

Bachelor of Engineering (Honours)
Bachelor of Engineering (Honours) and Master of Engineering
Bachelor of Engineering (Honours) / Dual Degree

Civil Engineering Specialisation

First Year Study Pathways and Information Guide



What is Civil Engineering?

Unleash your creative vision and gain the specialised skills you need to design and build a world that is beautiful, functional and sustainable

Civil engineers plan, design, construct and maintain infrastructure such as buildings, dams, airports, and transport networks. They protect and improve the natural environment while also meeting the changing needs of society.

From your first semester, you will work on projects designed by professional engineers. You'll work in teams to design and prototype scalable solutions to real engineering problems and set the foundation to become a professional engineer.

You'll study a range of courses covering programming, mathematics, statics and materials, with the flexibility to choose electives that prepare you for your specialisation.

The civil engineering specialisation enables you to develop technical skills, complemented with an understanding of how both the built and natural environments perform and adapt to environmental challenges such as climate change, natural disasters and future population needs.



What You'll Experience

Civil engineering is a broad discipline with students engaging in environmental engineering, geotechnical engineering, mining engineering, structural engineering, transport engineering, and water and marine engineering

Students get hands-on in practical classes for many of the courses in our World class facilities. Field trips are run to various locations for some courses to reinforce the learning.

In the final year, all students undertake a project where they get to put their knowledge to the test.

Via the Civil Engineering Student Association (CESA), there are a variety of co-curricular activities including opportunities to engage with prospective employers.

First Year

Core Courses



Second Year

You MUST declare your specialisation at the start



Third Year

If you're choosing one, start taking your majors courses



Fourth year +

Your major must be declared now, Advanced courses, thesis, capstone etc



Your Final Year

Regardless of what areas of civil engineering that you choose to study, you will do some version of a final year project

In addition, you'll take specialist courses in an area that interests you from a wide range of courses relating to the broad range of civil engineering fields –

- environmental engineering,
- geotechnical engineering,
- mining engineering,
- structural engineering,
- transport engineering,
- and/or water and marine engineering.

After You Graduate

As a civil engineer you will likely be one of the 90% of graduates who find work shortly after or even before graduation

You'll have the skills to work in a variety of areas and a degree that enables you to work around the World.

That might be in environmental engineering undertaking ecosystem monitoring and management or looking at waste reduction and circular economies. It could be in water and marine engineering where you might strive to prevent damage from floods and waves or working on renewable energy futures. You might end up working in structural engineering developing low-carbon and net-zero energy buildings or building high-performing structures. Some graduates gravitate into geotechnical and mining engineering working on large scale infrastructure projects, complex multidisciplinary problems or meeting the growing land and resource demands. Some motor into transport engineering modelling human behaviour and decision-making, using big data and AI, and working with autonomous vehicles.

Salaries of a civil engineer vary depending on what field you get into, and the amount of experience you have. It also varies depending on the size and type of company employing you. Civil engineers work in the commercial, private and Government sectors and often transition into other areas such as project management and consulting.

The 2026 Average Annual Salary for Civil Engineers in Australia is between:

\$95K–\$138K

With a graduate salary averaging:

\$68K–\$85K

seek.com.au



Graduate Spotlight

William Sinclair – Principal (Structural Engineering), ADG Engineers

Will is the Principal for Structures at ADG Engineers, a national engineering consultancy founded in Queensland. Will is accountable for the technical performance of the approximately 80 Structural Engineers across 10 ADG Practices around Australia and provides stewardship to the business in the areas of technical excellence, training and development, innovation, quality, and risk management.

Will graduated with a Bachelor degree in Civil Engineering from UQ in 2007 and has spent the last 20 years honing his skills in the modelling, analysis, parameterisation, design and optimisation of building structures through his involvement in unique and challenging projects around the world. These projects have spanned commercial, residential, education, healthcare, government and community infrastructure markets in countries including Australia, the United Kingdom, China, Singapore, Malta, Mexico, Thailand, Kuwait, United Arab Emirates, Papua New Guinea and Finland, ranging from small art installations to supertall high-rise buildings over 500m in height. Will has had the opportunity to work abroad in London, Hong Kong, Singapore, Shanghai, and Dubai, which has helped him explore international best practice and cross-continental coordination.

In 2025, ADG Engineers was acquired by global engineering powerhouse AtkinsRéalis and Will is acting as the interim Regional Practice Lead (Buildings) for Australia. He is part of the leadership team leveraging the combined technical knowledge and capability of 5 different companies (ADG, AtkinsRéalis, WGA, LDE and Coras) across Australia and New Zealand during integration. In addition, he volunteers as a Technical Sub-Committee member for BD-002 in the development of AS3600, the Australia Standard for Concrete Structures, and has contributed within the UQ Faculty of Engineering, Architecture, and Information Technology (EAIT) since 2020 as an industry lecturer for engineering and architecture courses and as a member of the Industry Advisory Board for the School of Civil Engineering.

"What attracted me to civil engineering was always being fascinated by the large structures and infrastructure around us, particularly landmarks like the Story Bridge and Q1. Since starting civil, I've been able to visit dams, take part in hydrology field trips and work on practical design projects. It's exciting to think that one day I could help create something that people rely on every day and that might still be standing decades later."

Andrew Fong
Bachelor of Engineering (Honours)
(Civil Engineering) /
Bachelor of Business Management
(Business Information Systems)
and 2026 CESA President

Find Your Community

UQ has many clubs and societies including groups connected to civil engineering

Student clubs and societies provide a voice for the student community and bring students together through networking and social events. They also provide valuable opportunities to engage with industry, enhance your leadership skills and make long-lasting friendships.

Student societies related to Civil Engineering include:

- CESA – Civil Engineering Student Association
- MAMA – The Mining and Metallurgical Association

Civil Engineering Study Pathways

You can tailor Civil Engineering towards your interests through majors and minors

Majors Include:

- No Major
- Environmental Engineering Major
- Geotechnical Engineering Major
- Mining Engineering Major
- Structural Engineering Major
- Transport Engineering Major
- Water and Marine Engineering Major

Minors Include:

- Artificial Intelligence Minor
- Computing Minor
- Design Minor
- Data Science Minor

Civil Engineering Study Plans

Here are the resources available to help you plan your degree

There is a specific order that we recommend you take your courses in. These study plans are designed to ensure that you meet your prerequisites and can take the courses in the semester that they are offered.



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For more information

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<https://www.eait.uq.edu.au/study-plans/undergraduate/civil-engineering>