Professor Deepak Sharma is Associate Dean (International), Faculty of Engineering and Information Technology at UTS. He is also the Director of the Centre for Energy Policy (CEP) and of the post-graduate Energy Planning and Policy Program.

Professor Sharma has a bachelor’s degree in electrical engineering and master’s and doctoral degrees in energy economics and policy. He has more than thirty years of professional experience in academia, and national and international public and private sectors. He is actively engaged in teaching, research, and consulting on energy and environmental policy themes – in national and global contexts. Such themes include energy market deregulation, infrastructure provision, energy-economy interface, energy-water-food-climate change nexus issues, energy security, environmental policy options and resource scarcity. The general tenor of his work is multidisciplinary, policy-oriented – underpinned by a deep understanding of the global cultural, political and geo-strategic contexts. He is a member of the International Association for Energy Economics, has written extensively on energy and environmental policy themes, and made numerous invited presentations at national and international level on a range of energy policy issues.

His contributions in the international arena have been particularly noteworthy. Over the years, he has actively engaged with international policy settings. He has initiated and established enduring linkages with professional organisations in several countries. These linkages have spanned a wide spectrum of institutions including academic, governmental and non-governmental, corporate, and bilateral and multilateral, for example, the Asian Development Bank, International Atomic Energy Agency (United Nations), International Institute for Applied Systems Analysis, OECD, and World Bank. He is continually called upon to provide professional reviews and counsel to these institutions as a recognised expert in the energy policy field.

Professor Deepak Sharma is associate dean (international), faculty of engineering and information technology at UTS. He is also the director of the centre for energy policy (CEP) and of the post-graduate energy planning and policy program.
WHY UTS?

CONVENIENT LOCATION
Within easy walking distance of Central Station and the Sydney CBD, our City campus is easily accessible by bus and train. Close to cosmopolitan inner-city suburbs such as Glebe, Surry Hills and Darling Harbour, the City campus is surrounded by places to shop, eat and relax.

NEW ENGINEERING AND IT BUILDING
In 2014 Engineering and IT will relocate to a new state-of-the-art building with a dramatic urban presence. Located next to the current Engineering and IT buildings, it is designed and will be fitted according to contemporary architectural principles to achieve a minimum 5-Star Green Rating.

QUALITY TEACHING
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 teach you to think constructively in interactive learning environments, with group work and discussions that give you a taste of being out in the workplace.

FIVE STAR QS WORLD UNIVERSITY RANKING
UTS is proud to have achieved 5 Stars in the 2013 QS™ Stars rating system for excellence in higher education, and the Top 150 for engineering and computer science in the 2013 QS™ Subject Rankings. This ranking measures performance against international benchmarks and recognises excellence in higher education.

INDUSTRY NETWORKS
Fostering links with industry and other organisations is important to us. The Faculty of Engineering and Information Technology has links with over 800 companies and has its own Industry Partnering Unit which assists students in securing internships. Expand your network through ours and make valuable contacts for your future career.

STUDENT LIFE
A great university experience also relies on being part of a social and supportive community. UTS has over 100 clubs and societies, along with bars, cafes and a range of sporting facilities, including a gym. We offer academic support and services to help with housing, money, health, cultural issues and career development.
WHY ENGINEERING AT UTS?

ENGINEERING IN AUSTRALIA
Internationally, Australian universities have a reputation for high quality research and teaching programs. Funded and monitored by the Government, the Australian Technology Network (ATN) has developed close links with many international institutions, particularly in Asia.

ENGINEERING IN SYDNEY
Sydney is Australia’s largest city and its centre of finance and commerce. The Harbour Bridge, Opera House and Sydney Tower are internationally recognised icons, which represent both Sydney and its rich engineering heritage. Many Australian and international company headquarters are based in Sydney, making it an ideal place to study.

ENGINEERING AT UTS
The University of Technology, Sydney (UTS) is one of Australia’s largest universities. Renowned for its progressive teaching programs and applied research, UTS: Engineering has close links with industry and leading research organisations.

Many teaching staff are part-time practising professionals, making the teaching relevant, applied and global. UTS works for your future by producing the kind of graduates that reputable employers want. The Faculty’s international focus is reflected in the engineering programs that it offers in Asia as well as its commitment to international exchanges with universities in Europe, South America, North America and Asia. Many UTS: Engineering academics are engaged in joint research programs with their counterparts in overseas universities and research institutes.

QS RANKINGS
In the 2013 QS University Subject Rankings, UTS: Engineering was ranked in the top 51-100 for ‘Computer Science and Information Systems’ and ‘Civil and Structural Engineering’; top 101-150 for ‘Mechanical Engineering’ and top 151-200 for ‘Electrical Engineering’.

SCHOLARSHIP OPPORTUNITIES
UTS: Engineering offers Achievement Scholarships (each worth A$2000) to the highest achievers during their first semester of the Bachelor of Engineering and the Bachelor of Engineering Diploma in Engineering Practice. Six scholarships are awarded each semester with a total of twelve per year.

The Dr John Nutt International Undergraduate Scholarship offers students the opportunity to obtain an undergraduate qualification at UTS: Engineering. This scholarship offers 50 per cent of the tuition fee for the duration of the course.

For full details of all our scholarships, including eligibility, please visit www.international-study.uts.edu.au#scholarships.

WORLD-CLASS REMOTE LABORATORY
All UTS: Engineering students have access to one of the world’s first and most advanced remote engineering laboratories. This laboratory enables physical experiments to be conducted across the majority of engineering disciplines online from anywhere in the world. The system delivers web-based real-time interactive experiences with actual apparatus and equipment.

ALCATEL-LUCENT PARTNERSHIP
UTS has partnered with Alcatel-Lucent to prepare students for building and managing carrier-grade service-enabled telecommunication networks. We have invested in a state-of-the-art laboratory, giving UTS students access to the latest technologies and equipment being used by the telecoms industry in Australia and around the world. Students studying telecommunications will be able to gain not only their UTS award but also have the possibility of obtaining a globally-recognised industry certification at the same time (with additional external examinations).

FACILITIES
The vast majority of subjects are taught in live lectures on UTS premises located at the City campus. A few electronic-based subjects are offered in specialised areas. All lecture theatres are equipped with overhead and video projection facilities, and are connected to the University network and the Internet. Some subjects require the use of one of the Faculty’s diverse engineering laboratories which are in the same location. Students have access to both University computing laboratories as well as a number of Faculty computing laboratories adapted for specific courses. The Faculty has several Learning and Design Centres which serve students by providing access to academics for individual and small group support, reference material, and software and hardware resources. Also available university wide are the following centres: Chemistry Learning Resource, Higher Education Language and Presentation Support (HELP), UTS Peer Assisted Study Success (UPASS), Mathematics Study & ICT and Physics Learning. The University has a large tertiary level library, which can be accessed via the web, as well as an online learning system, UTSOnline.
This program is a comprehensive preparation for careers in the professional practice of engineering. Students learn to deal with complex systems and manage large-scale projects using the most appropriate emerging technologies. This course is identical to the Bachelor of Engineering Diploma in Engineering Practice (C10061) except there is no Diploma in Engineering Practice requirement. Students enrolled in the Bachelor of Engineering without the Diploma in Engineering Practice are required to obtain the equivalent of at least 12 weeks exposure to professional engineering practice, preferably outside the university environment and to complete the Professional Practice (BE) review subject.

## MAJORS
- Biomedical
- Civil (including specialisations in Construction and Structures)
- Civil and Environmental
- Information and Communication Technologies (including sub-majors in Computer Systems, Software or Telecommunications)
- Innovation
- Electrical
- Mechanical
- Mechanical and Mechatronic
- No specified major

## COURSE STRUCTURE

<table>
<thead>
<tr>
<th>Major</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
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</thead>
<tbody>
<tr>
<td>Biomedical Engineering major</td>
<td>Mathematical Modelling 1</td>
<td>Design and Innovation Fundamentals</td>
<td>Engineering Project Management</td>
<td>Capstone Project Part A</td>
</tr>
<tr>
<td></td>
<td>Engineering Communication</td>
<td>Cell Biology and Genetics</td>
<td>Fundamentals of Biomedical Engineering</td>
<td>Capstone Project Part B</td>
</tr>
<tr>
<td></td>
<td>Introduction to Electrical Engineering</td>
<td>Database Fundamentals</td>
<td>Medical Devices and Diagnostics</td>
<td>Professional Practice (BE)</td>
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<tr>
<td></td>
<td>Physical Modelling</td>
<td>Human Anatomy and Physiology</td>
<td>Entreprenuerhip and Commercialisation</td>
<td>Select 24 credit points of electives</td>
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<tr>
<td></td>
<td>Mathematical Modelling 2</td>
<td>Engineering Economics</td>
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<tr>
<td></td>
<td>Chemistry 1</td>
<td>Finance</td>
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<tr>
<td>Select 1 of the following:</td>
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<tr>
<td></td>
<td>Introductory Digital Systems</td>
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<tr>
<td></td>
<td>Mechatronics 1</td>
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<td>Select 1 of the following:</td>
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<tr>
<td></td>
<td>Programming Fundamentals</td>
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<tr>
<td></td>
<td>Engineering Computations</td>
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<tr>
<td>Civil Engineering major</td>
<td>Physical Modelling</td>
<td>Soil Behaviour</td>
<td>Engineering and Commercialisation</td>
<td>Steel and Timber Design</td>
</tr>
<tr>
<td></td>
<td>Introduction to Civil and Environmental Engineering</td>
<td>Structural Analysis</td>
<td>Engineering Project Management</td>
<td>Capstone Project Part A</td>
</tr>
<tr>
<td></td>
<td>Engineering Communication</td>
<td>Construction Materials</td>
<td></td>
<td>Capstone Project Part B</td>
</tr>
<tr>
<td></td>
<td>Mathematical Modelling 1</td>
<td>Engineering Computations</td>
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<tr>
<td></td>
<td>Engineering Mechanics</td>
<td>Design and Innovation Fundamentals</td>
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<tr>
<td></td>
<td>Surveying</td>
<td>Mechanics of Solids</td>
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<tr>
<td></td>
<td>Mathematical Modelling 2</td>
<td>Engineering Economics</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Chemistry and Materials Science</td>
<td>Finance</td>
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</tbody>
</table>

This course includes a work-based training component which must be undertaken as part of the course of study and refers to all clinical, professional, industrial or other work placements.
<table>
<thead>
<tr>
<th>Major</th>
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<th>Year 3</th>
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# For more information about fees, see back page

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<thead>
<tr>
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<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical and Mechatronic Engineering major</td>
<td>Mathematical Modelling 1 Introduction to Electrical Engineering</td>
<td>Design Fundamentals Programming Fundamentals</td>
<td>Engineering Project Management Mechatronics 1</td>
<td>Mechanical and Mechatronic Design Capstone Project Part A Professional Practice (BE)</td>
</tr>
<tr>
<td></td>
<td>Fundamentals of Mechanical Engineering Physical Modelling</td>
<td>Mechanical Design 1</td>
<td>Mechatronics 2</td>
<td></td>
</tr>
</tbody>
</table>

*The innovation major can be taken with any other major (but not combined degrees)*

<table>
<thead>
<tr>
<th>15 SUBJECT ICT CHOICE BLOCK</th>
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</thead>
<tbody>
<tr>
<td>Applications Programming</td>
</tr>
<tr>
<td>Software Engineering Practice</td>
</tr>
<tr>
<td>Software Architecture</td>
</tr>
<tr>
<td>Electronics and Circuits</td>
</tr>
<tr>
<td>Advanced Digital Systems</td>
</tr>
<tr>
<td>Data Acquisition and Distribution</td>
</tr>
</tbody>
</table>

**CAREER OPPORTUNITIES**

**Biomedical Engineering major**
Biomedical engineers design and develop medical related products and systems such as biosensors, medical and physiological monitoring devices and other assistive instrumentation. You will learn basics of biology, information technology, electrical and mechanical engineering as well as current advances in this multi-disciplinary field. You will be able to select subjects based on your interest. These include biomedical instrumentation and control, bioinformatics, biomechatronics, biomedical signal and image processing, neuroscience and biomedical applications of artificial intelligence.

**Civil Engineering major**
Civil engineers design, construct, manage, maintain, rehabilitate and renovate all types of industrial and commercial buildings and structures. This includes infrastructure developments such as highways, airports and transport systems; water storage, purification and distribution; treatment and disposal of waste; and flood and harbour protection works.

**Civil Engineering major, Construction sub-major**
Construction engineers work in the building and infrastructure sectors. Typical projects include office complexes, warehouses, residential homes, sporting, tourist and airport facilities, and hospitals.

**Civil Engineering major, Structures sub-major**
Structural engineers work with large, complex structures such as skyscrapers and large bridges. Typical employers include major commercial developers, government agencies and their contractors, and engineering consultancies.

**Civil Engineering and Environmental Engineering major**
Civil and Environmental engineers are sought by industries involved with water supply and sanitation, waste management, transportation and environmental management. Employers include local government, agencies for roads and other infrastructure, consultants, construction enterprises and environmental planning and regulatory groups.

**Electrical Engineering major**
Electrical engineers work in areas ranging from the generation and supply of electricity to the design of electrical appliances and biomedical applications. Electrical devices incorporate computer control in fields as diverse as health appliances, robotics, computer-controlled manufacturing, submarines, radar equipment, electric trains and aviation.

**Information and Communication Technologies Engineering major, Computer Systems sub-major**
Computer Systems engineers work in areas such as robotics, industrial process control, defence systems, telecommunications networks, multimedia and internet applications, and medical systems. They work on a wide range of projects, often in teams including electrical, mechanical and software engineers.

**Information and Communication Technologies Engineering major, Telecommunications sub-major**
Telecommunications engineers design and maintain digital, network and wireless communication systems. Opportunities are available in industries such as telecommunication companies, communication service providers and digital equipment designers and manufacturers.

**Information and Communication Technologies Engineering major, Software Engineering sub-major**
Software engineers develop software for systems as varied as telecommunications, manufacturing, robotics, the internet, defence, finance and environmental management. Careers in software engineering include work on different types of projects, and the opportunity to continually learn and use new and developing technologies.

**Innovation major**
The innovation major allows you to add an innovation dimension to any of the other majors. You will have the skills to identify commercial engineering opportunities and develop products and processes to meet those opportunities. You will be able to work in any of the areas relating to your chosen major.

**Mechanical Engineering major**
Mechanical engineers design, assemble and maintain moving things – from lunar rovers to solar cars, from windmills to power station turbines. They work with other professionals to design, manufacture, manage, control and improve mechanical systems. Career opportunities are available in areas such as the mining, aeronautical, manufacturing, biomedical, energy and environmental sectors.

**Mechanical and Mechatronic Engineering major**
Mechanical and mechatronic engineers work with both moving things and the advanced electronics that drive them. Career opportunities are available in areas such as biomedical and health, automotive, aviation, robotics and manufacturing.

**PROFESSIONAL RECOGNITION**
The Bachelor of Engineering is accredited by Engineers Australia (under the Washington Accord the degree is internationally recognised by countries including the UK, USA, Hong Kong, Malaysia, Korea, Japan, Ireland, New Zealand, Singapore, Canada, South Africa, Chinese Taipei, Russia and Turkey). Note, UTS is currently seeking accreditation for the Biomedical Engineering major with Engineers Australia.

# For more information about fees, see back page
**BACHELOR OF ENGINEERING SCIENCE**

This course is an engineering technologist-level program which is similar in nature to the Bachelor of Engineering (C10067) but does not lead to full professional engineering status. This course provides students with the skills required at an engineering technologist level and hence the ability to work with professional engineers without developing full professional engineering competencies.

<table>
<thead>
<tr>
<th>MAJORS</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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For more information about fees, see back page.

# Course Code: C10066
# CRICOS code: 033909D
# Course duration: 3 years
# Number of credit points: 144
# Intake: February / July
# Location: City campus
# Academic and additional requirements: See back cover
# English language requirements: See back cover
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<tr>
<th>Major</th>
<th>Year 1</th>
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</table>

**15 SUBJECT ICT CHOICE BLOCK**

- Applications Programming
- Software Engineering Practice
- Software Architecture
- Electronics and Circuits
- Advanced Digital Systems
- Data Acquisition and Distribution
- Embedded C
- Embedded Software
- Real-time Operating Systems
- Continuous Communications
- Discrete Communications
- Mobile Communications
- Communications Networks
- Network Security
- Network Planning and Management

**CAREER OPPORTUNITIES**

Career options include positions in engineering teams across the full spectrum of engineering activities. Specific career options depend on the major chosen.

# For more information about fees, see back page
BACHELOR OF ENGINEERING DIPLOMA IN ENGINEERING PRACTICE

This program is a comprehensive preparation for careers in the professional practice of engineering. Students learn to deal with complex systems and manage large-scale projects using the most appropriate emerging technologies. The course offers an authentic, professionally focused and practice-based education program with two semesters of internship (normally paid) in a real workplace setting. The Diploma in Engineering Practice has been specifically designed to allow students to accelerate their entry into the engineering profession, as a chartered professional engineer, by reducing the time required for professional experience after graduation.

Course Code: C10061
CRICOS code: 025003B
Course duration: 5 years
Number of credit points: 204
Intake: February /July
Location: City campus
Academic and additional requirements: See back cover
English language requirements: See back cover

MAJORS
Biomedical
Civil (including specialisation in Construction and Structures)
Civil and Environmental
Information and Communication Technologies (including sub-majors in Computer Systems, Software or Telecommunications)
Innovation
Electrical
Mechanical
Mechanical and Mechatronic
No specified major

COURSE STRUCTURE
The Bachelor of Engineering Diploma in Engineering Practice offers the same course structure as for the Bachelor of Engineering, with the addition of 2 six months full-time internships and academic preview and review coursework subjects incorporated into the Bachelor of Engineering program. See page 6 for Bachelor of Engineering course structure details.

PROFESSIONAL RECOGNITION
The Bachelor of Engineering is accredited by Engineers Australia (under the Washington Accord the degree is internationally recognised by countries including the UK, USA, Hong Kong, Malaysia, Korea, Japan, Ireland, New Zealand, Singapore, Canada, South Africa, Chinese Taipei, Russia and Turkey). For full details of course accreditation please refer to Engineers Australia website.
The Diploma in Engineering Practice allows students to accelerate their entry into the engineering profession as a chartered professional engineer by reducing the time required for professional experience after graduation.

CAREER OPPORTUNITIES
Refer to the Bachelor of Engineering on page 6.

This course includes a work-based training component which must be undertaken as part of the course of study and refers to all clinical, professional, industrial or other work placements.

# For more information about fees, see back page
**Entry into this course is by internal transfer only from C10063 Bachelor of Engineering Bachelor of Arts in International Studies**
Sagar Bhandari is from Kathmandu in Nepal. Sagar is currently enrolled in the five year Bachelor of Engineering Diploma of Engineering Practice degree majoring in Mechanical and Mechatronics Engineering. Sagar is also the recipient of the prestigious Dr John Nutt Scholarship.

“I’m from Kathmandu, the capital of Nepal. I chose to study Engineering at UTS because I wanted to come to Sydney and I had the choice of either University of Sydney or UTS and I chose UTS because of its high reputation in the engineering field. I particularly like the practical classes. In ‘Introduction to Mechanical and Mechatronic Engineering’ we had to make, on our own, a wind-powered vehicle which was a very challenging task to do in our first semester but it’s also one of the most interesting things I’ve done.

Initially I came for the four year course but I’ve now changed to the five year program which includes industry experience, or internships, which are for one semester each taken in different years. I think it is one of the best combinations because you get exposed to industry practice which changes the way you learn and prepares you for the workplace. I also find that we need to have more responsibility for our own learning. We’ve got lectures and tutorials and then U:PASS – I’ve been to U:PASS for two subjects. What U:PASS leaders do is they don’t teach like in a normal session. If you bring some problems, they solve the problem together with you, not for you. They give you the skills and the ideas, which is more helpful, rather than giving you the solution. Two U:PASS leaders for almost every class, and then regular U:PASS sessions, so we can access whenever we want to, like drop-in classes.

I applied for, and was awarded, the Dr John Nutt Scholarship for 2013 from the Faculty. I definitely wanted to apply for this one and had my eye on it from the beginning! International students often have to work and study, which increases your stress. As I get further in my course, the scholarship will definitely reduce my financial stress so that I can focus more on my studies. It is also great recognition of my academic achievements. One reason I chose UTS was for this scholarship. I really think that UTS encourages international students to apply to UTS and study here; even in the first semester we were able to apply for Achievement Scholarships.”

Sai Linn Soe is from Myeik in Myanmar (Burma). Sai is now enrolled in the Bachelor of Engineering Diploma of Engineering Practice majoring in Mechanical Engineering. He completed an advanced TAFE Diploma specialising in Mechanical Engineering and he is the proud recipient of International Undergraduate Achievement Scholarship.

“I’m an international student and have been in Australia since 2010. I first started off doing a TAFE Advanced Diploma at Granville specialising in Mechanical Engineering. Studying at TAFE is quite different to studying at university – now we are doing much more practical as well as theoretical things.

What I like most about my course are the calculations and doing designs, they really make me happy. In classes, I prefer to do group work, because not only we can share our knowledge that we have acquired in class, but we can also discuss our problems. Another thing is that we can have fun together so doing homework doesn’t get boring!

I’ve used support services like the Peer Networkers; the Peer Networkers played an essential part at the beginning of my time at UTS. As an international student, I was a little bit excited and nervous on my first day on campus because I didn’t know anybody there but then I saw all these young people who were all dressed in bright orange t-shirts – these were the Peer Network students – and they looked so eager to give a hand to the new students in a very warm and kind welcoming manner. Moreover, most of the teachers in my classes are great because their teaching method which is building up the creative thinking for the students themselves to apply to real life. In short, most of the UTS staff and students are very friendly and kind.”
WHY IT AT UTS?

INFORMATION TECHNOLOGY IN SYDNEY, AUSTRALIA
Australia is a major player in the field of Information Communication Technologies (ICT) in the Asia Pacific region with Sydney as the driving force behind the industry, both as a supplier and consumer of ICT goods and services. New South Wales leads all other Australian States and Territories in ICT research capabilities. There are more regional headquarters located in New South Wales than any other state in Australia and some of the world’s top ICT companies are based in Sydney, such as Atlassian, Google, IBM, Microsoft and Oracle. New South Wales also has the largest number of ICT specialist businesses in Australia accounting for 39 per cent of ICT businesses and 39 per cent of industry value-added output in Australia.1


INFORMATION TECHNOLOGY AT UTS
UTS: IT is a leader in practice-based IT education in Australia, actively engaging with industry to meet their current and future needs. Our courses are practical, industry-focused and are regularly updated so you know you are learning the skills that employers want.

Our courses provide the unique combination of computer science and information systems providing a broad perspective and multidisciplinary skills. With this mix of technical and business skills you don’t just learn the theory – you also learn how to use IT to solve business problems.

Subject to the availability of work placements, you also have the option of undertaking one year of paid work experience as part of your course through our industrial training program, the Diploma in Information Technology Professional Practice. This valuable professional experience provides you with a strong competitive advantage when seeking employment once you finish your course.

Our lecturers maintain cutting-edge IT skills through regular involvement in consultancy work and research with industry. With a range of expert staff with strong links to the IT industry our courses are current, relevant and are designed to meet the IT industry’s needs.

RESEARCH PATHWAYS
UTS: IT has built an impressive research profile so if you are already thinking about a research career, why not consider our Honours program? Research specialisations include: advanced analytics; bioinformatics; cloud computing; decision systems and e-service intelligence; information systems; interaction design; internetworking; knowledge discovery; mobile technologies; next generation IT services; quantum computation; and software development.

IT FACILITIES
UTS: IT is currently located in an award winning building with 16 large well-equipped PC laboratories running both Windows and Linux operating platforms. Specialist laboratories also operate in areas such as internetworking, games and computer graphics. The UTS: IT building is wireless and network connected with free internet access and remote access available from home for the convenience of our students. Access to the building and laboratories is available 24 hours a day, 7 days a week with exclusive access for IT students.

SCHOLARSHIPS
The Faculty of Engineering and Information Technology offers six Achievements Scholarships, each worth A$2000, to the highest achievers during their first semester of the Bachelor of Science in Information Technology. For more information visit: www.international-study.uts.edu.au#scholarships.
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

This course offers a sound education in all aspects of computing and information technology for students who intend to make a career in the profession, as well as providing a pathway to honours, postgraduate study or a research career.

This course adopts a practice-based approach to IT education and the course content is a mix of theory and practice. As well as gaining strong technical skills in IT, students gain skills in business analysis, problem solving, teamwork and communication. Employers look for graduates with industry experience and, in this course, students are exposed to real IT problems.

Course code: C10148
CRICOS code: 040941A
Course duration: 3 years
Number of credit points: 144
Intake: February / July
Location: City campus
Academic and additional requirements: See back cover

English language requirements: See back cover

COURSE STRUCTURE

Core [48 credit points] + Major [48 credit points] + Major [48 credit points] or
2 x Sub-majors [2 x 24 credit points] or
1 x Sub-major [24 credit points] + 24 credit points of electives
48 credit points of elective

Majors

Business Information Systems Management
Enterprise Systems Development
Internetworking and Applications
Data Analytics

Sub-Majors

Business Information Systems Management
Computer Graphics and Animation
Data Analytics
Enterprise Systems Development
Internetworking and Applications
Accounting for Small Business
Advertising Principles
Business Accounting
Electronics and Computer Interfacing
Employment Relations
Innovation

International Management
International Studies
Introductory Economics
Language Other Than English (LOTE)
Marketing Principles
Physics
Quantitative Management
Scientific Computing
Specialist Country Studies
Statistical Modelling

Major

Business Information Systems Management major
Enterprise Systems Development major

Year 1
Communication for IT Professionals
Introduction to Information Systems
Programming Fundamentals
Web Systems
Business Requirements Modelling
Networking Essentials
Collaborative Business Processes
Select 1 elective

 plays a major role in the IT industry.

Year 2
Database Fundamentals
Information System Development
Methodologies
Innovations for Global Relationship Management
Business Process and IT Strategy
Select 1 of the following:
Finance and IT
IT Operations Management
Select 3 electives

Year 3
Project Management and the Professional
Networked Enterprise Architecture
Strategic IT Project
Systems Testing and Quality Management
Select 4 electives

Select 1 of the following:
Web Services Development
Database Programming
Enterprise Development with .NET
Human-Computer Interaction
Cloud Computing and Software as a Service
Select 2 electives

Select 1 of the following:
Web Services Development
Software Architecture
Extreme Programming
Application Development with .NET
Object-relational Databases
Advanced Internet Programming
Cloud-based Enterprise Application Development
Select 3 electives

For more information about fees, see back page
<table>
<thead>
<tr>
<th>Major</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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</thead>
<tbody>
<tr>
<td>Internetworking and</td>
<td>Communication for IT Professionals</td>
<td>Database Fundamentals</td>
<td>Project Management and the Professional</td>
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<tr>
<td>Applications major</td>
<td>Introduction to Information Systems Programming Fundamentals</td>
<td>Web Services Development</td>
<td>Internetworking Project</td>
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<td></td>
<td>Web Systems</td>
<td>Routing and Internetworks</td>
<td>Select 2 of the following:</td>
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<tr>
<td></td>
<td>Business Requirements Modelling</td>
<td>Mobile Networking</td>
<td>- WANs and Virtual LANs</td>
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<td></td>
<td>Networking Essentials</td>
<td>Network Design</td>
<td>- Applications Programming</td>
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<td></td>
<td>Select 2 electives</td>
<td>Network Security</td>
<td>- e-Commerce</td>
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<td>Select 2 electives</td>
<td>- Network Management</td>
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<td>- Programming on the Internet</td>
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<td></td>
<td>- network Security</td>
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<td></td>
<td></td>
<td></td>
<td>- mobile applications development</td>
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<td></td>
<td></td>
<td></td>
<td>- network design</td>
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<td>- network servers</td>
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<td>- applying network security</td>
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<td></td>
<td>- mobile computing Project</td>
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<td></td>
<td></td>
<td>- cloud computing Infrastructure</td>
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<td>Select 4 electives</td>
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<tr>
<td>Data Analytics major</td>
<td>Communication for IT Professionals</td>
<td>Database Fundamentals</td>
<td>Project Management and the Professional</td>
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<td>Introduction to Information Systems Programming Fundamentals</td>
<td>Introduction to Data Analytics</td>
<td>Internetworking Project</td>
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<td>Web Systems</td>
<td>Introduction to Linear Dynamical Systems</td>
<td>Select 2 of the following:</td>
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<td>Business Requirements Modelling</td>
<td>Introduction to Statistics</td>
<td>- WANs and Virtual LANs</td>
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<td>Networking Essentials</td>
<td>Select 1 of the following:</td>
<td>- Applications Programming</td>
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<td></td>
<td>Select 2 electives</td>
<td>Advanced Data Analytics</td>
<td>- e-Commerce</td>
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<td>Object-relational Databases</td>
<td>- Network Management</td>
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<td>Image Processing and Pattern Recognition</td>
<td>- Programming on the Internet</td>
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<td>Intelligent Agents</td>
<td>- network Security</td>
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<td>Select 3 electives</td>
<td>- mobile applications development</td>
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<td>- network design</td>
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<td>Select 3 electives</td>
</tr>
<tr>
<td>IT EXPERIENCE PROGRAM</td>
<td>Industrial training is available as an additional year and students enrol in the Diploma in Information Technology Professional Practice once they have secured suitable full-time employment in the IT industry. This incorporates a minimum of nine months’ full-time work experience with four supporting subjects at UTS. Students normally undertake industrial training after completing year 2.</td>
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</tr>
<tr>
<td>PROFESSIONAL RECOGNITION</td>
<td>Graduates are eligible for professional-level membership of the Australian Computer Society.</td>
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<tr>
<td>CAREER OPPORTUNITIES</td>
<td>Career options include business analyst, IT project manager, network specialist, software developer, system analyst or web developer.</td>
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</tbody>
</table>

### BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

This course offers a sound education in all aspects of computing and information technology for students who intend to make a career in the profession, as well as providing a pathway to honours, postgraduate study and a research career. The course adopts a practice-based approach to IT education. Its content is designed with a mix of theory and practice. As well as gaining strong technical skills in IT, students gain skills in problem solving, teamwork and communication. Employers look for graduates with industry experience and, in this course, students are exposed to real IT problems and apply classroom learning on the job through the Diploma in Information Technology Professional Practice.

**Course code:** C10152  
**CRICOS code:** 040940B  
**Course duration:** 4 years  
**Number of credit points:** 156  
**Intake:** February / July  
**Location:** City campus  
**Academic and additional requirements:** See back cover  
**English language requirements:** See back cover

### Major
For a list of majors, please refer to Bachelor of Science in Information Technology on previous page.

### Sub-Major
For a list of sub-majors, please refer to Bachelor of Science in Information Technology on previous page.

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This course includes a work-based training component which must be undertaken as part of the course of study and refers to all clinical, professional, industrial or other work placements.
 COURSE STRUCTURE
The Bachelor of Science in Information Technology Diploma in Information Technology Professional Practice offers the same course structure as for the Bachelor of Science in Information Technology, with the addition of a minimum of nine months’ work experience and four supporting subjects at UTS. Full-time students normally undertake the diploma after completing Year 2 and after obtaining suitable full-time employment in the information technology industry. International students can work full-time for the duration of the diploma.

Subjects undertaken during the Diploma of Information Technology Professional Practice:
Preparation for and Review of IT Experience | IT Experience 1
Review of IT Experience | IT Experience 2

PROFESSIONAL RECOGNITION
Refer to the Bachelor of Science in Information Technology above.

CAREER OPPORTUNITIES
Refer to the Bachelor of Science in Information Technology above.

BACHELOR OF SCIENCE (HONOURS) IN INFORMATION TECHNOLOGY
This course provides the opportunity for students to develop research skills, and provides greater breadth and depth in a specific area of information technology. Graduates are prepared for a leading role in industry-relevant research. In particular the program aims to provide students:
> for the in-depth study of particular topics in information technology
> with the experience of undertaking a research-oriented project
> with a basis for postgraduate research or a career in industrial research and development.

Note: Applicants must have completed a recognised Australian bachelor’s degree (or equivalent) in a relevant discipline at an appropriate level.

BACHELOR OF SCIENCE IN GAMES DEVELOPMENT
This course offers a sound education in all aspects of information technology and develops the diverse skills necessary for a career in computer games development. Students gain enhanced work-ready expertise in games development; practical problem-solving skills based on leading-edge It theory; communication skills in a variety of forms including written, verbal, online and technical literacies; and an awareness of the principles of ethics and corporate governance in a variety of settings.

Note: Applicants who have completed the 19050 Diploma of Information Technology (Games Development) at TAFE NSW receive 48 credit points of credit recognition.

PROFESSIOnAL RECOGnITIOn CAREER OPPORTUnITIES
Professionals are eligible for professional-level membership of the Australian Computer Society.

COURSE STRUCTURE
Core IT (48 credit points) + Core Games Development (48 credit points) + Sub-major / Electives (48 credit points)

Year 1
Communication for IT Professionals
Introduction to Information Systems
Programming Fundamentals
Web Systems
Business Requirements Modelling
Networking Essentials
Applications Programming
Digital Multimedia

Year 2
Introduction to Computer Game Design
Introduction to Computer Graphics
Database Fundamentals
Select 1 of the following:
> 3D Computer Animation
> Computer Graphics Rendering Techniques
> Data Structures and Algorithms
> Introduction to Computer Game Programming
Programming for Special Effects
Select 4 electives

Year 3
Project Management and the Professional
Game Design Studio 1
Game Design Studio 2
Select 1 of the following:
> 3D Computer Animation
> Computer Graphics Rendering Techniques
> Data Structures and Algorithms
> Introduction to Computer Game Programming
Human-Computer Interaction
Programming for Special Effects
Select 4 electives

# For more information about fees, see back page
Novia Myta Sartika Dewi is from Jakarta, the capital of Indonesia. Novia completed a UTS InSEARCH diploma, which meant she could go straight into her second year of the Bachelor of Science in Information Technology majoring in Business Information Systems Management and sub-majoring in Marketing Principles.

"I completed my high school in Singapore and my mother was very keen for me to do petroleum engineering which isn’t offered in Singapore, so we decided on Sydney as it’s reasonably close to Singapore. I was keen on a design course; medicine was too long, and then my agent suggested an IT course at UTS because I’d achieved pretty high marks in computing. When I had completed the UTS InSEARCH diploma and done really well I chose the Bachelor of Science in Information Technology – business and IT are a good mix – my sub-major is in marketing. I’ve already completed an internship with a software development company – to be in a real workplace environment was a challenge; I got to work on a real project and enjoyed the whole experience thoroughly.

This year I participated in the UTS Accomplish program. This is a program where you can find UTS 100 most motivated students. These 100 students were chosen based on their application; they also have to complete 100 hours of paid work, be involved in all organised workshops and also be an active member of student organisations I also give talks to high schools as a student representative because I want to encourage more girls to consider taking IT degrees. High school visits are organised occasionally by Women in Engineering & IT, where high school girls are invited to come to UTS for the day. We show them the facilities and show them how IT works, in a broad sense, and how it relates to computers for example through Facebook, of course Mark Zuckerberg, online digital IT; just things that we would expect to live with in the future. That, really, if you have an IT qualification, the world is your oyster! We get a lot of network opportunities through the faculty with companies; events are organised for us to meet employers. UTS is good in IT and I’m proud to be part of it all.”

UTS is so prestigious that I heard of it a lot from my teachers back in AUSP, TAFE and from my friends. They said the curriculum here is taught practically. Actually, I find that’s true now I’m studying here. The lecturers and tutors are very helpful and active to help students step by step to help them develop the knowledge academically and practically. In addition, the library is very extensive and you can get almost everything online. I really like the presentation rooms where you can go and practice for group work and for presentations that you have to give in class. It’s open till 10 in the evenings. UTS keeps on building modern facilities to facilitate the study and enjoyment for its students such as a sports complex which is being built underground inside the main campus, and the IT Building 10 provides many on-campus computers to students so that you can use them to study online anytime.”

Thanh Thao Le is from Ho Chi Minh City, the largest city in Vietnam. Thanh is enrolled in the Bachelor of Science in Information Technology majoring in Internetworking and Applications. He is also a recipient of the Dean’s ACS Foundation Scholarships.

"I completed a computing diploma back in Vietnam where I learnt a lot about applications and then worked in an IT company at their helpdesk. My job there was more related to hardware and networking though and I felt I needed to learn more to advance my career. Some friends of mine had told me that UTS is very strong in the IT field but I first studied at TAFE in Sydney for two years; it was a Diploma in IT and Networking. I then chose the UTS Bachelor of Science in IT because I think networking is very important in order to advance in the sort of career I want and useful for my work in Vietnam. I had no knowledge and am now learning the theory. Also, once I got here, to UTS, I got a fair few exemptions from subjects undertaken at TAFE.

UTS: IT Profiles

FROM INDONESIA
Studying Bachelor of Science in Information Technology

FROM VIETNAM
Studying Bachelor of Science in Information Technology
HOW TO APPLY
For information or to download the application form, please visit www.international-study.uts.edu.au/apply.

SCHOLARSHIPS
UTS:IT offers the Achievement Scholarships for International Postgraduate Students enrolled in particular courses.
For more information please visit www.it.uts.edu.au/international.

FEES
Tuition fees vary between courses and range from approximately A$10,740 - A$14,490 per semester for undergraduate study in 2013. Tuition fees must be paid in advance each semester. Textbooks and other course materials are additional expenses.
The fees for any semester are determined by the number of credit points being undertaken in that semester. Unless noted, the quoted semester tuition fee assumes you will enrol in a standard 100 per cent credit point load for your chosen course, which is normally 24 credit points per semester. Your actual semester course cost may differ from this figure depending on the course and the number of credit points taken per semester.

As an international student you are required to complete your degree on time. This normally involves being enrolled full-time each semester.

Please note that fees are subject to increase each academic year.

For detailed information about tuition fees for UTS courses and the UTS Fees and Refund Protocol, visit: www.international-study.uts.edu.au/fees.

Student Services and Amenities Fee
In 2011 the Australian Government passed legislation to allow Australian Universities to have a Student Services and Amenities Fee (SSAF) to support the maintenance of a range of student services at universities. At UTS, the SSAF funds provide support to Students’ Association sponsored activities such as the second-hand bookstore, the UTS Union food, beverage and retail outlets and student clubs, and UTS services supporting skills and language development and the UTS Student Legal Centre.
The SSAF will be applicable for international students from 2014 onwards. You will be required to pay the SSAF in each semester in which you enrol and the fee will be due after the census date of each semester. The SSAF is non-refundable after this date. To give you an estimation of the cost, in 2013 the SSAF is A$136.50 per semester for full-time students (those with a study load of 18 credit points and higher per semester). The SSAF will be subject to an annual government set indexation increase.

For further information go to: www.sau.uts.edu.au/fees/other/service.html

ACADEMIC REQUIREMENTS
Entry into UTS: Engineering and IT courses is competitive. You require a competitive pass in a recognised matriculation examination equivalent to an Australian Year 12 qualification.

For more information visit: www.uts.edu.au/international.

ENGLISH LANGUAGE REQUIREMENTS
Students whose prior education was not conducted in English must have successfully completed one of the following English language tests or programs within the last two years:

FOR COURSEWORK PROGRAMS
> an IELTS score of 6.0 overall with 6.0 in writing; or
> a TOEFL (computer-based) score of 231 with essay rating 4.5; or
> a TOEFL (Internet-based) score of 60-78 with a writing score of 21; or
> successful completion of the UTS:Insearch Direct Entry English Program (DEEP) at the required level; or
> a Pearson Test of English (PTE) score of 50-57;

FOR RESEARCH PROGRAMS
> an IELTS score of 6.0 overall with 6.0 in writing; or
> a TOEFL (Internet based) score of 80 with essay rating 21;
> UTS:Insearch Direct Entry English Program (DEEP) at C level;
> A Pearson Test of English (PTE) score of 58.

For more information visit: www.uts.edu.au/international/prospective/studying/require/english.html.

UTS ENGINEERING AND IT PATHWAYS PROGRAMS
UTS:Insearch has a pathway program for students who do not qualify to enter directly into our degrees. Successful completion of the Diploma program with the required marks will provide direct entry into the second year of our Bachelor of Science in IT and the Bachelor of Business, Bachelor of Science in IT, and Bachelor of Engineering.

For more information please visit www.insearch.edu.au.

APPLYING FOR CREDIT RECOGNITION
Your prior learning may be considered for credit towards a UTS undergraduate or graduate coursework program where the prior learning is related to assessable components of the course.

For detailed information visit www.uts.edu.au/international/prospective/about/admission.html.

CONTACT US
For further information and application enquires please contact:

UTS International
Web: www.uts.edu.au/international/
Phone: 1800 774 816 free call within Australia
Or +61 3 9627 4816 calling from outside Australia
Fax: +61 2 9514 1530
Email: international@uts.edu.au

Disclaimer: The University of Technology, Sydney (UTS) has used its best efforts to ensure that the information contained in this guide was correct and current as at June 2013. The information is provided in good faith as a guide and resource for new students. UTS accepts no responsibility for any error or omission. Any information contained in this guide is subject to change from time to time. You are advised to check the accuracy and currency of the information with the relevant faculty or unit within UTS, or with the relevant external organisation, before acting upon the information.

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UTS:INSEARCH PROVIDER CODE: 00859D

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