Faculty of Science

Mātai Pūtaiao Rorohiko Undergraduate Computer Science

Computing technology permeates our lives, and with that comes the demand for specialists to imagine, develop and maintain that technology. As a Computer Science student at the University of Auckland, you'll be prepared to meet that demand.

What is Computer Science?

Computer scientists have an impact on how our society advances by developing and maintaining these systems: whether it be for our home, work, learning or entertainment environments.

We'll cover:

- How information is stored in computers (data structures and management)
- How computers are told what to do (algorithms and programming languages)
- How systems work (computer architecture and system software)
- How computers are connected (data communications, networks and hypermedia)
- Some ways in which computers can be used (applications)
- What computers can do, and their limitations (computability and complexity theory)

What you will learn

Studying Computer Science gives you an understanding of the conceptual building blocks of computers, software, and communications between computers. You'll tackle topics as diverse as algorithms, artificial intelligence, programming languages and networks, and you'll develop sought-after skills in logical thinking, problem-solving and analysis.

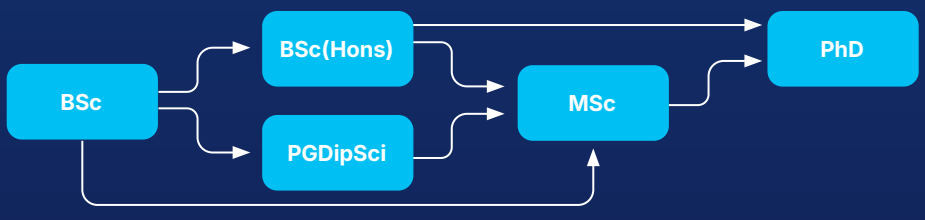
You don't need to have taken any particular subject at high school to study Computer Science with us, but digital technologies, mathematics and physics provide helpful background knowledge.

Choosing a subject

With so many options it's sometimes hard to choose what you want to study, but we've got you covered. You can study a double major with our Bachelor of Science to gain a broader base of skills and knowledge.

Complementary majors include:

- Management
- Logic and Computation
- Mathematics
- Physics
- Psychology
- Statistics



Waipapa Taumata Rau
University of Auckland

Career opportunities

Be everywhere in today's world

Computing technology has become an ever-growing part of human life, affecting many aspects of our day.

Computers are indispensable in fields such as education, medicine, commerce and engineering – as well as leisure. We can't imagine what we would do without them, and the innovations just keep on coming.

As the demand for new technology continues to grow and change, Computer Science is always at the forefront of developments and industry is keen to employ our graduates.

By studying Computer Science, you may have an impact on how our society advances by developing and maintaining software and systems.

You can look forward to working in many exciting areas, in an ever-widening variety of roles.

Our Computer Science graduates have been employed in the following jobs:

- Software engineer, Electronic Arts
- Application engineer, Datacom Systems Ltd
- Developer (Dynamics AX), UXC Eclipse
- Agile architect, Vocus Group NZ
- Technical consultant, Davanti Consulting
- Product development engineer, Fisher & Paykel Healthcare
- Linux system administrator, Solarix Networks Ltd
- Security analyst, SKYCITY Entertainment Group
- Software engineer, Microsoft

What you will study

- Software fundamentals
- Database systems
- Artificial intelligence
- Human-computer interaction
- Computer graphics
- Cybersecurity and cryptography
- Advanced design and analysis of algorithms
- Global data communications
- Data mining and machine learning
- Web, mobile and enterprise computing

Find out more about how your degree will be structured and what courses you need to take at

auckland.ac.nz/science/ug-comp-sci

Applications close on 8 December.

"I've found that research is like exploring the deep ocean, and I have always enjoyed sailing in the dark blue. The feeling of uncovering the truth makes all the hard work worth it. My favourite part of PhD life is that I have the freedom to spend three years on a research topic that interests me. I'm very lucky to be driven by my interests while young, and my efforts have led to a series of scholarly works that I am proud of. "

Yang Chen
PhD in Computer Science

Kuhua ki tō mātou hapori, ā, Kimihia tōu Pūtaiao.
Join our community and find your Science.

Have any questions?
Contact the Student Hub

auckland.ac.nz/student-hubs