2012 POSTGRADUATE COMPUTER SCIENCE AND IT

» Computer science
» Computing
» Information technology
» Internet and web computing
» Software engineering

ESSENTIAL SKILLS EVERYWHERE THEY ARE NEEDED
RMIT’s computer science and IT degree options

RMIT’s School of Computer Science and Information Technology offers a choice of specialisations in each of the master degrees. These areas of specialisation are well recognised by industry and include software engineering, computer security, networking and distributed systems, advanced databases, intelligent systems, web systems, bioinformatics, and search engines.

Your first qualification doesn’t have to be in one of these areas. All the CSIT postgraduate degrees are relevant to the professional roles of a software developer, team leader or software project manager. The focus is on software, as opposed to hardware (engineering), and the degrees do not focus on business (management, logistics or planning) or information security (mathematics).

If you want to know all about software, then the programs described in this brochure will suit you.

RMIT offers you a flexible program design, combined with practical hands-on study. There are three related degrees, each of one-and-a-half years’ duration full-time (or three years part-time):

» Master of Computing (MC062)
» Master of Information Technology (MC061)
» Master of Internet and Web Computing (MC063)

The Master of Computer Science (MC060) is an extension of any of the above degrees (two years total full-time duration). Students are able to apply for transfer to the two-year Master of Computer Science at any stage during their studies.

‘Study at RMIT is practical and hands-on from day one, which not only gives you the technical skills you need, but it’s also a great opportunity for networking and making the professional contacts essential to your career.’

Nick Burton (cover image)
Master of Computer Science
RMIT’s School of Computer Science and Information Technology

RMIT University is a leading provider of computer science and information technology programs in Australia. All programs are run from the City campus located in the central business district of multi-cultural Melbourne.

RMIT’s School of Computer Science and Information Technology is renowned for teaching and research in the practical software-side of IT. The School has been ranked very highly in surveys of teaching excellence and is ranked in the top eight Australian universities for Computer Science and Information Systems in the latest QS World University Rankings, which equates to a rating in the top 150 universities worldwide.

Student prize sponsors include Agilent Technologies, ANZ, Dimension Data, the Marlo Group, Hewlett Packard, IBM, the Australian Computer Society, Infosys, Microsoft, and Oracle. Some of these organisations are also represented on the industry advisory committee that works with RMIT to ensure that programs are relevant to industry.

Approximately 90% of students completing graduate programs are employed in IT areas each year. The School of Computer Science and Information Technology hosts approximately 60 PhD students, and two RMIT students have recently been awarded prizes for the best PhD thesis across Australia.
Master of Computer Science

RMIT program code
MC060

CRICOS code
065129A

Location
City campus

Mode and duration
2 years full-time or
4 years part-time

Midyear places may be available.
International students can only study full-time.

Contact
School of Computer Science and
Information Technology
Tel. +61 3 9925 2348
Email: csit@rmit.edu.au
www.rmit.edu.au/compsci

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Contact: International Services
GPO Box 2476
Melbourne VIC Australia 3001
Tel. +61 3 8676 7047
Domestic free call number: 1800 998 414
Email: isu@rmit.edu.au
www.rmit.edu.au/programs/international
www.rmit.edu.au/programs/mc060

The Master of Computer Science is a software-focused two-year degree, designed for IT graduates and software professionals, as well as non-computing graduates.

The structure allows you to undertake the Master of Information Technology, Master of Computing, or Master of Technology (Internet and Web Computing) with the added benefit of a further semester of study. You are able to pursue a unique industrial software engineering project working through RMIT’s Your Software (www.yoursoftware.com.au).

Your Software provides you with the opportunity to work in teams on an industry project with an external company. Management and liaison between the company and students is carried out by a professional software project manager with over 20-years industry experience. This work-based experience can significantly improve the job prospects of graduates. Companies that sponsor projects often subsequently employ graduates.

Students who don’t wish to pursue an industrial project may study a further four approved courses, or if interested in research, may apply to undertake research methods and a minor thesis.

Pathway

Students who commence a Graduate Diploma in Computing, Graduate Diploma in Information Technology, Graduate Diploma in Software Engineering, Master of Information Technology, Master of Computing, or Master of Technology (Internet and Web Computing) and follow an approved study plan may transfer their credits from those programs by enrolling into the Master of Computer Science at least one semester before they are due to complete their current program.

Graduates who have completed the minor thesis option as part of the Master of Computer Science and achieve a cumulative grade point average of 3.5 or more, together with a good minor thesis examiner’s report, may apply for direct entry to a PhD, with a possible scholarship.

Career outlook

Software IT specialists with postgraduate qualifications have excellent career prospects locally and internationally, especially when combined with industry experience. Graduates commonly work as an analyst programmer, architect, business analyst, computer operator, consultant/functional consultant, database developer and administrator, software network engineer, software engineer, help desk/support, internet/multimedia developer management, network and systems, product management, project management, QA/testers, sales, security, team leaders, software project managers, chief technical officers, and technical writers.

Professional recognition

Graduates are granted professional-level accreditation from the Australian Computer Society.

Entrance requirements

Applicants are expected to have good grades (credit average) from a prior undergraduate degree or graduate diploma. Professional experience is not mandatory. The degree or diploma need not be in computing. Applicants without formal qualifications but who have significant industry experience may also apply.

Application procedure

RMIT direct application

Fees

Full fee-paying Australian residents
2012: A$19,200 per year full-time

International full fee-paying students
2012: A$25,920 per year full-time

Fees are payable at the commencement of each semester and are calculated annually.

Please refer to money matters on page 13 for further information.

Additional costs

There may be a $110 fee if a student seeks an exemption at enrolment and is required to take a challenge test. Please contact the School for details (see left).
What you will study
The master program consists of 192 credit points. For the first one-and-a-half years full-time, the program structure follows any one of the following:

» Master of Computing
» Master of Information Technology
» Master of Technology (Internet and Web Computing)

Please refer to their entry in this booklet.

Further information on the program structure is available at www.rmit.edu.au/compsci/mc060

The following are examples of courses offered:

Elective courses include

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorithms and analysis</td>
<td>12</td>
</tr>
<tr>
<td>Artificial intelligence</td>
<td>12</td>
</tr>
<tr>
<td>Broadcast networks and applications</td>
<td>12</td>
</tr>
<tr>
<td>Data communications and net-centric computing</td>
<td>12</td>
</tr>
<tr>
<td>Database administration</td>
<td>12</td>
</tr>
<tr>
<td>Digital media computing</td>
<td>12</td>
</tr>
<tr>
<td>Document markup languages</td>
<td>12</td>
</tr>
<tr>
<td>Electronic commerce and enterprise systems</td>
<td>12</td>
</tr>
<tr>
<td>Engineering software project</td>
<td>12</td>
</tr>
<tr>
<td>Implementation of database applications</td>
<td>12</td>
</tr>
<tr>
<td>Interactive 3D graphics and animation</td>
<td>12</td>
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<tr>
<td>iPhone software engineering</td>
<td>12</td>
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<tr>
<td>Mobile application development</td>
<td>12</td>
</tr>
<tr>
<td>Operating systems principles</td>
<td>12</td>
</tr>
<tr>
<td>Programming techniques</td>
<td>12</td>
</tr>
<tr>
<td>Programming using C++</td>
<td>12</td>
</tr>
<tr>
<td>Real-time rendering and 3D games</td>
<td>12</td>
</tr>
<tr>
<td>Scripting language programming</td>
<td>12</td>
</tr>
<tr>
<td>Software architecture: design and implementation</td>
<td>12</td>
</tr>
<tr>
<td>Software engineering: process and tools</td>
<td>12</td>
</tr>
<tr>
<td>Software testing</td>
<td>12</td>
</tr>
<tr>
<td>Unix essentials</td>
<td>12</td>
</tr>
<tr>
<td>Unix systems admin (Linux)</td>
<td>12</td>
</tr>
<tr>
<td>User interface programming</td>
<td>12</td>
</tr>
<tr>
<td>Web database applications</td>
<td>12</td>
</tr>
<tr>
<td>Web development technologies</td>
<td>12</td>
</tr>
<tr>
<td>Web programming</td>
<td>12</td>
</tr>
<tr>
<td>Web servers and web technology</td>
<td>12</td>
</tr>
<tr>
<td>Windows systems administration</td>
<td>12</td>
</tr>
</tbody>
</table>

Specialisations

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced databases</td>
<td>12</td>
</tr>
<tr>
<td>Bioinformatics</td>
<td>12</td>
</tr>
<tr>
<td>Computer security</td>
<td>12</td>
</tr>
<tr>
<td>Intelligent systems</td>
<td>12</td>
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<tr>
<td>Networked and distributed systems</td>
<td>12</td>
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<tr>
<td>Search engines</td>
<td>12</td>
</tr>
<tr>
<td>Software engineering</td>
<td>12</td>
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<tr>
<td>Web-based computing</td>
<td>12</td>
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</tbody>
</table>

Specialisation courses include

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced client/server architectures</td>
<td>12</td>
</tr>
<tr>
<td>Advanced distributed systems</td>
<td>12</td>
</tr>
<tr>
<td>Agent-oriented programming and design</td>
<td>12</td>
</tr>
<tr>
<td>Bioinformatics</td>
<td>12</td>
</tr>
<tr>
<td>Computer and internet forensics</td>
<td>12</td>
</tr>
<tr>
<td>Computer security</td>
<td>12</td>
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<tr>
<td>Cryptography and security</td>
<td>12</td>
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<tr>
<td>Data mining</td>
<td>12</td>
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<tr>
<td>Enterprise architecture</td>
<td>12</td>
</tr>
<tr>
<td>Evolutionary computing</td>
<td>12</td>
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<tr>
<td>Foundations of distributed computing</td>
<td>12</td>
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<tr>
<td>Information retrieval</td>
<td>12</td>
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<tr>
<td>Intelligent agents and agent-oriented systems</td>
<td>12</td>
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<tr>
<td>Intelligent web programming</td>
<td>12</td>
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<tr>
<td>Internet and intranet document engineering</td>
<td>12</td>
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<tr>
<td>Knowledge and data warehousing</td>
<td>12</td>
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<tr>
<td>Mobile and wireless computing</td>
<td>12</td>
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<tr>
<td>Network programming</td>
<td>12</td>
</tr>
<tr>
<td>Network security</td>
<td>12</td>
</tr>
<tr>
<td>Networked and distributed systems</td>
<td>12</td>
</tr>
<tr>
<td>Object-oriented software design</td>
<td>12</td>
</tr>
<tr>
<td>Search engines</td>
<td>12</td>
</tr>
<tr>
<td>Secure electronic commerce</td>
<td>12</td>
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<tr>
<td>Secure programming environments</td>
<td>12</td>
</tr>
<tr>
<td>Software engineering of large scale systems</td>
<td>12</td>
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<tr>
<td>Software requirements engineering</td>
<td>12</td>
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<tr>
<td>Systems architecture</td>
<td>12</td>
</tr>
<tr>
<td>Usability engineering</td>
<td>12</td>
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<tr>
<td>Web services</td>
<td>12</td>
</tr>
</tbody>
</table>

Final semester

Complete 48 credit points

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research methods and minor thesis</td>
<td>48</td>
</tr>
<tr>
<td>Software engineering project</td>
<td>48</td>
</tr>
<tr>
<td>Four specialisation or elective courses</td>
<td>48</td>
</tr>
</tbody>
</table>

NICK BURTON

Master of Computer Science

Jobs don’t come much hotter than this for RMIT University master student Nick Burton, who has just landed a developer role with happening US social media location guide Foursquare.

‘It’s an Android Developer role and I’m still pinching myself that I got it,’ he said. ‘The ability to reach millions of people in the work you do is an inspiring thing!’

Nick has already developed some Foursquare apps for the Android operating system for mobile devices, which has led to him becoming an active advocate for Android in Australia.

‘I was given the opportunity to give a presentation on Android as part of the School’s research seminar series,’ he said.

‘This led to me starting an Android user group online, which put me in touch with others who develop mobile software for Android and iPhone and who I ended up working with.’

While the job may be seen as just reward for Nick’s work championing the Android community in Australia, as well as creating widgets for the Foursquare Android project, he also feels that his studies at RMIT were crucial.

‘None of this would have been possible without having done this degree,’ he said.

‘The Master of Computer Science has given me the ability to develop software applications with commercial potential, without needing to rely on someone else’s expertise.

‘The study environment at RMIT is practically driven and hands-on from day one, which not only gives you the technical skills you need, but is also a great opportunity for networking and making professional contacts essential to your career.’

Nick is now in New York after graduating in June and he expects to spend at least three or four years with Foursquare.
Master of Computing

RMIT program code
MC062
CRICOS code
065136B
Location
City campus
Mode and duration
1.5 years full-time or 3 years part-time
Classes are generally held in the evenings from 5.30 pm. Part-time students are normally expected to attend two evenings each week. Full-time students are expected to attend four days per week.
Midyear places may be available.
International students can only study full-time.
Exit points
Graduate Diploma in Computing
RMIT program code: GD055
CRICOS code: 065134D
1 year full-time or 2 years part-time
Graduate Certificate in Computing
RMIT program code: GC077
CRICOS code: 065133E
0.5 years full-time or 1 year part-time

Contact
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International/non-Australian residents
Contact: International Services
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Melbourne VIC Australia 3001
Tel. +61 3 8676 7047
Domestic free call number: 1800 998 414
Email: isu@rmit.edu.au
www.rmit.edu.au/programs/international
www.rmit.edu.au/programs/mc062

The Master of Computing is flexible enough to meet the needs of prospective computing and non-computing graduates.
Non-computing students recognise the importance of adding to their multi-skill base. Since each student is likely to have a different starting point, the first component of the degree aims to deliver a solid foundation for advanced computing study into a cutting edge specialisation in a chosen area. Areas of specialisation include:
» advanced databases
» computer security
» intelligent systems
» networked and distributed systems
» software engineering
» web-based computing.
Specialisations are designed to allow students to achieve mastery over an area and gain critical technical knowledge that is required by software team leaders and software project managers. The School issues a letter for each graduate, which identifies the specialisation undertaken.
Pathway
Students with IT qualifications or significant relevant work experience can apply for limited study exemptions and may be required to sit for a challenge test.
Career outlook
Graduates can work in diverse roles including analyst programmer, information architect, business analyst, consultant/functional consultant, database developer and administrator, software engineer, software network engineer, help desk/support, internet/ multimedia development and management, network and systems, product management, project management, QA/testers, sales, security, team leaders, and technical writers. A shortage of software specialists means graduates have excellent career prospects in Australia and internationally.
Professional recognition
Graduates are granted professional-level accreditation from the Australian Computer Society.

Entrance requirements
Applicants are expected to have good grades (credit average) in a bachelor degree or graduate diploma. Students with skills in problem solving and/or mathematics and clear thinking are encouraged to apply. Applicants without formal qualifications but who have extensive industry experience may also apply. Professional experience is not essential.
Application procedure
RMIT direct application
Fees
Full fee-paying Australian residents
2012: A$19 200 per year full-time
International full fee-paying students
2012: A$25 920 per year full-time
Fees are payable at the commencement of each semester and are calculated annually. Please refer to money matters on page 13 for further information.
Additional costs
There may be a $110 fee if a student seeks an exemption at enrolment and is required to take a challenge test. Please contact the School for details (see left).
What you will study
The master degree (12 courses, 144 credit points) incorporates the graduate diploma (eight courses, 96 credit points) and the graduate certificate (four courses, 48 credit points).
Master students complete five core courses, two approved elective courses and one specialisation consisting of a group of five courses.
Students who are able to show they have studied core courses may replace these with electives instead.
Further information on the program structure is available at www.rmit.edu.au/compsci/mc062
The following are examples of courses offered:

Core courses include
Credit points
» Data communication and net-centric computing 12
» Database concepts 12
» Java for programmers 12
» Programming fundamentals 12
» Software engineering fundamentals 12
» Web servers and web technology 12
Specialisation areas include

» Advanced databases
» Computer security
» Intelligent systems
» Networked and distributed systems
» Software engineering
» Web-based computing

Elective courses include

» Advanced client/server architectures 12
» Algorithms and analysis 12
» Artificial intelligence 12
» Broadcast networks and applications 12
» Computing theory 12
» Data communications and net-centric computing 12
» Data mining 12
» Database administration 12
» Digital media computing 12
» Document markup languages 12
» Electronic commerce and enterprise systems 12
» Game mechanics and game play programming 12
» Implementation of database applications 12
» Intelligent web systems 12
» Interactive 3D graphics and animation 12
» Internet industry project 12
» iPhone software engineering 12
» Knowledge and data warehousing 12
» Mobile application development 12
» Network programming 12
» Network security 12
» Object oriented software design 12
» Operating systems principles 12
» Programming techniques 12
» Programming using C++ 12
» Real-time rendering and 3D games 12
» Scripting language programming 12
» Search technology 12
» Secure electronic commerce 12
» Secure programming environments 12
» Software architecture: design and implementation 12
» Software engineering: process and tools 12
» Systems architecture 12
» Unix essentials 12
» Unix systems admin (Linux) 12
» Web database applications 12
» Web development technologies 12
» Web programming 12
» Web servers and web technology 12
» Web services 12
» Windows systems administration 12

COMPUTING

‘I have always wanted to study my masters in computer science and RMIT has a good reputation in Melbourne.
‘The program is flexible, as it allows you to specialise in an area of interest and gain critical technical knowledge.
‘I have gained more confidence through undertaking my masters and the depth of my knowledge has also increased.
‘My program encompasses a lot of practical work that will help prepare me for the industry.
‘Once I complete my Master of Computing, I would like to work in the field and gain industry experience, possibly as a data warehouse engineer. In the long term, I may go into research.’

Anuktha Anuktha
Master of Computing
The fundamental aim of the information technology program is to ensure you are exposed to the theory and practice relevant to the future challenges facing the software industry. Every effort is made to ensure hands-on experience and industry-relevant issues are explored.

The program is designed for computing and IT graduates who wish to develop software skills and problem-solving ability. The degree encourages you to explore future technologies and challenges you to become an innovative thinker.

This software-oriented master degree provides in-depth study in at least one area of specialisation. These areas are aligned with relevant research activities and include advanced databases, bioinformatics, computer security, intelligent systems, networked and distributed systems, search engines, software engineering, and web-based computing.

You may also undertake elective courses, minor thesis or business-oriented electives. If you are unsure if your prior degree and/or experience has provided you with comprehensive and practically-focused skills, you are advised to arrange for a personal information session or consider the Master of Computing, Master of Technology (Internet and Web Computing) or Master of Computer Science degrees.

Advanced standing
Advanced standing is available for those who have completed equivalent recognised courses in postgraduate or honours programs. Students who complete a good minor thesis are eligible to apply for direct entry into a PhD program in computer science.

Career outlook
Graduates are highly sought after as specialists in critical areas of software development, through to the technical spectrum of IT and on to the management of software projects and up to the position of chief technical officer of an organisation.

Professional recognition
Graduates are granted professional-level accreditation from the Australian Computer Society.

Entrance requirements
Applicants are expected to have completed:
  » an approved bachelor degree in computer science
  » an approved software-oriented computer engineering degree or
  » an approved software-oriented graduate diploma program with at least a credit average.

Many courses assume a deep knowledge of Java, some also require C.

Application procedure
RMIT direct application

Fees
Full fee-paying Australian residents
2012: A$19,200 per year full-time
International full fee-paying students
2012: A$25,920 per year full-time

Fees are payable at the commencement of each semester and are calculated annually. Please refer to money matters on page 13 for further information.

Additional costs
There may be a $110 fee if a student seeks an exemption at enrolment and is required to take a challenge test. Please contact the School for details (see left).

What you will study
In general, master students complete a total of 12 courses (144 credit points).

Further information on the program structure is available at www.rmit.edu.au/compsci/mc061

The following are examples of courses offered:

Courses offered include Credit points
  » Accounting for management decisions 12
  » Advanced client/server architectures 12
  » Advanced distributed systems 12
  » Advanced topics in bioinformatics 12
  » Agent-oriented programming and design 12
  » Analysis of medical data 12
  » Bioinformatics 12
  » Computer and internet forensics 12
  » Corporate finance 12
  » Cryptography and security 12
  » Data mining 12
  » E-business supply chains 12
  » Economic analysis for business 12
  » Enterprise architecture 12
  » Evolutionary computing 12
  » Financial statement analysis 12
  » Foundations of distributed computing 12
  » Frontiers of information retrieval 12
  » Information retrieval 12
  » Intelligent agents and agent oriented systems 12
  » Intelligent web systems 12
  » Internet and intranet document engineering 12
  » Introduction to computational biology 12
  » Knowledge and data warehousing 12
  » Marketing management and implementation 12
  » Mathematical logic and logic programming 12
  » Mobile and wireless computing 12
  » Network programming 12
  » Network security 12
  » Object-oriented software design 12
  » Research methods 12
  » Research topics in artificial intelligence 12
  » Risk analysis and assessment 12
  » Search technology 12
  » Secure electronic commerce 12
  » Secure programming environments 12
  » Software engineering of large scale systems 12
  » Software requirements engineering 12
  » Software testing 12
  » Supply chain principles 12
  » Sustainable energy efficient data storage 12
  » Systems architecture 12
  » Usability engineering 12
  » Web services 12
  » Minor thesis 36

Master of Information Technology

RMIT program code
MC061
CRICOS code
06513SC
Location
City campus
Mode and duration
1.5 years full-time or
3 years part-time
Evening classes are available for part-time students
Midyear places may be available.
International students can only study full-time.
Exit points
Graduate Diploma in Information Technology
RMIT program code: GD057
CRICOS code: 036096A
1 year full-time or
2 years part-time
Graduate Certificate in Information Technology
RMIT program code: GC038
CRICOS code: 047250E
0.5 years full-time or
1 year part-time

Contact
School of Computer Science and Information Technology
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Email: csit@rmit.edu.au
www.rmit.edu.au/compsci

International/non-Australian residents
Contact: International Services
GPO Box 2476
Melbourne VIC Australia 3001
Tel. +61 3 8676 7047
Domestic free call number: 1800 998 414
Email: isu@rmit.edu.au
www.rmit.edu.au/programs/international

www.rmit.edu.au/programs/mc061
I wanted to specialise in web computing, and RMIT offered a postgraduate program that offered the right combination of courses to meet my requirements. RMIT has a good reputation for providing one of the best technical programs in IT.

My studies have given me new knowledge in networking and internet programming. I have also learnt more about web servers technology and how to make production environments more secure and robust.

I am employed as a software engineer, working on a government project in traffic camera management.

I am already finding the program very beneficial, and can apply what I have learnt to work situations. The program provides hands-on experience giving me confidence in the working environment.

‘Once I complete my Master of Technology (Internet and Web Computing), I will have the knowledge and expertise to take my career to the next level, and possibly move into research at some stage.’

Ranil Seneviratne
Master of Technology (Internet and Web Computing)
The internet and world wide web are a major part of everyday life. Few businesses or enterprises can afford to ignore the transition to web-enabled business models. This program serves two purposes:
1. to provide hands-on, industry relevant, web-oriented software skills to non-IT professionals and
2. to update an existing IT professional's skill base.

There are three components of the master degree: the first is the study of four core courses that comprise the graduate certificate; the second component is another four courses for a graduate diploma, and comprises web-oriented elective courses; the final four courses complete the master degree and include specialist postgraduate-level web electives, introducing you to the cutting edge of research and development.

The emphasis is on developing graduates who are life-long learners in this dynamic field. This program is timetabled for part-timers.

**Advanced standing**
Students with IT qualifications or significant relevant work experience can apply for course exemptions and may be required to sit a challenge test at enrolment.

**Career outlook**
Graduates can work in diverse fields including website development and maintenance, e-commerce applications, web databases, web server technology, web systems management, web project analysis and design, e-business software design and development, web integration, mobile phone applications and the internet games industry.

**Professional recognition**
Graduates are granted professional-level accreditation from the Australian Computer Society.

**Entrance requirements**
Applicants are expected to have good grades (credit average) in a bachelor degree or graduate diploma. Professional experience is not mandatory. The degree or diploma need not be in computing. Students with skills in problem solving and clear thinking are encouraged to apply. Applicants without formal qualifications but who have significant industry experience may also apply.

**Application procedure**
RMIT direct application

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**Fees**

**Full fee-paying Australian residents**
2012: A$19,200 per year full-time

**International full fee-paying students**
2012: A$25,920 per year full-time

Fees are payable at the commencement of each semester and are calculated annually. Please refer to money matters on page 13 for further information.

**Additional costs**

There may be a $110 fee if a student seeks an exemption at enrolment and is required to take a challenge test. Please contact the School for details (see left).

**What you will study**
The master degree (12 courses, 144 credit points) incorporates the graduate diploma (eight courses, 96 credit points) and the graduate certificate (four courses, 48 credit points).

Further information on the program structure is available at www.rmit.edu.au/compsci/mc063

The following are examples of courses offered:

**Core courses include**

- Database concepts 12 credit points
- Java for programmers 12 credit points
- Programming fundamentals 12 credit points
- Web programming 12 credit points
- Web servers and web technology 12 credit points

**Elective courses include**

- Broadcast networks and applications 12 credit points
- Data communications and net-centric computing 12 credit points
- Database administration 12 credit points
- Digital media computing 12 credit points
- Document markup languages 12 credit points
- Electronic commerce and enterprise systems 12 credit points
- Game mechanics and game play programming 12 credit points
- Implementation of database applications 12 credit points
- Information retrieval 12 credit points
- Intelligent web systems 12 credit points
- Internet industry project 12 credit points
- iPhone software engineering 12 credit points
- Mobile application development 12 credit points
- Scripting language programming 12 credit points
- Software architecture: design and implementation 12 credit points
- Software engineering fundamentals 12 credit points
- Software engineering process and tools 12 credit points
- Unix essentials 12 credit points
- User interface programming 12 credit points
- Web 3D technologies 12 credit points
- Web database applications 12 credit points
- Web development technologies 12 credit points
- Windows systems administration 12 credit points

**Specialist courses**

- Computer and internet forensics 12 credit points
- Internet and intranet document engineering 12 credit points
- Mobile and wireless computing 12 credit points
- Network security 12 credit points
- Secure electronic commerce 12 credit points
- Usability engineering 12 credit points
- Web services 12 credit points

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**RMIT program code**
MC063
**CRICOS code**
034900E

**Location**
City campus

**Mode and duration**
1.5 years full-time or
3 years part-time
Midyear places may be available.
International students can only study full-time.

**Exit points**
- Graduate Diploma in Internet and Web Computing
  RMIT program code: GD059
  CRICOS code: 034899D
  1 year full-time or
  2 years part-time
- Graduate Certificate in Internet and Web Computing
  RMIT program code: GC040
  0.5 years full-time or
  1 year part-time

**Contact**
School of Computer Science and Information Technology
Tel. +61 3 9925 2348
Email: csit@rmit.edu.au
www.rmit.edu.au/compsci

International/non-Australian residents
Contact: International Services
GPO Box 2476
Melbourne VIC Australia 3001
Tel. +61 3 8676 7047
Domestic free call number: 1800 998 414
Email: isu@rmit.edu.au
www.rmit.edu.au/programs/international
www.rmit.edu.au/programs/mc063
The software engineering programs are designed to develop future industrial software engineering leaders, including team leaders, software project managers, chief software engineers, lead software designers and chief technical officers.

Software engineering deals with the process of developing large scale applications, and includes both the technical aspects of building software systems and the management issues, including directing programming teams, scheduling, testing, maintenance and budgeting. The graduate diploma will extend your existing software engineering or computer science skills. It exposes students to specialised coursework, allowing a greater understanding of the software development life cycle, and provides the opportunity to undertake an industry project with an Australian business through RMIT’s Your Software (www.yoursoftware.com.au).

Graduates are able to apply best practice and are also equipped to act as change agents, working to improve existing practices.

Pathway
Graduates of the graduate certificate or the graduate diploma who obtain good results (credit average) may transfer to the Master of Information Technology with exemptions, having undertaken the software engineering specialisation.

Career outlook
Software engineering graduates gain employment as software developers and testers, software architects and designers, team leaders and project managers, through to executive-level positions in software development projects.

Professional recognition
Graduates are granted professional-level accreditation from the Australian Computer Society.

Entrance requirements
Applicants are expected to have a degree or diploma in computer science and relevant industrial experience.

Application procedure
RMIT direct application

Fees
Full fee-paying Australian residents 2012: A$19,200 per year
Fees are payable at the commencement of each semester and are calculated annually.
Please refer to money matters on page 13 for further information.

Additional costs
There may be a $110 fee if a student seeks an exemption at enrolment and is required to take a challenge test. Please contact the School for details (see left).

What you will study
The graduate diploma consists of 96 credit points of approved electives. The graduate certificate consists of 48 credit points of approved electives.
The following are examples of courses offered:

<table>
<thead>
<tr>
<th>Elective courses include</th>
<th>Credit points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise architecture</td>
<td>12</td>
</tr>
<tr>
<td>Object-oriented software design</td>
<td>12</td>
</tr>
<tr>
<td>Software engineering for large scale systems</td>
<td>12</td>
</tr>
<tr>
<td>Software requirements engineering</td>
<td>12</td>
</tr>
<tr>
<td>Systems architecture</td>
<td>12</td>
</tr>
<tr>
<td>Usability engineering</td>
<td>12</td>
</tr>
</tbody>
</table>

Office of Marketing and Communications, RMIT University. Printed in Australia. September 2011.
Computer science and IT research

The School of Computer Science and IT has internationally recognised strengths in both applied and theoretical research. Research activities are organised within four key discipline groups and include highly qualified and experienced academic staff, research fellows, postdoctoral fellows and many talented and motivated postgraduate research students.

Discipline groups
- Software engineering
- Distributed systems and networking
- Information storage, analysis and retrieval
- Intelligent systems

Postgraduate research degrees in Computer Science and IT
- DR089 Doctor of Philosophy (PhD) (Computer Science)—four years full-time.
- MR047 Master of Computer Science (by research)—two years full-time.

These programs involve advanced academic research into a specific area of computer science. Students who have not published academic papers or written an honours or minor thesis undertake:
- GC110 Graduate Certificate in Computer Science Research (by coursework)—six months full-time.
I chose to undertake my PhD in computer science at RMIT as it has a supervisor skilled in my area of interest, which is IT and music.

A highlight of my time at RMIT has been mixing with other researchers in my field and being equipped with many more research skills.

In the future, I hope to be able to use my research skills to help other students advance in their research. I also want to be able to use my knowledge from the research to further the field of music information retrieval.

Peter Somerville
Doctor of Philosophy (PhD) (Computer Science)
How to Apply

Coursework degrees

Direct application
Apply online at www.rmit.edu.au/programs/apply/direct
Timely applications for coursework programs are due by:
» 10 November each year (Semester 1) and
» 31 May each year (midyear Semester 2).
Midyear applications open 1 May www.rmit.edu.au/midyear
Applications will continue to be accepted until all places have been filled. You are encouraged to lodge your application early.

Supplementary information forms
Some postgraduate programs require applicants to complete a supplementary information form in addition to the direct application form.
www.rmit.edu.au/programs/apply/forms

Research degrees

Entrance requirements
There are minimum entry requirements for master by research and doctoral degrees. Due to strong competition for places, preference may be given to applicants with more than the minimum requirements.
All applicants need to find a supervisor with similar research interests as themselves and discuss a research project proposal with them. The research proposal must be included in your application.
Refer to contact details under each program or www.rmit.edu.au/graduateresearch/searchsupervisors

Master
A first degree from RMIT with at least a credit average in the final year; or a qualification deemed equivalent by RMIT to a first degree from RMIT with at least a credit average in the final year; or evidence of experience which satisfies RMIT that the applicant has developed knowledge of the field of study sufficient to undertake the proposed degree.
Note: Some degrees may require evidence of other qualifications or experience. Refer to the contact listed under individual degree entries before applying.

PhD
A degree of master by research from RMIT; or a degree of master by coursework from RMIT which includes a research component with a duration of at least one semester full-time (or part-time equivalent); or a bachelor degree from RMIT with first class honours or upper second class honours (or another award as deemed equivalent); and such qualifications or experience as RMIT considers appropriate.
Note: Some programs may require evidence of other qualifications or experience. Refer to the contact listed under individual program entries before applying.

Applying
Application for candidature involves three steps. A brief outline is below. Contact the School of Graduate Research for detailed information.
1. Find a program and confirm eligibility
The entry requirements for each program are listed in this publication. To discuss your eligibility, contact the RMIT staff member listed under individual program entries.
2. Seek academic advice
Once you have decided on the higher degree by research (HDR) you are interested in, you should discuss potential research topics, the availability of suitable supervisors, and an initial research proposal directly with your prospective supervisors and/or with the HDR coordinator in the relevant School.
www.rmit.edu.au/graduateresearch/searchsupervisors
3. Complete and submit the application form and supporting documents
If you fit one of the following categories of applicants for higher degree by research places and key scholarship(s), then you can apply through the School of Graduate Research:
» Australian Citizens
» Australian Permanent Residents and New Zealand Citizens
» Offshore International Students—you will be studying outside of Australia and do not fall into any of the above categories.
www.rmit.edu.au/graduateresearch/application
All other applicants are considered Onshore International Applicants and must apply through RMIT's International Services division.
www.rmit.edu.au/programs/international
International/non-Australian residents
For the latest application procedures, please refer to our website: www.rmit.edu.au/programs/apply/international
MONEY MATTERS

Coursework degrees
What you pay will depend on whether you are offered a Commonwealth supported place (CSP) or a full-fee place. Financial assistance is available for eligible students regardless of the type of place you enrol in.

Full-fee place
Full-fee students are required to pay the complete cost of their program. The fees vary according to each program and are adjusted on an annual basis. They are listed under each program in this booklet.

FEE-HELP
Australian citizens or holders of a permanent humanitarian visa are eligible to apply for a FEE-HELP loan for full-fee places. FEE-HELP enables eligible students to obtain a loan from the Australian Government to pay all or part of their tuition fees. The Government pays the amount of the loan directly to the student’s institution. Students repay their loan through the taxation system once their income reaches the minimum threshold for compulsory repayment.

Commonwealth supported places (CSP)
A Commonwealth supported place (CSP) is a place at uni where the fee is subsidised by the Australian Government. Your share of the fee is calculated according to the interest area you are studying. The following table shows a student’s annual share of the fee for full-time study in 2012.

<table>
<thead>
<tr>
<th>Your Interest Area</th>
<th>Your student contribution for full-time studies commenced in 2012:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics, science, statistics</td>
<td>$4520 p.a.</td>
</tr>
<tr>
<td>Humanities, behavioural science, social studies, education, clinical psychology, foreign languages, visual and performing arts, nursing</td>
<td>$5648 p.a. (Band 1)</td>
</tr>
<tr>
<td>Computing, built environment, allied health, other health, engineering, surveying, agriculture</td>
<td>$8050 p.a. (Band 2)</td>
</tr>
<tr>
<td>Accounting, administration, economics, commerce, dentistry, medicine, law, veterinary science</td>
<td>$9425 p.a. (Band 3)</td>
</tr>
</tbody>
</table>

Students who undertake more or less than a full-time study load, or who study courses from a combination of the above categories, will be charged the proportionate student contribution.

www.rmit.edu.au/programs/fees

Confirmation of fees for 2012 can be obtained from Info Corner on tel. 03 9925 2260.

Postgraduate Coursework Commonwealth Supported Equity Places
RMIT has a limited number of Commonwealth supported places (CSP) in postgraduate coursework programs for applicants who meet entrance and equity criteria. Instead of paying full-fees, the CSP equity place allows eligible students to complete their program with a choice of up-front, partial up-front or deferred payment options. These places are available in any program.

www.rmit.edu.au/programs/apply/equity

Research degrees
If you are an Australian citizen, Australian permanent resident or New Zealand citizen you may be eligible for a Higher Degree by Research (HDR) place where your tuition costs are funded by the Australian Government and you therefore have full exemption from tuition fees.

RMIT also offers research places on a fee-paying basis. For more information on fee-paying places please contact the relevant RMIT school to which you are applying. Program fees may vary according to the courses chosen and fees are invoiced on a semester basis.

www.rmit.edu.au/programs/fees

Acceptance in a HDR place is very competitive and places are granted on the condition that you meet annual progress requirements and complete within the allotted time for your program and your status as a part-time or full-time candidate.

www.rmit.edu.au/graduate research

Material fees
In addition to tuition fees, you may be required to purchase items related to your program, including field trips and excursions, specified textbooks and equipment. These fees are not compulsory and students may choose to purchase these items independently. These expenses vary from program to program. Please check individual program brochures or contact the relevant school directly.

Annual increase of full-fees
RMIT reserves the right to adjust fees on an annual basis by an amount that will not exceed 7.5% each year (subject to rounding). For higher education fees, tuition fees are rounded up to the nearest $10 per credit point increment, and so the actual fee increase may exceed 7.5%.

Financial assistance

Scholarships
Various scholarship opportunities exist for eligible master and PhD students. For scholarship details and eligibility criteria, visit www.rmit.edu.au/scholarships.

Income tax deductions
Australian students may be eligible to apply for income tax deductions relating to the education expenses that are linked to their employment. Students should check with an accredited taxation accountant/consultant as to their eligibility for possible deductions. The Australian Taxation Office (ATO) website may also be useful. For further information, visit www.ato.gov.au

International/non-Australian residents only
For the latest fee information, please refer to our website: www.international.rmit.edu.au/info/programfees.asp