

SWIN
BUR
NE

SWINBURNE
UNIVERSITY OF
TECHNOLOGY

**SYDNEY
AUSTRALIA**



2020 INTERNATIONAL COURSE GUIDE

swinburne.edu.au/sydney



CONTENTS

ABOUT SWINBURNE.....	4
WHY SYDNEY?.....	5
RECOGNISED AND REWARDED.....	5
WHY SWINBURNE SYDNEY?.....	6
CAREER DEVELOPMENT, SCHOLARSHIPS AND FEES.....	8
POSTGRADUATE QUALIFYING PROGRAM.....	10
MASTER OF CONSTRUCTION AND INFRASTRUCTURE MANAGEMENT.....	12
MASTER OF INFORMATION TECHNOLOGY.....	14
MASTER OF INFORMATION TECHNOLOGY (PROFESSIONAL COMPUTING)..	16
5 FACTS ABOUT THE CONSTRUCTION INDUSTRY.....	18
5 FACTS ABOUT THE ICT INDUSTRY.....	18
CONTACT DETAILS.....	20

ABOUT SWINBURNE

Our university

Swinburne is a large and culturally diverse organisation. A desire to innovate and bring about positive change motivates our students and staff. The result is an institution that grows and evolves each year.

Why Swinburne?

As a world-ranked university, Swinburne is focused on creating career-ready professionals who regularly find employment with the world's best companies, including IBM, Mercedes-Benz, Siemens, PricewaterhouseCoopers and more.

NO. **45**

**WORLD'S TOP UNIVERSITIES
UNDER 50 YEARS' OLD**

Swinburne is proud to be recognised as one of the world's top universities by being ranked number 45 in the 2019 QS Top 50 Under 50.

Our history

Over 100 years ago Swinburne began with a simple premise: to provide technical education to a sector of society that was otherwise denied further education. For over a century, Swinburne has committed to innovative education, keeping strong industry engagement and improving social inclusion.

WHY SYDNEY?

Sydney is home to the Sydney Opera House, Sydney Harbour Bridge and numerous stunning beaches. It is the perfect destination to live, study and work.

Swinburne Sydney is located in Parramatta – one of Australia's premier CBD suburbs, only 30 minutes by train from Sydney's city centre. Parramatta is a major business and commercial centre, bustling with retail shops and global eateries.

There are more than 18 parks surrounding the area. And, if that's not enough, there's a vibrant arts and culture scene, with the annual Sydney Festival, Winterlight, and Parramasala.



**RECOGNISED
AND
REWARDED**

**Swinburne is committed to
high-quality education.**

TOP 3%

GLOBALLY

QS World University Ranking 2019.

TOP 75

IN ASIA PACIFIC

Times Higher Education World University
Rankings 2019.

TOP 50

LEADERS IN DESIGN

For art and design.

QS World University
Rankings by Subject 2019.

TOP 200

SUCCEEDING IN SCIENCE

Institutions for science
worldwide.

Academic Ranking of World
Universities 2016.

TOP 100

ENGINEERING EXCELLENCE

For civil engineering.

Academic Ranking of World
Universities 2019.

WHY SWINBURNE SYDNEY?

Success-driven courses

Here at Swinburne Sydney, our postgraduate programs provide training for every stage of your career.

We provide practical, theoretical and conceptual skills to prepare you for success. Whether you're just starting out or moving into a leadership role, by the time you graduate you'll have the knowledge and skills you need.

State-of-the-art facilities

Swinburne Sydney is located in the heart of Parramatta. Our facilities support our ethos of entrepreneurship and innovation. Our newly opened building provides everything you'd expect a modern university to offer.

Strong industry connections

Our strong links with business and industry mean you'll graduate with the skills that employers are seeking. We partner with leading Australian and global organisations to offer students authentic workplace experiences.

A focus on research

Swinburne is an internationally renowned research-intensive university. We have five key research institutes across data science, health innovation, smart cities, social innovation and manufacturing futures, and we are recognised globally as leaders in science, technology, innovation, business and design.

Educational leaders

Our reputation for superior education and research means we attract highly qualified academics and educational leaders. You'll learn from those who are at the top of their fields with extensive experience in industry and in the classroom.

Collaborative learning

Our small class size, quality of teachers and innovative use of learning technology provides an exceptional learning experience. The learning environment provides personalised support in all aspects of student learning. Our small tutorials enable students to interact with peers and the tutor. The tutorial size facilitates peer and teacher discussion and it also enables students to understand assessment requirements.

Support and engagement

Swinburne Sydney provides a range of academic and non-academic support to students. We assess student needs and develop programs to gear them up for success. Our student engagement services offer students and staff a vibrant, collaborative atmosphere for holistic learning and development.



CAREER DEVELOPMENT, SCHOLARSHIPS AND FEES

Workplace skills

At Swinburne Sydney we recognise the importance of employment and workplace skills. We have developed Jobs and Careers module which is aimed to help students to build confidence in job search. The module is designed to assist students in preparing their resume, job applications, interview skills, preparing for work placements, and learning about the Australian and global workplace.

Scholarships

The George Swinburne STEM Achievement Postgraduate Scholarship is available for students who choose to pursue either the Master of Information Technology or Master of Construction and Infrastructure Management. We also provide internships, which are available for students who have chosen IT courses.

Courses fees

All fees displayed are relevant to 2020 and are subject to annual review. Fees are based on a student's study load in each semester. Please visit our website for more information, swinburne.edu.au/sydney.



POSTGRADUATE QUALIFYING PROGRAM

The Postgraduate Qualifying Program (PQP) prepares students who do not meet Swinburne's English language and/or academic entry requirements to undertake postgraduate study at Swinburne.

Successful completion of the program offers guaranteed entry to the first year of the Master of Information Technology at Swinburne Sydney.

By combining English language training and academic studies, students are equipped with the skills they need to succeed in postgraduate study.

Swinburne International Excellence Pathway Scholarship

You could receive A\$2500 if you apply for and are eligible to study the Postgraduate Qualification Program (PQP) + Postgraduate degree.

HOW MUCH IS AVAILABLE?

- Fixed scholarship amount of A\$2500 a year off your course fees for a maximum of 2 years.

TO BE ELIGIBLE, YOU MUST

- Be a citizen of any country except Australia or New Zealand. Permanent residents of Australia are not eligible.
- Not be currently accepted or enrolled at Swinburne, unless you are only enrolled in our ELICOS program.
- Not be holding another scholarship or reduced fee arrangement from Swinburne.
- Have achieved an academic result of at least 60% GPA Australian standard equivalent.

WHEN WILL I FIND OUT IF I'M SUCCESSFUL?

If your application to study at Swinburne is successful, you will receive an email from us. In the same email, you will also find out if you have been awarded a scholarship.

Postgraduate Qualifying Program

Duration: 6 months

Fees: A\$13,960 (total for 2020)*

Entry requirements

Satisfactory completion of a 3 Year post-secondary qualification (After Australian equivalent Year 12 completion).

English language requirements

Satisfactory completion of one of the following:

- IELTS (Academic Module): Overall 6.0 with no individual band below 5.5
- Swinburne English Language Centre: EAP 5 Advanced level with overall 65% and all skills 60% or above
- TOEFL iBT: minimum score 75 (no band less than 17)
- Any other equivalent assessment of English language proficiency.

Aims and objectives

The purpose of the Postgraduate Qualifying Program is to provide an entry pathway to students who have completed a non-NOOSR accredited degree. This program builds on students' prior study to prepare them for entry into a Swinburne postgraduate coursework program. This program is not available to domestic students.

NOOSR (National Office of Overseas Skills Recognition).

Course structure

To complete the Postgraduate Qualifying Program students must complete units comprising of:

- 4 core non-award units
- Academic Progress – Special Requirements

In addition to the standard academic progress rules, this course has the following additional academic progress rules which are established in accordance with Academic Courses Regulation 62 (2):

1. A student is classified as 'at risk' of unsatisfactory progress if they:

- (a) Fail any unit of study

2. A student is classified as 'unsatisfactory progress' if they:

- (a) Fail a further unit of study in their next PQP Block after being declared 'at risk' status

Students who are identified as having unsatisfactory progress will be subject to the show cause provisions in the Progress Review section of the Academic Progress Policy.

Units of study

Students must complete all 4 non award units:

- COM10010 Academic Practices and Communication Skills
- LAL10003 Applied Academic Literacies
- MFP30001 Critical Thinking for Further Study
- MFP30002 Research Techniques for Further Study



MASTER OF CONSTRUCTION AND INFRASTRUCTURE MANAGEMENT

The Master of Construction and Infrastructure Management aims to prepare graduates for future roles managing people, equipment, materials, technological processes and funds in the construction, management and maintenance of buildings and assets. This is achieved through the study of advanced management and engineering techniques in the fields of construction, building and maintenance.

Students gain significant knowledge and skills in procurement and project delivery, resource planning and management, project costing, health and safety, and risk management. They also learn about the environmental, financial, legal and contractual considerations associated with project-based industries.

Aims and objectives

At the completion of the Master of Construction and Infrastructure Management course, graduates will be able to:

- Demonstrate high-level advanced knowledge and skills in construction and infrastructure management practice related to design, construction, operation and maintenance of buildings and civil infrastructure.
- Plan and execute an independent research project in a relevant construction and infrastructure management topic by applying appropriate research principles, sound methods and research skills.
- Reflect on and manage practical issues/complex problems and describe/develop contemporary and sustainable construction and infrastructure management trends and best practices related to design, construction, operation and maintenance of buildings and civil infrastructure.
- Investigate, analyse and synthesise complex information, perceptions, problems, concepts and theories of construction and infrastructure management practice to provide rational solutions to composite problems using critical thinking and team-based/independent judgement in the project-based construction industry.
- Demonstrate clear and coherent communication skills to articulate complex knowledge and justify propositions and professional decisions to specialist

Master of Construction and Infrastructure Management

Duration: Up to 2 years

Fees: A\$37,480 (annual fee for 2020)

Entry requirements

A bachelor qualification in engineering, building, architecture, construction management, mechanical or electrical engineering, or other cognate engineering/technology disciplines. Or a qualification deemed to be equivalent (in the opinion of the selection officer) to any of the above.

English language requirements

Satisfactory completion of one of the following:

- Minimum IELTS overall band of 6.5 (Academic Module) with no individual band below 6.0
- TOEFL iBT (internet-based) minimum score of 79 with a reading band no less than 18 and writing band no less than 20
- Pearson (PTE) minimum score of 58 (no communicative skills less than 50)
- Any other equivalent assessment of English language proficiency.

Scholarships

Scholarships are available for both commencing and current students, who meet the program entry requirements including onshore and offshore students.

With the George Swinburne STEM Achievement Postgraduate Scholarship, students could be paying 30% less for their masters, if they pursue either the Master of Information Technology, Master of Information Technology (Professional Computing) or Master of Construction and Infrastructure Management.

and non-specialist audiences, including clients, customers, multi-disciplinary/multi-cultural project teams and stakeholders.

- Demonstrate a high level of autonomy, accountability, credibility, ethics, and responsibility for all personal work outputs.

Course structure

You must complete a total of 15 units (200 credit points) as follows:

- 3 Foundation units (37.5 credit points)
- 5 Technical units (62.5 credit points)
- 4 Elective units (50 credit points), selected from Elective, Technical or Foundation unit lists
- 1 Research Methods unit (12.5 credit points)
- 1 Research Paper (12.5 credit points)
- 1 Research Project (25 credit points)

Units of study**

FOUNDATION UNITS

Complete three units (37.5 credit points):

- CSM80006 Engineering Project Management
- RSK80004 Introduction to Risk and Due Diligence
- CSM80007 Construction Site Operations

TECHNICAL UNITS

Complete five units (62.5 credit points):

- CSM80002 Environmental Sustainability in Construction*
- CSM80008 Location-based Management for Construction*
- CSM80009 Procurement and Risk Management in Projects*
- MME80001 Resource Planning and Management*
- CVE80006 Infrastructure Deterioration Modelling

ELECTIVE UNITS

Complete four units (50 credit points):

- CVE80010 Principles of Sustainability
- EDU80011 Professional Masters Career Management
- MME80003 Maintenance Management of Engineering Assets
- CSM80001 Project Costing

RESEARCH UNITS

Complete three units (50 credit points):

- ICT80011 Research Methods*
- CVE80001 Research Paper*
- CVE80017 Research Project* (25 credit points)

* Outcome units – matched exemptions are generally not granted for higher education outcome units.

** Units are subject to regular review and may change.

Career opportunities

This program will provide graduates with an opportunity to gain advanced theoretical and practical knowledge of construction and infrastructure management principles, procurement and cost analysis. Graduates can pursue careers as construction managers, project engineers/managers, civil engineers and asset management engineers in a range of industries including consulting engineering, construction, research organisations, private sector, local and other government authorities.



MASTER OF INFORMATION TECHNOLOGY

The Master of Information Technology provides the knowledge and skills required to design, develop and maintain complex systems using state-of-the-art technologies and methodologies. It includes a general introduction to ICT and provides the opportunity for students skilled in system security and anti-hacking to gain advanced specialist skills in areas, such as networks, software development, and information systems analysis skills.

Students also have the opportunity to apply their skills through industry-related project work, including industry-linked projects for real clients. This project work can demonstrate students' skills and knowledge to potential future employers.

Aims and objectives

Upon completion of their course, students will be capable graduate ICT professionals, and able to:

- Demonstrate a coherent understanding of the fundamental aspects of ICT solutions including the use of a range of tools and techniques for requirements capture, solution design and construction, and project management.
- Apply knowledge of research principles and methods to plan and execute a piece of research with independence, demonstrating the ability to analyse, process and synthesise complex information.
- Communicate information proficiently to a variety of audiences, demonstrating scholarship of ICT foundations, as well as recent advances in the ICT field within the context of a specialisation (Software Development, Information Systems or Networking).
- Apply a coherent and advanced knowledge of Information Technology, critically evaluate trade-offs, and create innovative solutions to complex problems with intellectual independence.
- Demonstrate personal discipline, scholarship of the field, critical thinking, and judgment by completing a substantial capstone project using contemporary techniques.
- Reflect on, and take responsibility for their own learning, manage their own time and processes effectively by regularly reviewing personal performance as a means of managing continuing professional development.

Master of Information Technology

Duration: Up to 2 years

Fees: A\$34,760 (annual fee for 2020)

Entry requirements

Students with a recognised bachelor degree or graduate diploma in computer science, information systems or information technology are eligible to complete the course within one to two years, depending on the number of exemptions they receive.

Students with a recognised degree in a non-IT discipline will study a two-year program.

English language requirements

Satisfactory completion of one of the following:

- Minimum IELTS overall band of 6.5 (Academic Module) with no individual band below 6.0
- TOEFL iBT (internet-based) minimum score of 79 with a reading band no less than 18 and writing band no less than 20
- Pearson (PTE) minimum score of 58 (no communicative skills less than 50)
- Any other equivalent assessment of English language proficiency.

Scholarships

Scholarships are available for both commencing and current students, who meet the program entry requirements including onshore and offshore students.

With the George Swinburne STEM Achievement Postgraduate Scholarship, students could be paying 30% less for their masters, if they pursue either the Master of Information Technology, Master of Information Technology (Professional Computing) or Master of Construction and Infrastructure Management.

Course structure

You must complete 16 units of study (200 credit points) as follows:

- 6 IT core units (75 credit points)
- 8 specialisation units (100 credit points)
- 2 IT elective units (25 credit points)

Units of study

IT CORE UNITS

Complete all six units (75 credit points):

- COS60004 Creating Web Applications
- COS60006 Introduction to Programming
- COS70004 User-Centred Design
- INF60007 Introduction to Business Information Systems
- COS60009 Data Management for the Big Data Age
- INF70005 Strategic Project Management

SPECIALISATION-SPECIFIC CORE UNITS

Complete all of the following specialisation units (100 credit points):

- COS70006 Object Orientated Programming
- COS80013 Internet Security
- INF80043 IS/IT Risk Management
- TNE60002 Network Administration
- TNE80006 Secure Networks
- TNE80007 Enterprise Network Server Administration
- ICT90003 Applied Research Methods
- ICT90004 Applied Research Projects

IT ELECTIVE UNITS*

Choose two units from the following electives*

- TNE60006 Networks and Switching
- COS70007 Data Communications and Security
- ICT80004 Internship project

*Elective units are still to be finalised

Career opportunities

This program addresses the issues and technologies that are being widely adopted in industry. Graduates will be equipped for employment in IT and network positions.



MASTER OF INFORMATION TECHNOLOGY (PROFESSIONAL COMPUTING)

The Master of Information Technology (Professional Computing) is a 12-unit program of advanced studies in information technology (IT) with an emphasis on enhancing the ability of graduates to gain professional employment in the IT industry.

This course provides students with theoretical knowledge and practical skills related to the design, construction, operation, support and maintenance of information technology (IT) solutions. It introduces students to state-of-the-art techniques used in the design and construction of IT solutions, as well as the research skills needed to assess the effectiveness of a solution or technology. It also offers students specialist skills to work with system security and anti-hacking solutions at an advanced level.

Aims and objectives

Upon completion of their course, students will be capable graduate ICT professionals, and able to:

- Apply knowledge of research principles and methods to plan and execute a piece of research with independence demonstrating the ability to analyse, process and synthesise complex information.
- Communicate information proficiently to a variety of audiences, demonstrating scholarship of ICT foundations, as well as recent advances in the ICT field within the context of a specialisation (Software Development, Information Systems or Networking).
- Apply a coherent and advanced knowledge of Information Technology, critically evaluate trade-offs, and create innovative solutions to complex problems with intellectual independence.
- Demonstrate personal discipline, scholarship of the field, critical thinking, and judgment by completing a substantial capstone project using contemporary techniques.
- Reflect on, and take responsibility for their own learning, manage their own time and processes effectively by regularly reviewing personal performance as a means of managing continuing professional development.

Master of Information Technology (Professional Computing)

Duration: Up to 2 years

Fees: A\$26,070 (annual fee for 2020)

Entry requirements

Recognised bachelor degree in IT related discipline, covering at least the fundamental knowledge of computer programming, web system development, database, and business applications of computer systems.

English language requirements

Satisfactory completion of one of the following:

- Minimum IELTS overall band of 6.5 (Academic Module) with no individual band below 6.0
- TOEFL iBT (internet-based) minimum score of 79 with a reading band no less than 18 and writing band no less than 20
- Pearson (PTE) minimum score of 58 (no communicative skills less than 50)
- Any other equivalent assessment of English language proficiency.

Scholarships

Scholarships are available for both commencing and current students, who meet the program entry requirements including onshore and offshore students.

With the George Swinburne STEM Achievement Postgraduate Scholarship, students could be paying 30% less for their masters, if they pursue either the Master of Information Technology, Master of Information Technology (Professional Computing) or Master of Construction and Infrastructure Management.

Course structure

You must complete 12 units of study (150 credit points) as follows:

- 2 IT core units (25 credit points)
- 8 specialisation units (100 credit points)
- 2 IT elective units (25 credit points)

Units of study

IT CORE UNITS

Complete both units (25 credit points)

- INF70005 Strategic Project Management
- COS70004 User-Centred Design

SPECIALISATION-SPECIFIC CORE UNITS

Complete all of the following specialisation units (100 credit points):

- COS70006 Object Orientated Programming
- COS80013 Internet Security
- INF80043 IS/IT Risk Management
- TNE60002 Network Administration
- TNE80006 Secure Networks
- TNE80007 Enterprise Network Server Administration
- ICT90003 Applied Research Methods
- ITC9004 Applied Research Projects

IT ELECTIVE UNITS*

Choose two units from the following electives:

- TNE60006 Networks and Switching
- COS70007 Data Communications and Security
- ICT80004 Internship project

*Elective units are still to be finalised

IT core units overview

USER-CENTRED DESIGN

Students will apply evidence-based approaches to software requirements, analyse software context, design and build a prototype user interface according to software requirements and usability design principles, apply a variety of usability evaluation methods, develop guidelines for professional practice in the ethical treatment of human research and implement strategies for working in small groups.

STRATEGIC PROJECT MANAGEMENT

Students will learn to examine concepts, issues and challenges that are critical for implementing, maintaining and completing projects successfully. They will learn the reasons why organisations are moving towards a project approach and the common methodologies, as well as the tools and techniques of project management. Students will look and learn about organisations' individual industry, culture and structure.

Specialisation overview

SYSTEM SECURITY AND ANTI-HACKING



Learn how to safeguard against cyber-attacks and keep your data and information safe.

Career opportunities

This program addresses the issues and technologies that are being widely adopted in industry. Graduates will be equipped for employment in IT and network positions.





5 FACTS ABOUT THE CONSTRUCTION INDUSTRY

	1.17m JOBS	\$240K		↑15%
Top jobs include site manager, project manager and project director	One of Australia's top employment industries	Average \$AU salary for construction managers	Employing the most 15-24 year olds in Australia	Increase in job posts in the last 12 months

Sources:
<https://cica.org.au/wp-content/uploads/Australian-Jobs-2018.pdf>
https://www.michaelpage.com.au/sites/michaelpage.com.au/files/australia_mp_salary_benchmark_2019_all_web.pdf

5 FACTS ABOUT THE ICT INDUSTRY

		759K WORKERS	↑26%	\$105K
Top jobs include IT manager, program delivery manager and software developer	High demand for privacy and data security solutions	The projected size of the ICT workforce by 2023	Increase in job posts in the last 12 months	Average \$AU salary

Sources:
<https://www.payscale.com/>
<https://docs.jobs.gov.au/system/files/doc/other/australianjobs2018.pdf>
<https://atmc.social/posts/australias-ict-workforce-forecast-to-grow-by-2023/>
Professionals Australia, Information & Communications Technology Informer, 2017
https://www.michaelpage.com.au/sites/michaelpage.com.au/files/australia_mp_salary_benchmark_2019_all_web.pdf



CONTACT DETAILS

Swinburne Sydney

1-3 Fitzwilliam Street, Parramatta NSW 2150
We are open: Monday to Friday: 8.30am – 5.00pm
We are closed during NSW public holidays.

Future students

- Australia: 1800 595 333
- International: +61 2 9160 7788
- SydneyInfo@swin.edu.au

Current students

Sydney studentHQ is your go-to for any questions about your studies at Swinburne Sydney and any help you might need. Head to studentHQ on Level 5 for assistance from our friendly staff.

Sydney studentHQ

- +61 2 8766 3636
- SydneystudentHQ@swin.edu.au

International student support

- 24-hour urgent assistance
- +61 2 8766 3606



SWINBURNE SYDNEY STUDY LOCATION





SYDNEY, AUSTRALIA

swinburne.edu.au/sydney

1-3 Fitzwilliam St, Parramatta NSW 2150

📞 Australia: 1800 595 333

📞 International: +61 2 9160 7788

✉️ sydneyinfo@swin.edu.au



/SwinburneSydney



/school/swinburne-university-of-technology-sydney

The information contained in this course guide was correct at the time of publication, June 2020.
The university reserves the right to alter or amend the material contained in this guide. For the most up-to-date course information please visit our website.

CRICOS 00111D