

JUNE 2018

**AUT**

# WELCOME TO SCIENCE

Te Kura Pūtaiao





# A MESSAGE FROM THE HEAD OF SCIENCE

Kia ora koutou,

Science at AUT provides graduates with the skills necessary to gain rewarding employment, undertake scientific research, and enable them to contribute to human wellbeing and a sustainable future.

Our lecturers are world-leading, highly motivated and committed to student success. I personally ensure that all teaching staff appointments are passionate about teaching. They also have international research publishing credentials that they draw upon to enliven and inform their interactions with students.

Alongside theoretical study we value practical training (in laboratories and in the field) so that our graduates have the skills to meet employer needs. There is demand for graduates that not only understand science but have the practical skills to conduct science.

Because we keep our class sizes smaller than elsewhere, students are able to fully engage with lecturers and each student group of six or seven is allocated an academic staff member as a mentor for the duration of their degree studies.

Our students tell us that our commitment to them, makes science at AUT a place where they feel they belong.

## **Professor Len Gillman**

Professor of Biogeography  
Associate Dean, International  
Head of School, School of Science

# WHY SCIENCE AT AUT?

AUT science graduates are shaping successful global careers and changing the world we live in. They're skilled, ready to challenge routine thinking, and equipped to create innovative solutions for a sustainable future.

## Outstanding labs and facilities

Our students have access to top facilities and equipment for their research – like aerial drones, testing suites and marine research vessels. Training labs include the AUT Roche Diagnostics Laboratory which has state-of-the-art medical and biomedical testing machinery and is the only university lab of its kind in New Zealand.



To get a feel of what it's like to sit in a classroom and examine subjects, take a virtual tour of our Food Sensory Testing Suite online.

## Study that leads to rewarding careers

AUT science graduates are highly sought after by employers because they have a reputation for being agile thinkers with quality practical experience.

The Bachelor of Science has 13 majors, within the areas of biomedical, chemistry, applied ecology and food science. Students can complete double majors, within the standard three-year degree, providing a competitive edge in the market place and preparing them for a wide range of rewarding careers. Seven specialty areas are offered in medical diagnostics within the Bachelor of Medical Laboratory Science.

AUT science graduates excel in shaping successful careers in New Zealand and around the world. We're ranked as one of the top young universities; QS World University Rankings place AUT in the top 2% of universities worldwide.

## Ground-breaking research

Science research at the leading edge depends on creative thought, backed by solid theoretical understanding and practical experience.

A great example of this is the footage of a Bryde's whale captured by AUT researchers. The footage shows an adult whale feeding, briefly joined by a young calf, and was filmed from a custom-built drone off the coast of Auckland. It is thought to be the first time the feeding behaviour of a Bryde's whale has been filmed.

The footage was captured by AUT postgraduate students, Ticiana Fetterman and Lorenzo Fiori, while on the water conducting their respective master's and PhD research. They were stunned to glimpse the whales, and to share the rarely seen moment with their research supervisor Associate Professor Barbara Bollard. Unique research opportunities like this offer AUT students a rewarding journey in their studies.



You can watch the clip on AUT YouTube. [www.youtube.com/watch?v=BeFzozm\\_H5M](http://www.youtube.com/watch?v=BeFzozm_H5M)





Our science students have access to the latest technology and labs



Get out of the classroom with science field trips as far as the Antarctic



Nationally and internationally recognised lecturers



Collaborative and interactive classes



# OUR LECTURERS

Our programmes are taught by experts in their fields, who combine practical experience with sound theoretical knowledge. Our academic staff are successful in conducting world-changing research and in developing new technologies. Their national and international connections with employers and research institutions help to provide graduates with excellent career pathways.



## **Associate Professor Barbara Bollard**

Barbara's research interests are in geospatial science employing GIS applications, ecosystem management and spatial ecology. She has over 20 years' experience working in government and NGOs in both Australia and New Zealand.

Her research focus has recently been in mapping Specially Protected Areas in Antarctica, using drones with the latest in remote sensing technology. She has developed the capability to map species within landscapes for conservation planning with sub-centimeter accuracy. She is also a leading expert in integrating social data with environmental and biological information using decision support systems, multivariate statistics and GIS.



## **Professor Allan Blackman**

Allan has been teaching and carrying out research in chemistry at university for over 25 years. Over this time he has published nearly 100 articles in international chemistry journals, and he is the lead author (along with four others) of the best-selling first year chemistry textbook in Australasia, which is currently in its 4th edition. He has also been the recipient of two university-wide teaching awards. He is part of a team of chemists at AUT who have been trained at universities as diverse as Oxford, MIT, Padova (Italy), Erlangen-Nürnberg (Germany) and Indiana, and who carry out world-recognised research in many areas of chemistry.

**Associate Professor Barbara Bollard and Professor Allan Blackman are just two examples of the expert teaching staff here at AUT. The AUT School of Science employs a large number of New Zealand's best science researchers and thinkers.**

# OUR GRADUATES

## Zahra Moiyadi

### Laboratory Technician – Organic Chemistry, Watercare

Bachelor of Science (Honours)  
Bachelor of Science in Chemistry

Zahra Moiyadi was drawn to the challenge of studying chemistry.

“What I love about chemistry is that there are infinite structures and variety in the behaviour of the particles, elements, molecules and compounds that make up this world.”

The AUT science alumna is now working as a laboratory technician for Watercare; an essential role in Auckland’s infrastructure.

“In my role at Watercare, I’m responsible for analysing samples by using liquid and gas chromatographic techniques. I enjoy using different analytic equipment to perform quantitative analyses.

“I constantly draw on what I learned at AUT. The dissertation project for my AUT Bachelor of Science (Honours) required the use of these techniques, which are the primary instruments used for the lab analysis at Watercare.”



## Lon Hua

### Medical Laboratory Scientist, IGENZ Limited

Bachelor of Medical Laboratory Science

“The Bachelor of Medical Laboratory Science is a multidisciplinary degree that offers not one, but two 15-week clinical placements, which helps you understand more about the work you’ll be doing in the foreseeable future. The experiences gained from these clinical placements have certainly opened my eyes about what the clinical world is all about.

“At the end of my second placement, I was offered to stay and work part-time in a diagnostic laboratory while finishing my final semester at AUT. The part-time position at the Liggins Institute transitioned into a full-time position post-graduation. After working for nearly a year, I was fortunate enough to be offered a permanent full-time position at IGENZ Limited.”





9 out of 10 students  
would recommend AUT  
as a great place to study



QS STARS 2018/19  
For Employability, Facilities,  
Inclusiveness, Internationalisation  
& Teaching



60+ research centres  
and institutes with  
world-class expertise



UNIVERSITIES  
WORLDWIDE



# UPCOMING EVENTS

## For HODs and staff

### EXPERIENCE SCIENCE AT AUT

Thurs 22 Nov, City Campus

At this event, HODs and staff will learn more about the distinctive student experience offered by the AUT School of Science. They'll also get the chance to explore our teaching and learning spaces, meet some of our great graduates and professors, and hear a bit more about some exciting research projects and programmes for 2019.

This event is specifically for heads of departments and science teachers.

More information to follow.



## For future students

### PARENTS INFORMATION EVENINGS

City Campus – Mon 25 June  
North Campus – Tues 26 June  
South Campus – Thurs 28 June



At our inaugural Parents Information Evenings, parents will hear from leading researchers, academics, and alumni about what sets us apart from other universities. They'll gain insights of what industry want in university graduates, and what we're doing to produce great graduates.

[Find out more](#)

### IGNITE '18

Wed 11 July, City Campus

Any Year 12 or 13 students thinking about studying at AUT should come and join our friendly Future Students Team to gain a new understanding of university life. They can discuss what they'd like to study, see what they can expect in their first semester and ask any questions they might have. They'll participate in some interactive workshops where they'll learn tips and tricks to successful study, find out about how university timetables and assessments work, all while spending part of the day with current students – no questions are off limits.



[Find out more](#)

### AUT OPEN DAY

Sat 25 Aug, City Campus

Prospective students can explore their undergraduate and postgraduate options at AUT LIVE where they'll meet programme leaders, experience our world-class facilities and campuses, and can apply to study in 2019. Make sure they don't miss AUT LIVE, the most open day.



[Find out more](#)



# CONTACT US

In collaboration with the AUT Future Students Team, our science staff offer the opportunity to come into your school to talk about AUT's undergraduate programmes.

To find out more please contact the Future Students Team:

✉ [secondary.schools@aut.ac.nz](mailto:secondary.schools@aut.ac.nz)

☎ 09 921 9211 (Jayne Mayerhofer)

The logo for AUT (Auckland University of Technology) is displayed in a white rectangular box. The letters 'AUT' are in a bold, white, sans-serif font with a thin black outline, set against a dark green background.

**AUT**