network Systems and Telecommunications) – 2 years full-time or 4 years part-time Master of Science (Network Systems) – 1.5 years full-time or 3 years part-time Graduate Diploma – 1 year full-time or 2 years part-time Graduate Certificate – 6 months full-time or 1 year part-time
Location	On campus
Entry requirements	Bachelor degree or relevant industry experience*
Work experience	Preferred, but not essential
Structure	Master of Engineering Science (Network Systems and Telecommunications) – 16 units Master of Science (Network Systems) – 12 units Graduate Diploma – 8 units Graduate Certificate – 4 units
2011 fees	\$2100 per unit of study
Intake	February and August

* Applicants who do not have appropriate qualifications but who have relevant work experience are encouraged to apply. They may be granted entry into the Graduate Certificate or Graduate Diploma level and upon successful completion can continue into the Master.



Program details

MASTER OF ENGINEERING SCIENCE (NETWORK SYSTEMS AND TELECOMMUNICATIONS)

MASTER OF SCIENCE (NETWORK SYSTEMS)

GRADUATE DIPLOMA OF SCIENCE (NETWORK SYSTEMS)

GRADUATE CERTIFICATE OF SCIENCE (NETWORK SYSTEMS)

Swinburne's network systems programs are designed to make students proficient in all aspects of wired and wireless networks and to be conversant with new kinds of networking technology based on IP networks and multimedia applications.

The programs offer high level coverage of networking principles and an appreciation of the emerging issues and technologies in networks. Specific competencies introduce industry certification material from Cisco CCNA, CCNP and Microsoft MCITP. (Please note that certificate examinations are not part of this course).

Students will have the opportunity to choose a specialisation stream and become an expert in emerging technologies related to security, advanced networking and future networks such as broadband networks.

The Master of Engineering Science (Network Systems and Telecommunications) is part of a 2 year, 16 unit nested suite of programs which focuses on the design, management and service provision of private and public network systems. With major focus on telecommunication systems using wireless and broadband technologies and a CISCO based approach to the management of networks, the program is designed to provide excellent career opportunities in the areas of telecommunication and network engineering. Specialised knowledge in the field of data communication networking will cover specific competencies of industry certification material such as Cisco CCNA and CCNP and Microsoft MCITP: Server Administrator.

Professional recognition

The Master of Science (Network Systems) program has been accredited at the Professional Level with the Australian Computer Society (ACS).

The CCNA, CCNP and MCITP certifications are widely recognised and valued in industry. The course fully prepares you for the CCNA certification exam and partly for the MCITP and CCNP.

Career opportunities

Industry-certified skills are highly valued, and there is a need for professionals with a solid understanding of the design, management and maintenance of modern networks. Graduates will be well-equipped with the practical and theoretical skills to gain access to a career as a network specialist, internet applications engineer, manager of internal corporate networks and security engineer.

Admission requirements

Applicants normally require a degree or equivalent in engineering, science, information technology, business or commerce with an emphasis on information technology.

Advanced standing of up to 50 credit points may be obtained in the Master of Science (Network Systems) for those who have completed a relevant degree or have extensive work experience in the discipline.

Applicants not holding a relevant tertiary qualification, but with substantial relevant network industry experience may be admitted to the Graduate Certificate of Science (Network Systems).

Admission to the Master of Engineering Science (Network Systems and Telecommunications) program normally requires a recognised bachelor degree in engineering, science, information technology, or in business or commerce with an emphasis on information technology. Applicants not holding a relevant tertiary qualification, but with substantial relevant network industry experience may be admitted to the Graduate Certificate of Science (Network Systems).

Location

Hawthorn campus

Program length

Master of Engineering Science (Network Systems and Telecommunications) – Two years full-time or equivalent part-time*

Master of Science (Network Systems) – One and a half years full-time or equivalent part-time*

Graduate Diploma – One year full-time or equivalent part-time*

Graduate Certificate – Six months full-time or equivalent part-time*

* Some subjects will be only offered during working hours depending on availability.

Program structure

All units of study are valued at 12.5 credit points unless otherwise stated. Subject to the approval of the course coordinator, students may replace units with a research report (valued at 12.5 credit points) and/or a research paper (valued at 25 credit points).

Graduate Certificate of Science (Network Systems)

In order to gain the Graduate Certificate of Science (Network Systems) students must successfully complete four units of study to the value of 50 credit points. Students must undertake at least three core units and one elective.

Graduate Diploma of Science (Network Systems)

In order to gain the Graduate Diploma of Science (Network Systems) students must successfully complete eight units of study to the value of 100 credit points. Students must undertake at least six core units and two electives.

Master of Science (Network Systems)

In order to gain the Master of Science (Network Systems) students must successfully complete 12 units of study to the value of 150 credit points. Students must undertake eight core units and four electives.

Master of Engineering Science (Network Systems and Telecommunications)

In order to gain the Master of Engineering Science (Network Systems and Telecommunications) students must successfully complete 16 units of study to the value of 200 credit points. Students must undertake eleven core units and five electives.

Graduate Certificate of Science

4 Units

Graduate Diploma of Science

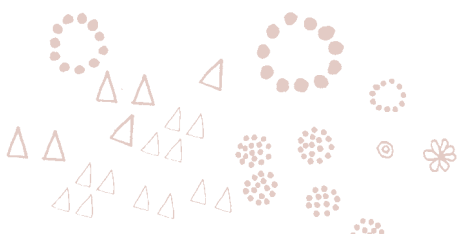
8 Units

Master of Science

12 Units

Master of Engineering Science

16 Units



Program details

Units of study

MASTER OF SCIENCE (NETWORK SYSTEMS) CORE UNITS (SELECT EIGHT)	
HET706	Networks and Routing*
HET708	Internetworking Technologies*
HET710	Network Administration (Microsoft 1)
HIT7702	Enterprise Network Server Administration (Microsoft 2)# OR
HIT7703	Enterprise Services and Security (Microsoft 3)#
HET715	Network Computing
HET755	Introduction to Network Programming
HIT8044	Professional Issues in Information Technology
HIT8071	Professional Project OR
HIT9326	Internship Project
	Four elective units

MASTER OF ENGINEERING SCIENCE (NETWORK SYSTEMS AND TELECOMMUNICATIONS) UNITS	
HIT7711	Wireless Communications Techniques
HIT729	Design and Management of Networks
HIT718	Mobile and Personal Networking
	One elective unit

ELECTIVE UNITS	
HIT6323	Web Programming
HIT7702	Enterprise Network Server Administration (Microsoft 2)#
HIT7703	Enterprise Services and Security (Microsoft 3)#
HIT7713	Advanced Routing^
HIT7714	Advanced Switching^
HIT7715	Troubleshooting IP Networks ^
HIT7717	Advanced Security
HIT7720	Secure Networks
HIT8163	Unix for Telecommunications
HET717	Simulation of Networks
HET718	Mobile and Personal Networking
HET729	Design and Management of Networks
HET736	Broadband Multimedia Network
HET753	Secure Remote Access Networks
HET758	Networking and Online Games

Note: Not all elective units are available in every semester.

ELECTIVE UNITS THAT REQUIRE APPROVAL	
HIT9010	Research Methods**
HET724	Research Paper**
HET725	Research Report**

* Prepares students for CCNA (Cisco Certified Network Associate) qualification.

Prepares students partly for MCITP:SA (Microsoft Certified Technology Specialist: Server Administrator) certification.

^ Prepares students partly for CCNP (Cisco Certified Network Professional) qualification – each subject covers one quarter of CCNP.

** Research units (HIT9010, HET724, HET725) are available only for approved project proposals. Approval is decided on a case-by-case basis by the Program Coordinator.

Students who successfully completed the CCNA certificate with the Cisco Networking Academy can substitute the CCNA units (HET706, HET708) with two of the CCNP units (HIT7713, HIT7714 and HIT7715) or other approved elective units.

Key staff

Sabina Stuart
 Postgraduate Students and Programs Coordinator
 Faculty of Information and Communication Technologies
 Email: ssuart@swin.edu.au
 Phone: (03) 9214 5054

Glyn Jones
 Program Coordinator
 Faculty of Information and Communication Technologies



General information

Facilities

As a Swinburne student you will automatically gain access to a range of facilities. These include a well-resourced library, computer laboratories, fitness and health facilities, personal and career counselling, housing, employment and financial advice.

Fees

In 2011, tuition fees for this program are based on \$2100 per 12.5 credit point unit of study. In the event that a unit of study is derived from another program, the applicable fee will be that of the other program. All fees are reviewed each year and may increase without notice.

Network Systems	Units	Fees
Graduate Certificate	4	\$8,400
Graduate Diploma	8	\$16,800
Master	12	\$25,200

Network Systems and Telecommunications	Units	Fees
Master	16	\$33,600

For all fee enquiries and up-to-date information, go to: www.swinburne.edu.au/studentoperations/fees

Where we are

Hawthorn campus
John Street,
Hawthorn Vic 3122

Lilydale campus
Melba Avenue,
Lilydale Vic 3140

Prahran campus
144 High Street,
Prahran Vic 3181

Questions?

1300 ASK SWIN
(1300 275 794)
www.swinburne.edu.au
postgrad@swin.edu.au

For information on postgraduate events visit:
www.swinburne.edu.au/postgrad

CRICOS Provider Code: 00111D
The information contained in this course guide was correct at the time of publication, January 2011. The university reserves the right to alter or amend the material contained in this guide. The information in this guide does not apply to international students. For information about courses for international students please go to: www.international.swinburne.edu.au

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FEE-HELP

FEE-HELP is a government funded loan that helps eligible fee-paying students pay their tuition fees. FEE-HELP is not available to New Zealand citizens and most holders of Australian permanent visas, however, it is available to Australian citizens and holders of a permanent humanitarian visa.

For further information visit: www.goingtouni.gov.au

Application procedure

You may lodge your application at anytime, however each of the intake periods has an application submission closing date. Application forms can be obtained by phoning 1300 275 794 or visit www.swinburne.edu.au/postgrad/apply

Applications must be accompanied by a certified copy of your passport or birth certificate, original transcripts of official results and a curriculum vitae.

For the next round of closing dates visit www.swinburne.edu.au/postgrad

International students

If you want to study at Swinburne, but are not an Australian resident, contact Swinburne International on 1800 897 973 (within Australia) or +61 3 8676 7002 (outside Australia) or email international@swinburne.edu.au or visit: www.swinburne.edu.au/international

Recognition of Prior Learning (RPL)

Recognition of Prior Learning (RPL) allows students to be granted credit or partial credit towards a qualification in recognition of skills and knowledge gained through work experience, tertiary qualifications and/or formal training.

Further information

Telephone: 1300 275 794
Email: postgrad@swinburne.edu.au
www.swinburne.edu.au

Application closing dates

Semester 1

Applications close **4 February 2011**

Semester 2

Applications close **15 July 2011**

Please note these dates were correct at the time of printing but are subject to change. Visit www.swinburne.edu.au/studentoperations/calendar for current semester dates.

INFORMATION SESSIONS

Information sessions are held regularly throughout the year. They are a great opportunity to meet and talk to staff about your postgraduate study options.

The sessions help you understand what your chosen postgraduate program entails – what you can learn and what your study options are and where your qualification may take you.

For session dates visit www.swinburne.edu.au/postgrad or call us on 1300 ASK SWIN