UNSW Engineering

Bachelor of Engineering (Honours) (Civil Engineering with Architecture)

What do civil engineers do?

Civil engineers construct, manage and maintain the infrastructure of modern society using mathematics, mechanics, physics and creative problem-solving. Civil engineers work on more than just buildings and bridges, for example tunnels, water supplies, airports and harbours all rely on civil engineers. This degree will build on your Civil Engineering understanding by immersing you in Architecture subjects. You'll be able to appreciate and understand architectural principles and develop your creativity, allowing you to work closely with architects to incorporate these into new and innovative designs.

What will your study involve?

You'll be inspired to become a conceptual thinker with a mix of aesthetic and structural expertise. This degree provides civil engineers with an appreciation and understanding of architectural principles, focusing on creativity and inventiveness. Civil electives can be chosen from disciplines including structural, geotechnical, transport or water engineering, or engineering construction and management.

Students will graduate qualified and equipped to work with architects and other building professionals to produce integrated and sustainable designs.

UNSW Civil & Environmental Engineering

- 1st in Australia and 24th globally for Civil and Structural Engineering (QS Subject Rankings 2025).
- We have close links with key professional, commercial and industrial organisations, allowing us to offer exciting and innovative student-led projects and industry-based training.
- Our degrees place a strong emphasis on practical design and problem-solving.

Program details

Lowest Selection Rank (2025): 94.00

Duration: Four-year embedded honours

Study areas: Architecture, Civil Engineering

Assumed knowledge: HSC level Mathematics Extension 1, Physics

Accreditation

Your Bachelor of Engineering (Honours) degree is recognised globally, accredited with Engineers Australia, and acknowledged by the Washington Accord which lets you work in over 20 countries across the globe upon graduation.

Career options

Graduates can be employed by specialist structural engineering design consultants, construction and contracting companies, federal, state, and local government organisations, airport and harbour authorities, project developers, and management consultancies.

Student Testimonials

"I wanted to be able to build upon my creativity and passion for design while capitalising on my strong mathematical background, and this degree promotes a balance between analytical skills and imagination. Being able to contribute to a project and see its outcome is an extremely satisfying experience."

- Tom LY Banh

Civil Engineering with Architecture

Example Study Plan

Year 1	
Term 1	**PHYS1121** Physics 1A OR **PHYS1131** Higher Physics 1A
	MATH1131 Mathematics 1A OR **MATH1141** Higher Mathematics 1A
	ARCH1080 Intro to Architecture and Enabling Skills
Term 2	**MATH1231** Mathematics 1B OR **MATH1241** Higher Mathematics 1B
	BENV1015 History of Design Thinking
	ENGG1300 Engineering Mechanics
Term 3	**DESN1000** Engineering Design and Innovation
	Lvl 1 Engineering Elective

Year 2	
Term 1	**ENGG2400** Mechanics of Solids
	BENV1010 Communication in the Built Environment
	ARCH1101 Architectural Design Studio 1
Term 2	**CVEN2101** Engineering Construction
	CVEN2002 Engineering Computations
	MATH2018 Engineering Mathematics 2D
Term 3	**CVEN2303** Structural Analysis and Modelling
	ENGG2500 Fluid Mechanics for Engineers

Year 3	
Term 1	**CVEN3303** Steel Structures
	CVEN3501 Water Resources Engineering
	Built Environment Elective
Term 2	**CVEN3304** Concrete Structures
	CVEN3502 Water and Wastewater Engineering
	ARCH1102 Architectural Design Studio 2
Term 3	**CVEN3202** Soil Mechanics
	CVEN3101 Engineering Operations and Control

Year 4	
Term 1	**CVEN4050** (6 UoC) Thesis A OR **CVEN4951** (4 UoC) Research Thesis A*
	ARCH1201 Architectural Design Studio 3
	CVEN3203 Applied Geotechnics
Term 2	**CVEN4051** (6 UoC) Thesis B OR **CVEN4952** (4 UoC) Research Thesis B*
	Built Environment Elective
Term 3	**CVEN4953**^ Research Thesis C^ (4 UoC) OR **Civil Eng Lvl 4 Discipline Elective** OR **Built Environment Elective**
	CVEN4701 Planning Sustainable Infrastructure
	Civil Eng Lvl 4 Discipline Elective OR **Built Environment Elective**

NOTES

You'll be required to complete 60 days of Industrial Training throughout your degree.

This degree example is indicative only and subject to change at any time without prior notice.
For the latest degree information visit the relevant UNSW Handbook page at www.handbook.unsw.edu.au.

UNSW's new 'flex-semester' calendar is scheduled to start in 2028.
For more information see https://www.unsw.edu.au/academic-calendar-project.

Visit the Degree Finder page here!