March 2022

Introduction

Semester 1 started off busily with a buzz of students on campus despite COVID-19 restrictions. The impact of Omicron coincided almost exactly with Orientation week. As a result most planned social activities had to be cancelled or in some cases moved online in reduced form. The University of Canterbury Student Association's traditionally popular Clubs Day, a key element in providing students with a way to connect with others, was held in modified form, and was relatively successful.

Staff and students continue to demonstrate their adaptability as we navigate the waves of Omicron and the changes in the national approach to vaccine passes and mandates, scanning and the traffic light system. As the close of the term approaches, students and staff are working on assessments and looking forward to the Easter holiday break.

Recognising that the impacts of the pandemic are disproportionate, equity has been an important aspect of our COVID-19 response. In addition to the overall UC response, Te Waka Pākākano (Māori, Pacific and Equity) has been focused on implementing distinctive strategies to respond to Māori, Pacific and Rainbow students affected by COVID-19. Among these strategies were making welfare checks with all students in these groups, brokering access to community support packages, including food, hygiene and other isolation supports, and supporting students to access existing UC services, including hardship funds. Related communication strategies include hosting both information sessions and daily online hui to provide a sense of connection among those isolating, as well as proactive engagement with all first-year Māori and Pacific students.

With our ongoing goal of being at a sustainable scale by 2030, UC continues to keep a keen eye on enrolments. While 2021 was a truly exceptional year for student enrolments, 2022 has seen a different trend across the sector. New enrolments across the country are not growing as much as they did in 2021, and UC's experience is no exception.

UC had a significant increase in domestic student enrolments in 2021 as a result of border closures, recession and a small increase in domestic market share. For 2022, domestic enrolments have held at the high 2021 levels overall. International student numbers have continued to decrease, as students studying in New Zealand complete their degrees and only a few new full-fee students are granted visas to arrive here.

Morning karakia and waiata led by the School of Teacher Education (STED) recommenced on 14 February. Each morning at 9am for 10 to 15 minutes, STED staff lead all who care to join from the School (and people come from across the University) in a fun-filled, informative opening for the day. Participants learn new waiata, sing some favourites and engage in mātauranga Māori. The venue is outdoors – by the Blue Light Emergency Tower beside Rehua – while we are at COVID-19 Level Red. For the booklet guiding these sessions, see: Ngā Karakia me Ngā Waiata.

Engagement – UC as an Engaged University

The University of Canterbury Young New Zealander of the Year award | Te Mātātahi o te Tau recognises a young person with exceptional potential to build a bright future for Aotearoa. From among the finalists who included Jacinta Gulasekharam, Stan Walker and Ezra Hirawani in this category - Ezra was the winner. Determined to find solutions for whānau without power, Ezra set up his own power company. He co-founded Nau Mai Rā, a purpose-build, kaupapa Māori energy retailer, delivering affordable, 'always on' power after discovering how many families lived in power poverty. A big congratulations to Ezra.

In the Parliamentary Education and Workforce Selection Committee's 2020/21 Annual review the Tertiary Education Commission (TEC) MP Jo Luxton asked about educational outcome parity for Māori and Pasifika students in New Zealand. The TEC and Ministry of Education have had a longstanding objective for Māori and Pasifika educational outcomes to achieve parity by 2022, but Aotearoa New Zealand is unlikely to achieve that goal. TEC Chair, Jenn Bestwick responded that this was the primary focus of the Board, and specifically noted that UC is refreshing its Learner Success Plan at present She is signalled to the sector that the TEC would start moving money around and that it would not continue to fund poor outcome provision, and that those providers were on watch. She indicated that the real gains are coming where providers have enterprise-wide programmes and noted UC as an example of institutional commitment

Late last year UC and the Western Institute of Technology, Taranaki, signed a Memorandum of Understanding to work together to support better provision of education and research in the region. Our first initiative to enact this agreement has been to fund jointly a staff member in engineering, based in Taranaki. Anna McMullen has been appointed under this arrangement. WITT's focus will be on undergraduate engineering education and UC's focus will be on research opportunities and postgraduate professional development. Overall, the agreement is to work to support transition engineering to a lower carbon future for the region and nation

UC has partnered with ChristchurchNZ and KiwiNet to run the Food, Fibre and Agritech Supernode Challenge 2022. This competition promotes world-leading innovation occurring here in Canterbury and uncovers cutting-edge thinking to help local industry and encourage entrepreneurship and innovation.

As an active participant in Te Parakiore Sport and Recreation Centre, Te Kaupeka Oranga | Faculty of Health has begun discussions to connect stakeholders and set the scene for future opportunities. The Centre's emphasis on wellbeing in the broadest sense fits well with the focus of Te Kaupeka Oranga and offers great promise for collaborations in teaching and research in the future. UC already has Memoranda of Understanding with other partners in Te Parakiore, High Performance Sport NZ and Active Health.

Te Kaupeka Oranga also hosted SEXwise – a national touring theatre programme that promotes sexual health by using live performance and dynamic facilitation to engage rangatahi | youth, whānau and communities in dialogue. This event was for all community members, including health promoters, teachers, whānau and anyone working with rangatahi.

Women in Space Aotearoa New Zealand is a new organisation dedicated to expanding opportunities for women and other gender minorities to work in space fields and pursuing gender equity in the space sector. Inaugural members from UC include Senior Lecturer Dr Michele Bannister, Senior

Lecturer Dr Sarah Kessans and Engineering graduate Kate Breach. Women in Space Aotearoa New Zealand aims to provide a professional network and inclusive community that supports women working in the space sector in New Zealand, provides mentorship for women wanting to enter the sector and encourages the next generation of New Zealand women to pursue a career in space, particularly in science, technology, engineering and mathematic (STEM) fields.

Associate Professors Cheryl Brown and Kathryn MacCallum, School of Educational Studies and Leadership are featured on photographic boards at Christchurch bus stop shelters currently. They are advertising the 2023 Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) conference, which UC is co-hosting with Tourism New Zealand.

Associate Professor MacCallum was an invited trendsetter and keynote presenter at the Scholarship of Technology Enhanced Learning Symposium (SoTEL). She spoke on the topic of "Digital transformation and its impact on our digital wellbeing". She was also a panel member for EDTech NZ's Aotearoa EdTech Excellence Whitepaper Official Release and panel discussion. The discussion focused on how we can better support the transformation of educational experiences, digital innovation and economic outcomes in the educational technology sector.

The Herenga Delta Conference 2021 attracted just over 100 attendees from six continents. Despite the challenges around time zones, the week was full of invigorating discussion. Presentation topics included applications of cognitive psychology to maths education, challenges and successes of online/pandemic teaching, and Māori and Pasifika perspectives. Dr Robert Culling's talk, on behalf of the School of Mathematics and Statistics, presented a demonstration of the School's 100-level learning modules. It was very well received as complementing the work of several other departments doing similar online teaching. Dr Rosie Cameron presented the design rationale for the recent transformation of MATH101, which generated some excellent conversations around supporting Māori and Pasifika learners and tracking student progress through subsequent courses.

Our students have had diverse opportunities for engagement with industry and other community partners. For instance, in completing their DATA601 summer projects, 41 Applied Data Science students from the Faculty of Engineering worked with an impressive range of companies and institutions throughout New Zealand, from the National Library to the Cancer Society, Orion Health to ANZ bank, AgResearch to Spark New Zealand, to name just a few. James Williams, Nick Ward, and Phil Davies supervised the summer projects – a substantial undertaking.

Our alumni are also demonstrating excellent achievements. School of Music graduate Gemma New has been appointed as the first woman Principal Conductor of the New Zealand Symphony Orchestra in its 75-year history. Gemma studied at UC in the 2000s, graduating with a BMus (Hons) in performance violin before studying for a Master of Music in orchestral conducting at the Peabody Institute in Baltimore, USA.

Chemical and Process Engineering staff are developing teaching activities for engaging diverse communities in STEM subjects at school. These activities have drawn on feedback from our Unlocking Curious Minds applications from 2021, demonstrating good engagement with mana whenua and including strong bicultural elements.

Te Rū Rangahau | Māori Research Laboratory has launched its open access resource, *Ngā Hau e Whā o Tāwhirimātea: Culturally responsive teaching and learning for the tertiary sector*. This practical guide to culturally responsive practice in the tertiary sector has a focus on embracing kaupapa Māori

and diversity. Published by Canterbury University Press (CUP), it is available through the Research Commons and a print version will be available for purchase by the end of March. It will have an online book launch in April. Lead author Matiu Ratima recently spoke on Radio 95bFM: Ngā Hau e Whā o Tāwhirimātea: Culturally Responsive Teaching w/ Dr Mātiu Ratima: Thursday, March 11.

The Confucius Institute at the University of Canterbury (CIUC) held its first online Facebook event for 2022. Running for the first time, the Chinese New Year Greetings Phrases Challenge asked participants to submit a short (one- to two-minute) video delivering a Chinese New Year greeting to welcome in the new Lunar calendar – the Year of the Tiger. With nine videos submitted, the week of online voting through the CIUC Facebook page brought in a total of 264 votes ('likes') and 2,080 views across the nine entries. In the end it was St Margaret's College students Zara and Anna who took first place with 89 votes, while Emma from Lincoln High School came in second with 52 votes.

The Faculty of Health and School of Psychology, Speech and Hearing submitted a request for proposal to the Ministry of Health for the delivery of talking therapy courses to the mental health and addictions workforce. The bid was successful for 2022/23 and will be added to the suite of lifelong learning initiatives.

Dr Mahdis Azarmandi, School of Educational Studies and Leadership was featured on a new podcast series by Pat Brittenden, Department of Conservation and spoke in the hour-long podcast with Marama Davidson and John Minto. Mahdis spoke about the protests in Wellington and the current invasion in Ukraine. Her focus was to draw attention to racist framing.

Education – Accessible, Flexible Future Focussed

With the start of the new academic year came several 'firsts' across the University with the introduction of new programmes, pathways and student academic initiatives to ensure flexible and accessible education. New degree programmes include the Bachelor of Environmental Science with honours (99 students) and the Bachelor of Data Science (70 students). The Faculty of Health welcomed the first cohort of the Doctor of Health Sciences students.

Student support initiatives have been in full flight. Te Pātaka, the new student hub, was fully operational for the start of the 2022 academic year and by the end of Week 2 more than 4,000 students had engaged with one or more services. Feedback on Te Pātaka has been overwhelmingly positive, and continuing students (who best understand the change) have noted the value of having a range of services in one place.

The new Kaitoko team also began advising during this period. Despite traffic light settings prompting a shift to a mix of online and in-person appointments, Kaitoko engaged with more than 800 new students by the end of Week 2.

Student support initiatives in the Faculties include the Faculty of Arts' new mentoring programme for new to UC students in the Bachelor of Arts. Over the semester, 27 academic mentors have met with students to offer academic advice and support to get their studies off to the best possible start. EngME, a Faculty of Engineering mentorship programme, is also up and running.

Course-specific support has been expanded for first-year students after the successful delivery of Peer Assistant Learning Sessions (PALS) in 2021. It now covers four large first-year courses in Semester 1. The PALS coordinator has started to promote the programme in collaboration with course coordinators, and initial indications show very promising interest in the programme.

Library staff are making their own contribution in supporting students. They have been busy delivering online and face-to-face teaching to familiarise students with information resources and tools and how to find and use them.

With the increasing emphasis on flexible delivery, the Educational Technology team has been supporting the move to dual mode teaching for the beginning of Semester 1 under COVID-19 restrictions. It has implemented the PreUC server to support potential student groups or groups of students who need information or community before enrolment. The team has also created 'user tours' for the Analytics for Course Engagement (ACE) dashboards in AKO | LEARN.

The Blended Learning Development team has completed tutor, demonstrator and mentor training for Semester 1, with over 370 participants. The newly developed Academic Integrity module has now been incorporated into six new courses across UC. Multiple seminars and workshops, mainly focused around blended and online methods, were given to more than 120 staff via a hybrid format. The UC Taurikura | Thrive site has been developed and is now live in AKO | LEARN.

Extensive redevelopment of the layout and content of the eLearning Help for Staff page in AKO | LEARN is underway and ongoing, and is already drawing positive feedback from staff. Flexible programmes through our massive open online courses (MOOCs) and microcredentials continue to grow. The Educational Media Production team has been busy creating new UCx MOOCs and other online and blended courses for academics across UC. Updated MOOC numbers as of 10 March indicate 61,264 students are enrolled in 24 UCx MOOCs, an increase of around 3,000 students in the last month.

Executive Education has seen two Professor of Practice appointments. Professor Lee Parkinson is a well-respected strategy and foresight practitioner with over 30 years of experience working in the commercial creative sector. His main areas of focus are on helping businesses prosper while navigating through uncertainty, and adopting smart approaches to positioning, brand and business strategies. He has held senior roles at Clemenger BBDO, Publicis Group and WPP-owned network agencies and has worked with a diverse range of business verticals including postal services, telecommunications, banking and financial services, airlines, transport and logistics, consumer technology, fast-moving consumer goods, movie studios, local government and not-for-profits, internationally and across New Zealand. Lee will be delivering courses on strategic foresight and a Masterclass in Futures Thinking.

The second Professor of Practice, Alan Win, is a respected management consultant and educator in logistics, supply chain and value chain management. He has over 45 years' experience of working with some 150+ private, public, governmental and not-for profit organisations across 12 countries and most industry verticals. As a director as well, he sits on the boards of 10 companies in New Zealand and Australia. In addition to providing strategic advice to established corporate clients (national and multinational), Alan has been instrumental in framing logistics and supply chain strategies for more than a dozen new company start-ups, including major brands such as Yoplait, Pepsi-Cola, Maxxium (a global joint venture between Jim Beam, Remy Martin, Highland Distillers and Vin & Sprit). Alan will be delivering courses on futureproofing logistics and supply chain management.

The Law Faculty continues its preparatory work to give effect to the resolution of its professional body, the Council for Legal Education, that Māori tikanga be taught in New Zealand law degrees. The Faculty is proud to have made three important appointments to create a Māori academic lecture team: two new appointees, Rachel Evans and Liam Grant, and a valued existing staff member, Adrienne Paul.

Adrienne has led the Law Faculty's participation in Phase Two of the national project funded by the Suzanne Borrin Foundation, "Inspiring National Indigenous Legal Education for Aotearoa New Zealand's LLB Degree". Adrienne interviewed individuals across the legal environment and Māori communities in Ōtautahi. The national results have been published: the **Phase Two: Consultation Summary** and the **Phase Two Report (Part 1)** on strengthening the ability for Māori law to become a firm foundational component of a legal education in Aotearoa New Zealand. Rachel and Liam will now join Adrienne as part of the project team.

Research – Impact on a Changing World

Support, delivery and recognition of UC research have continued apace over the first months of 2022, even during the response to COVID.

The inaugural UC Vision Mātauranga Development Fund has awarded \$100,000 to seven successful projects, chosen from 17 applications from across all faculties, as a mechanism to seed-fund the development of new ideas to give effect to Vision Mātauranga. Among the successful applicants who are to lead the research projects, 59% identified as Māori.

Dr David Jefferson,	From Kawanatanga to Tino Rangatiratanga: Towards an
Faculty of Law	Effective Crown-Māori Partnership in the Legal Protection of
	Taonga Plants and Mātauranga Māori
Dr Matthew Scobie,	Building Maori and Indigenous research capability and
UC Business School	capacity in the UC Business School
Dr Lindsey Te Ata o Tū MacDonald,	Mana Motuhake research and Q method publications
Faculty of Arts	
Dr Rory Clifford,	Noho Marae te Ao Mariko
HITLabNZ	
Kari-Moana Te Rongopatahi,	Maramataka Kāi Tahu
Faculty of Education	
Associate Professor Aisling O'Sullivan,	Encapsulate and give effect to Māori aspirations in the
Faculty of Engineering	development of a wellbeing approach to assessing clean water
	technologies
Dr Sarah Flanagan,	Building climate resilience into Aotearoa's tourism sector:
Faculty of Science	local response to global problems

The following are the successful projects and project leads.

Research outputs continue to be published and accessed via UC's research repository, which provides public access to otherwise potentially inaccessible resources.

Since the beginning of the year, UC academic papers have been published in some of the highestimpact journals. A subset of these papers includes:

- "Heterogeneity within and among co-occurring foundation species increases biodiversity" by Mads Thomsen (Biological Sciences) and co-authors in *Nature Communications*
- "National identity predicts public health support during a global pandemic" with Andrew Vonasch (School of Psychology, Speech & Hearing) as a co-author in *Nature Communications*
- "Effective climate change adaptation means supporting community autonomy" with Jason Tylianakis (Biological Sciences) as a co-author in *Nature Climate Change*
- "Conservation needs to integrate knowledge across scales" with Jason Tylianakis (Biological Sciences) as a co-author in *Nature Ecology and Evolution*.

This year Dr Jonathan Dunn has published a new textbook with Cambridge University Press: *Natural Language Processing for Corpus Linguistics: Elements in corpus linguistics*. Each section in the book is accompanied by an interactive online code notebook that shows how to implement the analysis in Python, and a new stand-alone package in Python was also built to accompany the book.

Associate Professor Kathryn MacCallum from the School of Educational Studies & Leadership has submitted the final report for the Teaching and Learning Research Initiative (TLRI) on "Experiences and reflections of teachers on the use of mixed reality technologies to foster cross-curricular learning opportunities". It will appear on the TLRI website in the near future.

The latest special issue of the *New Zealand Geographer*, edited by UC's Associate Professor Malcolm Campbell and Professor Robin Kearns (Auckland), takes a look at the pandemic geographies in Aotearoa New Zealand. The special issue features contributions from several School of Earth and Environment geographers (and UC colleagues) with expertise in the geography of health and wellbeing.

Associate Professor Heather Purdie led the third and final field campaign in the Tasman Glacier crevasses associated with her Marsden Fast-Start project, which is exploring the way in which crevasses influence glacier melt. The team installed weather stations and in-crevasse temperature sensors, and undertook a drone survey of the study site. New techniques applied this year included installing in-crevasse wind sensors and capturing 3D models of crevasse morphology.

A nationwide study led by Public Health Senior Lecturer Dr Matt Hobbs shows that living in areas that have 'health constraining' features, such as fast-food outlets, dairies and liquor stores, is associated with poorer physical and mental health outcomes for residents. It is also linked to higher rates of vaping and tobacco smoking. The geospatial study, which was recently published in *Social Science and Medicine*, is an extension of Matt's previous research showing that characteristics of the nearby environment influence mental health.

The following views were recorded on the UC research repository page this month:

- (*NEW*) Ngā Hau e Whā o Tāwhirimātea: Culturally responsive teaching and learning for the tertiary sector (2022) brought 153 total visits. Top country views: New Zealand, Australia, United States, South Africa, Germany.
- Rape Myths as Barriers to Fair Trial Process: Comparing adult rape trials with those in the Aotearoa Sexual Violence Court Pilot (2020) brought 75 total visits. Top country views: New Zealand, Australia, United States, United Kingdom, Canada.
- *Ngā Kōrero a Mohi Ruatapu: The writings of Mohi Ruatapu* (CUP, 1993; OA facsimile digital edition 2020) brought 29 total visits. Top country views: New Zealand, United States, United Kingdom, China, Germany.

• *Ngā Kōrero a Pita Kāpiti: The teachings of Pita Kāpiti* (CUP, 1997; OA facsimile digital edition 2020) brought 18 total visits. Top country views: New Zealand, United States, Canada, United Kingdom, Germany.

Professor Stephen Todd, Faculty of Law has been elected as a Fellow of the Royal Society of New Zealand Te Āparangi, one of only 23 new Fellows so elected in 2021 across the whole range of sciences, engineering and technology, and arts and humanities. A highly influential scholar in private law, Stephen has written a number of important books and other publications that have had an exceptional impact in New Zealand courts and in higher courts overseas. He is one of a very few legal scholars in New Zealand who has ever been elected as a Fellow.

Senior Lecturer Dr Sandra Williamson-Leadley, School of Teacher Education is the recipient of the Outstanding Reviewer Award for the 2022 American Educational Research Association (AERA) Conference. This is being awarded for her work within the AERA SIG-Technology as an Agent for Change in Teaching and Learning (TACTL).

The 26th New Zealand Finance Colloquium, held virtually on 17 and 18 February, was a very successful event for the UC Finance group. The study by Jędrzej Białkowski and Xiaopeng Wei, "Does the quality of political signals matter for financial markets? Evidence from return predictability", won the overall best paper award – *BLR Cup for Outstanding Research Award*.

The study by Jędrzej Białkowski, Moritz Wagner and Xiaopeng Wei, "Differences between NZ and US individual investor sentiment: More noise or more information?", won two awards – *NZX Award for Outstanding Research* and the *Consilium Best Paper Award for Financial Literacy*.

The Faculty of Engineering's Associate Professor Stephen Weddell is the Principal Investigator leading the Computational Design and Adaption (CDA) Research Group in a project that is significantly improving the image quality of low Earth-orbiting satellites and space debris. Stephen, along with a postdoctoral fellow, four senior academics and five postgraduate students, has found ways to improve the clarity of objects beyond Earth's atmosphere by up to 60% using a technique called adaptive optics that controls and reduces the effects of turbulence due to our atmosphere. With this technique, it is possible to take better images of satellites while they orbit around Earth and get a clearer view of their location and possible condition. The research project is funded by a Royal Society of New Zealand Marsden grant. The group has strong international collaborations with specialist research groups in Australia (UNSW Space), European Southern Observatory in Germany and the Instituto de Astrofísica de Canarias, Spain.

Associate Professor Allan Scott and his team are taking up the challenge of discovering which materials available on Mars could be used to make concrete or 'Marscrete'. Earthly concrete is made with Portland cement, which is produced by heating limestone to drive off the carbon dioxide. Cement, the main binder, is mixed with sand, stone and water to create concrete. With little limestone available on Mars, the team is looking for alternative options to use as a binder. Magnesium oxide and silica can be extracted from the basaltic rock found on both Earth and Mars, before recombining the magnesium oxide and silica to make a binder with properties similar to Portland cement. And while space research is important, the team has discovered that using basaltic rock instead of traditional cement can help reduce the carbon footprint of concrete on Earth. This research extends to looking at the difference in environment between Earth and Mars and how the lower pressure and

temperature on Mars might affect the production of concrete. Working with Aerospace Christchurch and the New Zealand Space Agency has helped open up the team's contacts.

The first doctoral orientation for 2022 was held in early March, with 27 new students participating both in person and via Zoom. New students had the opportunity to meet other members of their cohort, hear tips on doctoral studies from experienced fellow students and supervisors, and understand the milestones in the doctoral students' journey. In addition, they learnt more about what to expect on the journey as well as what UC expects of them. Initial feedback has been very positive, and students were highly engaged.

Over 70 students have now begun their doctoral studies from overseas over the last 12 months. The Postgraduate Research Office (PGRO) is coordinating with the International Relationships Office (IRO) on what proportion of this PhD cohort to consider for UC's quota of around 140 international students as part of the Government's recently announced 5,000 places. As one of the initiatives to enhance these students' sense of belonging to the UC community, the PGRO holds monthly online catchups, including guest speakers, for this cohort. In February, students who had recently arrived from overseas shared their experiences of settling into New Zealand and UC. This month, staff from the IRO will meet with the group.

The first doctoral supervision workshops for 2022 are underway, with some 15 UC staff participating in the current series. Staff must complete two of the two-hour introduction workshops in order to become a senior supervisor at UC. An important aspect of the new Graduate School will be to provide ongoing professional development for postgraduate supervisors in place of the one-off experience that tends to happen currently.

Through its connection and shared research interest with US government agency National Institute of Standards and Technology (NIST), the Wireless Research Centre (WRC) is sending one of its PhD students to the NIST facility near Washington DC for a year. NIST is fully funding the student's expenses for this visit. This student is co-supervised by WRC and Electrical and Computer Engineering, with external supervision support from Spark. NIST was established about 120 years ago to help the US to be more industrially competitive.

People – Nurturing Staff, Thriving Students

As with last month, most of the focus on staff and students has been concerned with maintaining on campus teaching and research activities in the interests of keeping our community connected and protected against the risks of further isolation. Alongside this, considerable effort has gone into ensuring good communication with and welfare support for sick and isolating students and staff, as detailed in this section. We have received much positive feedback from students and others about our efforts to maintain on campus teaching. Only a small number of classes have been fully online, due the circumstances of individual lecturers.

Support and care for those impacted by Omicron are ongoing. Managers, supported by People and Culture, are encouraged to keep in touch with sick or isolating staff. This is supplemented by a structured telephone calling programme, with the Staff Welcome team in People and Culture contacting all staff who have notified that they have COVID-19 to check on their needs. Staff also have access to a telephone and email service where they ask questions or advise concerns. The approach to sick leave is flexible; most staff have sufficient accrued sick leave but, where that is not the case, paid discretionary leave is being used on a case-by-case basis.

As well the care for student residents led by Halls management, a student welfare team has been working together with the University of Canterbury Student Association (UCSA) to deliver groceries to flats. The main way that the need for this and other types of support, such as academic information, has been identified is through a structured programme of making a phone call to each student and staff member who reports that they have COVID. Te Waka Pākākano has also been very active in providing resources and support to students.

During the peak of COVID cases and close contacts in the halls of residence, a group of about 70 staff volunteered to help halls leadership deliver meals and parcels to residents' rooms. Over 4,000 lunches were delivered, along with a large number of parcels, amounting to about 16,000 deliveries in all. I am grateful to staff for their flexibility and generosity in relieving pressure on our halls colleagues and for contributing in a tangible way to student welfare.

UC has provided staff with rapid antigen tests (RATs) to use at their discretion. An unlimited supply of surgical masks is available to students and staff, and KN95 masks are available mainly to staff and students going into clinical settings.

Limited social opportunities for students because of the government COVID rules has, we believe, been the primary factor for an unwelcome level of weekend disturbance on Ilam Fields and in other places in the wider neighbourhood. Our Security staff, the Police and other authorities are working together in ongoing planning efforts to limit or quickly address any unwelcome activity. We of course want our students to have a good social experience and share the UCSA's view that one advantage of an eventual loosening of COVID regulations will be that it will bring the opportunity to offer students a range of events to compensate for their challenging start to the academic year.

Good progress has been made in the project to ensure UC's compliance with the Education (Pastoral Care of Tertiary and International Learners) Code of Practice 2021. A project team is working on the nature and scale of any substantial investment in the new Recreation Centre facilities. In the meantime, over the summer academic break, construction works totalling \$1.6 million were undertaken on the existing Recreation Centre to address immediate health and safety concerns and focus on improvements related to the user experience. Works included new flooring, roof repairs, light refurbishment of the toilets, changing rooms and reception area, heating and ventilation upgrades and improved accessibility, such as with new electronic entry gates. During this time, the building was closed and a reduced sport and recreation offering (RecLITE) was provided at four locations across campus.

UC has recently renewed its three-yearly registration with the Office for Human Research Protections in the US Department of Health and Human Services. This credentials UC as having approved human ethics policies to collaborate with US researchers under Federal Policy for the Protection of Human Subjects and the Food & Drug Administration.

After New Zealand Paralympian skier Corey Peters won both gold and silver medals at the 2022 Beijing Winter Paralympics, Mechanical Engineering Lecturer Dr Natalia Kabaliuk, along with Mechanical Engineering students Tessa Impey, Matthew Henderson and Ekaterina Lieshout, waited with bated breath to hear the outcome of Corey's final event, the giant slalom.

Since late 2020, Natalia and her team – which also includes several Faculty of Engineering technicians – have worked on improving the aerodynamic design of Corey's standard, off-the-shelf sit ski. Matthew and Ekaterina worked on redesigning the leg cover of the sit ski with the help of a

local composite manufacturer, Dynamic Composites, while Tessa redesigned the seat to incorporate a Kamm tail – an innovative rear design feature to minimise aerodynamic drag. The aerodynamic improvements led to a maximum 10% 'drag force reduction' in the modified sit ski – which compares with a 2% reduction at best that other countries achieved previously. Clearly, the aerodynamic improvements Natalia and her team have made at UC have defined New Zealand as a world leader in aerodynamic design – we are the only country to reduce overall drag by improving airflow at the back of the sit ski.

Dr Adriel Kind from the Wireless Research Centre is currently working with a UC team, including Associate Professor Wolfgang Rack, Associate Professor Heather Purdie and Paul Bealing, to develop innovative snow radars. These radars will be mounted on drones or helicopters to measure snow depth in New Zealand's alpine areas, helping to predict avalanche risk and monitoring the impacts of climate change. An earlier drone radar prototype that the team built has been tested over the past five years in shallow snow on Antarctic sea ice, and the team is now adapting it to make it more suited to the New Zealand alpine environment.

Professor Thomas Wilson has been appointed as the Chief Science Advisor to the National Emergency Management Agency (NZ).

Internationalisation – Locally Engaged, Globally Networked

International enrolment has gone well given the circumstances, with approximately 670 international onshore and 455 offshore student enrolments. Among the offshore enrolments, 308 students are being supported on the Online to On-Campus pathway.

Every year the Wireless Research Centre admits about half a dozen interns from a pool of applicants. Most of these interns come from France and Germany, and they are fully funded by their local industry and/or government. They spend between 6 and 26 weeks here, working on a project of interest to WRC, as part of their master's degree requirements. Although the pandemic has interrupted these arrangements, WRC is hopeful that they will restart with the arrival of an intern from Germany scheduled for this July.

In the inaugural Global Virtual Micro-Internship programme in 2021, 35 international students undertook market research in their home countries on behalf of six Canterbury businesses. They worked in nine teams, covering the five countries the students represented. The purpose of the programme was to provide real-world experience to international students, while enabling Canterbury businesses interested in expanding overseas to benefit from the students' unique knowledge of and expertise in their country of origin. Backed by positive feedback from both students and clients, the programme will be offered again in 2022. This time it will include domestic students, giving them an opportunity to gain experience of working in an international team on a global problem.

Organisational Efficacy – of a sustainable scale by 2030

The University continues to improve its long-term sustainability, efficiency and effectiveness through a series of strategic initiatives. These include the transformation of our digital services, continuous improvement in the efficiency of our processes and an ongoing effort to support our work towards our goal of sustainable growth by 2030.

In January this year, the University announced our intention to redevelop the Dovedale Campus to focus on digital screen industry education, research and commercial collaboration. The initiative responds to global demand for graduates and research and development in these industries. In addition, it supports many of the University's goals and key objectives. First and foremost, it contributes to our education and research goals. It is also a key plank in achieving sustainable scale, contributing to our positive economic impact on the local economy and making the best use of underused building assets.

The University is following an investment decision-making process, guided by Treasury best practice, to develop increasingly detailed plans for this project. This month, the University published an online guide to the initiative. The campus initiative is led by Professor Andy Phelps and the academic development by Professor Kevin Watson (Acting Executive Dean of Arts). The University has made key appointments to the roles of Programme Manager, Partnership and Commercial Director and Innovation Hub Project Manager.

Digital Services (formerly ITS) has again been providing critical operational support in the past month as our staff and students are impacted by the Omicron outbreak. Its work has included providing laptops, headsets and software so that our Kaitaki (Māori and Pacific senior student casual staff) are equipped to call all first-year and new to UC Māori and Pacific students to check on their welfare, as well as enabling our Kaiurungi (student advisors) to provide targeted support. Digital Services responded within 24 hours of the request to supply these resources.

One of the key objectives for the University is to improve the efficiency of its processes. The Service Experience Programme team is currently developing Service Now to replace Assyst, which will provide a feature-rich and more intuitive platform for asking for help, requesting services and automating process. Service Now will initially launch for Digital Services, Libraries and Future Learning teams in June. In addition, work has begun on the service experience for People & Culture, with the aim of delivering the new platform in late 2022.

We continue to support and enhance our existing robotic process automation (RPA) processes, which includes taking the opportunity to expand processes with workflow digitisation. All new staff and students at UC this year are likely to have had some RPA assistance in their onboarding. The programme is tracking against targeted benefits; however, maintaining existing processes and enhancements has been more challenging than anticipated, reducing the team's ability to build new processes as quickly as it would like. Over the last month the team has worked with Finance Shared Services and the Child Well-being Research Institute to make the process more efficient. Purchase orders for facilitator payments and teacher release days are raised through a robotic workflow. The output is checked to ensure it is in line with source data before receipting the purchase order and sending an email communication to the school to request an invoice. This reduces workload from both teams and creates a better experience for the schools involved.

The key objective to use technology and data in a responsible, ethical, effective and efficient way is delivered through the UC Digital vision. To support this vision, in the past month we have formed the Data & Analytics team by moving the existing Business Intelligence and Reporting team under Digital Services. This new team has a wider brief to enable the advancement of our big data, analytics and machine learning capabilities – which will be leveraged by optimising our operations, enhancing experiences for our students in the future and providing advanced analytical capabilities to our staff. A data hit squad has been formed with our partner Datacom to rapidly advance the platform

development and to support the establishment of data governance and supporting frameworks, while working to progress new data use cases rapidly.

Development has also continued on increasing the impact and value of ACE for students and staff. Last month the combined Digital Services and Kia Angitu ACE squad went live with ACE integrating to our relationship management platform (Dynamics 365). With this change, ACE can be scaled up beyond first-year students and, despite the increase in case numbers this is expected to bring, the ACE team will still be able to effectively coordinate case management. The ACE integration with Dynamics was a key technical milestone of the Kia Angitu programme, as we continue to scale the '360' degree view of students for advisory and pastoral care.

Underpinning all the work being undertaken digitally is a commitment to the protection of UC people, assets and data. Chief Digital Officer Michael Oulsnam and Chief Information Security Officer Rudo Tagwireyi have been progressing significant tactical initiatives to make immediate improvements in our protection while developing a comprehensive cybersecurity strategy and programme for UC. Many of the initiatives are invisible to people at UC. Others have required us to make small changes to our daily work habits, such as in adopting multi-factor authentication (MFA) to connect with UC Digital Services. The roll-out of MFA is one of the many critical initiatives the Digital Services security team is currently progressing: it has now been completed with all administrative departments and is due for completion with all faculties by June.

In response to a low seismic assessment of the Pūtaiao Koiora building, Facilities Management tabled the outcome of a feasibility study into the options for the future of the building to the Planning, Finance and Resources Committee (PFRC). This study recommended the replacement of the building in its existing location with a three-level building of a larger footprint but smaller overall area. For this predominately research-based laboratory solution to progress, it is important that this be considered in light of a better understanding and investigation into UC's wider site investment planning needs and any co-investment opportunities. This has initiated new planning work around the future of the West building and its remaining occupants. Discussions with a small number of Crown Research Institutes and commercial research groups are now underway to explore colocation and investment opportunities within a new and potentially enlarged new Pūtaiao Koiora building.

In October 2021 Council approved the demolition of the Kaikōura field station and the initiation of a project to establish a case for future UC investment in the region. A UC Academic Vision and informing the teaching and research requirements for Kaikōura are currently being developed by Faculty of Science and DVC Research. Preparation for the demolition of the existing facilities and the return of the site back to Kaikōura District Council is now underway. Market engagement with demolition contractors will occur early next month with actual works to be undertaken mid-year. Early communications with key stakeholders including the Kaikōura District Council, Te Rūnanga o Kaikōura, Alumni and UC staff has begun with further work required to support the likely strong local media interest.

Environmentally Sustainable

The Waste Plan for 2022 is underway. A contractor has been appointed to assist in developing key areas, while a student-focused education campaign has begun to help improve contamination rates in our bins.

A new Sustainability Hub web page has been developed to feature all our strategic work in this area. It covers teaching, learning and research related to sustainability, as well as providing a direct link to the work of the Sustainability Office and information about recognition UC has received, including rankings results and awards news. The web page appears under the 'About' section of the University website.

Congratulations are due to the Faculty of Engineering's Mechanical Engineering Solar Decathlon Team who have made it into the finals of the 2022 US Department of Energy Solar Decathlon – the only team outside the US to do so. The decathlon is a student-led design challenge to improve energy efficiency and sustainability of buildings, with the aim of designing net-zero buildings to reduce climate impact. Led by Bill Mohs and Finn McIntyre, this amazing group of UC students submitted a superb presentation, which resulted in their selection to compete in the finals. We wish them all the best for this final challenge.

Orientation events were lower key than in previous years due to COVID, but interest in sustainability among the student community continues to be high. With students especially interested in ways of getting involved, the Eco Volunteer programme run through the Sustainability Office remains strong. The Sustainability Office has received a number of inquiries from students wanting to get hands-on involvement with biodiversity projects this year. A Biodiversity Advisory Group is being reconvened to provide high-level oversight.

On Wednesday 16 March the University Alumni Office held a filmed panel event on sustainability with some excellent external speakers, including the Chair of the Climate Change Commission. Alumni were invited to pre-submit their questions for the panel, who received some very thought-provoking challenges. Chair of the panel was UC alumnus Phil Vine, a print, radio and television journalist with over 30 years of experience. This online event had registrations from 250 people

VC Activities

Events for March 2022	
1 March	First meeting of the Academic Leadership Group (VC, Deputy VCs, Executive Deans and Heads of Schools and Departments)
1 March	Meeting with outgoing Chancellor, Sue McCormack
2 March	Meeting with Sheelagh Matear and John Morrow from the Academic Quality Agency (AQA) Board via Zoom
7 March	Meeting with UC's Admin Plus group
7 March	Meeting with the incoming Chancellor, Amy Adams
8 March	Attended the Harvey Cameron's International Woman's Day breakfast as a panel member
8 March	Moderator for Association of Commonwealth Universities 'International Women's Day live Panel.
9 March	Meeting with John Hearn, Chief Executive of the Australian African Universities Network via Zoom
9 March	Meeting with Joanna Newman from ACU via Zoom
16 March	Meeting with Mary Devine, CEO Foodstuffs
17 March	Meeting with Alison Adams, CEO Christchurch New Zealand
21 March	Association of Commonwealth Universities Executive meeting via Zoom
24 March	Meeting with the Ambassador of Zimbabwe
29 March	Academic Quality Agency Board meeting via Zoom
31 March	New Zealand Qualifications Authority meeting via Zoom
31 March	Meeting with Minister Hipkins and Chancellor Amy Adams via Zoom