CONTENTS

02  Why Information Technology at UTS?
04  UTS Model of Learning
06  UTS City Campus Master Plan

INFORMATION TECHNOLOGY PROGRAM
08  Master of Information Technology
10  Master of Information Technology (Extension)
10  Master of Information Technology (Honours)
12  Graduate Certificate in Information Technology
12  Graduate Certificate in Information Technology Studies

IT MANAGEMENT PROGRAMS
14  Master of Business in IT Management
15  Graduate Certificate in IT Management
15  Graduate Certificate in Strategic IT Leadership
16  Graduate Certificate in IT Project Management

INTERNETWORKING PROGRAM
18  Master of Science in Internetworking
20  Master of Science in Internetworking (Extension)
20  Graduate Certificate in Internetworking

RESEARCH DEGREES
22  Master of Science in Computing Sciences (Research)
22  Master of Analytics (Research)
22  Doctor of Philosophy

26  How to apply
26  Semester dates
27  Fees
28  Like more information?

FACULTY SNAPSHOT*
7784  students
1874  postgraduate coursework students
497  higher degree research students

UTS AT A GLANCE
37,673  students
25,164  undergraduate students
10,983  postgraduate coursework students
1526  higher degree research students
3110  staff

UTS STUDENT DIVERSITY
50%  female students
50%  male students
40%  are 25 or older
150+  languages other than English are spoken by the UTS student body

*As at 31 December 2013
Whether you are working in IT and want to develop specialised skills or you come from another field and want to move into IT, we offer a wide range of postgraduate IT courses to meet your career development needs.

**Practice-oriented and career-relevant**
Taught by lecturers and industry professionals who are leaders in their fields, our courses equip you to succeed in an industry which is subject to increasingly rapid technological change. We challenge you to build your IT skills in a business context, and develop an understanding of how technology fits into an organisation, as well as how the development of IT solutions contributes to the success of a business.

**Industry collaboration**
UTS responds pro-actively to the current workplace environment. Our courses are regularly reviewed for relevance and we develop the curriculum in conjunction with industry to keep pace with change and meet employers’ current and future needs. We regularly bring industry practitioners into the classroom to share their up-to-date industry knowledge and skills. And we conduct collaborative research with industry that informs teaching at a coursework level.

**Research excellence**
UTS: IT has a lively and cutting-edge research culture driving advances in technology, practice and education. Our research is needs-driven and collaborative and we work with many enterprises in business partnerships. Faculty researchers are world-class and recognised leaders in their field, responsible for delivering new, better and more cost-effective IT solutions to complex business problems.

**Outstanding facilities**
Most of your subjects will be taught in the new Engineering and IT Building. This state-of-the-art environmentally friendly building features teaching spaces and laboratories of the future, including collaborative theatres and classrooms, purpose-built laboratories and a 3D data visualisation arena. Read more about the Building on page 5.

**Cisco and accreditation**
We have shared a successful partnership with Cisco Systems for over 15 years, and are a Cisco Networking Academy. We prepare our internetworking students for CCNA (Cisco Certified Network Associate) and CCNP (Cisco Certified Network Professional) industry certification within the UTS/Cisco Networking Academy Program.

**Strike a work-life balance**
All courses are available part-time, and you can vary the number of subjects you take per semester if you have more or less time available to study. Courses are normally held in the evenings to fit in with your busy professional life.
Central location
The UTS City campus is in the heart of Sydney. Just five minutes’ walk from Central Station, it’s close to the CBD and easily accessible by bus and train. There are also a number of parking stations close to campus which offer discounted student rates.

Recognition of your previous studies
If you have completed a recognised bachelor’s or postgraduate degree in information technology or computer science, you may apply for credit recognition of up to 4 subjects in any of the master’s by coursework degrees.*

UTS: A top performing university
UTS is a young and vibrant university with an international reputation, and because of its quality teaching and research, it now ranks first in Australia and 20th in the world for universities under 50 years old.#

The 2014 QS Stars rating system for excellence in higher education also saw UTS achieve a 5-star rating, demonstrating the university’s ability to perform against international benchmarks and be recognised for excellence in the higher education sector.

Professional recognition
Graduates from our Information Technology program are eligible for professional level or associate level membership to the Australian Computer Society.

Continued professional development
UTS: IT offers a comprehensive range of short courses for the working professional or anyone wishing to upgrade their skills.

We are also able to customise and deliver programs to meet the specific training needs of individual corporate clients.

For more information visit: www.uts.edu.au/future-students/information-technology/go-further/short-courses

* Subject to Faculty approval. Previous study must have been completed no earlier than 3 years prior to commencement of the course.

# 2013/2014 edition of QS World University Rankings for Top 50 under 50
UTS MODEL OF LEARNING

UTS is a recognised leader in teaching and learning. We pride ourselves on having skilled lecturers who are not only passionate about their areas of expertise, but remain up-to-date on new developments and knowledge in their field.

We are committed to remaining abreast of the latest teaching methods. With advancing technology comes an opportunity to innovate student learning to ensure that the university experience enhances graduates’ innovative and critical thinking; enterprising and creativity; and ability to work collaboratively.

The UTS Model of Learning is a UTS initiative which is revolutionising the way students learn at university. Students are more connected to technology than ever before, as the UTS learning model encourages students to use technology to build upon concepts that are discussed and worked on collaboratively in the classroom.

The new Engineering and IT Building has been built with this revolutionary teaching model in mind. Classrooms feature digital screens and moveable furniture to facilitate group work and practice-based learning. Collaborative theatres seating approximately 200 students also facilitate multiple forms of engagement including lecture presentations, collaborative group work and technology-enabled activities.
Engineering and IT Building
The Engineering and IT Building opened to staff and students in mid-2014. The contemporary building houses a range of cutting-edge teaching and learning spaces, with collaborative theatres and classrooms that facilitate group work and practice-based learning. The building is in itself a living, breathing laboratory, embedded with wireless sensors to monitor temperature, air quality, noise, and dust particles.

The Engineering and IT Building has transformed the local precinct and provides a dramatic new gateway to the UTS City campus and downtown Sydney.

Collaborative theatres
These theatres seat up to 200 students and facilitate multiple forms of engagement including lecture presentations, collaborative group work and technology-enabled activities. The theatres’ design features two work benches per tier with moveable furniture to encourage group work.

Collaborative classrooms
Nine collaborative classrooms, seating 30, 60 and 90 students are located on levels 3-5 and feature interactive whiteboards or LCDs, as well as mobile furniture. The lectern is situated in the middle and rotates 90° or 180° depending on the size of the room. These spaces provide opportunities for technology enabled project work and group learning.

UTS Data Arena
A 3D data visualisation arena showcasing the latest in immersive technology. Built on the ground level of the building, the experience of the arena is described as being “immersed in a huge 3D virtual reality experience.”

Laboratories
The building contains civil, electrical, information and communication technology, and mechanical laboratories, where students gain hands-on, practical experience. Students will have access to UTS and specialised computer labs including UTS Remote Laboratory – the largest and one of the world’s most advanced remote laboratories.

It enables students to conduct real-time experiments with actual apparatus and equipment at any time of the day from anywhere in the world.

FEIT Learning Precinct
In between classes, students can study or conduct group work in the FEIT Learning Precinct. This facility provides students with access to teachers for individual and small group support, reference material, and software and hardware resources.

UTS Library
UTS Library is being expanded to include an underground storage system that uses robotic cranes for the retrieval of less-demanded books, making borrowing faster and simpler. This library upgrade is part of the larger UTS City Campus Master Plan, a $1 billion investment to re-develop UTS.

Software Development Studio
A rich environment for students to become professionally competent via an industry collaborative software development experience throughout their degree.
A WORLD-CLASS CAMPUS
UTS is creating a vibrant campus of the future for you. Embracing visionary teaching and learning paradigms, the UTS City Campus Master Plan will revitalise the campus environment with new buildings, renovated facilities and increased public spaces to encourage collaboration for the UTS community.

ENGINEERING & IT BUILDING
The largest project under the Master Plan delivers state-of-the-art facilities for Engineering and IT students. Read more about it on page 5.

FACULTY OF DESIGN, ARCHITECTURE & BUILDING, CITY CAMPUS

IMAGE BY ANDREW WORSAM
Business students have the opportunity to study in Australia’s first Frank Gehry designed building, a physical embodiment of the unique and innovative approach to education at UTS. The inside of Sydney’s most distinctive project since the Opera House resembles a “tree house”, to encourage a sense of “creative play.”

Overlooking Alumni Green, this building delivers new teaching, learning and research spaces for the Faculty of Science and Graduate School of Health.

A natural hub for your study, the UTS Library provides a mix of spaces to best meet your study and research needs. These include people-focused spaces such as group study, silent rooms and a dedicated International Cultural and Civic Library. A highly sophisticated underground robotic Library Retrieval System holds 75% of the UTS Library collection and is the first step in delivering the library of the future.
INFORMATION TECHNOLOGY PROGRAM

Course Coordinator - Alan Sixsmith

Whether you are an IT professional or wanting to enter the information and communication technologies (ICT) industry, this program enables you to tailor your course to meet your career development needs. There are different entry points depending on your level of experience and educational background. This freshly re-structured course offers an extensive look into the business context and the technical developments that are shaping contemporary information and communication technology and will equip you to meet the challenges of working in the fast-evolving IT industry.

Now with a wide choice of majors and electives to choose from, you can focus on the area/s most relevant to you. You will also have the opportunity to work on a project with either a research or industry focus.

As it is essential to keep IT knowledge and skills up-to-date, we have developed a practical and industry-focused approach to teaching and learning, meaning you get the theory and concepts as well as the practical skills in IT to help build or transform your organisation, business or career.

MASTER OF INFORMATION TECHNOLOGY

The Master of Information Technology (MIT) program offers a comprehensive and greater understanding of information technology in specialised technical or management areas. The wide range of specialisations allows you to tailor the course to satisfy your career development needs.

This course will provide you with an enhanced understanding of the business context and technical developments shaping contemporary information and communication technology (ICT) and will equip you to meet the challenges of working in the IT industry. You will also have the opportunity to work on a project with either a research or industry focus.

Applicants with a recognised bachelor’s or postgraduate degree in information technology or computer science may apply for up to 4 subjects of credit recognition for core subjects.

This course is delivered in standard mode which involves weekly attendance, with some classes offered in the evening.

Course Code: C04295
CRICOS code: 084256C
Course duration: 2 years (full-time); 4 years (part-time)
Credit points: 96
Intake: Autumn/Spring
Location: City campus
Professional recognition: Graduates qualify for professional-level membership of the Australian Computer Society
How to apply: See page 26

MINIMUM ENTRY REQUIREMENTS

Applicants should have a minimum qualification equivalent to:
> a recognised bachelor’s degree; and/or
> a recognised graduate certificate or graduate diploma in computing/IT (or related discipline); and/or
> evidence that their knowledge of computing is equivalent to that described above, if they have insufficient formal qualifications.
Majors

Business Information Systems
Learn the processes, tools and technologies required to transform data into information and information into knowledge so as to enable sound business decision-making. Learn how to apply business intelligence techniques to extract information on market trends and behaviour, effectively analyse and utilise data, and create business intelligence systems to support decision-making.

Internetworking
Learn the necessary knowledge and skills in network design and management, helping you to tackle networking issues that come with an ever-more connected world. Learn about network and systems security, and develop enterprise-scale web applications involving technologies such as .NET, Web Services and Java 2 Enterprise Edition (J2EE).

UTS: IT is a Cisco Networking Academy.

Data Analytics
Learn to develop and apply business analytics systems and enhance the technology services within your organisation. Data analytics is an emerging and rapidly-expanding area where mathematics and statistical methods interact with powerful information technologies to improve the flow of massive amounts of data for business.

Software Development
Learn how to solve typical software development challenges for a business such as: integrating commercial off-the-shelf systems with legacy applications; managing and deploying outsourced development or maintenance; integrating software systems when companies merge; and deploying and managing web-based systems such as business to business (B2B) and business to consumer (B2C); as well as managing the challenges of identity and access in publicly exposed systems.

In addition to advanced software development topics, you can also choose a number of subjects in various programming languages to enhance your technical skills in your work as a developer, programmer or software engineer.

Multimedia
Learn to better respond to and manage the fast-evolving needs of the industry. Learn more about the software and hardware technologies utilised in the development and maintenance of websites, create strategies for web-presence and develop detailed proposals and specifications. Engage with interdisciplinary approaches to information and interaction design and immerse yourself in a blend of design, media and technology.

Unspecified Major
If you’re unsure of which area you would like to specialise in, you can choose to study an unspecified major, allowing you to select subjects from any of the majors and electives.

### COURSE STRUCTURE

<table>
<thead>
<tr>
<th></th>
<th>MASTER OF INFORMATION TECHNOLOGY</th>
<th>MASTER OF INFORMATION TECHNOLOGY (EXTENSION)</th>
<th>GRADUATE CERTIFICATE IN INFORMATION TECHNOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Professional IT Stream</strong></td>
<td>Complete the following subjects:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enabling Enterprise Information Systems</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Software Development</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Database</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LANS and Routing</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Core Stream</strong></td>
<td>Complete the following subjects:</td>
<td>Complete the following subjects:</td>
<td>Complete 1 of the following subjects:</td>
</tr>
<tr>
<td>Technology Research Preparation</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Project Management</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>IT Professional and Society</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td><strong>Major</strong></td>
<td>Complete 36 credit points in total</td>
<td>Complete 36 credit points in total</td>
<td>Complete 18 credit points in total</td>
</tr>
<tr>
<td>IT Project and Electives*</td>
<td>Complete 18 credit points in total</td>
<td>Complete 18 credit points in total</td>
<td>n/a</td>
</tr>
<tr>
<td>Sub-major choice</td>
<td>n/a</td>
<td>Choose 4 subjects from your chosen sub-major</td>
<td>n/a</td>
</tr>
</tbody>
</table>

*See the Handbook www.handbook.uts.edu.au/it
Please note: Elective subjects are taken from postgraduate level faculty subjects and may need prior approval. You may also need pre-requisite knowledge for some electives.
MASTER OF INFORMATION TECHNOLOGY (EXTENSION)

The Master of Information Technology (Extension) is very similar to the Master of Information Technology in that you will complete core subjects, a major and a project with electives. The difference is that you will also have the opportunity to complete a sub-major consisting of 4 subjects (24 cps). The sub-major is your chance to deepen your knowledge in a secondary area of interest in the field of IT.

This course is delivered in standard mode which involves weekly attendance, with some classes offered in the evening.

Course Code: C04296
CRICOS code: 084254E
Course duration: 2 years (full-time); 4 years (part-time)
Number of credit points: 96
Intake: Autumn/Spring
Location: City campus
Professional recognition: Graduates qualify for professional-level membership of the Australian Computer Society
How to apply: See page 26

MINIMUM ENTRY REQUIREMENTS

You can start off in the Master of Information Technology (Extension) or progress into the course after having completed at least one semester of the Master of Information Technology. You can also sample the course by completing the Graduate Certificate in Information Technology and should you decide to progress to the Master, the subjects you have already completed will be credited in full (provided you meet the academic requirements and transfer into the Master internally). If you don’t have a background in IT, you will need to start off in the Graduate Certificate in Information Technology Studies and progress to the master’s program upon completion (provided you meet the academic requirements).

MINIMUM ENTRY REQUIREMENTS

You cannot enter directly into this course but may apply to transfer into this course (from the Master of Information Technology or Master of Information Technology (Extension)) if you are accepted by a research supervisor to undertake an independent graduate project.

SUB MAJORS

Business Information Systems Multimedia
Internetworking Software Development
Data Analytics

COURSE STRUCTURE

See table on page 9.

MASTER OF INFORMATION TECHNOLOGY (HONOURS)

If you are an IT professional, this course provides an opportunity to explore in depth a specialised area of computing/information technology by undertaking a substantial research study. As part of this course you will complete three core subjects, five subjects as part of your major and a research project (over a period of 1 year) or a combination of electives and a research project.

This course may also improve your chances of being considered for higher degree research programs such as a PhD.

Course Code: C04297
CRICOS code: 084255D
Course duration: 2 years (full-time); 4 years (part-time)
Number of credit points: 96
Intake: Autumn/Spring
Location: City campus
Professional recognition: Graduates qualify for professional-level membership of the Australian Computer Society
How to apply: See page 26
Alan Sixsmith
MIT Course Coordinator

Alan Sixsmith brings a wealth of industry experience to his teaching, having worked extensively in Applications Development, IT Management and IT Consulting. It’s important to be able to put theory into context using his own past experiences, making it easier for his students to understand the concepts and for him, as Course Coordinator, to prepare students to meet industry needs.

His areas of research interest take into account the role of leadership in an effective IT/Business relationship, including how IT is viewed within the organisation, IT Management and Project Management.
GRADUATE CERTIFICATE IN INFORMATION TECHNOLOGY

This course provides a postgraduate level introduction to those who have an existing background in information technology. You will complete four subjects comprising a core subject in addition to three subjects from an IT area of your choice (see Majors on page 9). Upon completion of the Graduate Certificate, you can apply for entry into the Master of Information Technology or the Master of Information Technology (Extension) where you will receive credit recognition for the subjects completed in this course (provided you meet the academic requirements and you internally transfer into the Master).

**Course Code:** C11142  
**CRICOS code:** 084251G  
**Course duration:** 0.5 year (full-time); 1 year (part-time)  
**Number of credit points:** 24  
**Intake:** Autumn/Spring  
**Location:** City campus  
**How to apply:** See page 26

MINIMUM ENTRY REQUIREMENTS

See page 8.

COURSE STRUCTURE

See table on page 9.

GRADUATE CERTIFICATE IN INFORMATION TECHNOLOGY STUDIES

This course provides a postgraduate level introduction to those who do not have a background in information technology. Learn about software development, LAN hardware and physical layer standards, as well as basic computer networking concepts and principles. Also learn how to use information systems to generate business value and the benefits of basic database design and implementation.

You can use this course as a pathway into the IT master’s programs provided you meet the academic requirements.

**Course Code:** C11247  
**CRICOS code:** 084252G  
**Course duration:** 0.5 year (full-time); 1 year (part-time)  
**Number of credit points:** 24  
**Intake:** Autumn/Spring  
**Location:** City campus  
**How to apply:** See page 26

MINIMUM ENTRY REQUIREMENTS

This course is designed for those who have a minimum qualification equivalent to an Australian bachelor’s degree, but have studied little or no IT.

COURSE STRUCTURE

You will complete the following subjects:

- Enabling Enterprise Information Systems
- Fundamentals of Software Development
- Database
- LANS and Routing
Leonor Salazar Victoria
Master of Information Technology
Quality Analyst at ThoughtWorks

“UTS not only offers top level education, but a whole range of opportunities. It is a place where you will get as far as you are willing to take yourself.

“I did a degree in Organisational Psychology and due to my SAP skills, started working on a project for Hewlett Packard doing SAP support for Europe, Middle East and Asia. After a couple of years I started to get into the nitty gritty of IT, using databases and integration with other applications, so I thought it was time to learn the basics of IT.

Studying the Master of Information Technology not only gave me this opportunity, but changed my career direction.

“I am currently a software tester for ThoughtWorks, which is an agile software development company. I am a consultant; we get brought into companies to solve specific business problems. I love working in IT as it is constantly evolving and no two problems are ever the same. I am learning all the time and also having a lot of fun!

“In 5-10 years I want to be in a more practice-lead role in the testing community, contributing to testing in Australia and worldwide.”

“Studying the Master of Information Technology gave me the opportunity to change my career and move into an IT role at ThoughtWorks.”

Leonor Salazar Victoria
Part of managing IT projects and businesses is having a defined understanding of the strategic value of technology. This is why the IT Management programs at UTS are tailored to help better connect talented people working in IT and transform them into innovative project managers and business leaders.

Course Coordinator - Associate Professor Ken Dovey

MASTER OF BUSINESS IN IT MANAGEMENT

The Master of Business in IT Management (MBITM) and its associated courses form an executive development program aimed at producing business leaders who understand the strategic value of IT. This program develops the business leadership capabilities of IT professionals, with respect to:

- strengthening business knowledge bases and broadening frames of reference
- building self-confidence to engage with other business leaders
- cultivating the capacity to envision the future.

As an IT manager with significant experience, you will be challenged to gain new perspectives on your management behaviours and thinking, enabling you to better meet the needs of your organisation. You will also come to recognise the increasingly important role that technology plays in business success and its potential for disrupting conventional business models and practices.

Enhance your personal and career development through the valuable networking opportunities with both your fellow students and industry lecturers, and develop relationships that last beyond the classroom. You will be inspired and motivated, leveraging off the considerable experience of likeminded professionals – a vital part of the MBITM learning experience.

MINIMUM ENTRY REQUIREMENTS

A recognised bachelor’s degree or equivalent in an appropriate discipline such as information technology or commerce and a minimum of five year’s professional work experience in the IT industry, plus some supervisory experience.

Additional Application Requirements See page 26.

Course Code: C04161
Course duration: 1.5 years (full-time); 3 years (part-time)
Number of credit points: 72
Intake: Autumn/Spring
Location: City campus
How to apply: See page 26
COURSE STRUCTURE

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<thead>
<tr>
<th></th>
<th>MASTER OF BUSINESS IN IT MANAGEMENT</th>
<th>GRADUATE CERTIFICATE IN IT MANAGEMENT</th>
<th>GRADUATE CERTIFICATE IN STRATEGIC IT LEADERSHIP</th>
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<tbody>
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<tr>
<td>for the Knowledge Era</td>
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<tr>
<td>Strategic Leadership</td>
<td>●</td>
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<tr>
<td>for Innovation</td>
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<tr>
<td>Leadership and People</td>
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<td>●</td>
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<td>Management</td>
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<tr>
<td>Managing Organisational Change</td>
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<td>Strategic Business</td>
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<td>Management</td>
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<tr>
<td>Information Technology</td>
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<tr>
<td>Strategy</td>
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<td>Management Research</td>
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<td>Methods</td>
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<tr>
<td>Electives</td>
<td>Select 4 electives*</td>
<td>Select 1 elective*</td>
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</tr>
</tbody>
</table>

*See the Handbook www.handbook.uts.edu.au/it for the full list of electives

GRADUATE CERTIFICATE IN IT MANAGEMENT

Upon completion of the Graduate Certificate in IT Management, you can apply for entry into the Master of Business in IT Management, where you will receive credit recognition for the subjects completed in this course (provided you meet the academic requirements and you internally transfer into the Master).

Course Code: C11138
Course duration: 0.5 year (full-time); 1 year (part-time)
Number of credit points: 24
Intake: Autumn/Spring
Location: City campus
How to apply: See page 26

MINIMUM ENTRY REQUIREMENTS

Entry requirements for this course are the same as the MBITM (see page 14) or applicants can supply evidence of general and professional qualifications such as other post-secondary school qualifications that establishes your aptitude, knowledge and practical work experience.

Additional Application Requirements See page 26.

COURSE STRUCTURE

See table above.

GRADUATE CERTIFICATE IN STRATEGIC IT LEADERSHIP

This course provides students with a broad understanding of strategic leadership, as well as the strategic value of technology within a business. As technology plays an increasingly important role in the success of a business, you will discover the benefits of having an IT strategy and of creatively managing intangible assets such as morale, social, knowledge and human capital in a global arena.

Course Code: C11190
Course duration: 0.5 year (full-time); 1 year (part-time)
Number of credit points: 24
Intake: Autumn/Spring
Location: City campus
How to apply: See page 26

MINIMUM ENTRY REQUIREMENTS

See Graduate Certificate in IT Management above.

COURSE STRUCTURE

See table above.
“An esteemed colleague, who had just graduated with a Master of Business in IT Management (MBITM), strongly recommended this course to me as a ‘boutique master’s’ from UTS. As soon as I met the lecturers and interacted with alumni at one of the community functions, I understood the high standard of the program and, most importantly, of the people in the MBITM community.

“Through the MBITM, I have developed the business skills and necessary awareness to confidently articulate the benefits of using technology as a strategic asset that can be used to ‘unlock’ business opportunities. The course has given me the confidence to start my own company and provide consulting services to large corporations with enormous personal and professional rewards. Looking back, I can confidently say that this has proved to be the best investment that I’ve made in my life!

“Two major lessons came out of the MBITM experience for me: firstly, self-reflection as a critical tool to harness both successes and failures, empowering me to become a more effective leader; and secondly, the importance of having access to the MBITM community, which is made up of like-minded individuals who are always available to support each other.”
“UTS plays a critical role in creating the opportunities which allow this important work to continue and become a reality.”

Fiona Rankin

ACADEMIC PROFILE

Associate Professor Ken Dovey

MBITM Course Coordinator

Ken Dovey’s considerable global experience includes professorial appointments in leadership studies in South Africa; international consulting and executive coaching roles in a range of corporations, government organisations and NGOs across the world; and teaching roles on executive education programs at a variety of business schools in Europe, Australia, South Africa and Asia. His research is focused on leadership practices that facilitate learning, creativity and innovation in organisations, and he has published extensively in international academic journals in these areas.

GRADUATE PROFILE

Fiona Rankin

Master of Business in Information Technology Management

Chief Information Officer at the New South Wales Treasury Corporation

“Before starting the Master of Business in IT Management at UTS, I had already completed a degree in financial management and economics. Completing the MBITM significantly improved my professional expertise and marketability, and it provided me with the appropriate tools and knowledge to achieve my career goals with confidence. I am now a member of the Australian Institute of Company Directors and have learnt that it’s the combination of the human element, experience and qualifications that drives a successful person to build successful outcomes.

“I am always ‘humbled’ when I meet UTS students. Seeing the intellectual capital, energy and innovation they invest in their projects and work (which is so important to society and business) is inspiring and rewarding. UTS plays a critical role in creating the opportunities which allow this important work to continue and become a reality.”

Fiona Rankin was awarded a UTS Alumni Award for the Faculty of Engineering and Information Technology in 2013.
The Internetworking program is intended for computing science, information technology or engineering graduates, with or without networking experience, who wish to learn or extend their knowledge of networking and networking technologies.

The program provides a practical, hands-on learning experience using various resources, including the support provided by Cisco Systems for broad computer network and relevant applications. This includes routing, switching, security, wireless and VoIP, mobile computing, web systems, and cloud computing and operating systems. It also covers all aspects of the organisational use of networks: design, implementation, security, management, end systems and applications.

As students come from a variety of backgrounds, there is a degree of subject choice to meet individual needs, meaning that students can choose subjects according to their interest and elective choices, and so develop multiple skills across the internetworking field and their relevant application development field.

MASTER OF SCIENCE IN INTERNETWORKING

The Master of Science in Internetworking program has been designed to meet the industry’s need for computer network professionals and software and applications programmers (focusing on Internet services maintenance/support). It provides a thorough and practical grounding in networking, network design, network administration and network management.

The program is ideal for students wishing to prepare for a number of industry-based certifications to complete these subjects over an 18-month period, rather than 12 months, and so meet the prerequisite requirements more effectively. These include the CCNA (Cisco Certified Network Associate) and CCNP (Cisco Certified Network Professional), Cisco Wireless LAN Support Specialist and Cisco Certified Network Associate Security.

It is also ideal for IT professionals looking to be retrained and move into computer networking and its relevant fields, or as research-oriented students looking to complete a larger thesis (based on primary rather than secondary data, thus improving prospects for future research careers).

MINIMUM ENTRY REQUIREMENTS

A recognised bachelor’s degree or equivalent, preferably in computing science, information technology, computer engineering, telecommunications or a cognate discipline. Applications are assessed on academic merit. Two years’ experience in networking in another position in the IT industry is desirable, but is not necessarily a mandatory requirement.
Course streams

Broadband Technology and Services
Countries around the world are investing in their broadband infrastructure, including Australia’s National Broadband Network (NBN). This stream of subjects covers the design, management and implementation of corporate networks in the context of an underlying high-speed broadband infrastructure.

Cisco Certified Network Professional (CCNP)
The CCNP preparation stream extends the CCNA basics by offering more advanced study in the design, implementation and troubleshooting of both local and wide area networks, as well as advanced topics in security, voice, wireless and video. Students who complete all subjects in this stream will be prepared to sit for the Cisco CCNP certification exams.

Network Security
Organisations are facing an increasing need to ensure the security of their corporate networks. This stream of subjects covers current best practice in cryptography and security protocols, plus the ability to apply the theory in practice using industry-standard Cisco equipment. You can also learn to design secure enterprise networks and understand related management and legal issues.

Wireless and Mobile
Wireless networks and the applications that use them are changing the way the world works and plays. This stream covers a variety of different wireless and mobile networking technologies, as well as how to build next-generation applications which take advantage of mobility.

Other electives
A variety of other electives are available, including UNIX systems administration, project management, interaction design, and subjects in digital media. Students in the master’s program can choose to undertake a research project. Students in the Master (Extension) can also complete some of their electives from outside the Internetworking program.

<table>
<thead>
<tr>
<th>COURSE STRUCTURE</th>
<th>MASTER OF SCIENCE IN INTERNETWORKING (EXTENSION)</th>
<th>MASTER OF SCIENCE IN INTERNETWORKING</th>
<th>GRADUATE CERTIFICATE IN INTERNETWORKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANS and Routing</td>
<td>●</td>
<td>●</td>
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</tr>
<tr>
<td>Technology Research Preparation</td>
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<tr>
<td>Mobile Communications and Computing</td>
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<tr>
<td>Network Security</td>
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<td>Select 1 of the following:</td>
<td>Select 1 of the following:</td>
<td>Select 1 of the following:</td>
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<tr>
<td>UNIX Systems Programming</td>
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<tr>
<td>Advanced Internet Programming</td>
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<td>●</td>
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<tr>
<td>.NET Application Development</td>
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<td>Select 1 of the following:</td>
<td>Select 1 of the following:</td>
<td>Select 1 of the following:</td>
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<tr>
<td>Research Project</td>
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<td>●</td>
<td>●</td>
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<tr>
<td>Industry Project</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Electives</td>
<td>Select 10 Internetworking electives*</td>
<td>Select 6 Internetworking electives*</td>
<td>Select 1 of the following:</td>
</tr>
<tr>
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<td>●●</td>
<td>●</td>
<td>WANS and VLANS</td>
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<td></td>
<td>●●</td>
<td>●</td>
<td>Network Security</td>
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<td></td>
<td>●●</td>
<td>●</td>
<td>Advanced Topics in Computer Networks</td>
</tr>
<tr>
<td></td>
<td>●●</td>
<td>●</td>
<td>Wireless Sensor Networks</td>
</tr>
</tbody>
</table>

INTERNETWORKING PROGRAM CONTINUED

MASTER OF SCIENCE IN INTERNETWORKING (EXTENSION)
The Master of Science in Internetworking (Extension) is very similar to the Master of Science in Internetworking. However, with the Master of Science in Internetworking (Extension), students can pursue interests in project management and software engineering. Relevant electives in business studies and law are also options for those students who wish to multi-skill across disciplines.

You can start off in this course or progress into it after having completed at least one semester of the Master of Science in Internetworking. You can also sample the course by completing the Graduate Certificate in Internetworking and should you decide to progress to the Master, the subjects you have already completed will be credited in full (provided you meet the academic requirements and transfer into the Master internally).

Course Code: C04224
CRICOS code: 055279C
Course duration: 2 years (full-time); 4 years (part-time)
Number of credit points: 96
Intake: Autumn/Spring
Location: City campus
How to apply: See page 26

COURSE STRUCTURE
See table on page 19.

GRADUATE CERTIFICATE IN INTERNETWORKING
This course provides a postgraduate level introduction to those who are looking to retrain and move into computer networking and its relevant fields.

Entry into the Graduate Certificate in Internetworking is based on experience in the networking industry. An applicant’s suitability will be determined by academic staff and may require an interview.

Course Code: C11145
CRICOS code: 063424K
Course duration: 0.5 year (full-time); 1 year (part-time)
Number of credit points: 24
Intake: Autumn/Spring
Location: City campus
How to apply: See page 26

COURSE STRUCTURE
See table on page 19.

ACADEMIC PROFILE
Dr Qiang Wu
Internetworking Course Coordinator

Dr Qiang Wu’s experience in computing science spans across both academia and industry. He is currently a Senior Lecturer with the School of Computing and Communications and a core research member of the Centre for Innovations in IT Services and Applications (iNEXT) and the UTS Advanced Analytics Institute (AAi).

Dr Wu has published many refereed research papers in his area and as a principle investigator, he has also been involved in several industry projects, collaborating internationally with the likes of NOKIA, Huawei Tech. and Microsoft Research.
Matthew Chan

*Master of Science in Internetworking*

“I was looking for career progression – I felt like I’d got as far as I could go in my previous role and wanted to get into something more technical. UTS has a reputation for relevant and practical teaching, which is well-regarded in the IT industry.

“I had also worked with a number of staff who had completed internships via UTS, which had led to their full-time employment with the company I was at. I was impressed by their attitude to their work and we often discussed the UTS environment – which ultimately led me to want to study there full-time.

“I found it very refreshing and stimulating to get back into a learning environment, and was very happy with the standard of teaching at UTS. All my lecturers were very capable, enthusiastic and knowledgeable in their fields. All the technical information I gained is very important for a career in IT, and hands-on time with hardware reinforced my confidence in my own ability to build solutions and solve problems correctly.

“I have already benefited a great deal from completing the right postgraduate course for my needs.”

Matthew Chan
The Faculty of Engineering and Information Technology is a major force in many of the university’s research strengths, such as:
> intelligent mechatronic systems
> quantum computation and intelligent systems
> innovation in IT services and applications
> health technologies
> green energy vehicle innovation
> real-time information networks
> built infrastructure
> technology in water and wastewater
> advanced analytics
> electrical machines and power electronics
> energy policy
> human-centred technology design

Master of Engineering (Research) and PhD candidates are supervised by academic research staff with expertise in the candidate’s chosen field. With a focus on industry collaboration, proposals that involve direct working relationships with industry professionals are strongly encouraged.

**PhD** – a Doctor of Philosophy (PhD) is a UTS-wide degree which involves an intense period of supervised study and research, culminating in the submission of a thesis. Students must, through original investigation, make a distinct and significant contribution to knowledge in their field of specialisation.

**Master’s by Research** – enables students to extend and deepen their knowledge of a specialised area of computing/information technology by undertaking research under the supervision of a member of academic staff.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>MASTER OF SCIENCE IN COMPUTING SCIENCES (RESEARCH)</th>
<th>MASTER OF ANALYTICS (RESEARCH)</th>
<th>DOCTOR OF PHILOSOPHY</th>
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</thead>
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<td>C02029 and C02047</td>
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<td>CRICOS CODE</td>
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<td>075277F</td>
<td>009469A and 058666A</td>
</tr>
<tr>
<td>COURSE DURATION</td>
<td>2 years full-time 4 years part-time</td>
<td>2 years full-time 4 years part-time</td>
<td>4 years full-time 8 years part-time</td>
</tr>
</tbody>
</table>
| SUBJECTS | > Technology Research Preparation  
> Technology Research Methods  
> Thesis (Computing Science) | > Technology Research Preparation  
> Technology Research Methods  
> Thesis (Analytics) | > Technology Research Preparation  
> Technology Research Methods  
> PhD Thesis in:  
Analytics; or  
Computer Systems; or  
Information Systems; or  
Software Engineering |
| ENTRY REQUIREMENTS | A recognised bachelor’s degree, or an equivalent or higher qualification, or other evidence of general and professional qualifications that demonstrates potential to pursue graduate research studies. | A recognised bachelor’s degree, or an equivalent or higher qualification, or other evidence of general and professional qualifications that demonstrates potential to pursue graduate research studies. | A recognised master’s by research or bachelor’s degree with first or second class honours (division 1), or an equivalent or higher qualification, or other evidence of general and professional qualifications that demonstrates potential to pursue graduate research studies. |
Our Research Strengths
The Advanced Analytics Institute (AAI) provides interdisciplinary expertise and leadership in areas including data mining, machine learning, applied statistics, behaviour analytics, data science and engineering, marketing, finance, economics, decision-making, optimisation and risk management. Analytics is about the science of analysis, engaging information, technology, business and decision-making.

The Centre for Human Centred Technology Design (HCTD) brings together researchers who share an interest in information and communications technology design that is focused on those who will ultimately use the end product. They aim to bring human-centred approaches to the design of existing, new and emerging technologies for both work and leisure activities through four programs of research: software development; information systems; interaction design; and learning environments.

The Centre for Innovation in IT Services and Applications (INEXT) aims to develop and nurture innovation for NEXT generation IT services and applications. These include: innovative applications with special focus on assistive mobile health and internet-enabled business applications; high-end visualisation technologies; and novel image processing architectures and intelligent recognition algorithms for extracting important information from video streams and wireless sensor networks for advanced surveillance and environmental monitoring purposes.

The Centre for Quantum Computation and Intelligent Systems (QCIS) aims to develop theoretical foundations, innovative technology and practical systems that will result in next generation enterprise intelligent information systems. Its five major research programs cover: quantum computation; knowledge discovery; decision support; innovation; and infrastructure enhancement. Together, these programs develop a set of innovative and practical methodologies and techniques for intelligent information processing.
Over the last five years the Faculty of Engineering and IT has received more than 60 Australian Research Council projects and attracted a total of research funding well in excess of $30 million.
They could have a social media-style profile which identifies their capabilities, shows what they’re working on and what new skills they’ve learnt,” says Wang.

Such forward-thinking research has won Wang a prestigious IBM PhD Fellowship – an intensely competitive worldwide program that seeks to nurture the best in the field of IT and to identify people and projects that are game-changers in terms of their potential to impact the wider world. Wang received one of only two fellowships offered in Australia this year, the fifth fellowship won by UTS’s Faculty of Engineering and Information Technology in the last four years.

Wei Wang

IBM PhD Fellow
Centre for Quantum Computation and Intelligent Systems’ Magic Lab

Inspired by the way humans connect through Twitter and Facebook, IBM PhD Fellow Wei Wang is developing a mechanism to allow robots to share their skills and experiences in a similar way. Her research aims to help robots learn from each other, adapt to new and unseen tasks, and to sustainably develop themselves.

“Humans use social media to communicate with friends and others. We swap news, life events, give and receive advice, and learn from each other. I thought, if people can benefit from social networks in this way, then why not robots?

The fourth-year doctoral student says her research aims to use robots to improve lives, and not just in dangerous environments like space or places with high radiation.

“For example, you could be sitting on your sofa drinking orange juice. When you finish your drink, your glass tells your robot it’s empty. Then your robot asks if you’d like a refill. If you say ‘Yes’, the robot talks to your refrigerator to see if there’s any juice left. If your fridge says ‘No’, your robot could get in your car and drive to the supermarket to get you some more!”

STUDENT PROFILE

Wei Wang
IBM PhD Fellow
Centre for Quantum Computation and Intelligent Systems’ Magic Lab

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**Coursework Applicants**
You can submit your application for a postgraduate coursework degree:

- in person at one of our postgraduate information evenings. Normally these evenings are held in April and June (Spring semester intake) and September, November and January (Autumn semester intake). For more information or to register to attend visit www.it.uts.edu.au or www.pg.uts.edu.au

- online through the Universities and Admissions Centre (UAC) at www.uac.edu.au/postgraduate

**Coursework Application Dates**

- **Autumn semester 2015**
  - Opens – 4 September 2014
  - Closes –
    - Round 1 – 31 October 2014
    - Round 2 – 30 January 2015
  - Autumn semester commences 23 February 2015.

- **Spring semester 2015**
  - Opens – 4 September 2014
  - Closes –
    - Round 1 – 29 May 2015
    - Round 2 – 29 June 2015
  - Spring semester commences 27 July 2015.

For both Autumn and Spring semester, offers are made progressively from late September 2014.

Applications submitted after the main closing date for each intake will be considered and offers made to suitable applicants are subject to the availability of places.

**Additional Application Requirements**
Applicants to the Master of Business in IT Management must submit:

- an up-to-date CV
- a letter of support from your current employer and;
- the Postgraduate Coursework Supplementary Questionnaire

Applicants to the Graduate Certificate in Strategic Leadership must also complete the Postgraduate Coursework Supplementary Questionnaire. This is a series of questions relating to your application that will be used in conjunction with your UAC application when deciding upon admission.

To access the questionnaire, visit:
www.uts.edu.au/future-students/postgraduate/essential-info/applying-uts/additional-application-requirements

**Research Applicants**
Applications for postgraduate research can be submitted to the UTS Graduate Research School. Applicants are required to draft a research proposal and find a supervisor prior to lodging an application.

For more information on the application process, visit:

Email: feit.research@uts.edu.au

**Research Application Dates**

- **Autumn Semester 2015**
  - 24 October 2014

- **Spring Semester 2015**
  - 31 May 2015
  - **Autumn Semester 2016**
    - 23 October 2015
Fees
All UTS: IT postgraduate coursework programs are fee paying. For further information on fees for postgraduate students at UTS, visit: www.fees.uts.edu.au

Australian and New Zealand citizens and Australia permanent residents applying for a research degree are eligible for a Research Training Scheme (RTS) place.

FEE-HELP
FEE-HELP is a government loan scheme that assists eligible local students to pay their tuition fees.

Using FEE-HELP means you do not have to pay your tuition fees up front. You can inform your employer that you have a FEE-HELP loan and they will withhold your payments through the PAYG tax system. If your postgraduate degree is related to your employment, your tuition fees may be tax deductible.

For more information, contact your financial adviser or the Australian Tax Office or visit: www.ato.gov.au

For more information about FEE-HELP visit: www.studyassist.gov.au or call 1800 020 108.

Centrelink Student Income Support
The Master of Information Technology (C04295) and Master of Science in Internetworking (C04160) have been approved by the Australian Government as eligible courses for students to receive Student Income Support (Youth Allowance and Austudy) through Centrelink. To check your eligibility or for further information contact Centrelink on 13 24 90.

Non-Award Study
You can study single IT subjects without committing to a full degree (this is called non-award study). This type of study may be undertaken out of personal interest, or to upgrade skills or knowledge specific area. Successful completion of these subjects may be recognised in future study. To apply, visit: www.sau.uts.edu.au/applying/non-award.html

Timetable Information
The UTS Timetable Builder allows you to view current semester timetables to get an idea of when subjects may be scheduled and offered. www.timetable.uts.edu.au

English language proficiency
If your previous studies were undertaken in an overseas country, you may need to provide evidence of English proficiency. For details visit: www.uts.edu.au/future-students/international/essential-information/entry-requirements/english-language-requirements

International Applicants
Please note this guide is not intended for international students and not all courses listed are available to international students.

Course information for international students is available in the relevant UTS International Course Guide and online at www.uts.edu.au/international

Applicants who are not citizens or permanent residents of Australia or citizens of New Zealand must apply as international students directly through UTS: International.

Freecall within Australia: 1800 774 816
Phone from outside Australia: + 61 3 9627 4816
Email: international@uts.edu.au
Website: www.uts.edu.au/international

Disclaimer: Courses and electives are offered subject to numbers. The information in this brochure is provided for Australian and New Zealand Citizens and Australian Permanent Residents. If you are an international student, please consult the International Course Guide available from UTS: International. Information is correct at time of printing (August 2014) and is subject to change without notice. Changes in circumstances after this date may alter the accuracy or currency of the information. UTS reserves the right to alter any matter described in this brochure without notice. Readers are responsible for verifying information that pertains to them by contacting the university.
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Contact us
Tel: 1300 ASK UTS (1300 275 887)
Email: www.ask.uts.edu.au
Website: www.it.uts.edu.au
Online Handbook:
www.handbook.uts.edu.au/it/pg

Come to a UTS: IT Postgraduate Information Evening – register at
www.it.uts.edu.au

Or contact Rene Leveaux,
Director of Postgraduate Programs
in Information Technology at
ren.leveaux@uts.edu.au