

# **UNSW Engineering**

# **Bachelor of Science (Computer Science)**

# What do computer scientists do?

Computer scientists use computer technology to solve a vast array of problems in today's world, e.g. financial forecasting, climate analysis, processing medical images, sending files and messages, streaming videos as quickly as possible across the internet, and so on.

A majority of activity today involves computing, at least in the background. Computer scientists develop the algorithms and techniques for the computer systems that sit behind the modern world.

# What will your study involve?

This degree combines science with strong engineering principles and a focus on design. There are up to 11 free and professional electives, giving you the flexibility to tailor your degree with subjects from engineering, science, arts or business. You'll graduate understanding the basic principles behind computing tools, operating systems, compilers and translators, and computer hardware.

# **UNSW Computer Science and Engineering**

- UNSW Engineering is ranked #1 in Australia for Engineering and Technology, our school of Computer Science and Engineering is ranked #4 in Australia by QS Rankings 2025.
- UNSW Computer Science and Engineering is one of the largest schools of its' kind in Australia which provides the most technically challenging computing degrees in the country.
- UNSW Computer Science and Engineering is home to five-time world robot soccer champions, the UNSW 'rUNSWift' team.

# **Program details**

Lowest Selection Rank (2025): 92.00

**Duration:** 3-year degree (+1 year honours option)

**Study areas:** Artificial Intelligence, Computer Networks, Computer Science, Database Systems, Embedded Systems, Programming Languages, Security Engineering

Assumed knowledge: Mathematics

Extension 1

Portfolio Entry: Faculty of Engineering Admission Scheme (FEAS), as an alternative pathway for students who want to study at UNSW but don't meet the required selection rank, find out more at unsw.to/feas

# Accreditation

Your Bachelor of Science (Computer Science) degree is recognised globally, and is accredited by the Australian Computer Society

# **Career options**

Careers options in computer science are diverse with many graduates employed as programmers, systems analysts and database administrators. Primary employers include software and web-based companies, commercial institutions, and robotics, AI and IT units

# **Student Testimonials**

"It's great being able to understand how the devices we use every day are made, and how they can improve in the future. I always enjoyed building things growing up and my degree lets me do this on a huge scale. I am very excited to be able to work all over the world and to help solve its biggest challenges."

James Roberts-Thomson, Computer Science

# Example Study Plan



Year 1		
Term 1	COMP1511 Programming Fundamentals	
	MATH1131 Mathematics 1A <u>OR</u> MATH1141 (Higher) Mathematics 1A	
	Free Elective	
Term 2	MATH1231 Mathematics 1B <u>OR</u> MATH1241 (Higher) Mathematics 1B	
	COMP1521 Computer Systems Fundamentals	
	COMP1531 Software Engineering Fundamentals	
Term 3	COMP2521 Data Structures and Algorithms	
	<b>MATH1081</b> Discrete Mathematics	

Year 2		
Term 1	COMP2511 Object-Oriented Design & Programming	
	Free Elective	
	Computing Elective	
Term 2	General Education Course	
	Computing Elective	
Term 3	Computing Elective	
	Computing Elective	
	Free Elective	

	Year 3
Term 1	COMP3121 Algorithm Design and Analysis <u>OR</u> COMP3821 Extended Algorithm Design and Analysis
	Free Elective
	Free Elective
Term 2	Free Elective
	General Education Course
Term 3	COMP3900 Computer Science Project
	Computing Elective
	COMP4920 Professional Issues and Ethics in Information Technology

This degree example is indicative only and subject to change at any time without prior notice. This example is based on the Computer Science specialisation.

For the latest degree information visit the relevant UNSW Handbook page at <a href="https://www.handbook.unsw.edu.au">www.handbook.unsw.edu.au</a>.

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



Visit the Degree Finder Page here!