THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Computer Science

COMPUTING & MATHEMATICAL SCIENCES

RŌROHIKO ME NGĀ PŪTAIAO PĀNGARAU

Computer Science

Computer scientists look at ways to systematically describe and transform information.

Studying Computer Science at Waikato you'll learn about software systems and how people and computers interact, how to create new software, how to ensure it works well and does what it is supposed to, and how to make it easy for people to use.

A Computer Science qualification will prepare you for a career in entertainment, industry, business, education and government.

The knowledge and practical skills learnt during study will support development in all of these areas. Ongoing progress in computer technology means that there is a steady need for more qualified computer professionals.

Computer Science at Waikato

A major in Computer Science is flexible, allowing you to focus on a particular area, or to complete a more generalist major. The papers available are carefully designed to ensure you have a good mastery of a particular area of Computer Science and will equip you with the skills you need to succeed in your chosen career.

Facilities

The computer facilities available to students are among the best in New Zealand, ranging from phones and tablets for mobile app development, to cluster computers for massively parallel processing. Because our degrees are highly practical, you'll begin working with these facilities right from your first semester.

Entry requirements

While there are no specific subjects you need to study at secondary school to study Computer Science at Waikato, NCEA Computing/Digital Technologies and Mathematics are very useful.

Scholarship information

Each year we offer up to ten $5,000 Computer Science Undergraduate Scholarships to students beginning study at the Faculty of Computing and Mathematical Sciences.

This scholarship is awarded based on the results of a competitive exam and is open to Year 12 and Year 13 students only. Visit **cms.waikato.ac.nz/scholarships** for more information.

Career opportunities

The skills students will gain from this programme can lead to work in a variety of areas including:

- Web Architect
- Software Developer
- Usability Engineer
- Mobile App Master
- Data Miner
- Network Engineer

Qualification options

Computer Science can be taken as a first major for the following qualifications:

- Bachelor of Computing and Mathematical Sciences with Honours (BCMS(Hons)) (4 years)
- Bachelor of Science (BSc) (3 years)

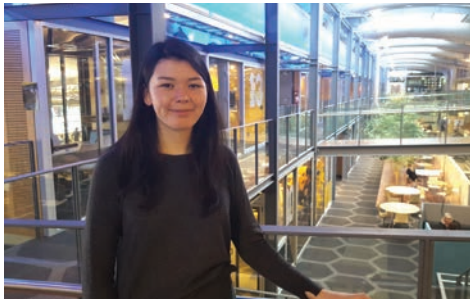
Because the first three years of the BCMS(Hons) are almost identical to the BSc, you can choose when you would like to graduate. You have the option to graduate after three years with a BSc in Computer Science, or stay on for an extra year and complete a BCMS(Hons).

The extra year available through the BCMS(Hons) gives you the chance to drill more deeply into your specialist area, and to undertake an honours research project in collaboration with a research/teaching Computer Science staff member.

BECKY DAWSON-SMITH

BSc in Computer Science

Graduate Engineer, ASB Start Me Up Program



I've always had a huge interest in science but I also had some interests in design and multimedia. I like that studying Computer Science allows me to utilise my analytical and problem solving skills, but also gives me opportunities to be creative.

Since leaving Waikato I've joined ASB as a Graduate Engineer in their Start Me Up program. The work I do can vary depending on what technology changes or releases are occurring at the time, but most of what I do involves working on improving the change management process. In a typical week I will help staff with change requests, attend stand-ups for projects, facilitate CAB (Change Advisory Board) meetings, produce a weekly report, and attend a workshop to expand my knowledge about how ASB works.

Studying Computer Science at Waikato would be an awesome opportunity for you to challenge yourself and meet people who will change your life. It is hard work but incredibly rewarding. Computing and Mathematical Sciences are such important subjects and the faculty has great tutors and clubs to support you.

Bachelor of Computing and Mathematical Sciences with Honours (BCMS(Hons))

Y1	COMPX101 Introduction to Computer Science	COMPX102 Object-Oriented Programming	CSMAX170 Foundations in Computing and Mathematical Sciences	MATHS135 Discrete Structures	Field of the Degree 100 Level	Field of the Degree 100 Level	Elective	Elective
Y2	COMPX201 Data Structures and Algorithms	COMPX202 Mobile Comp and Software Architecture	COMPX203 Computer Systems	COMPX204 Practical Networking and Cyber Security	CSMAX270 Cultural Perspectives	Elective	Elective	Elective
Y3	COMPX361 Logic and Computation	Any COMPX 300 Level Paper	*Choose one from List A	*Choose one from List B	Field of the Degree 300 Level	Elective	Elective	Elective
Y4	COMPX520 Report of an Investigation *(at least 45 points)*			Any COMPX 500 Level Paper	Elective	Elective	Elective	Elective

Bachelor of Science (BSc)

Y1	COMPX101 Introduction to Computer Science	COMPX102 Object-Oriented Programming	CSMAX170 Foundations in Computing and Mathematical Sciences	MATHS135 Discrete Structures	100 Level Science Elective	100 Level Science Elective	Elective	Elective
Y2	COMPX201 Data Structures and Algorithms	COMPX202 Mobile Comp and Software Architecture	COMPX203 Computer Systems	COMPX204 Practical Networking and Cyber Security	CSMAX270 Cultural Perspectives	Elective	Elective	Elective
Y3	COMPX361 Logic and Computation	Any COMPX 300 Level Paper	*Choose one from List A	*Choose one from List B	300 Level Science Elective	Elective	Elective	Elective

***List A and List B papers can be found in the FCMS Handbook**

Contact us

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