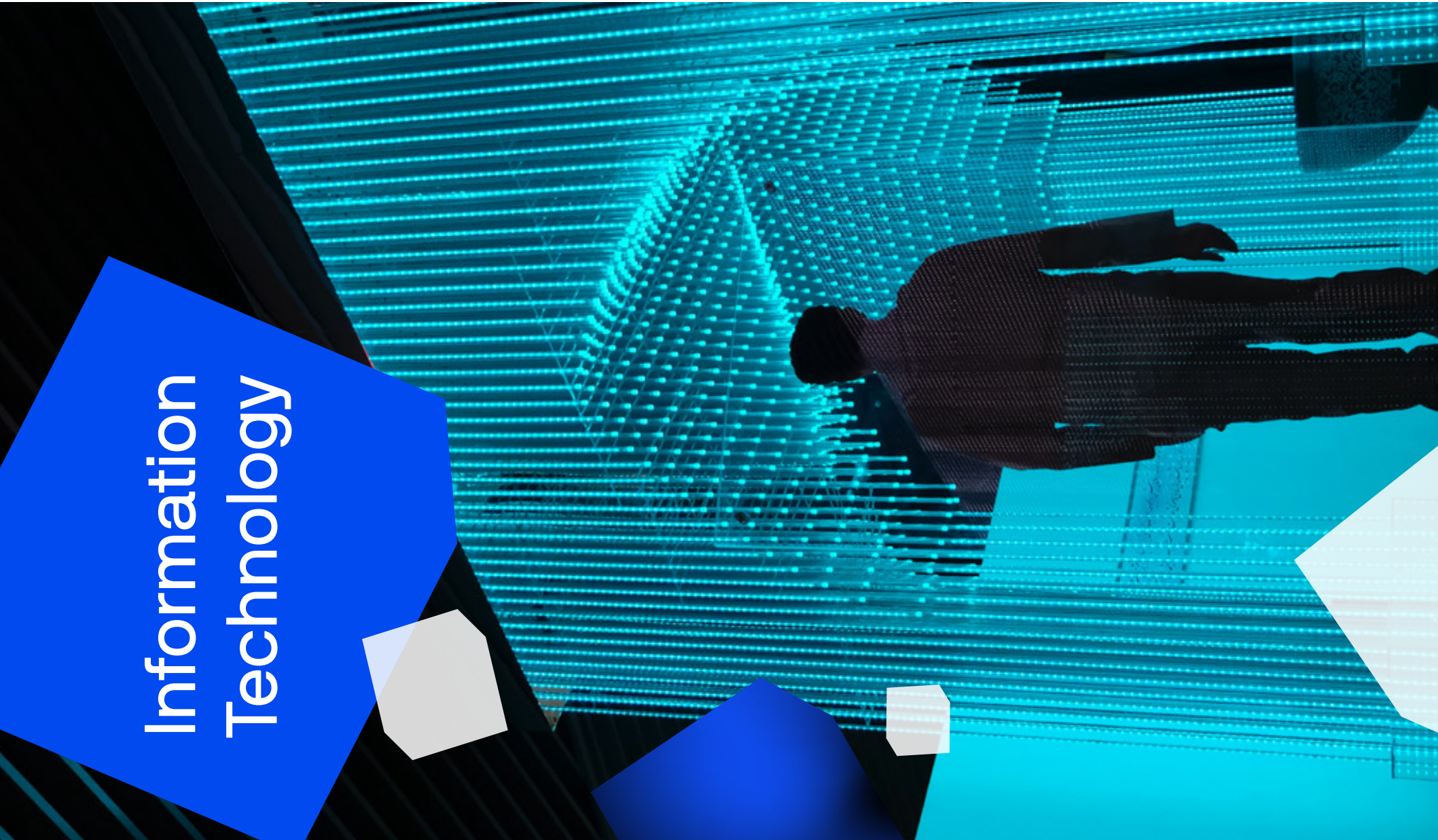
Postgraduate Courses 2023

Faculty of Engineering and IT



Information Technology


Entrepreneurial.
Creative.


Authentic.
Vibrant. Dynamic.


UTS
Darling Harbour
Anzac Bridge
Harbour Bridge
FISH MARKET
THE STAR
BUS

Contents

Faculty snapshot

11,439	Total number of enrolments
8029	Undergraduate enrolments
2373	Postgraduate coursework enrolments
1037	Higher Degree Research enrolments

UTS at a glance

2289	Higher degree research
10,223	Postgraduate coursework
33,806	Undergraduate, enabling and non-award

UTS student diversity

29%	are 25 or older
49%	are female
48%	were born outside of Australia

Please note the above numbers are approximate as of November 2020.

Contact us

Domestic students

Tel: 1300 ASK UTS (1300 275 887)
Online inquiry: ask.uts.edu.au
Email: FEIT@uts.edu.au

International students

Tel: 1800 774 816 (free call within Australia)
Tel: +61 3 9627 4816 (for international calls)
Web: international.uts.edu.au
Email: international@uts.edu.au

Connect with us

UTSFEIT
UTSengineeringandIT
UTSFEIT
UTSInternationalstudents
UTSINT

Acknowledgement of Country

UTS acknowledges the Gadigal People of the Eora Nation, the Boorooberongal People of the Dharug Nation, the Bidiagal people and the Gamaygal people upon whose ancestral lands our university stands. We would also like to pay respect to the Elders both past and present, acknowledging them as the traditional custodians of knowledge for these lands.

Why Information Technology at UTS?

The role of a technology professional is evolving.

You're expected to guide new possibilities, drive strategy and innovation all whilst delivering improvements and end-to-end customer experience.

Join the future of Information Technology at UTS.

BE AMONG THE BEST

We're ranked in the top 200 universities globally placing us in the top 1%. We're also the no.1 young university in Australia.

JOIN THE GLOBAL KNOWLEDGE ECONOMY

We have over 1000 industry partners and together we are advancing and exploring future technologies to benefit our world. Join this network of experts and go beyond the expected to deliver the next generation of innovation.

BECOME THE INTRAPRENEUR

Do you have what it takes to lead and innovate? We need intrapreneurs to take business to the next level and keep our economy competitive on a global scale. We challenge you to build your IT skills in a business context, giving you the knowledge and practice-oriented skills to do so.

COLLABORATIVE ECOSYSTEM

Our building is an incubator for creativity, knowledge and innovation. Its design facilitates agile project work and integrates of latest technology systems allowing students to collaborate, ideate and innovate, all based on the CBD fringe.

CERTIFIED CISCO ACADEMY

CISCO certifications confirm your ability to use the best networking and business communication systems, giving you a competitive edge. UTS is equipped with five networking labs, using the latest CISCO Systems to ensure you have hands-on experience with routing, switching, security, wireless and VoIP.

ANNE GARDNER – ASSOCIATE DEAN, LEARNING & TEACHING

"UTS offers transformative learning experiences. We prepare students for their future careers through practical, real-world experience. For example, our students engage with industry and researchers in studio learning and practical projects, define problems and develop solutions through design thinking, have internship opportunities, and showcase their skills and capabilities through industry networking, career and award events.

Our facilities have undergone a one billion dollar redevelopment to offer one of the most dynamic, interconnected and student-focused spaces in the world. The UTS Software Studio, 3D Data Arena and ProtoSpace 3D printing facility are giving students real experience that promotes innovation and collaboration.

At UTS, we're preparing students for the future of work."

NO.1
in Australia for Computer Science & Engineering*

Academic Ranking of World Universities (ARWU) 2021

62nd
Globally for graduate employability and **5th** in Australia

QS Graduate Employability Rankings 2022

Top 100
universities globally

Engineering/Technology & Computer Science

Academic Ranking of World Universities (ARWU) 2021

5stars
for excellence across 7 categories

★ ★ ★ ★ ★

(QS Stars Rating 2018–2021)

NO.1
UTS ranked Australia's #1 young* uni

*Times Higher Education 150 Under 50 rankings, 2021
QS World University Rankings Top 50 Under 50, 2021

NO.11
in Computer Science

Academic Ranking of World Universities (ARWU) 2021

UTS ranked 1st in Australia and 9th globally in the Times Higher Education Young UniversityRankings

2021 Global Rankings

Almost 80%
of UTS's assessed research areas rated as having a "high" impact beyond academia (the highest proportion in the country)

2018 Engagement and Impact Assessment (EIA)

Top 50
Global ranking Computer Science

Academic Ranking of World Universities (ARWU) conducted by the Shanghai Rankings 2021

Your questions answered

DO I NEED A BACHELOR'S DEGREE TO DO A MASTER'S DEGREE?

The traditional path to postgraduate study is via a completed bachelor's degree, but if you have other qualifications and professional experience, you may be eligible to enter a graduate certificate.

Graduate certificates set you on the path to postgraduate study, and you finish with a respected qualification after only 4 subjects. They make up the first four subjects of a master's, so if you complete the graduate certificate at the required level you can continue your studies in the related master's course.

HOW MUCH WILL IT COST?

Postgraduate study is an investment in your future, not just financially, but in time as well. Tuition fees are determined by the course in which you are enrolled and the credit point value of the subjects.

You can calculate an approximate course fee using the UTS Course Fee Calculator.

uts.edu.au/future-students/postgraduate/essential-info/what-will-it-cost

IS THERE A STUDENT LOAN SYSTEM FOR POSTGRADUATE STUDENTS?

Yes. Domestic coursework students may qualify for FEE-HELP, a government loan scheme. FEE-HELP allows eligible students to defer payment of some or all of their tuition fees. The loan is repaid through the taxation system.

studyassist.gov.au/help-loans-and-csps/fee-help

Alternatively, if what you are studying is directly related to your current job and you pay your fees up front, you may also be able to claim your fees and other study related expenses as a tax deduction. See the ATO website for more details.

CAN I STUDY PART-TIME?

Yes. All postgraduate courses are available part-time to domestic students. UTS class times are designed with busy professionals in mind, with day and evening options available. Part-time students undertake less than 18 credit points per session and have the option to vary their study load each session to suit their schedule. You can view the timetable at:

timetable.uts.edu.au

AM I ELIGIBLE FOR RECOGNITION OF PRIOR LEARNING (CREDIT)?

All applicants are assessed individually based on relevant tertiary qualifications. If you have a recent tertiary qualification in information technology, you may be eligible for up to 24 credit points that cover the basics you already know.

uts.edu.au/future-students/information-technology/essential-information/recognition-prior-learning

CAN I TRANSFER BETWEEN A GRADUATE CERTIFICATE AND A MASTER'S DEGREE?

Yes. The majority of our courses are articulated, meaning you can begin with a 24 credit point (4-subject) graduate certificate and apply to have your subjects credited towards an appropriate Master's course. Alternatively, if you successfully complete the first 24 credit points of the Master's and choose not to continue on with your studies, you may still graduate with a graduate certificate†. See articulation chart on page 9.

† International students may have visa restrictions that prevent course articulation

ARE THE IT COURSES PROFESSIONALLY RECOGNISED?

Graduates of certain Master's courses are eligible to apply for professional-level membership of the Australian Computer Society. Refer to the individual course information for further details.

HOW CAN I APPLY?

Please refer to page 48 for full details on the application process.

For questions and further information, please contact:

Email: feit@uts.edu.au

Phone: +61 2 9514 2666

Program articulation

Our postgraduate programs are offered in a range of formats that provide alternative entry paths and study durations.

They are linked qualifications, meaning they can be combined towards a higher qualification if you decide to continue your studies.

GRADUATE CERTIFICATE

Duration: 1 session (full time), 1 year (part time)

Start with a graduate certificate and study the first four subjects of a master's. These courses will help you put the foundations in place before you pursue advanced studies in a master's.

GRADUATE DIPLOMA

Duration: 1 year (full time), 2 years (part time)

You can choose to exit a master's degree early with a graduate diploma.

MASTER'S

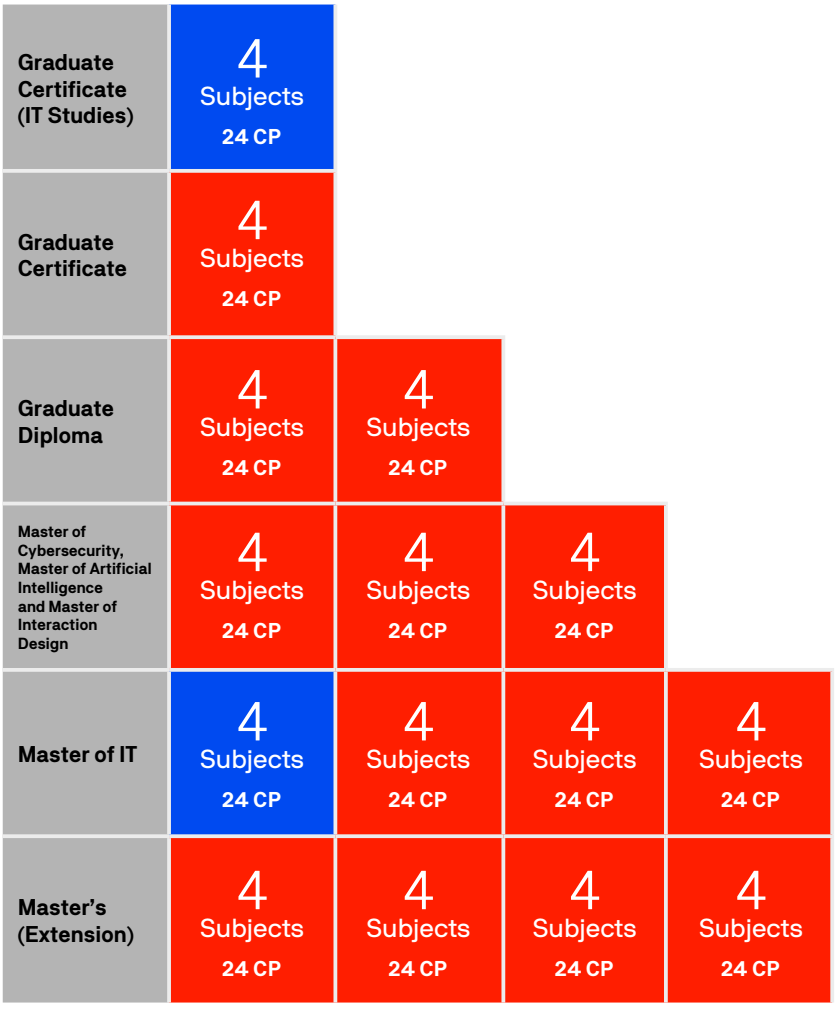
Duration: 1.5-2 years (full time), 3-4 years (part time)

Theoretical knowledge, practical application: a master's degree combines both in perfect balance. You'll gain a professional level skillset, thorough theoretical foundations, and an understanding of how to apply them in your chosen field. Depending on the discipline you study, you might also gain recognition or qualifications from associated professional organisations.

MASTER'S (EXTENSION)

Duration: 2 years (full time), 4 years (part time)

Take your knowledge one step further with an extension master's. This qualification provides depth and expertise in your area of interest, beyond the conventional master's structure. You'll benefit from flexible subject choices and a specialist qualification that sets you apart.



- Credit points can vary across courses. See credit points listed for a specific course.
- Academic requirements must be achieved to transfer to the next stage.
- Applications are assessed on academic merit and work experience.

IT precinct

There is no better place to see your future from.

TECH LAB

Tech Lab is an engineering and IT facility inspiring innovation and collaboration between expert researchers, industry partners and government.

The multi-functional site features 9000 square meters of office and laboratory space dedicated to technology innovation.

PROTOSPACE

ProtoSpace is our purpose-built additive manufacturing facility, incorporating 3D printing designed to bring prototype testing and product manufacture within the reach of UTS students.

SOFTWARE DEVELOPMENT STUDIO

A rich environment for you to become professionally competent via an industry collaborative software development experience throughout your degree.

IN-BUILT RESEARCH SENSORS

The building itself is a living, breathing laboratory embedded with wireless sensors to monitor temperature, air quality, noise and dust particles.

LEARNING PRECINCT

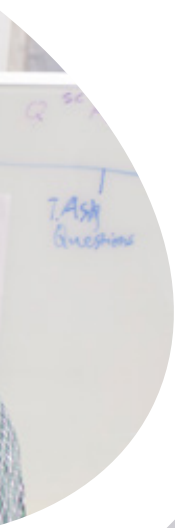
In between classes, you can study or conduct group work in the FEIT Learning Precinct. This student space is where you can access teachers for individual and small group support, as well as reference material and software and hardware resources.

DATA ARENA

This 3D data visualisation arena aids researchers to visually present and interact with complex data sets and 3D-spatial modules. It utilises projectors and stimulates weather such as wind and lightning to provide the experience of being immersed in a huge 3D virtual reality experience.

UTS LIBRARY

The UTS Library has 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.



DATA LOUNGE

Equipped with a next-generation multi-user, multi-touch interactive LCD video wall and host for virtual applications, UTS Data Lounge is part of a broad suite of offerings aimed at democratising access and knowledge to new technologies for industry and UTS community.

Academic leaders

In the Faculty of Engineering and IT we teach from experience.

Rene Leveaux, Senior Lecturer
School of Professional Practice and Leadership

With a longstanding track record in both academia and sport, Rene, is a key member of the teaching team in the School of Professional Practice and Leadership. His research interests include contract management, service level agreements, sports and technology.

uts.edu.au/staff/rene.leveaux

Associate Professor Qiang Wu
School of Electrical and Data Engineering

Qiang's research interests include computer vision, image processing, pattern recognition, machine learning and multimedia processing. His research outcomes have been published in many leading international conferences and international journals.

Qiang is a principal investigator and/or a technology lead in several industry research projects collaborating with Toshiba, Microsoft, Nokia, Huawei, and Westpac Bank. He also serves as a reviewer for leading journals and has been involved in a number of international conferences.

uts.edu.au/staff/qiang.wu

Dr. Wenjing Jia
School of Electrical and Data Engineering

Wenjing is a key member of the teaching team for internetworking-related subjects. She has been a Cisco qualified instructor since 2008 and Cisco Certified Instructor Trainer since 2012. Wenjing's research delves into image and video analysis, algorithms and applications for computer vision, and visual pattern recognition.

uts.edu.au/staff/wenjing.jia

Professor Francesca Iacopi, School of Electrical and Data Engineering

Francesca is a materials scientist and nanoelectronics expert with nearly 20 years of industry and academic experience. Among her accolades is a Global Innovation Award at the 2014 TechConnect World Summit in Washington DC, for discovering new graphene fabrication processes.

Her research interests involve designing nanodevices with ultra-low energy consumption and minimal loss that contribute to a sustainable future. Francesca's teaching areas include IoT components and technologies, micro and nanofabrication, materials science and semiconductor technology.

Collaborating, among others, with partners from Intel, AMD, Samsung and Texas Instruments on electronics miniaturisation, Francesca enabled the use of nanoporous insulators in modern semiconductors.

uts.edu.au/staff/francesca.iacopi

Professor Paul Kennedy, School of Computer Science

Paul has received an Office for Learning and Teaching (OLT) Citation for Outstanding Contributions to Student Learning as well as a UTS Learning and Teaching Award for Strengthening the UTS Model of Learning for "a decade long contribution to data analytics teaching, learning and academic leadership." His research focuses on the data analytics of biomedical data, primarily childhood cancer.

uts.edu.au/staff/paul.kennedy

Distinguished Professor Jie Lu

Jie is the Director of Decision Systems & e-Service Intelligence Lab in the Centre for Quantum Computing and Information Systems. Her main research interests lie in the area of decision support systems, recommender systems, knowledge-based prediction and warning systems, fuzzy and uncertain information processing and e-Service intelligence. She has won seven Australian Research Council (ARC) Discovery Project grants and 10 other research grants. She received the first UTS Research Excellence Medal for Teaching and Research Integration in 2010. In 2019 she received the 2019 Australian Laureate Fellowship.

uts.edu.au/staff/jie.lu

Scholarships

uts.edu.au/scholarships

UTS is making a big investment in high-achieving international students. We've dedicated A$30 million in grants and scholarship support over a five-year period.

As part of our ongoing commitment to educating the world's future leaders, we're recognising students from around the globe who've put in the hard work and perseverance to excel in their chosen field.

Through offering scholarships to deserving students, we're sharing our passion for education, equity and innovation.

We want our international students to return home equipped with specialised knowledge, technological innovation and global perspectives so they can contribute to their home country's future.

Faculty scholarships

uts.edu.au/scholarships

Many UTS faculties offer international scholarships to reward achievement and recognise motivation to succeed.

As these scholarships are always evolving visit our website for current information.

Postgraduate scholarships and grants

uts.edu.au/scholarships

Our scholarships are for top performers. These highly competitive scholarships and grants are open to international students and are awarded on the basis of academic achievement. To be eligible, you must meet the selection criteria and have been admitted to, or are eligible for admission to, a course at UTS.

Note: several UTS scholarships, including full tuition scholarships, also require a personal written statement.

Australian Government scholarships

dfat.gov.au/people-to-people/australia-awards/pages/australia-awards-scholarships.aspx

The prestigious Australia Awards International Scholarships and Fellowships offer the next generation of global leaders an opportunity to undertake study, research and professional development in Australia.

Funded by the Australian Government's Department of Foreign Affairs and Trade, the awards help international students gain qualifications that will allow them to contribute to development success back home.

Home country sponsored scholarships

A number of countries offer scholarships or sponsorship opportunities to citizens who wish to study in Australia:

- **Brazil**: Program for Institutional Internationalisation of the Higher Education Institutions and Research Institutions of Brazil (PrInt)
- **Colombia**: Fundación para el Futuro de Colombia (COLFUTURO) scholarship program
- **China**: China Scholarship Council and Dr Chau Chak Wing Scholarships and China Scholarship Council
- **Ecuador**: Secretaría de Educación Superior, Ciencia, Tecnología e Innovación (SENESCYT) Program
- **Guatemala**: Guatafuturo - loans and scholarships program for Guatemalan citizens who want to study a Master, PhD or Graduate diploma overseas.
- **Indonesia** – Direktorat Jenderal Pendidikan Tinggi (DIKTI) and Lembaga Pengelola Dana Pendidikan (LPDP)
- **Mexico**: Fondo para el Desarrollo de Recursos Humanos (FIDERH)
- **Peru**: Programa Nacional de Becas y Crédito Educativo (PRONABEC)
- **Vietnam**: Vietnam International Education Development (VIED)

Check with your home government for current information.

Alumni advantage

alumni.uts.edu.au/advantage

UTS graduates who are thinking of pursuing further study could be eligible for a 10 per cent saving on their tuition fees through the Alumni Advantage Program. This discount applies to full-fee-paying courses and will be applied automatically when you enrol.

Financial aid and loans

If you're from Canada, Denmark, Germany, Norway, Sweden or the USA, you may be eligible for financial aid to support your studies at UTS. Check with your government for requirements.

Short courses

Stay up to date with emerging trends via UTS short courses and Microcredentials.

Technology is at the core of the current digital revolution. As a working professional you are challenged to stay up to date with emerging trends, understand the latest technology, integrate opportunities into business practice and importantly, drive innovation.

A short course is a step in the right direction to discover these new areas of innovation, and how exactly you can apply it to your business.

Choose a half-day, one-day or five-day program that aligns with your individual learning goals, career aspirations or business strategy. Topics range from 5G through to AI & ML, Industry 4.0, quantum software and IoT.

Microcredentials blend high-touch live teaching with flexible self-study to fit real world schedules. They can be taken as stand-alone courses which can also contribute to future award study.

open.uts.edu.au

GLOBAL EXPERTS

Through collaborative partnerships with industry and government sectors, UTS experts design and deliver short courses on trending topics in the technology industry.

These topics meet industry demand and future predictions on key areas of innovation.

PRACTICAL TAKE-AWAYS

Apply your learning outcomes to business strategy and develop and an action plan that creates new opportunities for business transformation.

FLEXIBILITY

Choose a half-day, one-day or five-day program that aligns with your learning goals. Programs run multiple times during the year giving you options that allow for your current work and family commitments.

TAILORED COURSES

Does your team need something more specific? We can tailor the course to meet your learning objectives and specific organisational goals.

FACE-TO-FACE AND ONLINE LEARNING

Located on the CBD fringe, the UTS Faculty of Engineering and IT offers face-to-face and online courses. This includes access to next generation visualisation and collaboration technologies.

HAVE A QUESTION?

Contact
e: FEITshortcourses@uts.edu.au

Choose your program

INFORMATION TECHNOLOGY	– Master of Information Technology – Master of Information Technology (Extension) – Master of Information Technology (Advanced) – Graduate Certificate in Information Technology – Graduate Certificate in Information Technology Studies **Majors** – Business Information Systems – Cyber Security – Data Analytics – Interactive Media – Internetworking – Software Development – Choice (No specified major)
INFORMATION SYSTEMS	– Master of Information Systems – Master of Information Systems (Extension) – Master of Information Systems (Advanced) – Graduate Certificate in Information Systems
INTERACTION DESIGN	– Master of Interaction Design – Master of Interaction Design (Extension) – Graduate Certificate in Interaction Design
ARTIFICIAL INTELLIGENCE	– Master of AI – Diploma of AI
MASTER OF CYBERSECURITY	– Master of Cybersecurity – Master of Cybersecurity (Extension)
TECHNOLOGY	– Master of Technology – Graduate Diploma in Technology – Graduate Certificate in Technology
PROFESSIONAL PRACTICE	– Master of Professional Practice – Graduate Diploma in Professional Practice – Graduate Certificate in Professional Practice
ANIMATION & VISUALISATION	– Master of Animation and Visualisation – Graduate Certificate in Animation and Visualisation
HIGHER DEGREES BY RESEARCH	– Doctor of Philosophy – Master of Science (Research) in Computing Sciences – Master of Analytics (Research)

Information Technology

Business Information Systems | Cyber Security | Data Analytics | Interactive Media | Internetworking | Software Development | Choice (No specified major)

Rapid advances in IT are reshaping the future of work. Stay connected with the latest technical knowledge and gain key leadership skills to get a competitive edge. Work with global experts in state-of-the-art facilities and revolutionise the future you.

FLEXIBLE WORK LIFE BALANCE

We understand there's more to life than study. Schedule classes for day or night around your other life commitments.

BE AMONG THE BEST

We're ranked in the top 200 universities globally placing us in the top 1%. We're also the no. 1 young university in Australia.

PIONEERS IN RESEARCH
Our research centres are recognised as world leading by our partners and industry.

INNOVATION HUB
UTS is located in an innovation precinct surrounded by 40% of Australia's top startup firms.

INTERNATIONAL PERSPECTIVES
Address global challenges through interdisciplinary connections with international universities, researchers and industry partners.


UTS

Technical courses courses with a choice of major

Graduate Certificate in Information Technology Studies

Course code: C11247

CRICOS code: 084252G

Duration:
Domestic
0.5 year full-time
1 year part-time

International
0.5 year full-time

Study load: 24 credit points (4 subjects)

Study mode: Standard mode (weekly attendance with some evening classes)

Available intakes: Autumn (February) / Spring (August)

How to apply: See page 48

English language requirements: See page 48

Course structure: See page 22

Admission requirements:

A UTS recognised bachelor's degree, or an equivalent or higher qualification, with no more than 25 percent of subjects failed.

CAREER OPPORTUNITIES

Depending on the major selected, career options include a wide variety of positions in the IT industry, including business intelligence expert, e-business developer, games developer, information systems manager, IT security analyst, IT security manager, ICT security analyst, IT security consultant, pen testing, IT project manager, movie animator, software architect, software quality/testing specialist and systems analyst.

Which graduate certificate in IT is right for me?

The **Graduate Certificate in Information Technology Studies** enables those without a first degree in IT to undertake an introductory sequence of four subjects to equip them with foundation skills in databases, information systems, networking and software development. Candidates who complete this course have the option to continue their studies in the Master of Information Technology.

The **Graduate Certificate in Information Technology** is designed for IT graduates who wish to update their knowledge and skills. Candidates have the option to choose three subjects from one of seven streams which forms the basis of their major should they choose to continue their studies in the Master of Information Technology or Master of Information Technology (Extension).

Graduate Certificate in Information Technology

Course code: C11142

CRICOS code: 084251G

Duration:
Domestic
0.5 year full-time
1 year part-time

International
0.5 year full-time

Study load: 24 credit points (4 subjects)

Study mode: Standard mode (weekly attendance with some evening classes)

Available intakes: Autumn (February) / Spring (August)

How to apply: See page 48

English language requirements: See page 48

Course structure: See page 22

Admission requirements:

A UTS recognised bachelor's degree in information technology, or an equivalent or higher qualification, with no more than 25 percent of subjects failed.

Master of Information Technology

Course code:	C04295
CRICOS code:	084256C
Duration:	**Domestic** 2 years full-time 4 years part-time **International** 2 years full-time
Study load:	96 credit points (16 subjects)
Study mode:	Standard mode (weekly attendance with some evening classes)
Available intakes:	Autumn (February) / Spring (August)
How to apply:	See page 48
English language requirements:	See page 48
Course structure:	See page 22

Professional recognition:

Graduates are eligible to apply for professional-level membership of the Australian Computer Society.

Admission requirements:

A UTS recognised bachelor's degree, or an equivalent or higher qualification, with no more than 25 percent of subjects failed.

This course is designed to enable students to achieve a comprehensive and greater understanding of information technology in specialised technical or management areas. It provides students with an enhanced understanding of the business context and technical developments shaping contemporary information and communications technology (ICT), and equips them to meet the challenges of working in the IT industry.

Who is this program for?

For **those without a first degree in IT**, it enables students to undertake an introductory sequence of four subjects to equip them with the necessary foundation knowledge and skills in databases, information systems, networking, and software development, before selecting a major.

For **IT graduates** who wish to update their knowledge and skills, the program can be completed in 1.5 years of full-time study (3 years part-time).

ANASTACIA SHELYUKHINA
Master of Information Technology/Data Analytics

Anastacia Shelyukhina was bound for a career in marketing when she realised her true passion for data and analysis—and UTS was the best place to make a bold career change.

"At UTS, you can get a master's degree with no prior background in IT," she says. "It was important that it was a good environment where I got enough guidance."

The degree's emphasis on self-directed learning was an attraction. "The teaching process is very industry oriented, and we have a lot of hands-on experience."

Anastacia also joined the Lucy Mentoring Program, where students are assigned to industry professionals for four months. "You can ask for advice and what it's like to work in information technology. It's been a great experience."

At UTS Startups, she developed her passion for sustainability through entrepreneurial pursuits. "I met a lot of people; some create plastic alternatives, others build 3D printing prototypes. I learned about pitching and developing ideas."

But it's not all about study. Anastacia says the atmosphere at UTS is very diverse and welcoming. "I met people that I'll stay friends with for life. It's a feeling of inclusion and community."

Read more student profiles
uts.edu.au/it-student-profiles

COURSE STRUCTURE

Subjects	Graduate Certificate in Information Technology	Master of Information Technology (Extension)	Master of Information Technology (Advanced)
Core Stream (MIT)	Complete 1 of the following:	Complete the following subjects:	Complete the following subjects:
Project Management	●	●	●
IT Professional and Society	●	●	●
Technology Research Preparation	●	●	●
Major/Stream	Complete 3 subjects from your chosen stream	Complete 6 subjects from your chosen major	Complete 5 subjects from your chosen major
Sub-major choice	N/A	Complete 4 subjects from your chosen sub-major	N/A
IT Project and Electives	N/A	Complete 3 subjects	N/A
Research	N/A		Complete 48 credit points from research project choice

COURSE STRUCTURE

Subjects	Graduate Certificate in Information Technology Studies	Master of Information Technology
Professional Stream (IT)	Complete the following subjects:	Complete the following subjects:
Enabling Enterprise Information Systems	●	●
Fundamentals of Software Development	●	●
Database	●	●
LANS and Routing	●	or Communication Protocols
Core Stream (MIT)	N/A	Complete the following subjects:
Project Management		●
IT Professional and Society		●
Technology Research Preparation		●
Major	N/A	Complete 6 subjects from your chosen major
IT Project and Electives*	N/A	Complete 3 subjects

*See the Handbook **www.handbook.uts.edu.au/it** for details.

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.

MAGGIE LIUZI

Maggie Liuzi, an international student from Argentina, had done her homework before choosing to study at UTS.

Before even beginning her course, she knew it would be "industry-oriented in many ways" with academic staff who possess "practical work experience outside of what they teach." This was exactly what Maggie was looking for in a degree.

"In my last semester, I was more in touch with machine learning and robotics, and Artificial Intelligence. So I kind of knew that I wanted to do work more on that on that aspect," she says.

Throughout her studies, Maggie was active in the UTS Engineering and IT Society and partook in the group's mentoring program. Through this program, she was able to meet her mentor who works at Qantas and expand her professional network within her field.

These experiences paid off, given that she currently works as a Software Engineer at Baaja.

Maggie also completed the UTS Accomplish Award, a year-long work-ready program designed to prepare students for securing work opportunities in their chosen industry.

In addition, Maggie enjoyed giving back to other International students within the UTS community. She volunteered for the UTS Higher Education Language and Presentation Support (HELPS) Buddy program.

"I was helping with [HELPS], which was really good. I did that with a few different students [who initially weren't] confident in their language ability. I met with them quite a few times and saw how they were progressing, making friends starting to like their subjects more and every day."

Maggie has sage wisdom for those wanting to break into the technology industry but feel they don't know enough.

"In this industry, people come from so many different fields... there are people who didn't know this world existed at all." And she says that that's okay.

"Career-wise, it's amazing. Every industry requires [experts in technology]".

Go a step further.

The Master of Information Technology (Extension) provides the opportunity to complete a sub-major consisting of 4 subjects (24 credit points). The sub-major is your chance to deepen your knowledge in a secondary area of interest in the field of IT.

Master of Information Technology (Extension)

Course code:	C04296
CRICOS code:	084254E
Duration:	**Domestic** 2 years full-time 4 years part-time **International** 2 years full-time
Study load:	96 credit points (16 subjects)
Study mode:	Standard mode (weekly attendance with some evening classes)
Available intakes:	Autumn (February) / Spring (August)
How to apply:	See page 48
English language requirements:	See page 48
Course structure:	See page 22

Professional recognition:

Graduates are eligible to apply for professional-level membership of the Australian Computer Society.

Admission requirements:

A UTS recognised bachelor's degree in information technology, or an equivalent or higher qualification, with no more than 25 percent of subjects failed.

SUB-MAJORS

- Business Information Systems
- Cyber Security
- Data Analytics
- Interactive Media
- Internetworking
- Software Development
- Choice (no specified sub-major)

See majors on page 11.

COURSE STRUCTURE

See page 24

Master of Information Technology (Advanced)

Course code:	C04297
CRICOS code:	084255D
Duration:	**Domestic** 2 years full-time 4 years part-time **International** 2 years full-time
Study load:	96 credit points (16 subjects)
Study mode:	Standard mode (weekly attendance with some evening classes)
Available intakes:	Autumn (February) / Spring (August)
How to apply:	Internal course transfer
English language requirements:	See page 48
Course structure:	See page 22

Admission requirements:

Applicants are required to have: (i) completed 48 credit points in the Master of Information Technology (Extension) (C04296); and (ii) received approval from a member of academic staff to act as their research project supervisor.

Explore an in-depth research study in a major IT field.

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 for a higher degree by research programs such as a PhD.

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.

Cyber Security

The major in Cyber Security has been designed to cover a complete cyber security solution. It will give you a critical understanding of information governance and assurance, combined with technology risk management practices. The major is broken into three main areas; policy (20%), application (30%) and technology (50%).

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.

Interactive Media

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.

Choice (no specified major)

If you would like to choose subjects from a variety of areas within IT, then this major may suit you. Subjects include 4G Mobile Technologies, Digital Media Technologies, Data Mining and Visualisation and many more.

Visit **handbook.uts.edu.au/it** for details.

Internetworking

Gain 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.

Software Development

Discover 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; deploying and managing web-based systems such as business to business (B2B) and business to consumer (B2C), and managing the challenges of identity and access in publicly exposed systems. Choose a number of subjects in various programming languages to enhance your technical skills in your work as a developer, programmer or software engineer.


PM
+ FACILITATION
BS
NUDGING
TPB
INFLUENCE
ELM
Conclusion
+ ADOPTION
Mod
MODELS
Pre
Survey
TPB+
Attitude
+ ADOPTION

Interaction Design

Are you inspired by the intersection of technology, design, innovation and entrepreneurship?

New technological developments e.g. 3D printing, drones, driverless vehicles, social robotics and augmented reality, will fuel the growth of the global digital economy. To meet this growth, interaction designers will be tasked with creating user-centric solutions, overseeing the design of every digital touch point and creating a holistic experience.

By deeply understanding people's practices, environments and values, you can create products which fit meaningfully into users' lives.

Graduate Certificate

Course code: C11272
Course duration: Domestic: 1 year (part-time)
Study load: 24 credit points (4 subjects)

Master's

Course code: C04222
CRICOS code: 096325G
Course duration: Domestic: 1.5 years (full-time); 3 years (part-time)
International: 1.5 years (full-time)
Study load: 72 credit points (12 subjects)

Master's (Extension)

Course code: C04234
CRICOS code: 096324G
Course duration: Domestic: 2 years (full-time); 4 years (part-time)
International: 2 years (full-time)
Study load: 96 credit points (16 subjects)

Intake: Autumn (March) and Spring (August)

Admission requirements: A UTS recognised bachelor's degree, or an equivalent or higher qualification, with no more than 25 percent of subjects failed.

COURSE STRUCTURE*

	Graduate Certificate	Master's	Master's (Extension)
Core subjects A	Complete the following:	Complete the following:	Complete the following:
Fundamentals of Interaction Design	●	●	●
Advanced Interaction Design	●	●	●
Prototyping Physical Interaction	●	●	●
Storytelling and Sense-making Studio	●	●	●
Core subjects B		Complete the following:	Complete the following:
Human-Centred Design Research Methods		●	●
Digital Experience Design Studio		●	●
Interaction Design Studio (12 credit points)		●	●
Choice		Choose 1 of the following:	Choose 1 of the following:
Data Analytics		●	●
Games Design		●	●
Graduate Research Project + Elective option		●	●
Interaction Programming		●	●
Extension choice			Choose 1 of the following:
Graduate research project and elective option			●
Innovation Studio			●

*Elements of the course structure may change.

PROFESSOR ELISE VAN DEN HOVEN

School of Computer Science

New technologies are driving growth in the global digital economy and increasing demand for user experience (UX) and interaction design experts. The Master of Interaction Design teaches a people-centred approach in developing interactive digital products, digital environments, systems and services.

"People are realising that technology is not only about the technical side, but also how people interact with it," says Elise van den Hoven, Professor of Human-Computer Interaction. "It makes a difference in the way people experience a brand."

As well as interaction design, Elise's research spans cognitive psychology and computer science. She is leading a group of 20 specialists across universities in the Netherlands, UK and Sydney on the Materialising Memories program. It involves the study of human memory to develop objects and technologies that can help people facing major life events or memory challenges.

Her eclectic academic background includes a Masters in Biology, specialising in animal perception research. Craving a creative outlet, Elise commenced a second degree in Human Computer Interaction in the Netherlands; upon graduation, she studied a PhD at Philips.

Elise started at UTS in 2012 to research interaction design in the Faculty of Design, Architecture and Building and later moved to the Faculty of Engineering & IT. The Master of Interaction Design was created in response to industry needs.

"User experience has become really important, technology is readily available and affordable, and companies have realised how much impact design can have on customers," she says. "It increases sales and gives people a personal experience with their brand."

"The Master of Interaction Design is very multidisciplinary. You don't need a particular background to study it—you can come from an IT, design, marketing or psychology background. The first subject you do is Fundamentals of Interaction design, a really fun subject that gives you an idea of the basic elements."

Students with outstanding projects are invited to showcase their work in an exhibition open to academics, researchers and industry at the end of each semester.

"If you do a Masters, you can choose one of four specialisations: data analytics, game design, interaction programming, or do a graduate research project plus electives. We have a lot of teachers who work in industry, so collaboration with industry and networking options are available."

uts.edu.au/staff/elise.vandenhoven

"The Master of Interaction Design is very multidisciplinary. You don't need a particular background to study it—you can come from an IT, design, marketing or psychology background. The first subject you do is Fundamentals of Interaction design, a really fun subject that gives you an idea of the basic elements."

BRIAN RYU
Master of Interaction Design

Brian Ryu always had a deep fascination with human computer interaction. When deciding where to explore his passion, UTS was the obvious answer.

"It's a really exciting course, taught in an amazing style by those who have dedicated research in the field of human computer interaction for years," he says. "The teachers are the strength of this course."

The practical research skills he learned were invaluable for assessments. One of Brian's favourite projects involved researching people on Sydney public transport to create a better travel experience.

"My group created wearable technology connected to a dedicated app, where users and users' friends and families can monitor their community via live video feed," he says. "It was for women's security, particularly during night-time."

Outside of study, Brian enjoyed participating in UTS clubs related to his degree, like the Interaction and Games Design Society. The experience extended opportunities for meeting new people in the industry.

"We had social activities to get to know one another, everyone's interests and goals within the field, and support each other in terms of projects. We've had many talks from professors and existing clients; that was really insightful."

Read more student profiles
uts.edu.au/it-student-profiles

Master of Ai

Artificial Intelligence (AI) is one of the most promising technologies, driven by big data and advancements in computing power and algorithms. It has huge potential to transform economies and uncover new societal and environmental values. This course enables students to gain fundamental and advanced knowledge in data analytics and visualisation, machine learning, deep learning, and various aspects of AI. Students have opportunities to gain expertise in specialised areas such as Computer Vision or Natural Language Processing and to solve real-world problems. Hands-on experience with real-world research and industry projects enables graduates to manage the increasing challenges of creating and maintaining AI systems.

WHAT CAN I EXPECT?

Graduates from this course become socially responsible and technically competent as AI specialists, to help current and future industry across many sectors, such as banking and finance, healthcare, agriculture, infrastructure development, or natural resource management. This course is aimed at graduates from computing science, information technology or computer engineering, who wish to learn or extend their knowledge of AI in various contexts.

ADMISSION REQUIREMENTS

Applicants must have completed a UTS recognised bachelor's degree, or an equivalent or higher qualification, or submitted other evidence of general and professional qualifications that demonstrates potential to pursue graduate studies.

It is a requirement that the bachelor's degree be in information technology or a related discipline, with no more than 25 per cent of subjects failed.

The English proficiency requirement for international students or local applicants with international qualifications is: Academic IELTS: 6.5 overall with a writing score of 6.0; or TOEFL: paper based: 550-583 overall with TWE of 4.5, internet based: 79-93 overall with a writing score of 21; or AE5: Pass; or PTE: 58-64 with a writing score of 50; or C1A/C2P: 176-184 with a writing score of 169.

Eligibility for admission does not guarantee offer of a place.

CAREERS

Career options include AI Analyst, Machine Learning Engineer, AI Specialist, Computer Vision Engineer, Natural Language Processing Engineer.

Master of AI

Course code: C06147
Course duration: 2 years full time or 4 years part time
CRICOS code: 108843D

Graduate Diploma of AI

Course code: C04443
Course duration: 1 year full time or 2 years part time
CRICOS code: 108844C

Graduate Diploma of AI

The graduate diploma artificial intelligence course provides IT and computing professionals with the opportunity to upskill and meet the demands of this rapidly changing field. The course covers a broad range of current and emerging areas of AI including data analytics, data visualization, machine learning and neural networks.

This course provides ideal preparation for graduates seeking careers in data analytics, AI/ML engineer and its related domains. Students in the course engage in practical and hands-on learning by using technologies to develop algorithms in various AI fields.

Career options

Career options include Junior Analyst- Machine learning, Software Engineer -Machine Learning, Junior AI Specialist, Junior Data Analyst, Junior Machine Learning Engineer.

STUDY AT AUSTRALIA'S #1 RANKED AI UNIVERSITY

UTS is the #1 ranked university in Australia and #10 in the world for artificial intelligence research, according to the Software Policy & Research Institute 2020 AI Research Index. When you study with us, you'll be immersed in research integrated teaching that draws on the latest findings from across the globe. Work under the guidance of leading academics and situate your learning at the cutting edge of AI enquiry.

COURSE STRUCTURES

Master of AI (96cp)

Artificial Intelligence Core (30cp)

- Introduction to AI
- Fundamentals of Software Dev.
- Fundamentals of Data Analytics
- Advanced Data Analytics Algorythms
- Data Visualisation and Visual Analytics

Core Options (12/18cp)

- Architecting on Amazon Web Services
- Business Intelligence for Decision Support
- Cloud Computing and SAS
- Emerging Topics in Artificial Intelligence
- Introduction to Computational Intelligence
- Introduction to Quantum Computing

Professional Choice (6/12cp)

- Technology and Innovation Management
- The Ethics of Data and AI

Master of AI – Submajor choice (24cp)

Either:

- Computer Vision (24cp)
- Natural Language Processing (24cp)

Project Stream (12cp)

- Technology Research Preparation
- Industry Project
- Research Project

Graduate Diploma of AI (48cp)

Master of AI sub-majors(24cp)

Computer Vision	– Reinforcement Learning – Deep Learning and Convolutional Neural Network – Image Processing and Pattern Recognition – Artificial Intelligence Studio
Natural Language Processing	– Reinforcement Learning – Natural Language Processing Algorithms – Advanced Natural Language Processing – Artificial Intelligence Studio

Master of Cybersecurity

A Master of Cybersecurity from UTS will equip you with the capability to deploy technology strategies to prevent and recover from breaches and implement appropriate controls in any workplace. It is also a way to 'futureproof' your career.

A qualification from UTS will prepare you to intercept black hat hacking and create white hat solutions. You will learn how to prepare for and prevent security breaches by understanding the tools, technologies and psychology of cyber-criminals. You will also learn the necessary soft skills vital to communicate successfully to stakeholders in the professional environment, as a cybersecurity expert.

Master of Cybersecurity

Course code: C04430
Course duration: 1.5 years full time or 3 years part time
CRICOS code: 107870J

Master of Cybersecurity (Extension)

Course code: C04431
Course duration: 2 years full time or 4 years part time
CRICOS code: 107869B

ADMISSION REQUIREMENTS

Applicants must have completed a UTS recognised bachelor's degree, or an equivalent or higher qualification, or submitted other evidence of general and professional qualifications that demonstrates potential to pursue graduate studies.

It is a requirement that the bachelor's degree be in information technology or a related discipline, with no more than 25 per cent of subjects failed.

PIVOT YOUR CAREER

A Master of Cybersecurity can help you start a new career or help you transition to a specialist role. Cybersecurity expertise is needed in many diverse fields, including:

- Banking and commerce
- Government and defence
- Aviation and space
- Health

GRADUATE CERTIFICATE ARTICULATION

The Graduate Certificate in Information Technology (C11142) provides a pathway into the Master of Cybersecurity and Master of Cybersecurity (Extension). If you decide to start with the Graduate Certificate, make sure to choose subjects in cybersecurity that are also part of the Master's course, so they will be credited when you articulate to the Masters.

If you start the Master of Cybersecurity (or Extension) and your circumstances change so that you need to exit early, you may be eligible to exit with a Graduate Diploma in IT (C06113) or Graduate Certificate in IT (C11142) depending on how many subjects you have completed.

For more information about how program articulation works, please refer to page 9.

Master of Cybersecurity
Master of Cybersecurity (Extension)

The Master of Cybersecurity (and Master's Extension) are designed to meet the need for well-rounded industry professionals to help organisations and society manage the increasing challenges of creating and maintaining secure online systems. The courses are aimed at computing science, information technology or computer engineering graduates, with or without cybersecurity experience, who wish to learn or extend their knowledge of cybersecurity and supporting technologies.

The postgraduate cybersecurity program provides the opportunity to upskill and meet the demands of this rapidly changing field. Students in the program engage in practical, hands-on learning using technologies to create and manage secure networks, systems and devices. The program covers a broad range of current and emerging areas of cybersecurity, including network security, cloud security, mobile platform security, and IoT security.

In the Master of Cybersecurity (Extension), students can also develop knowledge in broader IT areas that underpin and support cybersecurity. Students can choose to specialise in networking or can broaden their skills in topics such as cloud infrastructure, systems administration, technology management and data analytics. In the networking specialisation, the program supports students who are interested in pursuing Cisco industry certifications in networking.

There is strong industry demand for cybersecurity professionals with advanced technical capabilities and an understanding of the risks and opportunities in this growing field. These courses provide ideal preparation for graduates seeking careers in cybersecurity.

COURSE AIMS

The postgraduate cybersecurity program aims to prepare graduates with a thorough and practical grounding in a range of contemporary cybersecurity topics, as well as providing underpinning knowledge of computer networks, systems programming and risk management. The courses also provide preparation for engaging in industry projects or conducting academic research. The extended study program in this course aims to provide greater breadth of expertise in areas that strengthen a cybersecurity graduate's capabilities.

The courses are designed for IT and computing professionals interested in moving into a cybersecurity career as much as for those already working in cybersecurity or related jobs to expand their expertise and advance their career.

CAREER OPTIONS

Career options include security analyst, security engineer, ICT security specialist, computer network and systems engineer, network administrator.

COURSE STRUCTURES

Master of Cybersecurity (72cp)

Cybersecurity Core (24cp)

- LANs and Routing
- UNIX Systems Programming
- Cybersecurity
- Risk Management in Engineering

Cybersecurity Options (36cp)

- Digital Forensics
- Cryptography
- Network Security Appliances
- IoT Security
- Cloud Security
- Cyber Security for Mobile Platforms

Project Stream (12cp)

- Technology Research Preparation

Plus either:

- Research Project
- Industry Project

Cybersecurity Extension Options (24cp)

Either:

- Networking sub-major (24cp)
  Choose 24cp subjects from a list of relevant topics that go beyond just cybersecurity

Master of Cybersecurity (Extension) (96cp)

Master of Technology

GAIN MULTIDISCIPLINARY SKILLS TO INNOVATE AND LEAD

Industries and organisations are being transformed by technology. This degree will give you the multidisciplinary skills to lead change in this rapidly changing world by developing a set of capabilities, in technology and other areas, that will enable you to succeed in digitally disrupted organisations and industries.

FLEXIBLE, INDIVIDUALISED LEARNING

The Master of Technology combines practice-based subjects, called Studios, with subjects from across the university, to adapt the degree to your individual needs.

You will engage in peer and professional career coaching in the core studios to hone skills tailored to your career – problem solving, mindful collaboration, adaptive leadership, communication, research, critical thinking - equipping you with social and reflective competencies for our rapidly changing, digitally disrupted and technology enriched enterprises and communities.

THE PLACE TO BE FOR TECHNOLOGY LEADERS

As a graduate, you will become a decision maker and innovator tackling complex problems requiring a diverse skillset.

Graduate Certificate

Course code: C11301
Course duration: 0.5 years
CRICOS code: 0101142

Graduate Diploma

Course code: C06137
Course duration: 1 year
CRICOS code: 0101143

Master's

Course code: C04406
Course duration: 1.5 years
CRICOS code: 0101144

ADMISSION REQUIREMENTS

Applicants must have completed a UTS recognised bachelor's degree, or an equivalent or higher qualification, or submitted other evidence of general and professional qualifications that demonstrates potential to pursue graduate studies.

Special requirements apply – see **handbook.uts.edu.au/courses/c04406** for details.

CAREERS

Whether you want to thrive in a large organisation or create a start-up, the Master of Technology will provide the expertise to help you get there.

The flexible course structure allows you to choose up to two sub-majors, including sub-majors which may be individually configured and named to suit your unique requirements and study plans.

COURSE STRUCTURE

Subjects	Graduate Certificate in Technology	Graduate Diploma in Technology	Master of Technology
Core Studio Stream (each 6 credit points)			
Technology Disruptors Studio	●	●	●
Capstone Studio	N/A	N/A	●
		Complete one of the following:	Complete two of the following:
Global Technology Issues Studio	N/A	●	●
Innovation and Entrepreneurship Studio	N/A	●	●
Prototyping Design and Systems Studio	N/A	●	●
Technology and Communities-focused			
Technology/Scientific Thinking-focused choice	12 credit points	12 credit points	24 credit points
Communities of Practice-focused choice	6 credit points	24 credit points	24 credit points
Specialisations (Sub-majors)			up to two specialisations (including personally configured sub-majors) may be selected
Total Credit Points	24	48	72
Minimum course duration: Full-time years	0.5	1	1.5

Master of Professional Practice

Graduate Certificate

Course code: C11298
Course duration: 0.5 years
CRICOS code: 0101146

Graduate Diploma

Course code: C06136
Course duration: 1 year
CRICOS code: 0101147

Master's

Course code: C04404
Course duration: 1.5 years
CRICOS code: 0101148

BECOME AN AGILE LEADER WITH MULTIDISCIPLINARY SKILLS

The course aims to initiate, develop and showcase your professional skills in an individual, career-focused e-portfolio spanning the course.

Technology, Industry 4.0, climate actions, globalisation and more: we live and work in a time of unprecedented change that affects the ways we live and work, This degree will give you a multidisciplinary advantage to lead in your organisation and the wider community.

The Master of Professional Practice course structure allows for the engagement with postgraduate subjects across the spectrum of disciplines. The core studios focus critical reflections on situating the learner in their professional and global context. The Master of Professional Practice core studios are professional practice and people oriented and afford open-ended opportunities to explore challenges.

THE PLACE TO BE FOR INNOVATIVE LEADERS

As a graduate, you will become an agile decision maker and persuasive communicator who adaptively leads people in tackling complex problems.

Whether you want to thrive in a large private or public organisation, the Master of Professional Practice will provide the expertise to get you there.

ADMISSION REQUIREMENTS

Applicants must have completed a UTS recognised bachelor's degree, or an equivalent or higher qualification, or submitted other evidence of general and professional qualifications that demonstrates potential to pursue graduate studies.

Special requirements apply – see **handbook.uts.edu.au/courses/c04404** for details.

COURSE STRUCTURE

Subjects	Graduate Certificate in Professional Practice	Graduate Diploma in Professional Practice	Master of Professional Practice
Core Studio Stream (each 6 credit points)			
Professional Learning Studio	●	●	●
Capstone Studio	N/A	N/A	●
		Complete one of the following:	Complete two of the following:
Global Issues Studio	N/A	●	●
Human-centred Design and Systems Studio	N/A	●	●
Innovation and Entrepreneurship Studio	N/A	●	●
Professional-focused			
Professional-focused choice	18 credit points	36 credit points	48 credit points
Specialisations (Sub-majors)			up to two specialisations (including personally configured sub-majors) may be selected
Total Credit Points	24	48	72
Minimum course duration: Full-time years	0.5	1	1.5

Animation and Visualisation

The Master of Animation and Visualisation (MAV) is an industry-led, one-year accelerated postgraduate degree designed to build your knowledge and skills in computer graphics animation, visual effects and visualisation, in an immersive studio environment. It draws together students from a broad range of backgrounds, from digital artists, 3D modelers, animators, production coordinators, coders and programmers, to learn under the guidance of industry leaders, preparing graduates to join the next generation of animation and visualisation professionals.

WHAT CAN I EXPECT?

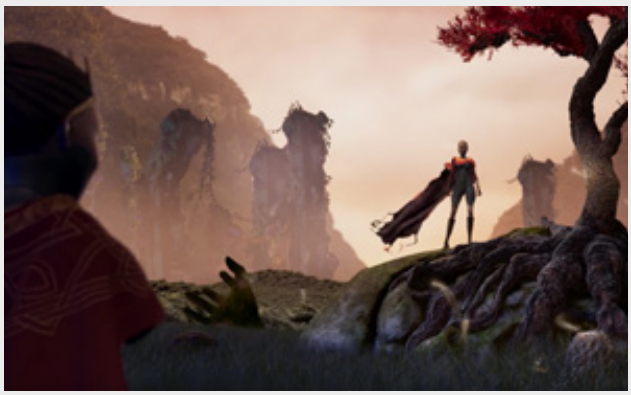
As a practice-based degree, you'll engage with extensive hands-on experience in a custom-built studio. You'll work in collaboration with your fellow students, using your combined expertise to deliver solutions across a series of creative and technical projects. This can include:

- CG animation
- Virtual reality (VR)
- Augmented reality (AR)
- Mixed reality (MR)
- Visualisation
- Immersive/experiential environment challenges

WHO SHOULD APPLY?

The MAV is aimed at practitioners with existing skills and experience in the animation and/or visualisation space. Students come from a broad range of backgrounds including:

- Visual, digital and fine arts
- Animation and VFX
- Media and video production
- Games design and development
- Software development, coding and technical programming
- 3D modelling and product design



Master of Animation and Visualisation

Course code:	C04423
CRICOS code:	092411G
Duration:	1 year full time
Study load:	72 credit points (3 subjects)
Study mode:	Block mode (Monday to Friday, 9am-5pm)
Available intakes:	January
How to apply:	See page 48

English language requirements:
Academic IELTS: 6.5 overall with a score of 6.5 in listening, speaking and reading, and a score of 6.0 in writing; or TOEFL: internet based: 79-93 overall with a speaking score of 20-22, a listening score of 20-23, a reading score of 19-23 and a writing score of 21; or AE5/AE6: Pass; or PTE (Academic): 58-64 overall; or CAE: 176-184 overall.

Admission requirements:
Special requirements apply – see handbook.uts.edu.au/courses/c04423.html for details.

ALESSANDRA GRASSO
Production co-ordinator

"My time at the Academy allowed me to gain new skills, work with emerging technology, see what it's like working in an animation studio and most importantly create industry connections."

HANNAH CHU
Pipeline technical director

"I've had the chance to do development on new technologies, like HoloLens and AR/VR development in Unity. And most important of all, the Academy provided me with the experience to understand how it feels to work in the VFX industry, and that's what I came for in the first place."

Graduate Certificate in Animation and Visualisation

Course code:	C11326
CRICOS code:	092412G
Duration:	14 weeks
Study load:	24 credit points (1 subject)
Study mode:	Block mode (Monday to Friday, 9am-5pm)
Available intakes:	January
How to apply:	See page 48

English language requirements:
Academic IELTS: 6.5 overall with a score of 6.5 in each sub-test; or TOEFL: internet based: 79-93 overall with a writing score of 24; or AE5/AE6: Pass; or PTE (Academic): 58-64 overall with a writing score of 58; or CAE: 176-184 overall with a writing score of 176.

Admission requirements:
Special requirements apply – see handbook.uts.edu.au/courses/c11326.html for details.

Research at UTS

Solutions with real-world impact.

When you choose a research degree at UTS you will be part of a lively and rigorous research culture.

UTS researchers are recognised leaders in their fields with a reputation for driving innovation and creating solutions with real world impact.

Our wide range of specialisations include:

> 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

> human-centred technology design

The **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.

DR MUNEERA BANO
PhD Software Engineering

For academic Dr Muneera Bano, obtaining a tertiary education overseas was an incredible feat for a woman of her background.

Muneera was raised in a patriarchal community in Pakistan and had to fight to be able to study in Sydney unchaperoned. Her decision to pursue a PhD in Australia in 2012 was met with much resistance from her family, but this only ignited her motivation to study abroad.

"It was critical to show that given the opportunity, girls can outperform even in male-dominated fields, and to break the stereotypes I opted for computer science [at UTS]," she says.

This extreme effort paid off. During her research career, Muneera received much formal recognition, including being named as a finalist for Google Australia's Anita Borg Award for Women in Computer Science, Asia Pacific 2015. She was also announced as Superstar of STEM for 2019-2020 by Science Technology Australia, an award that aims to increase the public visibility of women in science.

Muneera currently teaches in both undergraduate and postgraduate UTS courses within the field of software engineering. Her speciality is in human-centred design for technologies and her research centres around technology-assisted pedagogies for education and social media analysis.

"I work at the intersection between computers and humans – looking for ways to engineer technology to work better with the people that use it," she says.

Muneera's advice for women wanting to obtain a PhD is simple.

"Stick to your sense of purpose on why you wish to pursue a PhD. For me it was not just a piece of paper for employment, it was a transformational journey to empowerment."

Read more student profiles
uts.edu.au/it-student-profiles

HIGHER DEGREES BY RESEARCH

Course name	Subjects	Admission requirements
MASTER OF SCIENCE (RESEARCH) IN COMPUTING SCIENCES **Course code:** C03025 **CRICOS code:** 001121E **Duration:** **Domestic** 2 years full-time, 4 years part-time; **International** 2 years full-time	– Technology Research Preparation – Technology Research Methods – Thesis (Computing Science)	A UTS recognised bachelor's degree in computing science, or an equivalent or higher qualification, or other evidence of general and professional qualifications that demonstrates potential to pursue graduate research studies.
MASTER OF ANALYTICS (RESEARCH) **Course code:** C03051 **CRICOS code:** 075277F **Duration:** **Domestic** 2 years full-time, 4 years part-time; **International** 2 years full-time	– Technology Research Preparation – Technology Research Methods – Thesis (Analytics)	A UTS recognised bachelor's degree in analytics, computing science, applied statistics or applied mathematics, or an equivalent or higher qualification, or other evidence of general and professional qualifications that demonstrates potential to pursue graduate research studies.
DOCTOR OF PHILOSOPHY **Course code:** C02029 and C02047 **CRICOS code:** 009469A and 058666A **Duration:** **Domestic** 4 years full-time, 8 years part-time; **International** 4 years full-time	– Technology Research Preparation – Technology Research Methods – PhD Thesis in: Analytics; or Information Systems; or Software Engineering	A UTS 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.

RESEARCH SUPPORT

The UTS Graduate Research School provides support to research students, supervisors and early career researchers at UTS. It offers development through research education programs, policy development, advice and scholarships.

Contact us:

Web:
uts.edu.au/research-and-teaching/research-degrees

Tel: +61 2 9514 1336

Email: grs@uts.edu.au

Research centres and institutes

The Faculty of Engineering and Information Technology hosts a growing number of research centres and institutes that are hives of research activity and have international standing within their respective discipline areas.

- **Australian Artificial Intelligence Institute (AAII):** computational intelligence, business intelligence, computer vision, data science, machine learning, brain computer interface, social robotics and information systems.
- **UTS Robotics Institute (UTS:RI):** field robotics sensing, perception and control; human-centred robotics.
- **Data Science Institute (DSI):** big data, data sciences and data analytics
- **Centre for Health Technologies (CHT):** medical devices, translational biotherapeutics and transcriptome research.
- **Global Big Data Technologies Centre (GBDTC):** international centre of excellence, technologies for big data science, analytics and communications.
- **Centre for Quantum Software and Information (CQSI):** quantum computer software, information processing capabilities for quantum technologies.
- **Centre for Technology in Water and Wastewater (CTWW):** alternative water sources for urban, rural and regional environments.

Emerging research strengths

- Centre for Advanced Manufacturing (CAM)
- Centre for Advanced Modelling and Geospatial Information Systems (CAMGIS)
- Centre for Audio, Acoustics and Vibration (CAAV)
- Centre for Built Infrastructure Research (CBIR)
- Centre for Indigenous Technology Research & Development (CITRD)
- Centre on Persuasive Systems for Wise Adaptive Living (PERSWADE)
- Cyber Security and Privacy (CSandP)
- Centre for Green Technology (CGT)

For more information about research at UTS Information Technology including areas of specialisation and academic supervision please visit **feit.uts.edu.au** or email **feit.hdr@uts.edu.au**

Student services

ORIENTATION
orientation.uts.edu.au

The UTS orientation program welcomes you to university life and helps you to get the most out of your student experience.

Discover the services available, find out course and subject information, tips on living in Sydney and meet new friends.

All students are expected to attend orientation activities and orientation is compulsory for international students.

PEER NETWORK
uts.edu.au/peer-network

Peer Networkers are student volunteers who are there to help new students when they first arrive on campus and throughout each session.

The Peer Network also encourages students to connect with others from Australia and around the world through the weekly Peer Network Café.

UTS INTERNATIONAL
uts.edu.au/international

The UTS International Student Centre, provides international students with face-to-face contact to answer your enquiries regarding studies, administrative issues and living in Sydney.

AN OPEN AND RESPECTFUL ENVIRONMENT
uts.edu.au/current-students/support

UTS is a diverse community, welcoming many different cultures and faiths.

There is a chaplaincy service, which includes Baha'i, Buddhist, Christian, Jewish and Islamic chaplains, as well as clubs and societies offering spiritual support.

HIGHER EDUCATION LANGUAGE AND PRESENTATION SUPPORT (HELPS)
uts.edu.au/helps

UTS provides free English language and academic literacy skills assistance to students. Services include weekly study, reading and speaking skills workshops, writing clinics and daily drop in consultation. Practise speaking English with staff and student volunteers through the daily Conversations@UTS sessions.

PEER LEARNING - U:PASS
uts.edu.au/upass

U:PASS is a study group facilitated by senior students who have done well in a subject, tutoring more junior students. Within a session, you may review lecture notes, participate in problem solving activities or prepare for exams.

KICKSTART@UTS

The KickStart@UTS program introduces new international research degree students to the various sources of support available to assist you in preparing for research study.

CAREER SUCCESS
careers.uts.edu.au

Your career is in your hands: preparation for graduate success can start from your first months at university as you begin building your professional network. UTS offers resources and tools to guide you on the path to your professional career.

Research facilities

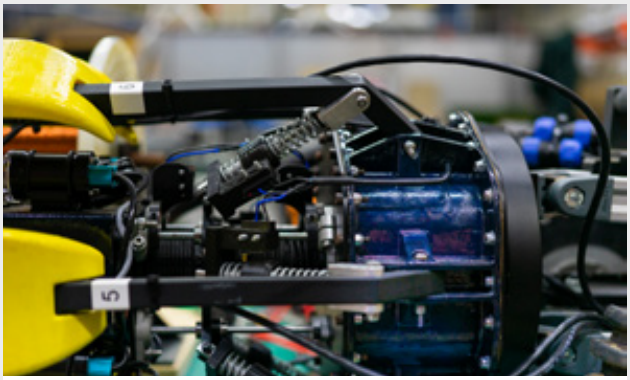
TECH LAB

UTS Tech Lab is a new-generation facility that disrupts traditional university approaches to research. The first of its type in Australia, Tech Lab is a 9000 m^2 facility that is designed to bring university and industry together to innovate. Tech Lab represents a significant investment in new cutting-edge research facilities in order to support collaborative applied research that will enhance impact and contribute to the growth of the local and national economy.

Working together under one roof, Tech Lab academics, researchers, technical staff and students support innovation and technological development by working with industry partners and their supply chains. Its design facilitates innovative transdisciplinary research on a large scale, focusing on digital transformation, the Internet of Things, smart cities, Industry 4.0 and advanced manufacturing.

Tech Lab is the only facility in Australia that co-locates large engineering infrastructure with laboratories dedicated to communications, sensor development, and the computer sciences, including data analytics and artificial intelligence. Cutting-edge technology is available in every lab including equipment which is unique to Australia or the Asia-Pacific region.

This allows industry partners to undertake full-scale testing, linking the technologies underpinning digital transformation within the one facility. The same facility provides access to academic expertise to help shape the project vision and oversee its execution, plus access to talent including interns, PhD students and recent graduates.



PROTOSPACE

Research Case Studies

Sydney Water mains pipe inspection robot

In collaboration with Sydney Water, UTS Centre for Autonomous Systems developed a pipe inspection robot for critical water mains. The 3D printed housing (in blue) is a key element to this system and mechanisms and the use of 3D printing has been fundamental to its development.

ProtoSpace facilities greatly reduced manufacturing lead time and cost for the project. The housing would not have been possible to manufacture using traditional techniques due to the complexity and intricacy of the design, and the speed and versatility of AM has provided an opportunity to experiment with multiple materials, allowing for optimisation for strength and weight.

Multiple other 3D printed parts include sensors housings, various electronics enclosures, and mechanical members.

PROTOSPACE

ProtoSpace spans an impressive 900m² and is buried below ground in Building 7, across the hallway from the Super Lab. Led by the Faculty of Engineering and IT, it's a collaborative space that will be open to industry and external partners, as well as UTS staff, students and researchers.

UTS has invested in state-of-the-art printing machines with a broad range of functionality, which means ProtoSpace can offer new opportunities for cutting edge applications of 3D printing, also known as 'additive manufacturing'.

In fact, some of the uses for the space aren't even known yet. It will all come down to new ideas, innovations and inspiration.

"It's very unique in the region, and even internationally, purely because of the scope of the machines that have been brought together," says ProtoSpace manager Jon O'Neill.

The ProtoSpace set-up allows ideas to be trialled and refined, for possible commercial manufacturing or bespoke applications. Innovations that emerge from a lab of this calibre have real-world uses across a range of industries, from medicine to manufacturing, engineering and design to architecture.

The facility includes Australia's largest collection of additive manufacturing technologies. This range of additive and advanced manufacturing technologies, software and expertise, places NSW at the forefront of manufacturing innovation in the local region. Through industry and academic engagement with ProtoSpace, we are transforming supply chains, introducing new business models and actively creating the next generation of manufacturing opportunities for Australia.

The lab supports all aspects of the additive and advanced manufacturing process, from component design, manufacturing investigations and prototyping all the way through to final product research and development. More broadly, it's supporting digital transformation in the NSW manufacturing sector to inspire a new generation of thinkers, inventors, designers and innovators.

WHAT DOES PROTOSPACE OFFER?

- Advanced manufacturing opportunities from desktop to full-size industrial technologies
- Access to advanced 3D printing technology, software and expertise
- Opportunity to explore new ideas in materials, process, design, manufacturing and production
- Pursue early-stage R&D and testing
- Rapid prototyping and design iteration
- Direct support from our additive manufacturing specialists and highly trained technical staff
- Short courses and up-skilling opportunities for industry

DATA ARENA

The UTS Data Arena is a 360-degree interactive data visualisation facility set to change the way we view and interact with data.

Viewers stand in the middle of a large cylindrical screen, four metres high and ten metres in diameter. A high performance computer graphics system drives six 3D-stereo video projectors, edge-blended to create a seamless three-dimensional panorama.

Picture clarity is made possible from an image that's 20,000 x 1200 pixels. Each user wears Active-Shutter Glasses, which present separate left/right views to achieve a stereo-visual effect. To complement the visual experience, a 16-channel audio system surrounds the Arena. Speakers fitted behind the perforated screen allow sound to be positioned in 3D space.

It's a powerful immersive facility which can help business, government, and research simplify complex information. Users in the Arena can surround themselves in data to observe, explore, refine, improve, discover and learn.

How to apply

THE ACADEMIC YEAR

There are three main teaching sessions at UTS:

- Autumn Session: February to June
- Spring Session: August to November
- Summer Session: December to February

A limited number of subjects are run during Summer Session, but it's a great way to get ahead or reduce your study load during Autumn and Spring sessions.
Visit **summer.uts.edu.au** for details.

APPLICATION CLOSING DATES

Closing dates vary according to the session of commencement, the type of course, and your residency status (domestic or international). Check online for the date applicable to your circumstances.

DOMESTIC APPLICANTS: COURSEWORK

Submit your application:

- through the UTS Online Application system at **uts.edu.au/pg-admissions**; or
- at one of our Postgraduate Expos or postgraduate information sessions. Find out everything you need to know about upcoming information sessions at **uts.edu.au/events**

RESEARCH APPLICANTS:

Before you submit your application, you'll need to consider what you want to research, write a research proposal and find a supervisor. When you've done that, submit your application to the UTS Graduate Research School.

Visit **uts.ac/apply-for-research** to find out more about the application process and to apply.

INTERNATIONAL APPLICANTS: COURSEWORK

If you're an international student, head to **uts.edu.au/international** to find the course information, fees and application details relevant to you.

NON-AWARD STUDY

Do you want to study a single subject without committing to a full degree? You can! It's called non-award study and it's a great way to upgrade your skills or just learn more about something you enjoy. What's even more exciting is that any subjects you complete may be recognised in future study. To apply, visit **uts.ac/non-award-study**

OFFERS

Offers of admission are made on a rolling basis.

FEES

If you're studying a postgraduate coursework course, you'll need to pay tuition fees. You can find out more about what your degree will cost at **uts.edu.au/tuition-fee-calculator**

For postgraduate research degrees, you will need to either pay a fee or, if you're eligible for the Research Training Program, the Australian Government will cover the cost for you. To find out more visit **uts.edu.au/domestic-hd-fees**

If you do have to pay a fee and you're a domestic student, you may be eligible for FEE-HELP, an Australian Government loan scheme. Using FEE-HELP means you don't have to pay your tuition fees upfront. More information can be found at **uts.edu.au/government-help-schemes**

You can choose to repay your FEE-HELP loan simply by notifying your employer who will then withhold your payments through the PAYG tax system. You can also make payments directly to the Australian Taxation Office (ATO).

ALUMNI ADVANTAGE

If you've already completed a degree at UTS then you're eligible for the Alumni Advantage program, which offers a 10% saving on full fee paying degree programs. Find out if you're eligible for Alumni Advantage at **alumni.uts.edu.au/advantage**

TIMETABLE INFORMATION

Do you like to plan ahead? Then check out the UTS Timetable Planner. The online tool lets you see the timetable for the current academic year, so you can get an idea about when the subjects for your course may be scheduled. The 2022 timetable will be published at the end of November. Visit **timetable.uts.edu.au**

CONTACT US

UTS Student Centre

Let's talk! Make an enquiry with our friendly team.

Phone: 1300 ASK UTS (1300 275 887)

Online enquiry: ask.uts.edu.au

Web: it.uts.edu.au

INFORMATION EVENING

Attend an upcoming Postgraduate Information Evening to meet course coordinators and academics and explore state-of-the-art facilities **uts.edu.au/feit-events**

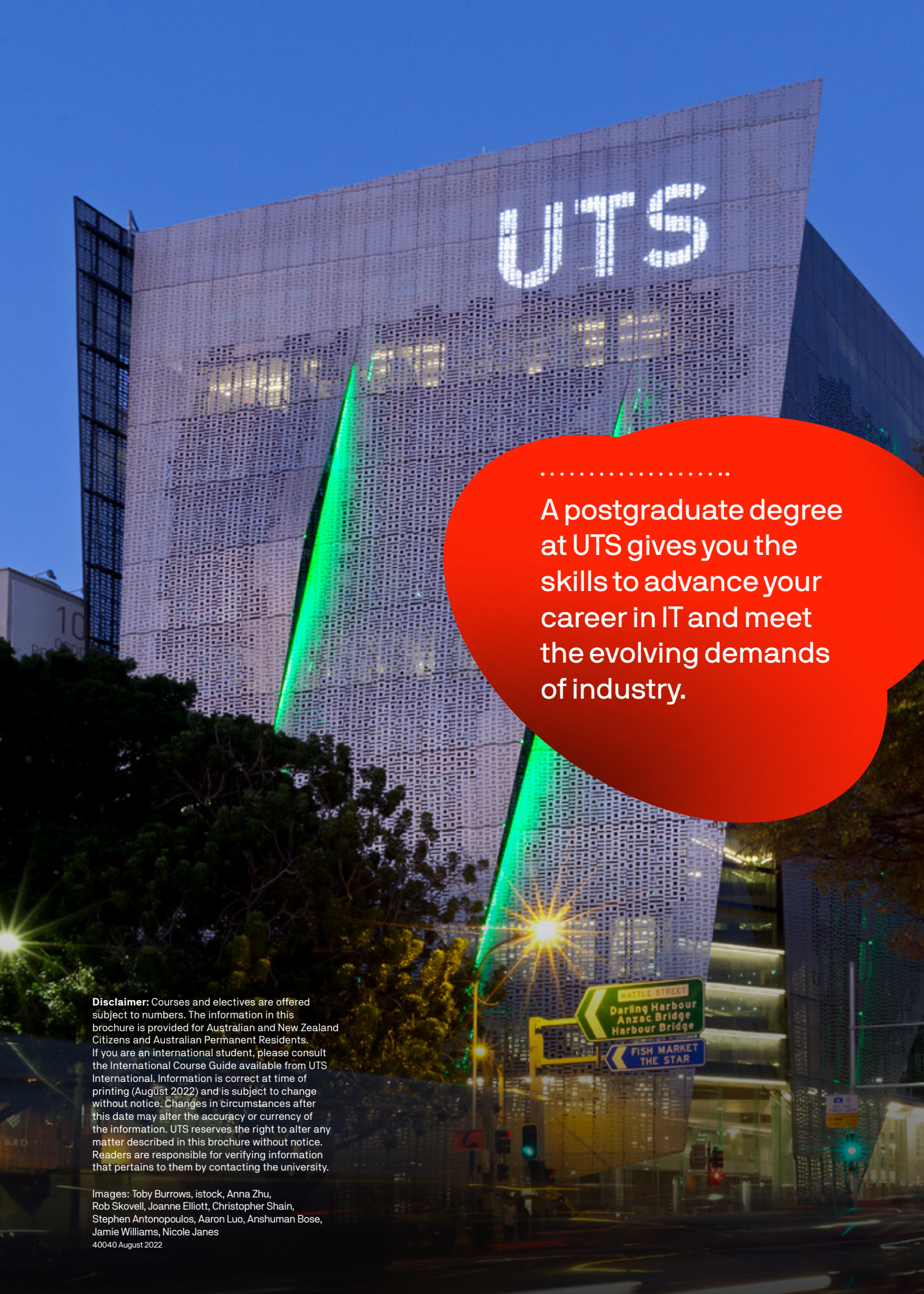
ENGLISH LANGUAGE PROFICIENCY

There are English language proficiency requirements for all courses. These requirements may apply to you, even if you are not an international student.

Visit **uts.edu.au/english-language-requirements** to find out more.

TYPE OF STUDY PROGRAM	IELTS (ACADEMIC)	TOEFL iBT	PTE (ACADEMIC)	CAE
Postgraduate coursework* and research	6.5 overall with a writing score of 6.0	79-93 overall with a writing score of 21	58-64	176 overall with a writing score of 169

* Excluding courses in Animation and Visualisation. See page 44 for details.



A postgraduate degree at UTS gives you the skills to advance your career in IT and meet the evolving demands of industry.

Images: Toby Burrows, istock, Anna Zhu, Rob Skovell, Joanne Elliott, Christopher Shain, Stephen Antonopoulos, Aaron Luo, Anshuman Bose, Jamie Williams, Nicole Janes
40040 August 2022

Contact us

Domestic students

Tel: 1300 ASK UTS (1300 275 887)
Online inquiry: ask.uts.edu.au
Email: FEIT@uts.edu.au

International students

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Tel: +61 3 9627 4816 (for international calls)
Web: international.uts.edu.au
Email: international@uts.edu.au

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