

YOUR FUTURE. YOUR CHOICE.

Information technology provides students with the skills to use today's technology as well as to create the technology of tomorrow. Graduates are trained to anticipate future needs and develop applications, frameworks, products and services to meet those needs in areas such as networking, data mining, robotics and internet services.

Postgraduate study in information technology can open up new areas of employment or increase your chance of promotion by developing your practical skills and a deep understanding of the technology.

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

The School of Computer Science and Engineering (CSE) at UNSW Australia was founded in 1991, but has a history dating back to 1956. It is one of the largest computer engineering schools in the country. We offer outstanding opportunities for postgraduate study through our Master of Information Technology, plus a number of shorter programs for those who may have less time or do not quite qualify for the Masters.

Our academic staff have research focus in areas such as Artificial Intelligence, Databases, Embedded and Operating Systems, Networks, Programming Languages, Service Oriented Computing, Software Engineering, Theory, and CSE is a partner in the National ICT Australia group (NICTA).

COURSEWORK PROGRAMS

- Master of Information Technology
- Graduate Diploma of Information Technology
- Graduate Certificate in Computing.



POSTGRADUATE STUDY OPTIONS

PROGRAM OPTIONS	PROGRAM CODE	UNITS OF CREDIT	DURATION	COMMENCE
Master of Information Technology	8543	96	2 years	Feb, Jul
Graduate Diploma of Information Technology	5543	72	1.5 years	Feb, Jul
Graduate Certificate of Computing	7543	24	6 months	Feb, Jul

MASTER OF INFORMATION TECHNOLOGY

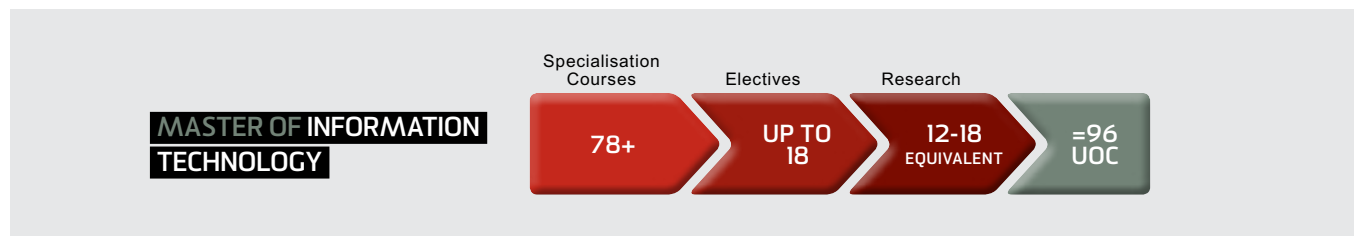
The **Master of Information Technology program** provides engineering and science students with a broad-based IT education and specialised knowledge, enabling them to work in a range of positions in the IT industry. It is perfect for students with no or minimal prior computing background who wish to obtain an IT qualification or students with a computing-related bachelor degree who want to obtain a broader understanding of computing or specialise in an area.

MAJORS

This program is ideal for engineers who wish to change direction in their careers. It provides a solid postgraduate coursework program for an engineering graduate to extend their knowledge into the field of biomedical engineering.

- Artificial Intelligence
- Bioinformatics
- Database Systems
- e-Commerce Systems
- Geospatial
- Information Technology
- Internetworking.

TYPICAL PROGRAM STRUCTURE



SPECIALISATION COURSES

FOUNDATIONAL AND DISCIPLINARY

- GSOE9820 Engineering Project Management
- COMP9020 Foundations of Computer Science
- COMP9021 Principles of Programming
- COMP9024 Data Structures and Algorithms
- COMP9032 Microprocessors and Interfacing
- COMP9311 Database Systems
- COMP9414 Artificial Intelligence
- COMP9331 Computer Networks and Applications.

ADVANCED DISCIPLINARY KNOWLEDGE COURSES

Students can select from the following list of courses, some which have one or more prerequisites. More information can be found in the online handbook. Those courses marked with * provide the student with exposure to research.

Courses with no prerequisite:

- BINF9010 Bioinformatics Methods and Applications
- COMP4161 Advanced Topics in Software Verification*
- COMP9441 Security Engineering*
- COMP9511 Human Computer Interaction
- GSOE9210 Engineering Decision Structures.

Courses with one prerequisite:

- COMP4418 Knowledge Representation and Reasoning*
- COMP6721 (In-)Formal Methods: The Lost Art
- COMP9041 Software Construction: Techniques and Tools
- COMP9222 Digital Circuits and Systems
- COMP9321 Web Applications Engineering
- COMP9334 System Capacity Planning*
- COMP9415 Computer Graphics.

*Courses that provide the student with exposure to research

Courses with chains of two prerequisites:

- BINF9020 Computational Bioinformatics
- COMP4001 Object-Oriented Software Development
- COMP4141 Theory of Computation
- COMP4411 Experimental Robotics*
- COMP4431 Game Design Workshop
- COMP4511 User Interface Design and Construction
- COMP6714 Information Retrieval and Web Search*
- COMP6731 Geometric and Graph Theoretic Data Processing
- COMP9101 Design and Analysis of Algorithms
- COMP9102 Programming Languages and Compilers
- COMP9018 Advanced Graphics
- COMP9151 Foundations of Concurrency
- COMP9161 Concepts of Programming Languages
- COMP9171 Object-Oriented Programming
- COMP9181 Language-based Software Safety*
- COMP9152 Comparative Concurrency Semantics
- COMP9153 Algorithmic Verification*
- COMP9201 Operating Systems
- COMP9283 Extended Operating Systems
- COMP9211 Computer Architecture
- COMP9315 Database Systems Implementation*
- COMP9318 Data Warehousing and Data Mining*
- COMP9319 Web Data Compression and Search*
- COMP9321 Web Applications Engineering
- COMP9332 Network Routing and Switching
- COMP9333 Advanced Computer Networks*
- COMP9335 Wireless Mesh and Sensor Networks*
- COMP9336 Mobile Data Networking*
- COMP9417 Machine Learning and Data Mining*
- COMP9431 Robotic Software Architecture*
- COMP9444 Neural Networks*
- COMP9447 Security Engineering Workshop
- COMP9517 Computer Vision*.

Courses with chains of three prerequisites:

- COMP4121 Advanced and Parallel Algorithms*
- COMP9242 Advanced Operating Systems*
- COMP9243 Distributed Systems*
- COMP9322 Service-Oriented Architectures
- COMP9323 e-Enterprise Project*.

*Courses that provide the student with exposure to research

ELECTIVES

The Master of Information Technology is flexible and students are permitted to take up to three electives from outside the school. All non-CSE electives must be approved.

RESEARCH

This degree provides significant exposure to research and many of our courses contain research components. Students can either complete six of the starred Advanced Disciplinary Knowledge Courses (36 UOC). Alternatively, students can replace 12-18 UOC of these courses with a project of equal value in their final semester (subject to approval).

- COMP9596 Research Project (12 UOC)
- COMP9945 Research Project (18 UOC).

ENTRY REQUIREMENTS

A recognised four year Bachelor degree in engineering, science or a discipline that includes mathematics up to at least year two level, with at least an average grade of 65% over the final two years; a recognised three year Bachelor degree in computer science or engineering, with at least an average grade of 65% over the final two years; or completion of the Graduate Diploma of Information Technology.

EXEMPTIONS OR ADVANCED STANDING

Students may be granted credit for some courses. Those with a four year honours degree (for example in Computer Engineering) can apply for credit for up to 48 UOC for the Masters (effectively reducing it to one year full time) or 24 UOC for the Graduate Diploma. Full details can be found on the program handbook page.

STUDENT TESTIMONIAL

"UNSW has a long history in engineering and a reputation that ranks it among the top universities around the world. The courses are wide-ranging and flexible, and students get hands on experience in projects - for instance I'm currently involving in the RoboCup Competition project where I can study state-of-the-art artificial intelligence and robotic technologies and travel overseas for competition. My advice: study what you're really interested in and enjoy your journey."

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MASTER OF INFORMATION TECHNOLOGY

GRADUATE DIPLOMA OF INFORMATION TECHNOLOGY

The **Graduate Diploma in Information Technology** is intended for students with no or minimal prior computing background. Students with some computing background who want to obtain a broad understanding of computing might also find this program attractive. The Graduate Diploma will be most attractive to those who are not eligible for direct admission to the MIT program, as well as those seeking a shorter qualification.

TYPICAL PROGRAM STRUCTURE



The program consists of 12 courses (72 UOC) selected from across the Master of Information Technology program course list – with a recommended focus on the Advanced Disciplinary Knowledge Courses and Research option. Students may also choose up to two majors. Two electives are permitted and can be chosen from outside the school.

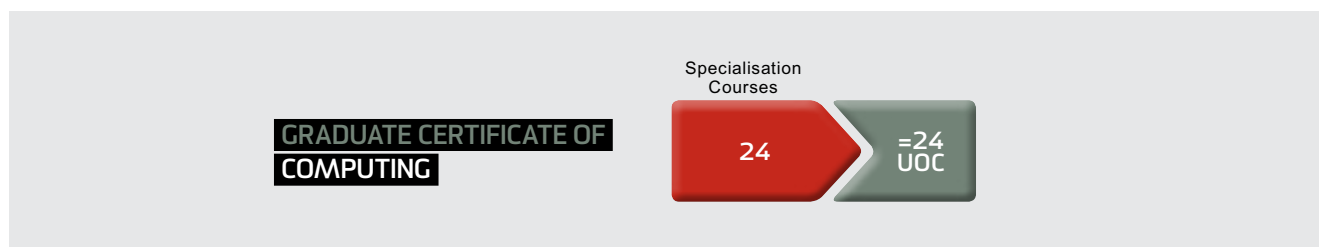
ENTRY REQUIREMENTS

A recognised three year Bachelor degree in engineering or science or a discipline that included mathematics up to at least year two level, with a high credit average over the final two years; or completion of the Graduate Certificate in Computing.

GRADUATE CERTIFICATE IN COMPUTING

The **Graduate Certificate in Computing** is an option if you are not eligible for entry to the Graduate Diploma of Information Technology, or wish to take a shorter postgraduate qualification. The Graduate Certificate in Computing develops students' knowledge and skills in IT, and can lead to the Masters program.

TYPICAL PROGRAM STRUCTURE



The program consists of four courses (24 UOC) selected from the list of COMP courses offered in the Master of Information Technology program course list. Students can choose any course for which they are eligible to enrol.

ENTRY REQUIREMENTS

A recognised three year Bachelor degree in engineering or science, or a minimum of five years of work experience in an appropriate area of engineering or science. Other applicants will be considered on a case-by-case basis.

ARTICULATION

Programs are structured so that students can apply to move up from the Graduate Certificate into the Graduate Diploma, and from the Graduate Diploma into the Masters program (provided they have not failed any courses). Full credit will be granted.

Students should pay careful attention when selecting their courses to ensure that they align with the requirements for the major of their preference should they wish to articulate. This will ensure they can complete their studies in the minimum time required, especially for those who choose a double major option.

VENTURE SPACE

The School of Computer Science and Engineering (CSE) has established a Venture Space to encourage students and recent graduates to take their technical skills and apply those skills in today's economy and society. This subsidised-cost space is available to approved students and alumni who wish to develop ideas into business models, products or services. CSE is also committed to supporting the development of ideas generated in the school's research laboratories into commercially viable products, services or ventures and supporting the aspirations of those individuals that wish to explore the commercial viability of ideas.



WHY UNSW ENGINEERING?

UNSW Engineering is the largest Engineering Faculty in Australia. We continue to foster and develop elite-level engineers across a broad range of disciplines exposing them to world-class innovation, cutting-edge research and dedicated teaching staff. As such, we are recognised as Australia's top Engineering university.*

WHY NOT JOIN US?

- **Cutting-edge programs** – be inspired by our research-led, industry-relevant curriculum.
- **Real-world focus** – continually updated programs ensure graduates are armed with the very latest knowledge and techniques to be able to stand at the top of their field.
- **Flexibility** – programs can be tailored to suit your interests, entry points twice a year, out-of-hours classes and distance learning options.

TAKING THE NEXT STEP

HOW TO APPLY

To gain entry to UNSW you'll need to successfully meet both the academic entry requirements and the English language requirements. For assistance with the application process, contact a UNSW official representative at international.unsw.edu.au/contact-us

Apply online at apply.unsw.edu.au

The UNSW Apply Online service has quick links to key information for applicants, including the application tracking service which allows you to check the progress of your application.

Closing Dates

Semester One (February): Applications must be lodged by 30 November.

Semester Two (July): Applications must be lodged by 30 May.

Not all programs have a Semester Two start date.

Late applications

Late applications will be accepted after the closing dates subject to the availability of places. Please note that whilst UNSW endeavour to process applications as quickly as possible, due to time constraints it cannot be guaranteed that a late application will be processed in time for semester commencement.

International Students

Applications are made directly to UNSW Australia, via our Apply Online portal at apply.unsw.edu.au For more information on what you need and how to apply go to international.unsw.edu.au

Most international students will require a student visa to study in Australia (application and processing of this visa may take some time). More information can be found at international.unsw.edu.au/living-sydney/visas/

SCHOLARSHIPS

There are a number of scholarships available for eligible students. To find out more about available postgraduate scholarships, eligibility and application process go to scholarships.unsw.edu.au

FEES

A postgraduate coursework fee calculator for both domestic and international students can be found at apply.unsw.edu.au

ACCOMMODATION

UNSW offers a range of accommodation options, visit housing.unsw.edu.au for full details.

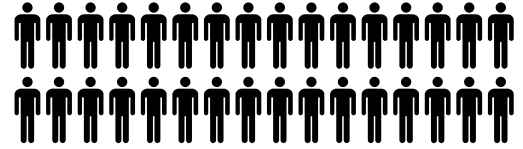
STUDENT LIFE

At UNSW there is an abundance of support available to students. To find out more about studying at UNSW, visit unsw.edu.au and search for Student Life.

* Shanghai Jiao Tong University's Academic Ranking of World Universities in Engineering/Technology and Computer Sciences 2014.



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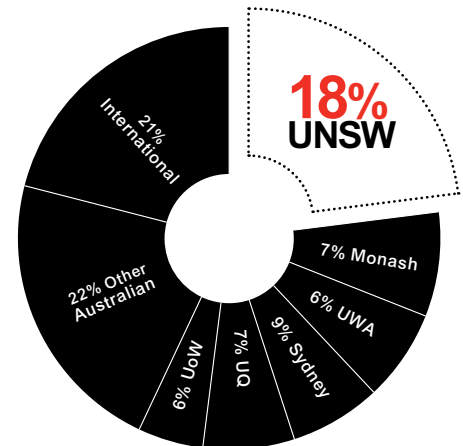
More technology entrepreneurs

than any other university in Australia.
(Crunchbase Report 2013)



QS World University Rankings by Subjects 2014

18th in Civil, 29th in Computing, 33rd in Electrical, 37th in Mechanical and 46th in Chemical.



18% of the **top 100** most influential engineers in Australia are UNSW Graduates*

*Engineers Australia Top 100 list in 2014

CONTACT US

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