

# UTS College Diploma Program Frequently Asked Questions

Common questions  
from students  
about UTS College  
diplomas, UTS  
degrees, and where  
they can lead.



**UTS**  
College

UNIVERSITY  
OF TECHNOLOGY  
SYDNEY

# Engineering & IT (FEIT) Program

## What is the average salary for IT/Engineering students?

In **Australia**, an IT graduate starts at approximately A\$56,000. This varies by organisation and role (gradaustralia).

The average starting salary for graduate engineers in Australia is A\$64,250 (Australian Bureau of Statistics, 2018). This figure may have increased in recent years and is dependent on industry and location. Graduate engineers working in Sydney or for government may earn a higher annual salary.

## What is the demand for graduates in Australian tech companies?

According to the Australian Computer Society (ACS) CEO, Andrew Johnson, demand is strong, with the technology workforce expected to grow at 3.1 per cent on average for the next five years; double the expected growth in the labour force in general. RMIT Online reported a shortage of digitally-skilled workers and says that Australia needs 156,000 new technology workers by 2025 to ensure economic growth, with 87 per cent of jobs requiring digital skills. A significant number of Australian companies outsource some of their IT business processes to countries including Vietnam, Thailand, Indonesia, India and China.

## Do I need to apply for an official certificate to work as an engineering in Australia after graduation?

No. The Bachelor of Engineering (Honours) is accredited by **Engineers Australia** at the Graduate Professional Engineer level. The degree is recognised internationally by signatories to the Washington Accord.

## Do I need to apply for an official certificate to work in the IT sector in Australia after graduation?

Yes. UTS IT graduates are eligible to apply for professional-level membership of the **Australian Computer Society**, ensuring your qualification is recognised globally.

## If I am interested in software, should I take the IT or the Engineering program?

Generally, IT, as it focuses on learning and developing software. Engineering applies technology to create new engineering resources.

## If I am interested in AI, should I take the IT or the Engineering program?

You can take either IT – towards a Bachelor of Computing Science (Honours), majoring in AI and Data Analytics, or Engineering – with a sub-major or elective in Artificial Intelligence.

## What is the duration of the required internship during my study at UTS?

Students who enrol in the Bachelor of Science in IT can add the **Diploma in Information Technology Professional Practice** as part of their program. The internship is a structured program, consisting of one **nine-month** internship alongside your IT course.

The **Diploma in Professional Engineering Practice** is a 48-week structured Practice Program, consisting of **two 6-month** internships alongside your engineering course.

## What specific support can I receive from UTS when seeking an internship?

The careers team are available to assist you with your job search. They maintain links with more than 1,000 organisations which offer both scholarships and internships. Internships are advertised on the in-house career portal, **CareerHub** – UTS's own job board dedicated to jobs for students.

UTS also offers opportunities to find mentors, meet contacts, and build networks that will prove invaluable for your career.

You're not on your own when looking for internships. Dedicated staff are available to assist you with resume writing, interview skills and job finding strategies.

## What are the key differences between IT and Engineering?

**Engineering** is the mind and effort into making something; **technology** is the result of application of this mind and effort.

**Engineering** is more specific than **technology**. **Engineering** focuses on a problem to fix, whereas **technology** finds the solution.

(Source: <http://www.differencebetween.net/technology/difference-between-technology-and-engineering/>)

The following table outlines the main differences between IT and Engineering:

Measure	Information Technology	Engineering
Input	Using knowledge and raw materials to make something innovative for the society.	The study of scientific applications to know how to make new inventions for the society.
Output	Devices we see around us like our mobile phones, laptops, the air conditioner, etc. are all products of technology.	Engineering provides us with an understanding of how we can combine knowledge and resources to create new technology.
Orientation	Technology is more action-based.	Engineering is more knowledge-based.
Raw materials required	Knowledge and its application.	Technology that already exists in addition to some other raw materials for making the product.
Production	Technology is produced in masses as it has already been tried and tested.	It cannot be produced in a large number as it creates a trial product. If the trial is successful, more of the same products are manufactured and it becomes technology.
Reliability	More reliable as it has already been tested.	Less reliable as it is manufactured on a trial basis.

(Source: <https://askanydifference.com/difference-between-technology-and-engineering/>)

### Does studying IT only involve a computer/laptop?

Studying IT also involves developing your soft skills for the workplace, and practical skills such as teamwork, problem solving and creativity. At UTS College, we also focus on developing and practicing these 'soft skills' to help you get ready for the workforce.

### Is there any degree that combines both IT and Engineering?

Not really. A Bachelor of Engineering (Honours) with a major in software or data is still an engineering degree. You have the option at UTS College to undertake either a Diploma of Engineering or a Diploma of IT. Both offer 48 credit points towards your UTS degree in these fields. We also offer a Graduate Certificate in Technology Practice (international students only) which provides 24 credit points towards a UTS master's degree in several areas of IT and Engineering (pre-requisites apply).

### Do I need to be very good at maths to study Engineering?

You don't have to be top of the class in maths to be an engineer, but it is important to have a strong foundation in maths. Mathematics is a core subject in the course. You will be well supported throughout your studies at UTS College, with additional maths tutoring and support available via Studiosity should you need it.

Engineers are true problem solvers. They are creative, logical and possess strong attention to detail. This attention to detail is supported by strong mathematical skills, including mathematical modelling.

### Do I need to be very good at maths to study IT?

Mathematical principles are essential and effective in the implementation of algorithms, performance analysis, and information management. You will be well supported throughout your studies at UTS College, with additional maths tutoring and support available via Studiosity should you need it.

## **Is there any IT/Engineering program that doesn't involve a lot of coding activities?**

Programming is a core subject in IT. Other than the major Enterprise Systems Development, there are other IT majors that involve less coding.

## **Is IT/Engineering difficult to study?**

All disciplines can be challenging to study, including Engineering and IT. Engineering requires a strong foundation in mathematics and science (such as physics). UTS College prepares you for learning at UTS, while offering many avenues of support and assistance to help you succeed.

## **What traits are found in successful Engineering/IT students?**

Communication, teamwork, time management, adaptability, creativity and problem solving are all traits that will assist you in a career in Engineering or IT, and these important 'soft skills' are also taught and practiced often during your time at UTS College.

## **What are the differences between Bachelor of Engineering (Honours) and Bachelor of Engineering Science?**

The Bachelor of Engineering Science is a three-year full-time course. This course is an engineering technologist-level program which is similar in nature to the Bachelor of Engineering (Honours), but does not provide full professional engineering status.

## **How can I decide whether to study honours mode or not? Can an Honours degree affect my future career?**

Bachelor of Engineering (Honours) is an honours undergraduate degree in Engineering.

Bachelor of Computing Science (Honours) is also an honours undergraduate degree in IT. An honours degree enhances your undergraduate qualification and transferable skills. You will improve (and be able to demonstrate to future employers) your critical thinking, research and communication skills.

## **How can I decide which of the following programs to study: Bachelor of Engineering (Honours) - Data Engineering, Bachelor of Engineering (Honours) - Software Engineering, Bachelor of Science in IT, Data Analytics, Bachelor of Science in IT, Business Information System Management? What do they have in common and what are the differences?**

Typically, the course you take and the major you select will influence the career path you take after university. Ask yourself why you want to study and where you want to go, to decide on what career you want in the future. You may want further advice from a careers counsellor as to what path is best for you. It is also a good idea to read each course description and the subjects offered in each degree, to get a better understanding of what you will learn and what appeals to you.

## **What are the commonalities and differences between a Master of IT (Software development) and Master of Engineering (Software system engineering)?**

The Master of IT focuses on business-oriented software development. The course provides you with an understanding of the advanced concepts of information technology in a commercial environment.

The Master of Engineering (Software System Engineering) focuses on systems development. This course provides an opportunity at master's level for professional engineers to deepen the knowledge and skills gained in their undergraduate studies while expanding their managerial and professional engineering knowledge.

## **Most universities offer Bachelor of IT programs, but UTS offers a Bachelor of Science in IT. Is there any particular reason for this or it is just a matter of naming?**

It is just the name of the degree, it is an IT program.

# Design & Architecture Program

## Do I need to be excellent in drawing to study the Design program?

No prior experience in drawing is needed to study design or architecture at UTS or UTS College. The Diploma of Design and Architecture at UTS College is packed with opportunities to explore your design passions, whether it's architecture, interiors, animation, graphics, products or fashion. The diploma culminates in a work-ready portfolio and collaborative final exhibition. You will have the chance to study a combination of visual and spatial design, while taking core subjects in line with subjects offered at the UTS School of Architecture and the UTS School of Design.

## Can I get a job with a design degree in Australia?

No further qualification is needed after a bachelor's degree in design to get a job in Australia. In architecture, you'll need to complete a Master of Architecture to register as an accredited architect in Australia.

## How does the design program at UTS compare to that of University of NSW or University of Sydney?

Each of the three universities offers different specialisations, it is difficult to compare. However, when you study with UTS Design, you'll join a dynamic community of leading design academics, researchers and practitioners at one of the world's top 25 art and design schools (2021 QS World University Rankings). The UTS Faculty of Design, Architecture and Building is an innovative, vibrant faculty with a distinct model of collaborative learning, cutting-edge research, and strong focus on industry and global engagement. You'll learn to maximise your creative and professional potential. The UTS College Diploma of Design and Architecture prepares you for the complete range of exciting degrees offered by the UTS Faculty of Design, Architecture and Building.

## Do I need to complete a portfolio to graduate?

From UTS College, no, however, you will create an online portfolio on **Adobe Behance** as part of your course. From UTS, yes, if you undertake an Honours program as part of your bachelor's degree.

## What is the different between visual communication and digital communication/ graphic design in terms of program structures and career prospective?

Visual communication involves more extensive knowledge beyond graphic design. Graphic design courses are usually shorter and focus primarily on technical skills. A university bachelor's degree in visual communication will attract better job prospects than a certificate or diploma in graphic design from a non-university. The Bachelor of Design in Visual Communication at UTS is a distinctive degree that explores diverse forms of visual communication across design, culture and media.

## Is it possible for international students to be successful in marketing/design in Australia?

Of course. International students graduate with the same graduate attributes as domestic students and are therefore similarly skilled.

# Business Program

## Can I study Business if I am not good at maths?

Absolutely. Unless you are planning to go into some specific areas of business that require high level maths such as actuarial studies or advanced econometrics/finance, you do not need to be advanced in maths to study business. General mathematics is usually enough for most business disciplines.

## Is it difficult to find a job in Australia with a Business degree?

All industries need strong leaders, managers, financial advisors and market-savvy decision-makers. Traditional paths, including careers in the banking and financial sectors, consultancy, human resources and marketing roles, are also popular and appealing. Good business and management skills are key elements of any company, and there is strong demand for effective leaders, strategic thinkers and financial experts. However big or small, companies all over the world are looking for graduates with business skills.

## Is it difficult to get an internship if I study Business? What is the most common position for interns?

You'll need to engage with the content covered in the internship subject, participate in mentoring sessions, and attend career preparation workshops - all of which are provided through the business and professional internship subjects at UTS. We find that students who engage and follow advice early in the session are the ones who find an internship the easiest, as well as an internship that is in line with their strengths and interests.

## Do I get paid during an internship?

Internships can be either paid or unpaid, depending on what is available at the time. You're not limited to either type of internship, however, through the subject, you're permitted to work with only one organisation, either paid or unpaid. UTS also offers you the option to do a voluntary unpaid internship (not for course credit).

## What is the career trend for Business in the coming years? What kind of jobs can I get?

This depends on your chosen discipline as well as personal interests. For example: there is a lot of work in marketing, and the trend is shifting more towards digital roles where experience in social media marketing is highly favourable. Trends change depending on the specific area of business you are interested in.



# Science Program

## What is the duration of an internship for Science students?

At UTS College, we don't offer internship programs for students; however, at UTS, science and maths students are strongly encouraged to take up an internship. A Science internship can be presented in many forms; a research project on campus or at an external organisation, lab-based work in a local hospital, office work at a medical firm, work experience in a National Park, a full-time internship in a bank and so on. UTS Science and UTS Careers Service run regular pre-internship workshops, with the aim of providing you with the professional skills required to find and complete an internship. Details can be found on UTS CareerHub or the student internships page.

## What are the commonalities and differences between the following programs:

- Bachelor of Science in Analytics
- Bachelor of Science in Information Technology
- Bachelor of Computing Science

The Bachelor of Science in Analytics is a Faculty of Science degree, while the Bachelor of Science in Information Technology and Bachelor of Computing Science are degrees within the Faculty of Engineering and IT. The following table outlines the differences for each.

Degree	Course length	Description	Career options
Bachelor of Science in Analytics (Science)	3 years full time	The Bachelor of Science in Analytics focuses on the analytical skills and technical knowledge that underpin sophisticated data analysis tools that key aspects of business activity rely on. In this course you'll study key areas of business activity and develop a broad range of mathematical, statistical, computational and data management skills, as well as experience in the use of the information technology required for modern data analysis.	Career options include positions in business intelligence, data science, business analytics, consumer analytics, marketing research, logistics management, financial and credit risk management, stock market analysis, portfolio management, option pricing, international money market analyst. Major employers include media and marketing companies, banks, insurance companies, superannuation providers, prominent consulting firms, government bodies such as APRA and ASIC, and other major financial bodies.
Bachelor of Science in Information Technology (FEIT)	3 years full time	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, you'll gain skills in business analysis, problem-solving, teamwork and communication.	Depending on the major selected, career options include business analyst, IT project manager, network specialist, software developer, systems analyst or web developer.
Bachelor of Computing Science (Honours) (FEIT)	4 years full time	This course offers a sound education in all aspects of computing science and information technology. If you aspire to become researchers or want a career in a more scientific-oriented computing area, this is the course for you. It provides a pathway to postgraduate research study.	Career options include software developer, systems analyst, data scientist or professional computing science researcher.

## Does the Science program involve sufficient research activities? Should I be worried about not catching up with the program by learning online?

Whether you're in the Life Sciences or Physical Sciences stream of the UTS College diploma, all subjects, except some Math and Academic Communication subjects, have practical components. You'll attend practical lab activities at the UTS College Computer Lab, UTS College Dry Labs, UTS Science SuperLab and UTS Anatomy Facility.

Our teachers have redesigned subjects, created new materials and active learning opportunities online, and facilitated independent learning; all to ensure a great online learning experience. Please visit [UTS College Live Online](#) for details.

## How does the pathway program support me if I don't have a science background at high school?

Our extended diploma program at UTS College is ideal if you don't have a science background from high school. The extended program offers the same subjects as the standard program, PLUS two science enabling subjects – Physics Fundamentals and Introduction to Mathematics and one Academic English or Academic Communication subject. These subjects ensure you have the core fundamentals before progressing onto more advanced subjects.

## What makes science programs at UTS different from other universities?

UTS Science is [research-driven and student-focused](#). Here are the six reasons why you should choose UTS Science:

### *Our difference*

We focus on you, your future career and being a global citizen. Our model of learning is real world, creative and innovative. We don't just teach you what is applicable now and in the future, we also give you real experiences through a variety of internship and professional experience programs, global exchange, community and leadership, and start-up programs for the entrepreneurial inspired.

### *Go places*

A science or mathematics degree can take you almost anywhere. You'll study scientific theory, build technical expertise, and gain transferable skills that employers look for – communication skills, critical reasoning and analytical skills, and the ability to problem solve.

These will prepare you for a multitude of careers across industries globally.

### *Learn from thought leaders*

UTS has been the [#1 young university in Australia](#) for four consecutive years – what does that mean? You'll be learning from leaders in a vibrant, nurturing and innovative environment. Our teaching team is comprised of maths and science leaders who are actively advancing their fields of expertise. They're researchers, practitioners and industry experts – and they're committed to helping you achieve your goals. When you choose UTS, you'll be choosing a university that takes a fresh approach to the study and research of science and mathematics.

### *A campus transformed*

Our campus and facilities are just like our courses: purpose built, innovative, and designed with specific outcomes in mind. Conduct experiments and connect with other disciplinary students in Australia's first multidisciplinary Super Lab, solve mock crimes in our Crime Scene Simulation Lab, or polish your inquisitive skills in our analytical microscopy suite – who knows you might invent a new, more sustainable and efficient material!

### *Get real (world experience)*

Our courses are purpose built, globally relevant, practice oriented and research focused. Student experience is the focus. We'll push you beyond the safety net of the classroom. Dive into hands-on projects or research that will build your technical expertise and pursue internship in a range of scientific, business and government organisations. Or use your electives to pursue different disciplines outside of science or maths to broaden your employability.

### *Experience above world standard research*

Our research is among the best there is, and we've even got the scores to prove it! In the last 'Excellence in Research for Australia' (ERA) report, we were ranked 'at world standard' – or above – in every one of our research disciplines. In fact, our work in chemical sciences, material chemistry, environmental sciences and genetics were given the highest possible score – 'well above world standard' putting us on par with some leading institutions in the world.



## Do I need to be very good at maths, chemistry, and physics to do well in the Science program?

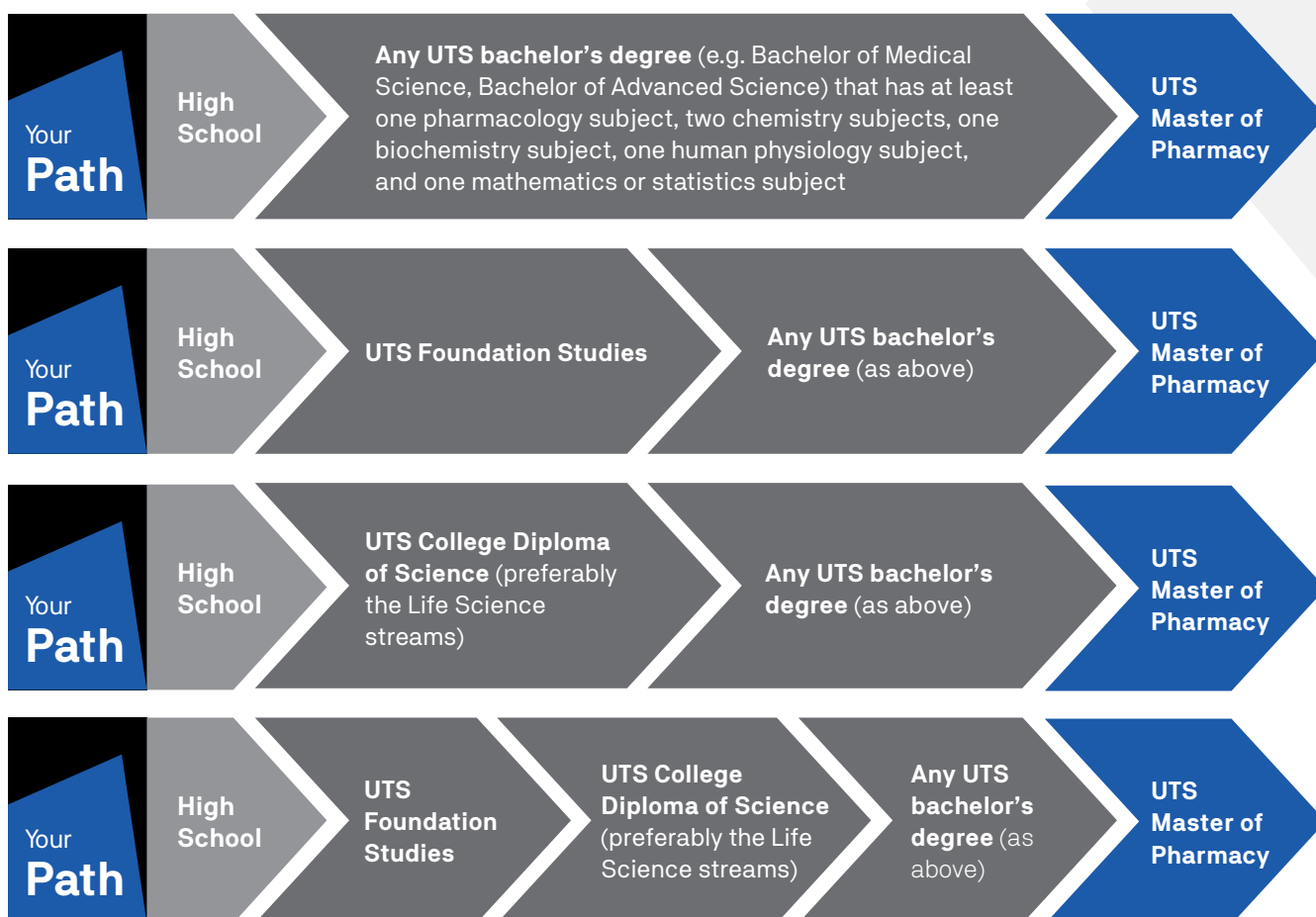
The Extended program is ideal if you want a confidence boost in maths, chemistry, and physics. Our Extended program offers the same subjects as the standard program, PLUS two science-enabling subjects – Physics Fundamentals and Introduction to Mathematics and one Academic English or Academic Communication subject. These subjects ensure you have the core fundamentals before progressing onto more advanced subjects.

## I find it very challenging to decide a major/program in Science. What are the essential questions I should ask myself to make the right choice?

You have so many choices, that it can be daunting. Read page 2 and 3 of the [Science Careers Guide](#) to find out what career and major/program in Science is suitable for you.

## I am a high school student. What is the study plan for me if I want to study a Master of Pharmacy in the future?

You may take one of the following study pathways:





## How is a science degree from UTS perceived by industry?

UTS Science students and graduates are greatly sought after by employers and UTS students have been named 'Most Employable' in Australia#. Science graduates are always in demand. In fact, 75 per cent\* of the fastest-growing occupations require expertise in science, technology, engineering and maths (STEM). At UTS Science, we equip you with STEM-specific skills, but we won't stop there: you'll also gain critical interpersonal and practical skills, such as problem-solving, numerical literacy, analytical thinking, and the ability to build lasting professional relationships. You'll graduate with a tool-kit of expertise that you can apply just about anywhere.

# Australian Financial Review Top 100 Graduate Employers 2019

\* The Australian Industry Group, *Progressing STEM Skills in Australia*, March 2015.

## There are lots of technical terms in the science program. Although my IELTS is good, I am not confident that I will understand the lectures. Is there any support for me?

You can use **Quizlet** to search for the academic word list, for example, 'Chemistry', to learn and practice terms in chemistry. In addition, when you learn a new term from class, you can add it to your own personal Quizlet set and build up your glossary online. UTS College has a HELPS Centre to provide you with English language support, Study Success Advisers, and Studiosity, which provides anywhere, anytime online help and feedback within 24 hours on your writing assignments. Your teachers are also available before, during, and after your classes, to assist you with any questions you may have.

## What key points set the Bachelor of Advanced Science above the Bachelor of Science?

The Bachelor of Advanced Science is designed specifically to develop learning using an inquiry-oriented and research-immersion model. You will engage in a number of research project subjects based on their chosen major – either pharmaceutical sciences or pre-medicine. You are placed with world-leading research scientists and learn 'on the job', actively mentored in research teams, and learning theory through real-time application and solving real-world problems. More than just a work placement, this course is a holistic learning experience designed to train the next generation of scientists and health professionals.

- Pre-Medicine major: This major is distinguished by its strong focus on practices and theory that underlie both medical research and the health professions. The aim is to prepare graduates for health profession careers, including post-graduate medical degrees.
- Pharmaceutical Sciences major: you'll learn practises and concepts that are critical for pharmaceutical science progressions. This major is also designed as an entry pathway to the Master of Pharmacy.

The Bachelor of Science gives you a solid foundation in scientific knowledge and practice while allowing you to specialise in an area of interest. You may follow any of nine different majors leading to the award of a degree that names your chosen major, e.g. Bachelor of Science in Nanotechnology or Bachelor of Science in Medical Science, or any of the majors available. Majors are chosen at the end of first year when you have experienced a range of disciplines and are more equipped to choose your preferred path. You may also choose not to follow a major, but to select a range of second- and third-year subjects to tailor your study according to your interests and graduate with a cross-disciplinary degree.

## Which science fields will be in most demand in the next 10 years?

Careers in science and maths are more varied than you might think. Science graduates are always in demand. In fact, 75 per cent\* of the fastest-growing occupations require expertise in science, technology, engineering and maths (STEM). At UTS Science, we'll equip you with STEM-specific skills, but we won't stop there: you'll also gain critical interpersonal and practical skills, such as problem-solving, numerical literacy, analytical thinking, and the ability to build lasting professional relationships. You'll graduate with a tool-kit of expertise that you can apply just about anywhere.

While it is not possible to predict what will be in most demand in the next 10 years, the figure^ below can give you an idea what is on demand now and most possibly in the future.

## IT/ Science students gain practical experiences through LABS. How will I gain this practical experience during COVID and Live Online? What support will students get from UTS College? (e.g. software licenses).

At UTS College Science, we have two ways that our students studying Live Online can experience practical laboratory classes and achieve the same learning outcomes. First, we replace experiments with online activities, including pre-lab quizzes, virtual experiments, experiment videos and post-lab worksheets. Second, students can also perform take-home investigations. For example, physics students video-record an investigation and apply three physics principles to explain the results.

All your course materials are located on our online learning platform Canvas. In addition, RingCentral, Zoom and other online learning tools and platforms are used. Your teacher will let you what software you will need, and a lot of software is available to students at no cost.

### Top 3 Paying Fields of Science



#### Botany

Avg. package \$151,982  
Base salary  
Up 2.5%



#### Physics

Avg. package \$145,802  
Base Salary  
Up 2.4%



#### Mathematics

Avg. package \$144, 698  
Base salary  
Up 2.1%

### Top 3 Fastest Growing Salaries by Field of Science



#### Veterinary Science

Avg. package \$94,223  
Base salary  
Up 4.7%



#### Agricultural Science

Avg. package \$147,521  
Base Salary  
Up 3.5%



#### Manufacturing

Avg. package \$131,221  
Base salary  
Up 3.1%

### Top 3 Highest Paying Industries for Scientists



#### Mining

Avg. package \$151,279  
Base salary  
Up 1.9%



#### Education & Training

Avg. package \$144,725  
Base Salary  
Up 2.9%



#### Defence

Avg. package \$143, 754  
Base salary  
Up 0.0%

### Top 3 Highest Paying Job Functions



#### Sales and Marketing

Avg. package \$160,460  
Base salary  
Up 2.7%



#### Management

Avg. package \$160,452  
Base salary  
Up 2.0%



#### Teaching and Training

Avg. package \$141, 335  
Base salary  
Up 3.0%

\* The Australian Industry Group, Progressing STEM Skills in Australia, March 2015.

^ UTS Science Career Guide November 2020. Figures are in Australian dollars.



# General Questions

## **Will I get help with a work placement and career advice during my degree?**

There is no official work placement requirement for UTS College courses. However, you will have full access to the UTS Careers Service when you transfer to UTS. At UTS College, Study Success Advisers offer weekly careers workshops to help you with careers research, resume writing, interview preparation and other relevant career development topics. These are available for current students in our online learning platform, Canvas.

## **Will I visit or study leading organisations and experience real-world case studies?**

Yes, depending on the diploma you choose, you will be offered a variety of experiences, excursions and opportunities to work in world-class, state-of-the-art facilities and visit relevant organisations. In Design and Architecture for example, a gallery and museum club is part of the curriculum, where students can experience a range of architecture and design elements. In Engineering, there are excursions to engineering projects such as the Sydney Harbour Bridge. The Diploma of Communication includes a visit to the ABC studio, and Diploma of Science students work within the SuperLab at UTS.

## **Will I have access to UTS College ambassadors to get advice during my studies?**

Every new UTS College student can access the Student Mentoring Program which aims to improve student's experiences and engagement by organising a group of brand-new students (buddies) to meet regularly with a senior student (mentor) who has already successfully completed a UTS College program. In addition, a dedicated team of Study Success Advisers are available to offer you highly personalised support and comprehensive advice on course progress during your study at UTS College.





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