

■ MELBOURNE, AUSTRALIA

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SWINBURNE
UNIVERSITY OF
TECHNOLOGY

Information and Communication Technologies International Guide 2012

swinburne.edu.au/international



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From the Deans

THE FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGIES (FICT) HAS A STRONG INTERNATIONAL ORIENTATION. OUR PARTICULAR ACADEMIC STRENGTHS LIE IN SOFTWARE ENGINEERING, INTERNET TECHNOLOGIES, NETWORKS AND SECURITY, SUPERCOMPUTING WITH APPLICATION TO ASTRONOMY, DIGITAL MEDIA AND BUSINESS INFORMATION SYSTEMS.

FICT is committed to offering courses which address the needs of industry, and prepare our graduates for challenging employment and career development. Our curricula are continually reviewed by our academic and industry advisory committees. We are proud of our projects for industry in our ICT programs to foster employment outcomes for graduates.

We offer a wide range of undergraduate courses, providing industry knowledge and skills in business information systems, network design and security, software development, games development, computing and telecommunications systems.

At the postgraduate level we offer the opportunity to specialise in areas including software development, eForensics, information systems analysis and management, networks and telecommunications and IT project management. We also offer an innovative online masters degree in astronomy that is available to international students studying in countries other than Australia. We are preparing new programs in business analysis and educational technologies.

Research in the faculty covers a wide range, including software engineering, internet infrastructure and applications, intelligent systems, information systems, astronomy and molecular modelling.

The faculty hosts several major university research centres: the Centre for Astrophysics and Supercomputing, Centre for Computer Engineering and Software Systems and the Centre for Advanced Internet Architectures. These centres support a community of more than 100 research students undertaking PhD and master by research degrees. In 2010, Swinburne University of Technology, were again listed in the Shanghai JiaoTong index of top 500 universities worldwide. We combine excellence in research with dedicated, industry focused teaching.

We invite you to become a highly valued student at Swinburne.

Professor Leon Sterling
Dean, Faculty of Information and
Communication Technologies

Associate Professor Sebastian Ng
Associate Dean (International)



Top: Professor Leon Sterling
Bottom: Associate Professor
Sebastian Ng

**HIGHEST-RATED
UNIVERSITY IN
MELBOURNE FOR
TEACHING QUALITY**

*The Good Universities
Guide 2007–2011*



Why Swinburne?

Swinburne University of Technology has been educating students for more than 100 years. We are a multidisciplinary, multi-campus institution with more than 47,000 students, including nearly 7000 international students from over 100 countries around the world.

Quality teaching

With a reputation for quality education and focused research, Swinburne attracts highly qualified academics and educational leaders. We have been awarded more five-star ratings in the 'educational experience' category than any other university in Melbourne by *The Good Universities Guide 2011*, including for teaching quality and graduate satisfaction. At Swinburne we help our students to become self-sufficient, resourceful and employable, by providing a challenging and supportive education environment.

Preparation for the real world

Our focus is on work-ready graduates. We maintain close relationships with employers to ensure our courses are in line with the future needs of industry, and give students opportunities to work on 'real-life' scenarios facing business and the community.

World-class education

Swinburne is ranked in the top 500 universities in the world in the prestigious Shanghai Jiao Tong Academic Ranking of World Universities. We are also the only Australian university invited to be a member of the European Consortium of Innovative Universities (ECIU), which aims to foster student and staff mobility and give students a competitive edge in today's global employment market.

A truly international institution, Swinburne has developed partner relationships with more than 80 universities around the world, and has been teaching at its Sarawak campus in Malaysia for more than 10 years. We encourage our students to undertake an international learning experience as part of their course.



ICT students celebrate Mid-Autumn Festival with mooncakes and lanterns

A wide range of course options

Swinburne offers courses in both the higher education and vocational sectors. With qualifications ranging from Foundation Studies, certificates, diplomas, bachelor and master courses to PhDs, you can choose courses and pathways to suit your individual interests and career aspirations.

Modern and safe campuses

Swinburne has five campuses in the inner and eastern suburbs of Melbourne and one in Sarawak, Malaysia. We offer supportive, secure and peaceful environments with state-of-the-art multimedia lecture theatres, many brand-new buildings, well-stocked libraries, up-to-date computer labs and wi-fi connectivity, and accommodation on campus at Hawthorn and Lilydale, so our students get the most out of their studies.

AT SWINBURNE, WE HELP OUR STUDENTS TO BECOME SELF-SUFFICIENT, RESOURCEFUL AND EMPLOYABLE.



Swinburne FICT Students vs Staff, Indoor Soccer Competition

MORE FIVE STARS THAN ANY UNIVERSITY IN MELBOURNE FOR:

- ★★★★★ Teaching quality
- ★★★★★ Graduate satisfaction
- ★★★★★ Generic skills
- ★★★★★ Staff qualifications

The Good Universities Guide 2011

Swinburne's Hawthorn campus



Hawthorn campus

Student population: 23,500 (Higher Education)

Distance from Melbourne city centre:

6 km (10 to 15 minutes by train)

Swinburne's main campus is in the inner-city suburb of Hawthorn. Set among the cafés, boutiques and bookshops of Glenferrie Road, and with the convenience of supermarkets and a train station practically on campus, it offers an ideal lifestyle balance with studies.

There are several on-campus accommodation options, or you could choose to live nearby and walk to class through the tree-lined streets.

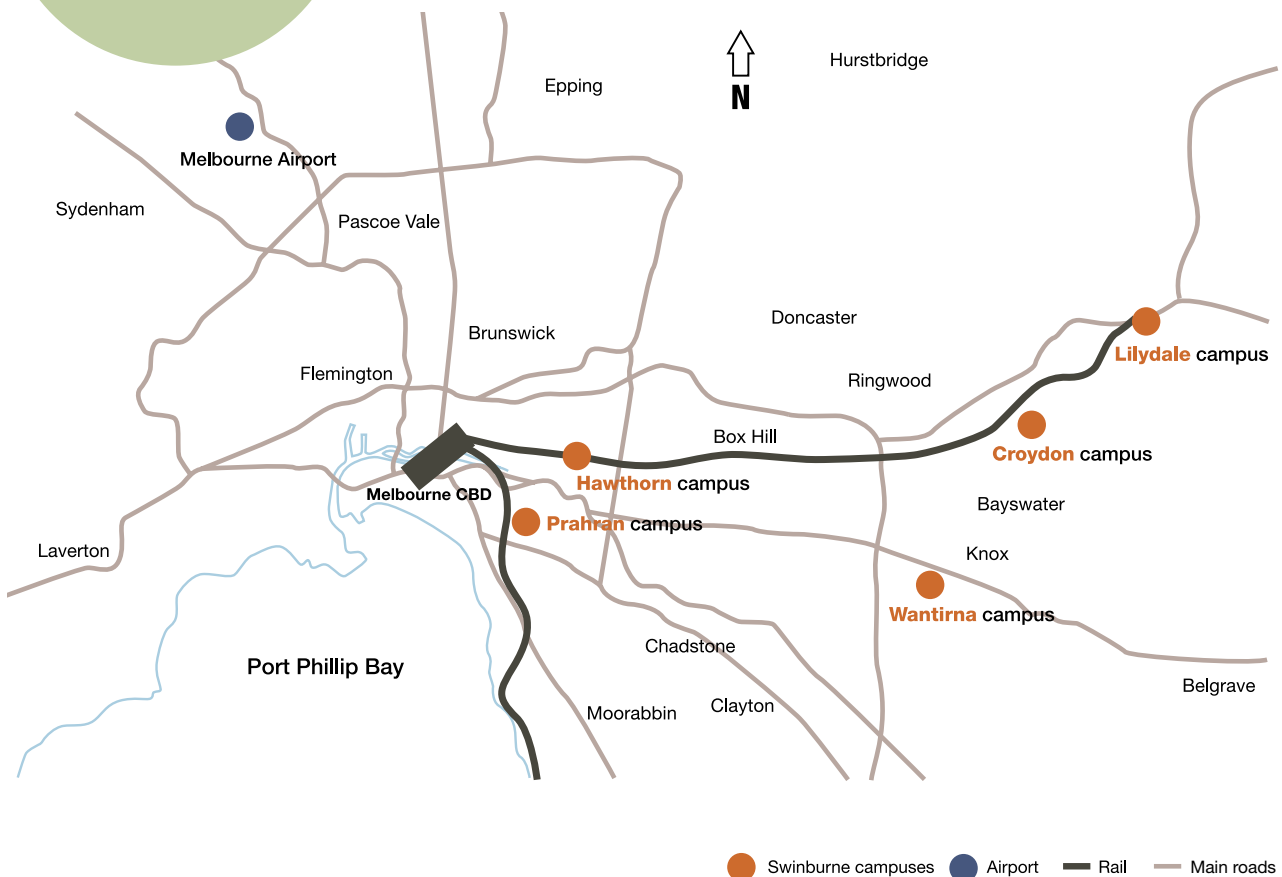
The campus has many specialised facilities and is the hub of our research and development activities. It is also home to Swinburne College, offering English language, foundation and degree transfer programs.

Campus facilities include accommodation, library, computer labs, wireless internet, a gym, a bookshop, cafés and a brand-new student facilities building featuring study areas, a games room, counselling services and health services.

Hawthorn is one of Melbourne's most beautiful residential areas; many of Melbourne's exclusive private schools and colleges are located here.



**MELBOURNE IS
MULTICULTURAL,
HOME TO PEOPLE
FROM MORE THAN
140 DIFFERENT
NATIONS.**



ICT at Swinburne

Industry relevance is our number one priority

Swinburne's ICT courses are designed in consultation with industry to meet the needs of employers and market demand. Our courses cover the latest changes in areas such as J2EE, .NET, CMMI, Oracle, MCITP, information systems and CISCO.

ICT students develop attributes keenly sought by employers: communication skills, teamwork, business understanding and professionalism. Curriculum is guided by senior representatives from the ICT industry.

Employment opportunities

We offer a four day ICT Professional Employment Program, available to master students that helps assist you with future career management in the ICT industry. An Internship Project is also available, and as part of this unit you will be assigned an ICT project for a real industry client. Projects will be carried out under the supervision of an industry professional, with additional supervision provided by staff from the Faculty of ICT.

Professional recognition

All ICT courses are registered with the Australian Computer Society (ACS) at the highest level (Professional Level).

Our Bachelor of Engineering (Telecommunication and Network Engineering) is fully accredited with Engineers Australia. On completion of the degree, you are eligible to apply for membership of Engineers Australia.

Study abroad

Swinburne is proud of its history of providing a range of ways for students to have an overseas experience while studying. We provide ICT study abroad and exchange programs in a range of countries so you can experience study and life in another country with our partner institutions. Scholarships may be available to help support you getting there and back.

Wide range of courses

Swinburne's Faculty of ICT offers bachelor degrees from business information systems to technical computing applications and telecommunications.

Postgraduate courses include information technology, network systems, information systems and project management providing a broad range of unique specialisation programs as follows:

- software development
- information systems analysis and management
- IT project management
- networks and telecommunications

In addition, a Master of Information Systems Management may be combined with an MBA.

Facilities at Hawthorn campus

- ICT computer labs, available seven days a week until late
- access to the 'Library Late Lab', open 24 hours every day
- student 'Project Hub', available for Capstone Project students

Strongly linked to world-class research

Research underpins and invigorates all Swinburne activities. Our ICT research ensures that our undergraduate and postgraduate courses remain leading edge, and gives students the opportunity to follow their research passion and participate in world-changing ICT projects.

A pathway to further ICT studies

Undergraduate students are encouraged to continue into an honours year or further postgraduate studies in one of our specialist research areas.

After completion of any ICT bachelor degree, you may proceed directly into a one year master degree in your discipline of study.

VISIT OUR
FACULTY WEBSITE
[www.swinburne.edu.
au/ict/international](http://www.swinburne.edu.au/ict/international)



DORA EXPLORES THE MOON

Swinburne Astronomy Productions are experienced at creating high end scientific visualisations. Using the supercomputer at the Centre for Astrophysics and Supercomputing, they are able to produce breathtaking visuals. Recently they teamed up with Nickelodeon to send Dora the Explorer to the moon in a three-dimensional multimedia clip.

Research in ICT

KEY RESEARCH CENTRES IN ICT

If you can demonstrate a high standard of academic achievement and want to pursue a research degree, the Faculty of Information and Communication Technologies (ICT) offers master by research and doctor of philosophy programs.

The Faculty of ICT at Swinburne is host to the following key university research centres, which provide the focal points of research in the faculty.

Centre for Astrophysics and Supercomputing

The Centre for Astrophysics and Supercomputing (CAS) has specific research interest in astronomy visualisation, star and planet formation, pulsars, globular clusters, super massive black holes, galaxy evolution and Big Bang cosmology.

Recent projects: Square Kilometre Array project, regular telescope time at major observatories including the Anglo-Australian Observatory, Australia Telescope Compact Array, W. M. Keck Observatory, the Gemini Observatory, and the Hubble Space Telescope Treasury Program.

Centre for Advanced Internet Architectures

The centre has research interest in IP networking architectures with emphasis on developing solutions for engineering problems facing the internet.

Recent projects: Leveraging 3D Game Engines, Game Environment Internet Utilisation Study, Global Research into Energy Efficient Networking, Mobile Applications and Global Internet Communications, Lawful Interception for Everybody.

Centre for Computing Engineering and Software Systems

The centre has a primary focus on software research with emphasis on knowledge and data intensive systems, next generation software platforms, SE education and IBL/RBL, software analysis and testing, software research and development.

Recent projects: Novel cloud computing based workflow technology for managing large numbers of process instances, Context-aware Vehicles for managing and integrating in-vehicle functions and external services, Agent-Enabled Social Networks including peer-to-peer social networks and 3D virtual environments, Web-based information Visualisation and Navigation, Trauma Reception and Resuscitation and Domain-specific Visual Language

Other research areas within the Faculty of Information and Communication Technologies include Molecular Simulation, Research into Information Systems in Organisations and Computer Science and Software Engineering group.

For further information visit:
www.swinburne.edu.au/ict/research

HOW DO I APPLY FOR A RESEARCH DEGREE IN ICT?

Decide on a research topic

Prepare a 150–200 word outline of the proposed research topic that you would like to undertake.

Talk with a researcher from one of our centres

Individual centres may be contacted through the web link below. Your enquiry will be forwarded to a person in your area of research interest.

Submit an application for admission

With your application you will need to supply certified copies of:

- evidence of prior degree completion (specifically demonstrating research background)
- certified academic transcripts
- resume of any relevant work experience
- 150–200 word outline of the proposed research topic

www.swinburne.edu.au/ict/research



ICT course requirements and fees

Course	Academic entry requirements	English language IELTS requirements*	2012 indicative annual course fee#	Duration	Intake	Page
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Undergraduate

Bachelor of Business Information Systems ⁺	Australian Year 12 score of 70, or equivalent	6.0	A\$20,600	3 years	Feb, Aug	7
Bachelor of Engineering (Software Engineering)	Australian Year 12 score of 70, or equivalent. Prerequisite: AM or SM**	6.0	A\$24,200	4 years	Feb	7
Bachelor of Engineering (Telecommunication and Network Engineering)	Australian Year 12 score of 70, or equivalent. Prerequisite: AM or SM**	6.0	A\$24,200	4 years	Feb, Aug	8
Bachelor of Information and Communication Technology ⁺	Australian Year 12 score of 70, or equivalent	6.0	A\$20,600	3 years	Feb, Aug	8
Bachelor of Information and Communication Technology (Network Design and Security)	Australian Year 12 score of 70, or equivalent	6.0	A\$20,600	3 years	Feb, Aug	9
Bachelor of Science (Computer Science and Software Engineering)	Australian Year 12 score of 70, or equivalent. Prerequisite: AM or SM**	6.0	A\$20,600	3 years	Feb, Aug	9
Bachelor of Science (Games Development)	Australian Year 12 score of 70, or equivalent	6.0	A\$20,600	3 years	Feb	10
Bachelor of Science (Information Technology)	2–3 years of IT tertiary studies or equivalent	6.0	A\$20,600	1.5 years [‡]	Feb, Aug	10

Postgraduate

Master of Technology (Information Technology)	A recognised non-IT bachelor degree	6.0	A\$16,600	2 years ¹	Feb, Aug, Sep	11
Master of Information Technology (Professional Computing)	A recognised bachelor degree in IT	6.0	A\$16,600	2 years ¹	Feb, Aug, Sep	12
Master of Science (Network Systems)	A recognised bachelor degree in engineering, technology, science or IT	6.0	A\$16,600	2 years ¹	Feb, Aug, Sep	14
Master of Engineering Science (Network Systems and Telecommunications)	A recognised bachelor degree in engineering, technology, science or IT	6.0	A\$22,150	2 years	Feb, Aug	15
Master of Information Systems Management	A recognised bachelor degree and at least 3 years relevant business experience	6.5	A\$23,700	1.5 years	Feb, Aug	15
Master of Information Systems Management/ Master of Business Administration ⁹	A recognised bachelor degree and at least 3 years relevant business experience	6.5	A\$23,700	2.5 years	Feb, Aug	16
Master of Information Technology	A recognised non-IT bachelor degree	6.0	A\$22,150	2 years	Feb, Aug	16
Master of Information Technology	A recognised bachelor degree in IT	6.0	A\$22,150	1 year ²	Feb, Aug	16
Master of Information Technology Project Management	A recognised bachelor degree	6.0	A\$23,700	1.5 years	Feb, Aug	17

Postgraduate by Research

Master of Engineering (by research)	Completion of 4 years or equivalent of recognised tertiary education in engineering, technology, science or ICT at a suitably high level	6.5	\$25,500	2 years	Ongoing	n/a
Master of Science (by research)	as above	6.5	\$25,750	2 years	Ongoing	n/a
Master of Science (Information Technology) (by research)	as above	6.5	\$23,700	2 years	Ongoing	n/a
Doctor of Philosophy (Engineering)	as above	6.5	\$25,500	3 years	Ongoing	n/a
Doctor of Philosophy (Information Technology)	as above	6.5	\$23,700	3 years	Ongoing	n/a
Doctor of Philosophy (Science)	as above	6.5	\$25,750	3 years	Ongoing	n/a

Pathways

For those who do not meet our undergraduate entry requirements, Swinburne Foundation Studies (Information Technology/Multimedia), Diploma of IT UniLink (degree transfer program) and TAFE diplomas and advanced diplomas offer alternative pathways into our ICT bachelor degrees. For more information see page 16 of this guide.

English Language Requirements

* 6.0 = Overall IELTS Academic Score of 6.0 with a minimum of 6.0 in each band (Reading, Writing, Listening and Speaking) OR a TOEFL (Paper-based) minimum score of 550 (with Test of Written English (TWE) score of 5); OR, a TOEFL (Internet-based) minimum score of 80 with no band less than 20.

6.5 = Overall IELTS Academic Score of 6.5 with a minimum of 6.0 in each band (Reading, Writing, Listening and Speaking) OR a TOEFL (Paper-based) minimum score of 575 (with Test of Written English (TWE) score of 5); OR, a TOEFL (Internet-based) minimum score of 90 with no band less than 22.

Notes

¹ You can take the course in accelerated format, completing the course in 1.5 years, in which case you will pay the total course fee over this period. The fee for this program is based on a study load of 75 credit points per year.

² Course duration assumes 100 credit points of exemptions.

The indicative annual course fees detailed in this publication relate to 2012 only. They are based on a standard study load per year. However, please note that fees are assessed according to a student's study load in each semester, and variation to study load will result in an adjustment to tuition fees. All fees are subject to annual review and may be adjusted.

** Prerequisite codes: AM – Advanced Mathematics; MA – Mathematics (any); SM – Specialist Mathematics.

+ A September intake is available for students progressing from UniLink Diploma only.

o This program includes a compulsory summer teaching period.

‡ You can take the course in accelerated format, completing the course in one year by undertaking an optional Winter or Summer term.

Undergraduate courses

Swinburne's ICT courses are professionally accredited by key organisations such as the Australian Computer Society and Engineers Australia. Accreditation ensures we meet the highest standard of the profession and industry.

Bachelor of Business Information Systems

Campus: Hawthorn

Duration: Three years

Intake: February, August

A September intake is available to students progressing from Unilink Diploma.

This course has been designed to produce information and business-ready graduates. It provides a sound background in advanced business problem solving, information analysis and project management, preparing you for immediate entry into the management of business information systems (IS) in organisations. You will develop technical skills, but more emphasis will be placed on business analysis and problem solving, systems analysis, project management, the provision of IS services, and the management of IS in organisations.

Features of the course

- Program provides enhanced credit arrangement and pathways to further studies in ICT
- Course content designed to meet the needs of employers and industry

Professional recognition

This degree is accredited at the professional level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and industry.

Course structure

- Twelve information systems core units of study
- Four business core units of study
- Two professional project units of study will be delivered with this course
- Two IS specialised electives
- Specialisations in this course are available in Systems Management or Systems Development

Units include

Business Information Systems, Business Analysis and Modelling, Business Data Communications, Enterprise Systems, Database, Programming, Project Management, Risk and Security, Systems Acquisition and Implementation Management, Accounting, Organisational Management, Marketing, Business Intelligence.

Career opportunities

Graduates are equipped to pursue careers in business and systems analysis, business process analysis, business requirements analysis, project management, enterprise systems consultancy, IS/IT consultancy, business relationship management, business development management, and, when you have gained experience, as an IT director or chief information officer.

Bachelor of Engineering (Software Engineering)

Campus: Hawthorn

Duration: Four years

Intake: February

This course is designed to give you a professional understanding of the science and engineering principles underlying software and systems engineering. The course explores both the fundamentals as well as advanced topics including design, quality assurance, implementation, and deployment of software systems. Focus will be given to software engineering for embedded, real-time and complex software systems. You will also gain specialised skills in a variety of areas, including telecommunications, mobile systems development, pervasive computing, robotics and mechatronics.

Features of the course

- Engineering specialisations (4 units) may be selected in Electronics, Robotic and Mechatronics, Networking, Telecommunications Electronics, RF Communications or 4 ICT electives may be chosen
- Will help you develop a broad mastery of the computer science and engineering principles underlying software and systems technologies and an ability to apply that knowledge so that you may comprehend and analyse problems leading to successful design solutions
- Develop abilities to operate as an individual or in project teams, whether as manager, leader or team member in the changing societal context of engineering

Units include

Enterprise Development, Engineering Management, Electronics Systems, Embedded Microcontrollers, Network Security and Resilience, Introduction to Programming, Data Communications and Security, Software Development Practices, Usability, Real-Time Programming, Software Engineering Project, Software Architectures and Design, Software Deployment and Evolution, Software Development for Mobile Devices

Career opportunities

Graduates are prepared for a variety of roles in the telecommunications, networks, banking and finance, manufacturing, internet technologies as well as defence and aerospace industries. A broad range of career opportunities exist including: analyst programmer, web developer, applications designer, integration developer, software engineer, network administrator, product sales and support and ICT management.

**HIGHEST-RATED
UNIVERSITY IN
MELBOURNE FOR
GRADUATE
SATISFACTION**

*The Good Universities Guide
2007, 2008, 2010, 2011*



Swinburne's Hawthorn campus Project Hub

> Undergraduate courses (continued)

Bachelor of Engineering (Telecommunication and Network Engineering)

Campus: Hawthorn

Duration: Four years

Intake: February, August

This course aims to help you develop a broad mastery of the science and engineering principles underlying telecommunication and network engineering.

Graduates will have skills in radio frequency telecommunications with specialisation in secure wireless communications, advanced-level networking with a strong emphasis on security, digital and analogue electronics, software programming and mathematics. Detailed theoretical learning is coupled with extensive practical experience in various aspects of networking and signal analysis used in the telecommunications/networking field.

Features of the course

- The course has a strong industry focus with the option of specialised telecommunication electives, or you are able to choose from a diverse range of offerings from other discipline areas
- Will help you develop the ability to undertake work in a changing environment in the context of your network engineering career

Professional recognition

This course is accredited by Engineers Australia (EA). Graduates may apply for admission to membership of EA at the level of Professional Engineer. The course has been externally audited by EA, ensuring it meets the highest standard of the profession and industry.

Course structure

You will study units from five groups: engineering, software engineering, technical studies, specialist technical studies, management and business studies

Units include

Software Development and Engineering; LAN Principles; Wireless and Broadband Networks; Digital Electronics Design; Photonics and Fibre Optics; IP Technologies; Circuits and Electronics; Embedded Microcontrollers; Internet Technologies; Network Security and Resilience; Electromagnetic Waves; UNIX for Telecommunications; Digital Signal and Image Processing.

Career opportunities

A broad range of employment opportunities exists in the following areas: designing/installing telecommunication equipment, project management, optimising network performance, network security and design, analyst designer and network administrator/webmaster.

Bachelor of Information and Communication Technology

Campus: Hawthorn

Duration: Three years

Intake: February, August

A September intake is available to students progressing from Unilink Diploma.

The course combines studies in software development, business information systems and computer networks. The program has a flexible structure allowing students to choose from a number of computing majors, co-majors, minors and advanced minors. The program will suit those students who are seeking a general ICT program with flexible outcomes. Eligible students will be able to select from a diverse range of offerings from other nominated discipline areas or approved ICT advanced studies.

Degree transfer

The flexibility of this program provides enhanced credit arrangements for students articulating from TAFE or overseas diplomas.

Features of the course

- Opportunity to undertake a 1 year MIT on completion of degree
- Any combination of co-major, minors, advanced minors and electives to a total of 100 credit points may be chosen from either a non-ICT discipline or advanced ICT studies
- Working in teams you will undertake a professionally focused final year Capstone major project

Professional recognition

This course is accredited at the professional level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and the industry.

Course structure

One of the following professional majors will need to be selected:

- Business Systems
- Business Analysis
- Games Technology
- Network Design and Security
- Software Technology

Units include

Business Analysis and Process Innovation, Business Computing, Web Application Development, Information Systems, LAN Principles, IP Technologies, Internet Computing, Software Engineering, Database Systems, Principles of Game Design, Mobile Development, Multimedia Applications.

Career opportunities

Depending on your specialised area of study there is a broad range of career opportunities available. Graduates may seek employment in computer programming, game development, internet systems development, multimedia software development, web and mobile applications development, systems analysis and design, database administration, network administration, and computer network support.

Tingting Lu

Bachelor of Information and Communication Technology

I studied a Bachelor of Engineering in China at Nanjing University of Chinese Medicine and decided to complete my studies in Swinburne's Bachelor of Information and Communication Technology. Coming from a technical study background I have found the subjects in business systems highly stimulating which have furthered my aspirations to be an IT Project Manager on completion of my course.

On completion of my degree I may consider studying the one-year Master of IT at Swinburne with focus on more specialised units in my chosen area of interest.



Bachelor of Information and Communication Technology (Network Design and Security)

Campus: Hawthorn

Duration: Three years

Intake: February, August

This course has been designed to meet growing industry demand for security specialists who are competent in, and knowledgeable about, computer network technologies and security. You will study the fundamentals of computing including programming, database, internet technologies, systems analysis and design, and software engineering, as well as advanced topics in computer networks and security. Through the coursework you will gain confidence evaluating and managing software development tasks, business information systems and security projects, while applying knowledge of internet security.

Features of the course

- The program also has a strong industry focus with units that prepare students for professional certification in Cisco Certified Network Associate (CCNA) and Microsoft Certified IT Professional (MCITP)
- Working in teams you will undertake a professionally focused final year Capstone major project

Professional recognition

This course is accredited at the professional level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and the industry.

Course structure

You will undertake core studies in network design and security and can choose a non-ICT study sequence to a total of 50 credit points (four units).

Units include

LAN Principles, Network Administration, IP Technologies, Data Communications and Security, Database, Software Programming, Usability, Web Programming, IT Security, Network Security and Resilience, UNIX for Telecommunications, Information Systems Risk and Security, Software Team Project.

Career opportunities

Skills in network design and security are in high demand and can lead to a range of career outcomes including information security analyst, network security practitioner, information security professional, IT systems administrator, embedded software systems designer, protocol designer, network administrator or IT systems administrator.

Bachelor of Science (Computer Science and Software Engineering)

Campus: Hawthorn

Duration: Three years

Intake: February, August

This course focuses on advanced technologies including software development using C++ and Java, software engineering and software development for the internet. As a graduate of this course you will have extensive skills in software development, experience in working on team projects, and well developed oral and written communication skills.

Features of the course

- Develops skills needed for working in the software development industry
- Provides skills in object-oriented approach to systems analysis, design and implementation
- Graduates have high skill levels in developing software in C++ and Java

Professional recognition

This degree is accredited at the professional level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and industry.

Course structure

- A range of options in the final year of the course allows you to study advanced subjects in areas such as software engineering, computer networks, database, and intelligent systems
- Working in teams you will undertake a professionally focused final year Capstone major project
- The course uses Java as the first programming language, recognising the role of this language in the development of web-based systems. Students then develop skills in the C++ programming language

Units include

Database Analysis and Design, Data Communications and Security, Usability, Artificial Intelligence, Programming in Java, Professional Issues in Information Technology, Software Engineering Project, Object-Oriented Programming in C++, Software Project Practices and Management, Software Architectures and Design, and Software Deployment and Evolution.

Career opportunities

Graduates will generally find employment in organisations engaged in medium- to large-scale software development projects. Career opportunities include applications developer, IT project manager, software architect and programmer.

RUBIK ROBOT

How can you solve a 3 x 3 x 3 Rubik's cube in less than ten seconds? Students undertaking the Bachelor of Science (Computer Science and Software Engineering) have built robotic hands from scratch and created software that can solve the cube in just 9 seconds. The robot, named Ruby, uses a camera to assess how the cube is scrambled and sends the images to a hard drive. Ruby determines the sequence of colors on each face and algorithms are used to solve the cube. The solution is then translated to the robotic hands which flip the cubes sides at an incredible speed solving it in near record time.

Bachelor of Engineering (Robotics and Mechatronics)/Bachelor of Science (Computer Science and Software Engineering)

You may see the video and other ICT highlights at:

www.swinburne.edu.au/ict/videos



> Undergraduate courses (continued)

Bachelor of Science (Games Development)

Campus: Hawthorn
Duration: Three years
Intake: February

This course combines studies in software engineering and aspects of multimedia required to develop games and build interactive software. Offering a sound education in all aspects of information technology, you will develop diverse skills necessary for game development and software design within the games industry as well as the broader information and communication technologies industry. Major studies include software development, multimedia design using authoring tools and project management.

The course helps develop an in-depth understanding of the broad range of creative and design aspects of multimedia and internet technologies in relation to game development.

Features of the course

- Program provides enhanced credit arrangements and pathways for further studies in ICT
- Working in teams you will undertake a professionally focused final year Capstone major project

Professional recognition

This degree is accredited at the Professional Level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and industry.

Course structure

You will undertake core studies in game development and can choose a non-ICT study sequence to a total of 50 credit points (four units).

Units include

Multimedia Applications, 3D Animation and Special Effects, Principles of Game Design, Web Programming, Software Development, Usability, Internet Technologies, Networking and Online Games, Artificial Intelligence for Games, Interactive Games Structure.

Career opportunities

Graduates of this course will be equipped to seek employment in careers such as games developer, Flash developer, game engine programmer, visual effects developer, software design, database programmer, enterprise systems application developer, and project manager. You will also have developed extensive skills in software development, combined with experience in a broad range of creative and design aspects of multimedia and internet technologies.

Bachelor of Science (Information Technology)

Campus: Hawthorn
Duration: 1.5 years
Intake: February, August

The Bachelor of Science (Information Technology), or BSc(IT), is designed for students who have completed a qualification deemed equivalent to two years of a recognised Australian bachelor degree in an IT discipline. The program builds on the knowledge and skills gained in your prior studies and focuses on enterprise systems development. It offers a unique opportunity to specialise in software development for the Microsoft .NET framework.

Features of the course

- You may complete this 10 unit course in one year by undertaking a summer or winter semester
- Students who are eligible for credit (two units) may complete the course in eight units over one year
- You may choose a broad program or a specialist stream in either .NET, Enterprise Systems Development, Software Engineering, Java and J2EE
- If you successfully complete the BSc(IT) you will receive up to eight unit exemptions in the Master of Information Technology (MIT) and may be able to complete the MIT in one year
- If you apply for the BSc(IT) and the MIT at the outset, you will be eligible for a 15% scholarship on the standard MIT tuition fee

Professional recognition

This degree is accredited at the professional level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and industry.

Course structure

- The course consists of up to 10 units, taken over two or three semesters. Four units will be taken in each normal semester, and two may be taken in the fast-track summer or winter semester
- If you have completed a course with a major in software development or IT you will generally be required to complete eight units over two semesters

Units include

Algorithmic Problem Solving, Introduction to Programming in .NET, Object-Oriented Programming, Technical Software Development, Programming in Java, Database Analysis and Design, Software Development Practices, Usability, Database Management Systems, Data Communications and Security, Advanced Web Development, Web Programming, Software Process and Project Management.

Career opportunities

Graduates will be qualified to seek employment in computer programming, internet systems development, multimedia software development, systems analysis and design, database administration and computer network support.

DOUBLE-DEGREE OPTIONS

Combine your professional qualification with another specialised degree and expand your skills and increase the demand for your ICT knowledge.

- Bachelor of Business Information Systems/Bachelor of Commerce
- Bachelor of Engineering (Telecommunication and Network Engineering)/Bachelor of Science (Computer Science and Software Engineering)
- Bachelor of Engineering (Robotics and Mechatronics)/Bachelor of Science (Computer Science and Software Engineering)
- Bachelor of Engineering (Electronics and Computer Systems)/Bachelor of Science (Computer Science and Software Engineering)
- Bachelor of Multimedia (Games and Interactivity)/Bachelor of Science (Computer Science and Software Engineering)

For further information on these double-degree options visit www.swinburne.edu.au/international/courses

**15%
SCHOLARSHIP
ON MIT**
Apply for BSc(IT)
and MIT

Postgraduate programs

Swinburne ICT courses are designed in consultation with industry to cover the latest changes in areas such as J2EE, Network Security, .NET, CMMI, Oracle, MCITP, CISCO and Information Systems.

Master of Technology (Information Technology)

Incorporating: Graduate Diploma of Information Technology

Campus: Hawthorn

Duration: Two years

Intake: February, August

This program provides a comprehensive postgraduate professional education in information and communication technology (ICT). The program is designed for students who have completed a recognised degree in a discipline other than ICT and wish to add ICT knowledge and skills to their prior learning.

The program includes a general introduction to ICT and then provides the opportunity for you to gain specialist skills in particular areas including software development and information systems analysis and management. A wide range of further electives is available. See full details on page 13.

Students who hold a recognised degree in ICT should apply for the Master of Information Technology (Professional Computing). See page 12.

Features of the program

- Equipping you with the tools to enter a range of technical- and business-focused IT careers
- This program may be completed in 1.5 years by undertaking the program in accelerated format
- Content is designed in consultation with industry to meet the needs of employers and market demand
- Highly interactive and dynamic classes, delivered by commercially experienced practitioners and academics
- Offers industry-related project work

Professional recognition

This program is accredited at Professional Level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and industry.

Program structure

- The program involves the completion of 150 credit points (12 units) over two years
- You may choose to exit the course with the Graduate Diploma of Information Technology after completing 100 credit points (8 units)

Units

Postgraduate units are categorised as either Level 2 (introductory) or Level 3 (advanced).

■ Stage 1 of the program

Six Level 2 core units and two elective units as follows:

Level 2 core units

- Algorithmic Problem Solving OR Introduction to Programming in .NET
- Introduction to Business Information Systems OR Enterprise Technologies and Architectures
- Internet Technologies
- Database Analysis and Design
- Requirements, Analysis and Modelling
- Information Systems Project Management

Level 2 Elective units

See list of units on Page 13.

■ Stage 2 of the program

Four advanced units of study are undertaken as well as two advanced electives as follows:

Level 3 Core units

- Professional Issues in Information Technology
- Professional Project OR Internship Project OR Configuring Business Information Systems Solutions

Level 3 Elective units

See list of units on Page 13.

Career opportunities

The Master of Technology (IT) enables graduates to develop both the practical and theoretical skills to enter a range of technical- and business-focused ICT roles. The specialised studies in this program prepare you for senior ICT roles including database/ design, systems/business analyst, software testing, web design and development.

Omar Hameed, Pakistan Master of Information Technology (Professional Computing)

I felt the teaching in my masters offered the right combination of text and industry relevance. Learning in teams and by project work has enhanced my communication skills and I feel confident that my degree will enable me to work internationally as well as in my home country. In my final semester I undertook the Swinburne internship unit at ANZ Banking Group which enabled me to practise my ICT analysis skills prior to completing my masters. Having completed my masters, I am now employed full time as a Business Analyst at The Royal Children's Hospital Melbourne.



Master of Information Technology (Professional Computing)

Master of Information Technology (Professional Computing)

Incorporating: Graduate Diploma
of Information Technology
(Professional Computing)*

Campus: Hawthorn

Duration: Two years

Intake: February, August, September

* *The graduate diploma does not have a
September intake*

This advanced program is designed for students who have a recognised degree in IT and is a two-year, 12-unit program. The program provides a broad range of specialised studies and is targeted towards IT specialists wishing to optimise career opportunities. You are recommended to focus your studies through one of the available specialisation streams. Current specialisation streams are:

- information systems analysis and management
- networks and telecommunications
- software development

Features of the program

- Program developed for graduates in IT or IT-related disciplines
- This program may be completed in 1.5 years by undertaking the program in accelerated format
- Specialisation options available in key ICT areas. See page13 for details
- Program developed in consultation with industry to meet the needs of employers and market demand
- Program offers the 'industry project unit' enabling you to undertake an ICT project in your final semester

Professional recognition

This program is accredited at Professional Level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and industry.

Program structure

- This program involves the completion of 12 units of study over two years
- Program has the choice of 10 electives and two core units

Units

Postgraduate units are categorised as either Level 2 (introductory) or Level 3 (advanced).

The program involves up to six elective Level 2 units of study, two Level 3 core units and up to six Level 3 elective units of study.

Level 3 core units

- Professional Issues in IT
- Professional Project OR
Internship Project OR
Configuring Business Information
Systems Solutions

Optional Level 3 research units

- Minor Thesis (50 credit points)
- Research Paper
- Research Report (25 credit points)
- Research Methods

Career opportunities

Depending on your specialised study area there is a large number of job roles available for those with ICT qualifications, including: enterprise systems application developer, network administrator, IT security engineer, manager – internal corporate network, quality assurance analyst, project manager, multimedia developer, systems architect, business requirements analyst, technical writer, application integration specialist, user interface analyst, contract manager, data warehouse architect, data mining specialist, web developer, software developer and help desk manager.

Trong Duc Nguyen Master of Information Technology (Professional Computing) Vietnam

"I completed my Bachelor degree at Hanoi University of Technology. I chose Swinburne for my master degree because I heard their IT programs offered hands-on technical experience as well as industry projects.

On commencement of the Master of Information Technology (Professional Computing) I chose to specialise my studies in web applications.

I look forward to working as a software programmer or in a web services position following completion of my Master program."



Professional computing specialisations

You may choose to focus your studies by selecting a specialisation in one of the following areas. It is also possible to combine units from different specialisations.

Information Systems Analysis and Management

This specialisation offers a course of study focusing on business analysis, information modelling, database design and information systems management.

Level 2 elective units

- Requirements, Analysis and Modelling
- Enterprise Systems
- Enterprise Technologies and Architectures
- Introduction to Business Information Systems
- Information Systems Project Management
- Business Information Systems Analysis
- Database Management Systems
- Database Implementation

Level 3 elective units

- Contemporary Issues in Business Analysis*
- Business Information Systems for a Rapidly Changing World
- Systems Project Management
- Knowledge Management
- IS Governance and Strategy*
- Information Systems Risk and Security
- Business Process Modelling
- Systems Acquisition and Implementation Management
- Business Intelligence
- Decision Analysis Systems
- Database Performance Issues
 - Database Administration
- Enterprise Systems Management
 - Enterprise Services and Security
 - Delivering IT Business Value
- Information Systems Management
 - Information Systems in Small and Medium Enterprises
- Enterprise Systems Implementation
- Configuring BIS Solutions
- Managing the IT Capability*
- Delivering IT Business Value*
- Managing IT-Enabled Transformation*
- Advanced Topics in ISM*

* Students must meet work experience requirements to enrol in these units

Networks

This specialisation focuses on the skills required for graduates preparing to work as network systems specialists. Units provide coverage of general networking principles with specific competencies including certification material from Cisco CCNA and Microsoft MCITP.

Level 2 elective units

- Networks and Routing
- Network Administration

Level 3 elective units

- Internetworking Technologies
- Enterprise Network Server Administration
 - Enterprise Service and Security
- Internet Security
- Internet Networking Infrastructure
- Information Systems Risk and Security
 - Enterprise Network Server Administration

Software Development

Web applications powered by embedded web servers have become commonplace in organisations. This specialisation deals with emerging technologies such as service-oriented architectures, web services and enterprise computing, including J2EE and .NET.

Level 2 elective units

- Web Development
 - Internet Technologies
- Software Development in Java
- Object-Oriented Programming
- Usability
- Enterprise Technologies and Architectures
- Web Programming
- Programming in Java

Level 3 elective units

- Advanced Java
- Agile Development Project
- Enterprise .NET
- Enterprise Java
- Internet Security
- Advanced .NET Programming
- Data Structures and Patterns
- Database Programming
- Web Application Development
- Web Application Architectures
- Human Computer Interaction
- Software Testing and Reliability
- Software Process Improvement
- Software Tools
- Software Quality Management
- Software Testing Processes and Automation
- Games Programming



Working with Thales, students undertake a project on air traffic control system called 'Freebird'.

INTERNSHIP PROJECT UNIT

All students will be provided with the opportunity to apply their skills through industry-related project work. Options for projects include industry-linked projects for real industry clients. This will assist you to further develop your professional and personal skills and encourage you to apply practical skills and theoretical knowledge in an ICT industry context.

Recently students have participated in a wide range of ICT organisational projects including the areas of: system design and development, research and development, web development, business analysis, testing and user liaison.

> Postgraduate programs (continued)

Master of Science (Network Systems)

Incorporating: Graduate Diploma of Science (Network Systems)

Campus: Hawthorn

Duration: Two years

Intake: February, August

This program is aimed at those students who have a background in information systems, information technology, science, engineering or technology and wish to become professional network specialists. The program is intended for recent graduates wishing to optimise their career path in telecommunication network engineering, or professionals returning to study in order to focus their skill base.

The program will enable you to become proficient in all aspects of wired or wireless networks and to be conversant with new kinds of networking technology based on internet protocol networks and multimedia applications. Graduates will be well equipped with the practical and theoretical skills to gain immediate access to a career in telecommunication network engineering or ICT.

Professional recognition

This program is accredited at the professional level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and industry.

The IT Innovation group recently developed a software system designed for Melbourne's Alfred Hospital's Emergency and Trauma Centre.

Features of the program

- The program has three optional specialised streams including advanced networking, network security and the future networks specialisation
- This program may be completed in 1.5 years by undertaking the program in accelerated format
- The program fully prepares you for the CCNA certification exam and partly for the MCITP and CCNP. Content is designed in consultation with industry to meet the needs of employers and market demand
- Highly interactive and dynamic classes, delivered by commercially experienced practitioners and academics
- You may exit with the Graduate Diploma of Science (Network Systems) after completing 100 credit points (eight units)

Program structure

- The program involves the completion of 12 units. Eight core units must be undertaken plus four advanced electives
- Unit exemptions of up to 50 credit points (four units) may be obtained for those who have completed a relevant degree

Core units

- Networks and Routing*
- Internetworking Technologies*
- Network Administration
- Enterprise Network Server Administration# OR Enterprise Services and Security#
- Introduction to Network Programming
- Network Computing
- Professional Issues in IT
- Professional Project OR Internship Project

Specialisations

Advanced Networking

- Internetwork Routing+
- Internetwork Switching+
- Secure Remote Access Networks+
- Converged Network+

Network Security

- Secure Networks
- Enterprise Services and Security#
- Advanced Security
- One elective unit‡

Future Networks

- Secure Networks
- Mobile and Personal Networking
- Design and Management of Networks OR Broadband Multimedia Network
- One elective unit‡

Other electives available

- UNIX for Telecommunications
- Networking and Online Games
- Simulation of Networks
- Enterprise Network Server Administration
- Web Programming
- Research Methods**
- Research Paper**
- Research Report**

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

Prepares students for MCITP: SA (Microsoft Certified Information Technology Professional: Server Administrator) qualification.

+ Prepares students for CCNP (Cisco Certified Network Professional) qualification – each unit covers one quarter of CCNP.

** Research units are available only for approved project proposals by the Program Coordinator.

‡ Elective undertaken is subject to unit prerequisites.

Career opportunities

Graduates will seek employment in careers such as telecommunication engineer, telecommunication network engineer, network planner, network specialist, internet applications engineer, manager of internal corporate networks and IT security engineer.



Master of Engineering Science (Network Systems and Telecommunications) New

Campus: Hawthorn

Duration: Two years

Intake: February, August

Entry requirements

A recognised bachelor degree in engineering, science, information technology, or in business or commerce with an emphasis on information technology.

Course description

This advanced program incorporates the Master, Graduate Diploma and Graduate Certificate of Science (Network Systems), plus additional units to make up the Master of Engineering Science (Network Systems and Telecommunications). The course explores the design, management and service provision of private and public network systems. With a major focus on telecommunication systems using wireless and broadband technologies and a Cisco-based approach to the management of networks, the course 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.

Units of study

Units include: Networks and Routing, Network Administration, Introduction to Network Programming, Internetworking Technologies, Network Computing, Enterprise Network Server Administration, Enterprise Services and Security, Professional Issues in IT, Internship Project, Wireless Communications Techniques, Design and Management of Networks, Mobile and Personal Networking, elective unit.

Career opportunities

Graduates may find employment in roles such as network engineer, field service technician, support engineer, systems administrator, network planner, IT security firewall administrator, network architect, network designer, project implementation, internet applications engineer, manager of internal corporate networks or security engineer.

Master of Information Systems Management

Incorporating: Graduate Diploma of Information Systems Management

Campus: Hawthorn

Duration: Eighteen months

Intake: February, August

This program is designed for students who have three years or more relevant professional experience. The program covers a comprehensive and contemporary study of management issues associated with the successful deployment of information systems and technology within organisations. The program focuses on optimising business value through the management of IS and its related risks. It will enhance your career opportunities by developing current approaches to the management of IS and technologies, and help you recognise the managerial complexities and challenges associated with the application of IS and technologies within and between contemporary organisations.

Features of the program

- Program content is designed to meet the needs of employers and industry
- Small, highly interactive and dynamic classes, delivered by commercially experienced practitioners and academics
- A wide range of units may be drawn from related programs in business, social science, IT and information systems
- Graduates understand the major contemporary issues in the management of the IS/IT function

Professional recognition

This program is accredited at Professional Level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and industry.

Program structure

- Program consists of twelve units studied over 1.5 years
- Students with a recognised bachelor degree with an IS or IT major or minor may be eligible for unit exemptions
- Students may undertake a summer semester and accelerate their program



ICT exam preparation workshop.

Units include

- Business Information Systems for a Rapidly Changing World
- Delivering IT Business Value
- IS Governance and Strategy
- Information Systems Risk and Security
- Managing IT-Enabled Transformation
- Contemporary Issues in Business Analysis
- Accounting Information and Managerial Decision Making
- Information Systems Project Management
- Managing IT-Enabled Transformation
- Enterprise Systems
- Requirements, Analysis and Modelling
- Business Data Communications and Networks
- Business Information Systems Analysis
- Database Management Systems
- Process Modelling

Career opportunities

The program offers career development in a wide range of IS/IT roles, including: systems analysis, business development, project management, data architect, data warehouse consultant, business intelligence analyst, statistical modeler, application integration specialist, e-business consultant, chief information officer and IT director.



ICT PROFESSIONAL EMPLOYMENT PROGRAM

The four-day Professional employment Program aims to improve career outcomes by outlining the ICT industry and identifying a sequenced approach to the development of employment skills, tactics and trends that will assist you with your future career management in the international ICT industry.

COMPLETE
AN AUSTRALIAN
ICT UNDERGRADUATE
DEGREE AND APPLY
FOR A
1-YEAR MIT

> Postgraduate programs (continued)

Master of Information Systems Management/Master of Business Administration

Campus: Hawthorn

Duration: 2.5 years

This program includes a compulsory summer teaching period.

Intake: February, August

This program is designed for students who have three years or more relevant professional experience. The MISM/MBA double degree provides professionals with advanced skills and knowledge across the complex areas of both business and information systems.

In addition to studying the MISM, the MBA component offers the opportunity to acquire contemporary management knowledge and skills, and also provides you with the ability to apply that knowledge in an innovative, creative and entrepreneurial way.

Program structure

- The 2.5-year program involves the completion of 19 units
- Students with a recognised bachelor degree (IT minor) may apply for unit exemptions
- Students with a recognised bachelor degree in Information Systems may apply for up to four unit exemptions

Professional recognition

The Master of Information Systems Management is accredited at Professional Level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and industry.

Master of Information Technology Incorporating: Graduate Diploma of Information Technology

Campus: Hawthorn

Duration: Two years

Intake: February, August

The Master of Information Technology (MIT) provides a broad range of specialised studies and is targeted towards ICT specialists or recent graduates wishing to optimise their career path. You may choose a general program of study or alternatively undertake a specialisation in preparation for focused career opportunities.

You will also have the opportunity to undertake a research project.

Features of the program

- Highly interactive and dynamic classes, delivered by commercially experienced practitioners and academics
- Program content is designed in consultation with industry to meet the needs of employers and market demand
- The flexibility of this program provides enhanced credit arrangements for students with a recognised degree in ICT. Exemptions of up to eight units may be available, allowing you to complete the program in one year

Professional recognition

The program is accredited at the Professional Level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and industry.

Program structure

The MIT is comprised of 200 credit points (16 units), and can be completed over two years.

Note: If you have successfully completed a recognised ICT degree, you may be eligible to enrol in the Master of Information Technology (Professional Computing). This 12-unit program can be completed over two years (see page 12).

Career opportunities

Depending on your MIT specialisation there is a large number of employment opportunities available to graduates: Business requirements analyst, Business relationship manager, Data warehouse architect, Database programmer, Helpdesk manager, Enterprise systems application developer, IS support analyst, IT security engineer, Multimedia developer, Network specialist, Software developer, Systems architect, Technical writer or Web application developer.

SEPTEMBER ICT ENTRY

Swinburne has a special September entry available for the Master of Information Technology (Professional Computing).



**VISIT OUR
FACULTY WEBSITE**
[www.swinburne.edu.
au/ict/international](http://www.swinburne.edu.au/ict/international)



Master of Information Technology Project Management

**Incorporating: Graduate Diploma
of Information Technology
Project Management**

Campus: Hawthorn

Duration: Eighteen months

Intake: February, August

The program aims to develop versatile project managers with competencies and expertise in the major domains of Information and Communication Technologies (ICT). Designed in consultation with industry to meet the high demand for qualified ICT project managers this program will heighten your professional value developing your knowledge and skill sets required to underpin the practice of project management.

Program structure

- Program consists of twelve units studied over 1.5 years. You will study 8 core units and 4 electives.
- Students with a recognised bachelor degree with an IS or IT major or minor may be eligible for unit exemptions
- Students may undertake a summer semester and accelerate their program

Professional recognition

This program is accredited at Professional Level with the Australian Computer Society (ACS). The program has been externally audited by ACS, ensuring it meets the highest standard of the profession and industry.

Core units

- Information Systems Project Management
- Enterprise Systems OR
Information Systems in SMEs
- Information Systems Risk and Security
- Systems Acquisition and Implementation
Management
- Global ICT Practice
- IT Project Resource Management
- IT Portfolio and Program Management
- IT Project Management Internship Project OR
IT Project Management Research Project

Electives

- Introduction to Business Information
Systems OR
Information Systems Management OR
Business Information Systems for a Rapidly
Changing World
- Database Analysis and Design
- Requirements, Analysis and Modelling
- Advanced Financial Information Systems OR
Accounting Principles
- Enterprise Systems OR
Information Systems in SMEs
- Business Information Systems Analysis
- Process Modelling
- Enterprise Systems Management
- Professional Issues in Information Technology
- Advanced Financial Information Systems (new)

Career opportunities

The Master of Information Technology Project Management is an advanced level program that aims to equip students with the relevant knowledge, skills, and capabilities to effectively manage all aspects of IT project management.

Verena Thiel, Germany Study Abroad in ICT

Studying International Business Information Management at DHBW, Germany I chose to undertake study abroad and selected 4 ICT units at Swinburne University of Technology. My ICT subjects at Swinburne were relevant, challenging and practically focused and I experienced a very different, yet equally engaging tertiary education, which I loved. Living on campus at Unilodge was also an enriching experience and I made close friendships with my international roommates.

Having now completed my exams an Australian holiday awaits before returning to Germany to complete my degree.



ICT pathway opportunities

Looking for an alternative pathway to a bachelor degree? Swinburne TAFE and Swinburne College provide a range of options to help you reach your goals in no time at all.

Swinburne TAFE

TAFE (Technical and Further Education) qualifications are recognised around the world as being among the best technical and practical qualifications available. Swinburne has a range of ICT TAFE courses offering pathways directly into our range of bachelor degree courses.

www.swinburne.edu.au/international/courses/tafe

Swinburne Foundation Studies (Information Technology/Multimedia)

Campus: Hawthorn
Duration: Eight months
Intake: February, June, October

Degree transfer

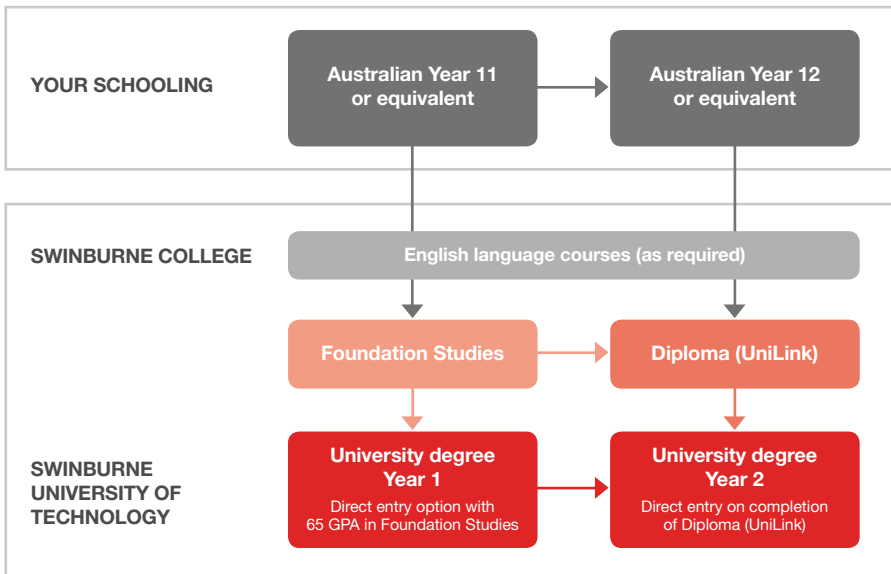
Successful completion of Foundation Studies guarantees you entry into our Degree Transfer Program, UniLink Information Technology, or if you have achieved a credit average (65% or better) and may prefer to apply for any first year ICT bachelor degree.

Diploma of Information Technology (UniLink) Degree Transfer Program

Campus: Hawthorn
Duration: Eight months
Intake: February, June, October

Degree transfer

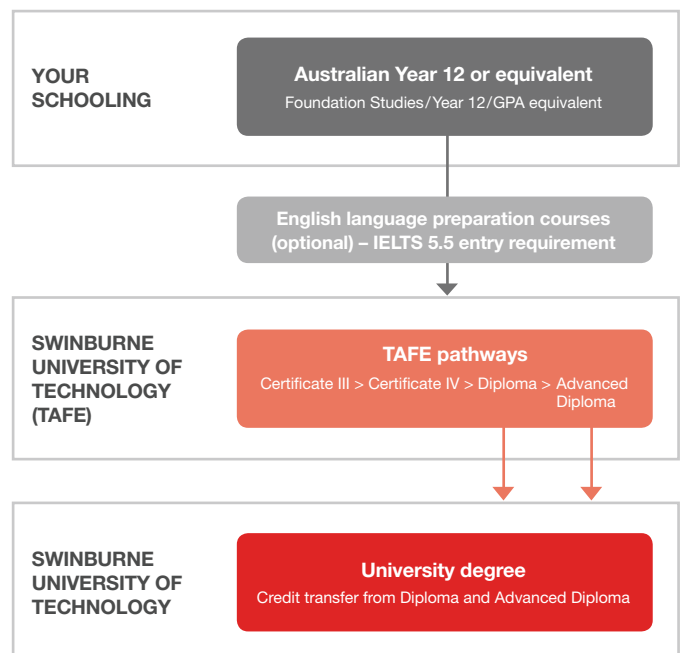
Transfer to second year of the following degrees is guaranteed for students who pass the Diploma of IT (UniLink) program: Bachelor of Information and Communication Technology or Bachelor of Business Information Systems.



TAFE to degree pathways

Technical and Further Education (TAFE) diplomas and advanced diplomas offer independent learning with an emphasis on workplace and practical skills. TAFE diploma or advanced diploma graduates can pathway into a Swinburne undergraduate degree course, subject to academic performance requirements. The Swinburne pathways program allows you to gain the maximum benefit from your previous studies, whether at TAFE or university, within Australia or overseas. You'll receive credit for your studies, fast-tracking you into later stages of your chosen degree.

www.swinburne.edu.au/international/pathways



Accommodation options

From the Residential College to student apartments and off-campus rooms and houses, there is a range of housing options available.

www.international.swinburne.edu.au/accommodation

On-campus accommodation

Hawthorn

Residential College and Apartments

The 84-bed student Residential College is right in the heart of the Hawthorn campus, and provides a safe and supportive environment for international students. Accommodation in the Residential College costs between A\$280 and A\$310* per week per person, including gas, water, electricity and a daily continental breakfast.

There are also 151 beds available in the two- and three-bedroom on-campus apartments, providing independent living for more senior students. Apartments range from A\$215 to A\$280* per week per person including gas, water and electricity.

UniLodge@Swinburne Place

The 125 UniLodge designer apartments at Swinburne Place are fully furnished with lockable bedrooms, remote TV and modern kitchens with crockery and cutlery. There's a common room with a pool table and plasma TV screens, a laundry and outdoor BBQ area. The apartments have electronic keycard access and security camera CCTV surveillance. Single-room studios and four-, three- and two-bedroom apartments are available, costing between A\$199 and A\$368* per week per person including gas, water and electricity.

UniLodge Vivida

This new complex comprises 194 tastefully appointed, fully furnished studio apartments. They feature ensuite bathrooms, security keycard access and CCTV surveillance, flat-screen TVs and DVD players in each room, private balconies and air-conditioning and dishwashers (selected apartments only). Common facilities include a rooftop garden and BBQ area and laundry facilities. Apartments cost between A\$265 and A\$299* per week including water and gas.

Off-campus accommodation

Due to the varying nature of off-campus accommodation costs, all costs in this section are indicative only.

Private rental and share accommodation

You can choose to rent your own apartment, or share a rental house or apartment with other students. You can't pre-book share accommodation, so if you are seeking this type of accommodation we recommend you choose a short-term option for when you first arrive, then look for something to rent a few months after settling in. Swinburne has a database of housing vacancies around each campus (you can sign up as a future student at <http://swinburne.studystays.com.au>), and Swinburne International can assist with location information and provide a reference letter confirming your enrolment at Swinburne.

Remember that setting up your own apartment or house will usually mean furnishing it, so you'll need to budget for that. In 2011, the approximate average cost of share accommodation is between A\$130 and A\$170 per week per person in the inner suburbs (including Hawthorn and Prahran), or between A\$100 and A\$150 per week per person in the outer suburbs. This estimate does not include utilities (gas, electricity and water), which cost approximately A\$17 per week.

www.swinburne.edu.au/international-renting

Living with an Australian family

Homestay is an opportunity for you to live with a local Australian resident or family. It is a great way for you to develop your English skills, make new friends and experience the Australian lifestyle. You will live in a furnished bedroom as a guest in a home, with three meals a day provided. The cost per week is A\$265 for students aged over 18, and A\$285 for students under 18 years of age.

Homestay is for a minimum period of four weeks. At least two weeks' notice is required if you plan to leave your host's home.

Bookings for Homestay should be made at least 10 days prior to arrival. A placement fee of A\$230 must be paid at the time of lodging an application.

www.international.swinburne.edu.au/homestay



Living expenses

Living costs will depend on the accommodation you choose and the lifestyle you lead, and as such all costs in this section are indicative only.

You will require approximately A\$21,000 to A\$25,000* per year for ongoing living costs (not including tuition fees or airfares). Add to this a budget of approximately A\$4000 to \$6000 for the initial costs of establishing yourself in Melbourne and approximately A\$1500 to \$2000 if you need to purchase a computer.

Costs for students with families

If you are bringing your family, you will also need a minimum of A\$18,000* per year for your spouse and A\$6000* per year for each child (not including school fees and uniforms). For further information on bringing your family to Melbourne see page 58.

** The Australian Government requires prospective student visa applicants and their family members to have access to minimum funds to meet the living costs requirements. For more information visit www.immi.gov.au/students*



NOTE:

* Prices listed are current for 2011. Please check www.swinburne.edu.au/housing for up-to-date accommodation costs.

Awards for Excellence

Recently the Faculty of ICT held their 2010 Awards for Excellence recognising students who have achieved academic excellence. Pictured below are our international student award winners.



Oracle Award for Highest Achieving Student in Database Performance Issues Unit
Shubhankar Pramod Thatte (India)

Pictured with Tony Cawthorne



RMA Award for Outstanding Student in First Year Bachelor of Business Information Systems
Tim Nyaanga (Kenya)

Pictured with Russell MacDonald



Lonely Planet Award for Most Outstanding Final Year Student in MIT
Dany Gunawan (Indonesia)

Pictured with Ed Cortis



Prima Consulting Award for Highest Achieving Student in Business Intelligence Unit
Rosanna Angela Fernando (Sri Lanka)

Pictured with Bill Leropoulos



FICT Award for Most Outstanding Bachelor of Science (IT) Student Award
Leonard Hoon (Singapore)

Pictured with Professor Leon Sterling



Ultradata Award for Highest Achieving Student, Advanced .NET Programming Unit
Rendy Pranata (Indonesia)

Pictured with Nick Pratley and John Green



Ericsson Award for Highest Achieving Student, Communication Principles Unit
Minh Le (Vietnam)

Pictured with Tristram Grey



CISCO Award for Highest Achieving student in Networks and Routing Unit
Nirmal Ramakrishnan (India)

Pictured with Reg Johnson



Microsoft Award for Highest Achieving Student, Usability Unit
Ufuk Altin (Germany)

Pictured with Barbara Hurst



Remora Technologies Award for Highest Achieving Student, Web Application Development
Cong Minh Phan (Vietnam)

Pictured with Rob Silver

ACS PROFESSIONAL YEAR PROGRAM IN COMPUTER SCIENCE

This Swinburne program has been accredited by the Australian Computer Society (ACS) and is designed for graduates with an IT master or bachelor degree who are seeking an additional pathway from university to employment.

The 12-month program provides a fresh insight into the Australian employment market and workplace culture. It also includes:

- practical training and workshops
- a 12-week hands-on internship with an ICT host company
- access to networking opportunities and professional development as a graduate member of the ACS

Applicants will be required to hold a Skilled Graduate (Temporary) Visa (Subclass 485) or Bridging Visa A. Student visa holders are not eligible for this program.

■ WOULD YOU LIKE TO KNOW MORE ABOUT THE PROFESSIONAL YEAR PROGRAM?

Telephone within Australia: 1800 897 973

Telephone outside Australia: (+613) 8676 7002

Email: international@swinburne.edu.au

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■ ANY QUESTIONS?

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