COUNCIL
Te Kaunihera o Te Whare Wānanga o Waitaha

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

EMBARGOED UNTIL 3pm WEDNESDAY 29 JULY 2020

Agenda

Date **Wednesday 29 July 2020**
Time 4.00pm
Venue Council Chamber, Matariki

I move that the public be excluded from the following parts of the proceedings of this meeting, namely:

Item on Public Excluded Agenda	General Subject Matter	Reason for passing this resolution in relation to each matter	Grounds under section 48(1) for the passing of this resolution
4.0	Minutes of the meeting held on 24 June 2020 with the public excluded	These items concern matters that were previously dealt with during proceedings of Council from which the public was excluded.	
5.0	Matters arising from those minutes		
6.0 6.1	**From the Chancellor** Emeritus Professor Nomination	To protect the privacy of natural persons.	7(a)
7.0 7.1	**From the Vice-Chancellor** The Vice-Chancellor's report	To enable the free and frank expression of opinions by or between or to members or officers or employees of the University.	7(f)(i)
8. 8.1	**From the Finance, Planning and Resources Committee** Draft minutes FPRC meeting 20 July 2020	To enable the free and frank expression of opinions by or between or to members or officers or employees of the University.	7(f)(i)
8.2	Amalgamation of UC Trust Funds with UC Foundation	To enable the University to carry out, without prejudice or disadvantage, commercial activities.	7(h)
8.3	UC Trust Funds Investment Recommendations	To enable the University to carry out, without prejudice or disadvantage, commercial activities.	7(h)
8.4	Monthly Financial Report to 30 June 2020 and Financial Forecast	To enable the University to carry out, without prejudice or disadvantage, commercial activities.	7(h)
8.5	CAPEX Quarterly Report to 30 June 2020	To enable the University to carry out, without prejudice or disadvantage, commercial activities.	7(h)
9.0	**General Business**	To enable the free and frank expression of opinions by or between or to members or officers or employees of the University.	7(f)(i)

I also move that staff identified by the Chancellor and Vice-Chancellor as having knowledge relevant to particular matters to be discussed be permitted to remain at this meeting. This knowledge will be of assistance in relation to the matters discussed, and is relevant because of their involvement in the development of the reports to Council on these matters.

10. REPORT FROM THE PUBLIC EXCLUDED SESSION

11. GENERAL BUSINESS

12. NEXT MEETING –Wednesday 26 August, 2020 at 4.00pm

UC COUNCIL
Register of Interests
July 2020

Name (Council members)	Date notified	Person and/or organisation with interest	Nature of interest
Sue McCORMACK (Chancellor)	2020	Canterbury Earthquakes Insurance Tribunal	Member
	2019	Canterbury Museum Trust Board	Trustee
	2009	Dress for Success	Honorary Solicitor
	2017	KiwiRail Holdings Ltd	Director, Deputy Chair
	2017	Swiftpoint Ltd	Trustee Shareholder
	2019	UC Foundation	Ex-officio Trustee
Steven WAKEFIELD (Pro-Chancellor)	2019	199 Johns Rd Ltd	Shareholder, Director
	2017	Brackenridge Services Limited	Director
	2017	Canterbury Angels Association	Founding Member, Board member
	2017	CDHB – Quality, Finance, Audit and Risk Committee	Committee member
	2017	Carolina Homes Limited	Director, Shareholder
	2019	Christchurch Cathedral Reinstatement Limited	Board member (Ex officio – CPT Rep)
	2017	Church Property Trustees of Anglican Diocese	Trustee
	2018	Co-op Money (NZ Associations of Credit Unions)	Director
	2017	Court Theatre Trust	Citizens' Trustee
	2017	Crop Logic Limited	Director, Shareholder, Chair
	2017	Deloitte Limited	Former partner (now retired)
	2019	East Lake Trust	Trustee
	2018	EVNEX Limited	Shareholder, Director
	2019	Facts Limited (Trading as Co-op Services Ltd)	Director
	2018	Foodstuffs South Island Cooperative Limited	Independent Director
	2018	Foodstuffs South Island Properties Ltd	Director
	2017	Greater Christchurch School Network Trust	Chairman of Trustees
	2019	Health One Programme Steering Group	Independent Chair
	2017	Innovative Software Limited	Director, Shareholder
	2017	INOV8 Limited	Director
	2018	Lincoln University	Graduate (Post-Grad Diploma)
	2017	Mastaplex Limited	Shareholder
	2020	Medsalv Limited	Director
	2019	Menumaster Limited	Shareholder and Director
	2018	Murdoch Manufacturing Ltd	Director
	2019	New Zealand Credit Union Baywide	Board Member
	2017	New Zealand Health Innovation Hub	Director, Chair
	2017	Nutrient Rescue Limited	Director, Shareholder
	2020	Paenga Kupenga Limited [3]	Director

	2017	Ravenscar Trust	Chairman
	2017	RHOAD Limited	Director
	2017	St Barnabas Fendalton Parish	Vestry Member, Synod Rep
	2017	St Barnabas Fendalton Trust	Chairman
	2017	Sons, Christopher and David Wakefield	Students at UC
	2017	Steve Wakefield Services Limited	Director, Shareholder
	2017	Syft Limited	Shareholder
	2018	The Taurus Trust	Trustee
	2017	Townsend Fields Limited	Managing Director
	2018	University of Canterbury	Post Graduate Student
	2017	Wakefield Holdings Limited	Director
Peter BALLANTYNE	2013	Canterbury District Health Board subcommittees	Member Quality, Finance, A&R
	2019	Canterbury Scientific Limited	Shareholder via Hawkins Family Trust
	2012	Deloitte	Consultant
Liz BOND	2019	Tertiary Education Union	Member
	2019	University of Canterbury	Employee
Rachael EVANS	2020	Kereru Trust	Trustee
	2020	Law Society	Member
	2020	Te Rūnanga o Ngai Tahu	Contractor
	2020	Te Rūnanga o Ngāti Tama	Member
	2020	Whanganui Iwi	Member
John HOLLAND	2019	JCG Trustee Limited	Family trust
	2018	Carter Group Ltd	Consultant
	2018	Court Theatre Foundation	Trustee
	2018	Glasson Trustee Ltd	Director
	2019	SIG Trustee Limited	Family Trust
	2018	Southbase Construction Ltd	Chair and Shareholder
	2019	Winders Consulting Limited	Director
	2019	Winders Investments Limited	Director
Keiran HORNE	2019	AJ & MJ Horne Family Trust	Trustee and Discretionary Beneficiary
	2019	Breastscreen Otago Southland Ltd	Director
	2019	CEC Charitable Trust	Trustee and Treasurer
	2019	Christchurch City Council	Member, External Advisory Group, Infrastructure Strategy
	2019	Coalcorp Services Ltd	Director
	2019	Conductive Education Canterbury	Treasurer
	2019	Crown Asset Management Ltd	Director
	2019	Hamilton City Council	Chair, Audit Risk Committees
	2019	Horne Wildbore Family Trust	Trustee and Discretionary Beneficiary

	2019	New Zealand Lotteries Commission	Commissioner, Chair Audit Risk Committee
	2019	Nexia Christchurch Ltd	Consultant
	2019	Quayside Holdings Ltd	Director
	2019	Quayside Properties Ltd	Director
	2019	Quayside Securities Ltd	Director
	2019	ScreenSouth Ltd	Chair
	2019	Solid Energy New Zealand Ltd	Deputy Chair
	2019	Spey Downs Ltd	Shareholder
	2020	Television New Zealand Ltd	Director
	2019	Timaru District Council	Member, Audit and Risk Committee
Tori McNOE	2020	ANZ Bank	Employee
	2020	Momentum Investment Committee	Committee member
	2020	University of Canterbury	Student
	2020	UCSA	President
Professor Roger NOKES	2015	University of Canterbury	Staff
Warren POH	2020	Christchurch Netball Centre	Board Member
	2018	GHD Limited	Employee
	2017	E&S Hop Holdings Limited	Director
	2018	GHD Limited	Shareholder
	2017	M&W Nominees Limited	Director and Shareholder
	2020	NOSSLO Group Limited	Director
	2018	Olsson Fire and Risk New Zealand Ltd	Director and Shareholder
	2017	Ofwarren Limited	Director and Shareholder
	2020	University of Canterbury	Husband of enrolled student
Cheryl de la REY (Vice-Chancellor)	2019	Universities New Zealand Vice-Chancellors' Committee	Member
	2019	University of Canterbury Foundation	Trustee (Ex-officio)
	2019	University of Canterbury Trust Funds	Vice-Chancellor
Gillian SIMPSON	2019	Anglican Schools Board	Board member
	2019	Canterbury Rugby Football Union	Independent Director
	2019	Christ's College Canterbury	Board member
	2019	Ministry of Education Statutory Services Provider	Independent contractor
	2019	New Zealand Education Scholarship Trust	Trustee
Shayne TE AIKA	2020	Rannerdale Home Care Limited	Director
	2020	Rannerdale War Veterans Home Ltd	Director
	2020	The Karshay Group Ltd	Director and Shareholder

COUNCIL

Te Kaunihera o Te Whare Wānanga o Waitaha

Minutes

Date	**Wednesday 24 June 2020**
Time	3.00 pm
Venue	Council Chamber, Level 6 Matariki and via video-link
Present	Ms Sue McCormack (Chancellor), Professor Cheryl de la Rey (Vice-Chancellor), Mr Steve Wakefield (Pro-Chancellor), Mr Peter Ballantyne, Ms Liz Bond, Ms Rachael Evans, Ms Keiran Horne, Ms Tori McNoe (from 3.50pm), Mr Warren Poh, Ms Gillian Simpson, Mr Shayne Te Aika. Via video link: Professor Roger Nokes
Apologies	Ms Tori McNoe for lateness
In Attendance	Mr Paul O'Flaherty, Acting University Registrar and Council Secretary Professor Ian Wright, Deputy Vice-Chancellor (Research) Professor Catherine Moran, Deputy Vice-Chancellor (Academic) Mr Keith Longden, Executive Director, Planning, Finance and IT Mrs Raewyn Crowther, University Council Coordinator

REGISTER OF INTEREST

Corrections and updates were to be supplied to the Registrar.

CONFLICTS OF INTEREST

There were no conflicts advised for the public section of the meeting.

MINUTES

The minutes of the meeting held on 27 May 2020 were approved and signed as a correct record.

MATTERS ARISING

It was noted that the report from Simon Flood was on track for presenting to the July meeting of FPRC along with accounting and operational details for the IT project.

FROM THE CHANCELLOR

Chancellor's Meetings

The list of Chancellor's meetings was noted with the addition of a meeting with the newly appointed General Counsel/Registrar, Adela Kardos.

Moved

That: Council note the report on the Chancellor's meetings.

Carried

2021 Meeting Schedule

By way of background it was noted that the meeting schedule was last reviewed in 2015 with the schedule being reconfirmed because:

- The meetings fitted within a monthly cycle of management and academic meetings that fed into the Committee and Council meetings
- To change those dates would require changing the dates/cycles for all of those meetings
- The long-established schedule had provided certainty from year to year for planning

Council members had been surveyed for their views on the current schedule. The feedback received clearly indicated that:

- There was a clear majority in favour of retaining the current schedule
- Many members had planned around their other commitments on the basis of the UC dates
- There was little support for any change to the time of day for the meetings.

In discussion it was further noted that:

- It was difficult to accommodate the needs of a large group
- Wednesday in the last week of the month was a popular date for board meetings
- The following could be considered for a future schedule:
    - Moving the Council meeting to the first week of the month
    - Changing the day of the week for Committee meetings
    - Holding Committee meetings on the same day as Council meetings
- The Terms of Reference of the Council Committees would be reviewed by the new Registrar and could result in a streamlining of decision-making, avoiding duplication of papers and reducing the length of the Committee meetings. FPRC agendas would be lighter than in the past due to the reduced building programme, with the possibility that the Committee could focus more on its planning function.
- The need for separate FPRC and ARC Committees would also be explored in the review.
- The number, timing and length of workshops would also be reviewed, including opportunities for Council to understand the workings of the University
- There was unanimous support for an annual strategy day

Moved

<u>That</u>: Council approve the meeting schedule for 2021, noting the dates for graduation and the strategy day were to be confirmed.

Carried

Council Work Plan

Mr O'Flaherty noted that the next version of the work plan would include a full year programme. The workshop on tikanga to assist Council in its partnership with Ngai Tahu would be restored to the programme on 26

August subject to the availability of Associate Professor Te Maire Tau and the Director of Accommodation, once appointed and with sufficient time to develop a plan, would be invited to present to Council on the transition of pastoral care responsibility for Tupuānuku to UC. The latter would be during the course of 2021.

Moved

That: Council note the Council work plan.

Carried

Degrees Conferred in Absentia

Ms McCormack advised Council that the schedule of degrees awarded in absentia had been approved and the names of the graduates were entered into the public record.

Moved

That: Council approve the degrees awarded in absentia for the public record.

Carried

FROM THE VICE-CHANCELLOR

Monthly Report

The Vice-Chancellor presented her report, noting in particular:

- COVID-19:
  - Planning was continuing for an on-campus start to Semester 2, though a capacity for online learning would need to be maintained until the end of level 1
  - UCSA was planning a "reorientation" event to welcome students back
- Engagement:
  - An MOU was being prepared with ChristchurchNZ
  - The Pathway to Tertiary project would enhance access to UC for students from low decile schools
  - Christchurch City Council viewed UC as a strategic partner
  - Meetings were again being held with city leaders and a partnership in a "UC Commons" was supported by agencies.
- Examinations and assessments for Semester 1 had been held in different forms
- Analytics for Course Engagement had proven to be a valuable tool
- UC's QS ranking had dropped along with five other NZ universities, with Malaysian and Chinese universities rising in the rankings. The next Council a workshop would be on rankings.
- Student recruitment continued to be a focus
- Revised financial targets had been developed to improve the forecast deficit
- The change process in Facilities Management had gone well

Ms McNoe joined the meeting.

In discussion it was further noted:

- Teaching quality was an area that was being developed with professional development opportunities, including a Postgraduate Diploma in Tertiary Teaching, and the appointment of a Dean Future Learning and Development.

- International rankings were important but students' attitudes were also important. In the Council workshop on rankings Professor Wright would address the various ranking measures, but none used student views. Data on the impact of international ranking on domestic enrolments was requested.
- Cheating in online examinations had been monitored with referrals made to the proctors. Comparisons of performance with previous cohorts would assist in showing whether cheating may have had an impact.
- The Tertiary Education Commission and Ministry of Education were supportive of opening the borders to international students, but a key factor is assurance of a quarantine regime that the public could trust.
- A set of KPIs were being developed for the November workshop on the Statement of Service Performance which, along with a software tool, would enable monthly reporting against the strategy in 2021.
- Mr O'Flaherty advised that the changes in Facilities Management had resulted from the restructuring of the Learning Resources division, and focussed on planning and maintenance functions. A Director of Facilities Management was to be appointed.
- A message from Council would be conveyed to SLT and staff to acknowledge their response to COVID-19.
- Promotion of UC in the media was important to raise profile. SLT and senior academics would be receiving media training.

Moved

<u>That</u>: Council note the Vice-Chancellor's Monthly Report.

Carried

Sustainability Report

The Vice-Chancellor noted that the structure of the report followed a framework that pre-dated the new strategy. The next report would align with the strategy. The profile of sustainability had been raised.

Moved

<u>That</u>: Council note the Sustainability Report.

Carried

FROM THE ACADEMIC BOARD

Professor Catherine Moran, DVC Academic, presented the paper noting that the Academic Board report included an update on the joint postgraduate school proposal and recommended the discontinuation of the Master of Bicultural Co-Governance of Natural Resources.

Moved

<u>That</u>: Council:

i) note the report of the Academic Board;

ii) approve the discontinuation of the Master of Bicultural Co-Governance of Natural Resources (MBCNR) and forwards the proposal to CUAP and TEC for their approval

Carried

PUBLIC EXCLUDED MEETING Moved

That: ***the public be excluded from the following parts of the proceedings of this meeting, namely:***

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4.0	Minutes of the meeting held on 27 May 2020 with the public excluded	These items concern matters that were previously dealt with during proceedings of Council from which the public was excluded.	
5.0	Matters arising from those minutes		
6.0	**From the Chancellor**	To enable the free and frank expression of opinions by or between or to members or officers or employees of the University.	7(f)(i)
7.0	**From the Vice-Chancellor**		
7.1	The Vice-Chancellor's report	To enable the free and frank expression of opinions by or between or to members or officers or employees of the University.	7(f)(i)
8.	**From the Finance, Planning and Resources Committee**		
8.1	Draft minutes FPRC meeting 15 June 2020	To enable the free and frank expression of opinions by or between or to members or officers or employees of the University.	7(f)(i)
8.2	International Fees 2021	To enable the University to carry out, without prejudice or disadvantage, commercial activities.	7(h)
8.3	RRSIC Final Report	To enable the free and frank expression of opinions by or between or to members or officers or employees of the University.	7(f)(i)
8.4	Financial Forecast	To enable the University to carry out, without prejudice or disadvantage, commercial activities.	7(h)
9.0	**General Business**	To enable the free and frank expression of opinions by or between or to members or officers or employees of the University.	7(f)(i)

and that staff identified by the Chancellor and Vice-Chancellor as having knowledge relevant to particular matters to be discussed be permitted to remain at this meeting. This knowledge would be of assistance in relation to the matters discussed, and was relevant because of their involvement in the development of the reports to Council on these matters.

Carried

RETURN TO PUBLIC MEETING Council returned to public meeting at 4.55pm.

GENERAL BUSINESS There were no items of general business.

The meeting ended at 4.56pm.

NEXT MEETING The next meeting was scheduled for 4.00pm on Wednesday 29 July 2020.

SIGNED AS A CORRECT RECORD: _____

DATE: _____

Memorandum

Chancellor's Office
Email: chancellor@canterbury.ac.nz

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

To:	Council Members
From:	Sue McCormack, Chancellor
Date:	23 July 2020
Subject:	**CHANCELLOR'S MEETINGS**

I outline for you the key events I have attended on behalf of UC since the last Council meeting. Items marked with an asterisk indicate events at which I gave a speech. Those speeches can be found on the Council Sharepoint site.

- Hosted Council's retirement dinner for Jeff Field
- Attended UCF Board of Trustees meeting
- Several meetings with the Vice-Chancellor
- Met with Katherine Anderson on the Discipline Review
- Met individually with Council members Rachael Evans, Tori McNoe and Peter Ballantyne
- FPRC agenda planning meeting
- Attended Canterbury Museum Trust Board meeting
- Welcomed Minister James Shaw to campus to announce EECA funding for the biomass boiler*
- Finance, Planning and Resources Committee

Sue McCormack
Chancellor

COUNCIL WORKPLAN
as at 16~~3~~ July 2020

STANDING ITEMS:	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020	January 2021	February 2021	March 2021	April 2021	May 2021	June 2021
AUDIT AND RISK - Internal Audit Reports - Health, Safety and Wellbeing Reports - Fraud and Protected Disclosures - RAC Report - IT Risks and issues Progress - Policy reviews - Auditor Only time - Toogood Recommendations Update		**17 August** - Interim accounts - COVID-19 Risk Identification Update ~~- Strategic Risk Update on IT Risks~~ - Revised Internal Audit Plan - ARC Terms of Reference - PBRF Audit Report - Procurement and Contract Management Audit Report - Discipline and Grievance Report - Rehua IQA5 Report - Wellbeing Plan		**19 October** - Year End Key Accounting Judgments paper to include impairments, accounting policy changes, key assumptions and estimates - Business Assurance internal audit tracker - COVID-19 Risk Identification Update - Strategic Risk Update on IT Risks - Strategic Risk Register Review - Strategic Risk Update on IT Risks				**1 February (4.00pm) and 15 February (2.00pm)** - 2020 Annual Report - Audit clearance - Letters of representation - Interim audit management letter	**15 March** - 2020 Annual Report - Strategic Risk Report - Final audit management letter - Regulations Framework		**17 May** - Discipline and Grievance Report - Business Assurance internal audit tracker - Audit engagement letter and fee - Review of Health, Safety and Wellbeing Charter	
FPRC - Workplan - Monthly Financial Report - Financial Forecast Report - Student First Update - Protected Disclosures - Policy reviews as required	**20 July** ~~- Manawa~~ - Plans for Trusts/UC Foundation - ~~Revised Financial Measures~~Delegations - Simon Flood Report ~~- IT project operational and accounting details~~ - Quarterly Report on UC Trust Funds - CAPEX Quarterly Report	**17 August** - FPRC Terms of Reference - Major Investment Plan - IT progress report - operational and accounting details - Domestic Fees 2021	**21 September** ~~- Kaikoura Field Station~~ - West Building Future Use	**19 October** - Delegations - Make good Dovedale and Kirkwood Villages - Rec Centre and Wellness Precinct ~~- Homestead Lane Plan~~ - CAPEX Quarterly Report - Quarterly Report on UC Trust Funds - Kaikoura Field Station	**16 November** - 2021 Budget - Capital Plan - SIPO	**7 December (if required) (12.00pm)**		**15 February** - CAPEX Quarterly Report (Dec 31) - Quarterly Report on UC Trust Funds	**15 March** - 2020 Annual Report	**19 April** - CAPEX Quarterly Report - Quarterly Report on UC Trust Funds	**17 May** - International Fees 2021	**21 June**
COUNCIL MEETING - Chancellor's Meetings - Workplan - Graduations in absentia - VC Monthly Report - Academic Board Report - Financial Forecast Report - IT Risks and issues Progress - ~~Student First Update~~ - CIO Report	**29 July** ~~- Manawa~~ - Plans for Trusts/UC Foundation - Simon Flood Report - Quarterly Report on UC Trust Funds - Financial Quarterly Report - CAPEX Quarterly Report	**26 August** - Interim accounts - ARC Terms of Reference - PBRF Audit Report - Procurement and Contract Management Audit Report - Discipline and Grievance Report - FPRC Terms of Reference - Major Investment Plan - Domestic Fees 2021 - Wellbeing Plan	**30 September** ~~- Kaikoura Field Station~~ - West Building Future Use	**28 October** - Delegations - Make good Dovedale and Kirkwood Villages - Rec Centre and Wellness Precinct ~~- Homestead Lane Plan~~ - Financial Quarterly Report - CAPEX Quarterly Report - Strategic Risk Register Review - Kaikoura Field Station	**25 November** **3-4pm: Workshop** **4-5pm: Council meeting** **5-7pm:** Celebrating Excellence: Council Medals Presentation - 2021 Budget - Capital Plan - SIPO	**7 December (if required) (2.00pm)**	**27 January** **NO PAPERS**	**24 February** - CAPEX Quarterly Report (Dec 31)	**31 March** - 2020 Financial Report - Strategic Risk Report	**28 April** - CAPEX Quarterly Report - Quarterly Report on UC Trust Funds	**26 May** - 2022 Meeting Schedule - Discipline and Grievance Report - Review of Health, Safety and Wellbeing Charter - International Fees 2021	**30 June**
OTHER COUNCIL BUSINESS	**Q3 2020**			**Q4 2020**			**Q1 2021** - Report on Student Feedback			**Q2 2021** - Summary of complaints received		
COUNCIL WORKSHOPS ~~- Health and Safety Risk Appetite~~	**29 July** - Rankings	**26 August** - NT Partnership Or - Space planning	**30 September** - Engagement	**28 October** - 2021 Budget	**25 November** - Statement of Strategic Performance and UC Monitoring Framework	**NO WORKSHOP**	**NO WORKSHOP**	**24 February** Organisational Efficacy: IT	**31 March** Organisational Efficacy: Policies and Regulations	**28 April** Nurturing Staff, Thriving Students	**26 May** Operations / Environmental Sustainability	**30 June** Education: Accessible, Flexible, Future Focussed
H&S VISITS			21 September 2.30 – 3.30		16 November 2.30 – 3.30					19 April (TBC) 2.30 – 3.30		21 June (TBC) 2.30 – 3.30
Other ~~2021~~ WORKSHOPS - Space Planning - ~~Organisational Efficacy~~ ~~- Education – Accessible, Flexible, Future-focussed~~ ~~- Research – Impact in a Changing World~~ ~~- People – Nurturing staff, Thriving students~~ ~~- Operations / Environmental Sustainability~~ - Diversity Plan – Maori and Pacific ~~- Regulations Framework~~ - Health and Safety Risk Appetite Research – Impact in a Changing World												

EXECUTIVE COMMITTEE

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Minutes

Date	10 July 2020
Venue	By email
Present	Ms Sue McCormack, Chancellor Mr Steven Wakefield, Pro-Chancellor Professor Cheryl de la Rey, Vice-Chancellor
In Attendance	Mr Paul O'Flaherty, Acting University Registrar and Secretary to Council
Conferral of Certificates in University Preparation	A Transition Graduation ceremony for the awarding of Certificates in University Preparation was to have been held on 10 July, but due to low registrations had to be cancelled. Had the ceremony gone ahead the Certificates would have been conferred by the Chancellor as part of the ceremony. The Certificates had already been produced and dated 10 July so an Executive Committee decision to confer the certificates was required. Moved: ***That the Council Executive Committee approve the certificates awarded in absentia for the public record.*** Carried

Signed as a Correct Record: _____

Date: _____

Vice Chancellor's Report to Council

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

July 2020

Overview

The start of Semester 2 has brought with it an air of excitement as the students return to campus for lectures, labs and a range of other learning and social activities. While UC has returned to our regular timetable of activities, teaching staff are continuing to provide online support to individual students with special arrangements and those overseas. Arrangements are in place to support wider lecture capture so that we can be prepared to respond to any sudden shifts from National Alert Level 1.

Both students and staff have reported strong academic performance for Semester 1. Anecdotally many academics from across the University are reporting that grades are as or better than expected. Steps were taken to ensure that grading fairly reflected the challenging circumstances created by a rapid shift to the online environment. Mindful of the importance of reflecting and learning from events which took place during Semester 1, the Teaching and Learning Committee will lead a review of lessons learnt during the lockdown period. The review will encompass the views of both staff and students.

The Ministry of Education has expressed support for the return and admission of international students to New Zealand but no decision has been taken on when and how this may happen.

The semester break provided an opportune time for many staff to take leave and for those at the University to convene in-person meetings and workshops that had to be postponed because of the lockdown. An in-person Staff Forum on 1 July featured updates on strategy, finance and academic delivery with presentations by Keith Longden, Professor Catherine Moran and myself. A total of 205 staff attended and others followed the presentations online and engaged in Q&A.

Academic Board members participated in a half-day workshop on 25 June 2020 discussing at promotion criteria and assessment of teaching quality. The well-attended workshop considered pathways for academic promotion and what metrics should be used when considering promotion. Attendees also examined measures for supporting teaching quality and the linkage between the measure and promotion. Feedback from the workshop will be used to ensure UC's promotion policy better aligns with the UC strategy.

Rā Tōmene | Online Open Day on 9 July marked a historic first and attracted upwards of 620 log-ins – we don't know the exact number viewing as multiple people will have been at single screens in at least some cases. Over 100 students and parents also braved the cold weather to do on-campus tours, after they had not been able to change their tickets. Feedback on the Virtual Open Day was positive: attendees liked being able to use the online 'tote bag' to collect relevant information that they could digest at leisure. All 90 videos created for the event are now being repurposed for online use. An on-campus Open Day is scheduled for the end of August, which has over 1,300 registrations to date. This is part of our domestic campaign to secure students for 2021.

Engagement

Co-develop with our partners a research platform and commons to respond to identified needs, support city development and the wellbeing of all who live here.

Professor Ekant Veer has accepted secondment from the UC Business School to the Vice-Chancellor's Office for the remainder of this year to work on implementing the strategic objective of UC as an engaged university. Professor Veer is focusing on developing the concept of a city knowledge commons and multi-agency research platform, which has been supported by mana whenua Ngāi Tūāhuriri and a number of city leaders.

The new platform will seek to collaborate with as many people as possible on and off campus to share knowledge, networks, mana, resources and skills to achieve common goals. The first steps will be to coordinate with existing community engagement hubs that exist on campus and support their work with the people of Waitaha Canterbury as well as to increase UC's presence in the city as a place where people can seek support for issues they are facing.

Professor Veer and his team will be in touch with academics on campus to discuss ways we can increase the visibility of the work we are doing in our community so that we can learn from one another's research at the University as well as signal to the community how many projects exist to benefit the city and region. The remainder of the year will be focused on finalising the structure of the platform, building relationships with key partners and carrying out a few small projects that promote community wellness. A number of partnerships have been discussed already and we have made our first submission for external funding to support research between a community partner and UC researchers.

Increase our presence and impact in Ōtautahi Christchurch and Waitaha Canterbury.

UC is also actively progressing a range of partnership agreements with key Christchurch and Canterbury organisations with the aim of clarifying roles and responsibilities and identifying opportunities of mutual interest. This is a starting point for developing more in-depth collaborative arrangements in the medium to long term.

Two memoranda of understanding (MOUs) have been finalised within the past month: with ChristchurchNZ and the Christchurch Foundation. Working within our partnership MOU with ChristchurchNZ, UC is delivering an event for the community together with Ara and Lincoln: "Explore your Study Options" for adult students links industry seminars based around the city 'Supernodes' with our educational offerings to support skills development in the planned growth areas of our city and region.

Education – Accessible, Flexible, Future-focused

Provide a learning environment that uses effective pedagogies, facilities, and learning technologies to support the needs of each generation of learners and employers.

Across UC, it was pleasing to see that students on the whole, demonstrated a strong academic performance with end of year grades being higher than average across the majority of qualifications. Teaching staff and students reported higher grades overall and there were fewer students who did not pass. In order to ensure students were not unfairly disadvantaged by lockdown, all Colleges used a process whereby student grades were compared across previous cohorts and grades adjusted where necessary. The process was clearly articulated to students so they were aware of how grades would be adjusted. For example, for the College of Engineering, the

overall performance was generally consistent with previous years, with just three courses outside the College's normal guidelines with a higher than expected grade point average.
Students who did not perform as they had hoped, will be given extra support as meetings with Deans and other support staff have been put in place with communications going to those students. Colleges will also look for ways to support students as they readjust to campus living and invigilated assessment. For example, in Engineering, staff will brainstorming with the EngME mentors, student clubs, reps from Maths, and UniLife for ideas to support students.

In order to support the sudden transition to online learning, assessment was adjusted for the online environment. Many disciplines, ranging from Law to Engineering opted to use open book examinations. While others, such as Science and Engineering had invigilated assessment with randomised questions and/or more applied questions. While we continue to support students internationally, UC is currently trialling invigilation software for the end of 2020.

Another critical piece in supporting students through Semester 1 and into Semester two is our Analytics for Course Engagement System (ACE). ACE has received significant national media attention in June after the first semester of deployment. Now that Semester 1 has ended, planning for phase two of ACE is well underway. We are working with Catalyst, our industry partner, to map out the second phase, focusing on student performance and individual campus connection metrics. The Tertiary Education Commission has also shown considerable interest in ACE, and meetings are being arranged to explore a partnership (as well as potential funding) with a view to identifying sector-wide benefits.

Staff were given their first look at the draft teaching quality metrics framework at the Academic Board workshop in June. The 'teaching quality measures' provide pedagogically informed metrics to evaluate teaching quality. These will not only support academic promotions processes but also provide a useful lever for wider teaching improvement. The Board members were largely favourable in their view of the draft metrics and look forward to seeing the next steps from the working group appointed by the Learning and Teaching Committee.

Preparation for Semester 2 included a six-week programme of events in the Makerspace on Level 2 of Puaka-James Hight Library, participation in UC's Rā Tōmene | Online Open Day and a stall at the Winter Wellness Expo. COVID-19 has focused attention on the difficulties associated with equitable and affordable textbook access for students and the need for Open Educational Resources (OERs) to support learning online. The Library is working with the academic community to increase awareness of OERs and publishing open textbooks. To support the growth of digital content, the objectives of developing preservation and presentation layers for managing digital content and developing research management systems to improve access to research data remain on track. The latter objective is at an early stage of consultation across the University.

In all, 554 tamariki have joined Te Mātāpuna Mātātahi | Children's University, with tamariki at Rāwhiti School receiving their passports just before the school holidays. The Children's University team has started organising six campus experience events for the next school holidays and has begun planning for this year's graduation ceremonies, which will be held on 25 and 26 November at the Christchurch Town Hall.

As part of UC's outreach to under-served communities in Christchurch, the alumni team has secured 17 stories of UC alumni from nine local low-decile schools. These stories are being turned into posters to be delivered to high schools for their students returning for the new term in mid-July, as inspiration to future students and support for UC recruitment.

Ensure students are provided with lifelong learning opportunities through flexible degree and delivery options to allow a UC education to respond to the current and future needs of work and society.

In collaboration with the Community Law Centre and UC School of Law, the Office of Ethnic Communities (Department of Internal Affairs) ran a four-hour session on "Navigating the New Zealand Legal System" at Tūranga Library on 8 July. A number of School of Law colleagues were involved in this event, which drew about 25 young people. Dr Che Ekaratne gave an inspirational lecture on her diverse experiences in her legal career. Associate Professor Debra Wilson and Senior Lecturer Dr James Mehigan then gave an excellent lecture on the New Zealand legal system, which included a criminal justice component (sentencing, appeals, and restorative justice). The audience was divided into groups for an exercise that elicited enthusiastic and intelligent participation.

Research – Impact on a Changing World

Improve the national and international research profile, reputation and ranking of the University.

At mid-year, research publishing is tracking well, with 853 UC-affiliated publications published online and indexed within SCOPUS. If this publication rate continues to year-end, it is likely to return an increase on the last three years – an outcome that could be anticipated given that the number of academic staff continues to grow, with over 70 new staff appointed across the colleges over the last three years.

The proportion of publications indexed by SCOPUS remains an area of focus for UC, given that the major university ranking systems (including QS and THE) use SCOPUS as the single source of research publication impact. However, the productivity of papers per academic is declining. The proportion of SCOPUS-indexed publications is currently tracking at 67% for 2020, which represents a slight decline from 69% in 2018 and 68% in 2019.

It is pleasing to report that, to date this year, UC staff have published two papers in *Science* and a further 16 papers in Nature Group journals, including *Nature Astronomy*, *Nature Chemistry*, *Nature Communications*, *Nature Ecology and Evolution*, *Nature Microbiology*, *Nature Plants* and *Nature Review Genetics*, and in *Scientific Reports*. UC continues to place fourth in an index of New Zealand universities publishing in the top 84 journals and has the highest impact factors across the sciences, engineering and medicine.

The Deputy Vice-Chancellor (DVC) (Research) and Dean of Postgraduate Research have presented a historical analysis of UC's and New Zealand's postgraduate research (particularly doctoral research) to the Research Committee and Senior Leadership Team (SLT) in recent weeks. The analysis shows a decline in PhD enrolments at UC relative to the other New Zealand universities, and no real deliberative action on prioritising scholarship funding. New initiatives are in development in areas such as recruitment, student experience, supervisory best practice and scholarship funding.

As part of this work, a new initiative to transition UC's top students into PhD studies – UC Accelerator Scholarships – was announced in early July. Promising UC students, aligned with a project and supervisory team, will be offered a $6,000 scholarship to complete a three-month supervised research project (12 weeks of full-time work). This smaller project gives each student a 'taster' to research and enables both supervisors and students to gauge one another in a low-risk environment. Upon successful completion of the accelerator project, each top scholar will be guaranteed a high-value UC Accelerator PhD scholarship valued at $28,000 per annum plus

tuition (at the domestic rate). Full details and application criteria will be available at the end of August.

The 2020 UC Thesis in 3 (3MT) competition was recently announced. This year, the format of the finals for New Zealand and other Asia-Pacific universities will be virtual so, to give our students the best chance of success, the UC final (8 September 2020) will follow the same format. Here, the student finalists from each college will be introduced and their videos shown to the audience, followed by live voting for a people's choice award and the announcement of the UC competition winners.

On 9 July the DVC (Research) and Professor Ekant Veer (Associate Dean of Postgraduate Research – Scholarships) spoke at an event for postgraduate research students, University of Canterbury Students' Association (UCSA) Re-Ori. It was an opportunity to welcome students back to full-time postgraduate research, as well as to share experiences of being a postgraduate student and how to develop a research career.

The College of Engineering has repurposed some small scholarship funding that was originally targeted at supporting academics who were impacted by other domestic circumstances (such as home schooling) during the COVID-19 lockdown. Now the funds are being used to support students and postdoctoral researchers to accelerate their paper preparation, which was delayed due to other circumstances related to COVID-19. So far approximately 10 staff have applied and been given this short-term support.

Canterbury University Press (CUP)

Canterbury University Press has developed Open Access titles to improve the international reach of UC research. We are starting to see some good levels of engagement through this new channel:

- *Rape Myths as Barriers to Fair Trial Process: Comparing adult rape trials with those in the Aotearoa Sexual Violence Court Pilot* (2020) brought 210 total visits to UC's research repository page in June. Top country views: New Zealand, China, United States, Australia, United Kingdom.
- *Ngā Kōrero a Mohi Ruatapu: The writings of Mohi Ruatapu* (CUP, 1993; OA facsimile digital edition 2020) brought 50 total visits to UC's research repository page in June. Top country views: New Zealand, United States, China, Australia, Germany.
- *Ngā Kōrero a Pita Kāpiti: The teachings of Pita Kāpiti* (CUP, 1997; OA facsimile digital edition 2020) brought 54 total visits to UC's research repository page in June. Top country views: United States, New Zealand, China, Germany, Australia.

CUP published three books in June. *Merchant, Miner, Mandarin: The life and times of the remarkable Choie Sew Hoy* by Jenny Sew Hoy Agnew and Trevor Agnew was launched at the University Bookshop on 11 June by Julia Bradshaw, Canterbury Museum Senior Curator Human History. The other new releases were: *From Gondwana to the Ice Age: The geological development of New Zealand over the last 100 million years* by Malcolm Laird and John Bradshaw; and *Rape Myths as Barriers to Fair Trial Process: Comparing adult rape trials with those in the Aotearoa Sexual Violence Court Pilot* (print edition) by Elisabeth McDonald.

Increase and diversify funding sources for the University's research portfolio including for research institutes, centres and clusters.

Funding for the current Centres of Research Excellence (CoREs) was due to wind up at the end of the year. However, because COVID-19 has delayed the CoRE bidding process to award funding for CoREs due to start in 2021, funding for the current CoREs has been extended for six months. As a

result, QuakeCoRE | Te Hiranga Rū, hosted at UC and led by Professor Brendon Bradley, has received an additional $2.1 million in funding for further research up to 30 June 2021.

Develop and support transdisciplinary research to better impact local and global challenges.

To support new interdisciplinary research groups, the College of Business and Law established a new contestable research fund this year, specifically to support interdisciplinary research groups and projects. As a consequence, three new groups have been established: the Social Impact Group, led by Dr Ann-Marie Kennedy and Professor Ekant Veer (both from UC Business – Marketing); UC Meta, led by Professor Bob Reed (UC Business – Economics) and focused on meta-research studies aimed at enhancing the reliability of academic findings; and the Institute of Law, Emergencies and Disasters (LEAD), which is led by Professor John Hopkins and linked to QuakeCoRE. Each of these groups brings together UC colleagues from several disciplines as well as other academic researchers and other key stakeholders from within New Zealand and overseas.

Improve strategic local, regional and international research collaborations to increase research impact.

Professor John Hopkins (UC Law) has been appointed as a 'curator' of the COVID-19 research repository (hosted by Victoria University of Wellington in collaboration with the University of Auckland). To access the repository, go to:
https://www.wgtn.ac.nz/law/centres/nzcpl/projects/covid-19

People – Nurturing Staff, Thriving Students

Create a diverse and inclusive community where all staff and students have a sense of belonging, building on our bicultural foundations.

With the start of Semester 2, a wide range of communications and activities has been launched, involving collaboration across UC and with UCSA, to welcome students back to campus and offer them support to re-engage with their studies and social life. From tips on managing 'fear of failure' to induction modules for newly enrolled students, study support options, fitness bootcamp and a Mid-Year Welcome, the initiative has something for every student.

On 30 June more than 50 staff from across the **College of Education, Health and Human Development** participated in the College's Pasifika Fa'afaletui Professional Development Day. Designed to support staff in enhancing Pasific student success, the half-day event was organised and facilitated by the CEHHD Kaiārahi Pasifika Tufulasi Taleni. Participants had the opportunity to hear from Riki Welsh from the Pacific Development Team (PDT) about enabling student engagement, and provided information PDT initiatives. Staff were provided a curated selection of journal articles on engaging Pasific knowledge and content in the disciplines of education, health and sport, and joined in small groups for discussion. Members of the PDT supported the event, joining colleagues for conversations to generate ideas for implementation this semester.

Adopt the Te Pae Māhutonga wellbeing model to guide staff and student support and services.

In terms of progressing our UC Strategy, the drafting of the updated Wellbeing Implementation Plan has almost been completed and it is expected that this critical document will be ready soon for review and approval. The UC Strategy will guide the actions associated with its Nurturing Staff,

Thriving Students component and show how those actions deliver against UC's wellbeing framework Te Pae Māhutonga.

With a more operational focus, based on the demand at peak times at the RecCentre and the level of awareness our community now has for ongoing safe distancing, the RecCentre team has reallocated spaces within the existing facility to provide for greater distancing between fitness equipment. In this way, more people can access the facility during peak times, which will increase participation levels and encourage more student and community engagement through the better distribution and use of space.

The UC Sports team, as part of UC's level of support to its premier sporting clubs (rugby, netball, hockey, football and basketball), engages and coordinates interns to film each of the club teams' competitive games as a way of supporting coaching staff in their performance analysis. Not only is this a great practical experience for the student interns from the College of Education, Health and Human Development Sport Coaching Programme, it is also a valuable performance tool for the teams to analyse and assess each week's performance. A valuable spin-off from these filmed games is that the team members get sent a link to the related YouTube channel that they can share with their friends and whānau: https://www.youtube.com/channel/UCBcmjQjtJUHEYIKwvT2-hOA

Work is continuing with the independent halls to educate and integrate the interim code of pastoral care into their practices and processes. Final recruitment has been completed for the new Campus Living Villages structure, which has increased the number of key staff providing enhanced pastoral care. In collaboration with wellbeing services, UCSA and the halls, we have targeted communications to students on alcohol and drugs, and looking out for your friends.

In response to a wellbeing idea from a staff member, a new email etiquette guideline has been introduced. It focuses on minimising email activity outside normal work hours, particularly from the viewpoint of the email receiver. It also sets out some expectations about email behaviour.

The University's annual health monitoring programme is being conducted over the next three months. Involving about 300 staff whose roles have been assessed according to potential health risk, it assesses vision, hearing, skin health and lung function among other factors.

On the back of the lessons learnt during lockdown and in response to staff feedback, the Flexible Working Policy has been expanded and a new Working From Home guideline introduced. Staff can now apply to their manager to work from home for part of their working week, subject to conditions.

Congratulations to Richmond Tait who has been appointed as Director of Finance. David Mather is the Acting Manager of Health and Safety pending a recruitment process for a permanent Director of Health and Safety.

After the appointment of Rob Oudshoorn as Director of Facilities Management, a recruitment process will take place to fill the vacancy of Asset Operations Manager. The other three reports to the Director are confirmed as Ken McEwen (Security Manager), Mark Homewood (Asset Planning and Delivery Manager) and Leanne Keenan, who is joining the FM team as Support Services Manager.

Internationalisation – Locally Engaged, Globally Networked

Develop UC's global partnerships, particularly in the Asia-Pacific region, to support research and teaching excellence.

UC's development of international research collaborations is progressing. We have become a Tier 4 partner in the Australian "Reliable Affordable Clean Energy (RACE) 2030" consortium, which is a new Australian Cooperative Research Centre with about $350 million in funding from industry and government. RACE 2030 is dedicated to enhancing energy consumer access to and efficient deployment of distributed renewable resources, and is closely aligned with UC's Electric Power Engineering Centre (EPECentre) in working on distributed and green energy grids. Among the significant academic partners in RACE 2030 are University of Technology Sydney, University of New South Wales, Monash University and University of South Australia.

Another invitation extended to UC has been to join the proposed Heavy Industry Low-carbon Transition (HILT) Cooperative Research Centre, which is led by University of Adelaide and, if successful, would provide opportunities to develop external research networks, as well as leverage membership into UC's own research proposals, staff exchanges and joint funding of PhD students. Collaboration would align with a portfolio of emerging materials and processing research across the Colleges of Engineering and Science, including titanium from steel making and advanced manufacturing, energy efficiency in high-temperature processes, carbon dioxide capture, cement materials with lower carbon dioxide emissions, synthetic fuels and the electrification of heat.

Finally all New Zealand universities (including UC) have joined a new teaching and research collaboration with the Indian Institute of Technology (IIT) Delhi. In 1918 the Indian Government declared public university IIT Delhi to be an "Institution of Eminence" with a grant $21.5 million. The initial areas of potential research collaboration include robotics and automation with particular application in agriculture, cyber-security, wastewater treatment, cancer genomics and medical technologies.

The UC Business School has secured sponsorship from the Asia New Zealand Foundation to deliver four "Focus on Asia" online panel discussions in 2020 as part of the School's series *Hihiko*. This series aims to support and engage our business community, stakeholders, students and alumni through presentations featuring national and international experts, notable UC alumni and the UC Business School's world-class researchers. The purpose of the "Focus on Asia" sessions is to bring together industry experts, alumni and academics to share insights with New Zealand organisations and individuals interested in developing or strengthening connections with Asia. Discussions are also underway to establish a wider strategic partnership with the Asia New Zealand Foundation for 2021 and beyond.

On 6 July, New South Wales Minister for Customer Service, the Hon Victor Dominello, launched the new UC MBA course, Data-informed Strategy, via video link. He spoke to the 50+ MBA students in attendance about the digital-data journey underway in New South Wales to place the citizen at the centre of service delivery. In attendance were industry adjuncts from IBM and Google, industry collaborator ChristchurchNZ and course facilitator Chris Vas. For more information, go to https://www.canterbury.ac.nz/news/2020/new-mba-course-maximises-data-to-drive-post-covid-strategy.html.

Expand the nationalities and cultures represented in our student body.

Now that SLT has discussed the International Equivalent Full-time Student (EFTS) Recovery Group's proposed recovery and diversification plan, further work is underway focused on creating sustainable long-term value from international student recruitment. Paramount will be diversification across source countries and across channels, with particular emphasis on the development of online and transnational education pathways. Further improving customer service and the student experience will be another focus of UC's commitment to creating an engaged and globally connected community.

Semester 2 2020 full-fee enrolments are tracking more positively than forecast, with the 1,641 full-fee EFTS enrolled on 11 July exceeding the June year-end forecast of 1,544 EFTS. However, because the current global environment will undoubtedly continue to impact student mobility for the foreseeable future, UC will need to continue to accelerate complementary options in TNE and online.

There was a three day, online orientation for all new international undergraduate Commerce students from 6–9 July 2020. Following a welcome to UC, students attended sessions on academic support, life outside the classroom and Tikanga Rua/UC Bicultural, along with a student sharing session involving a UC student-led panel discussion and Q&A break-out sessions. These activities were supported by a dedicated LEARN page with additional resources and activities aimed specifically at new international students.

The College of Business and Law is the entity within the University that has been most impacted by the closure of the border. The UC Business School is endeavouring to mitigate the impact as much as possible.

Term 3 of the BTM programmes starts on 31 August. The BTM team is currently working hard to enrol as many students as possible in its 'online to on-campus' option for the BTM programmes, for which three new online course offerings have been specifically developed. Current enrolments stand at 20 'new to UC' students and this number is increasing daily.

The UC Business School has just welcomed a new cohort of 34 students from KYS Business School, Malaysia into the second year of the Bachelor of Commerce programme. Though this is a well-established 2+2 TNE pathway programme, this year's cohort is the first one to commence their two years' study at UC online.

Organisational Efficacy

Grow and diversify revenue to become an economically sustainable university able to initiate new, high-impact projects.

Student Recruitment

The most important element of our approach to ensuring that the University is a quality university of sustainable economic size is the growth in the number of students enrolled and learning with us.

Domestic student recruitment for Semester 2 has been a priority to boost numbers, given that international students cannot enter the country. Targeted communications have been sent to non-school leavers including gap-year students, students who graduated in April and those former students who started (and were passing) but did not graduate, encouraging them to enrol now. We also shared with our alumni some of the key selling points of the University to encourage them to promote UC. Each of the campaign communications has had good engagement, and, along with

stimulus from our digital campaign, the mid-year recruitment numbers are strong with new domestic student enrolment currently tracking 28% up on the same time last year.

Our domestic school-leaver campaign UCMe is in market currently, with a multi-channel approach of targeting priority schools (including our lower-decile schools) with posters placed on bus shelters near schools, the backs of buses, and prime billboards in our key markets. Digital marketing continues and numbers for our Online Open Day were strong, with 1,005 students registered and around 600 attendees, including nearly 100 prospective students on campus. The virtual event remains available for 30 days, and international students are encouraged to view this as well. Marketing for our on-campus Open Day has commenced, and will ramp up post the virtual event. Currently we have 1,073 registrations for the 27 August on-campus Open Day. Overall, engagement is in line with previous years (albeit in different ways).

Accommodation is a key part of the decision making process for prospective students. The first ensuite room at Tupuānuku was completed to allow UC to take photos and 360 views for Open Day. There was a high level of interest at both the webinar, which has had 385 views, and the information hub. The virtual tour platforms are consistently seeing 2,000 engagements with students each week. Take the tour at https://www.canterbury.ac.nz/life/accommodation/halls/tupuanuku/ Good feedback is being received about Tupuānuku through our Facebook advertising campaign. The online campaign has had 2,127 Facebook clicks, 1,075 Instagram clicks and 2,927 Snapchat clicks.

UC scholarships, which were revised for 2021, are being promoted currently too. From 2021 the Go Waitaha Canterbury scholarship recipients will be housed in Tupuānuku to support target occupancy levels agreed within the business case. Since hall tours resumed on 13 July, demand to attend has been high and the halls were happy to welcome students back after lockdown.

The new accommodation guide: (https://www.canterbury.ac.nz/media/documents/brochure/accommodation-guide.pdf) has been mailed to all targeted high schools. This approach offers greater transparency and more detailed information to help guide students and whanau in their decision making. Changes to the application form and process go live on 1 August. For 2021, students can indicate three preferences, which should help them get into one of their top choices for accommodation.

GradFest, running this year from 8 to 11 June, was held online, with a mixture of live Zoom sessions and pre-recorded presentations. The event was very successful, with the number of students taking part online similar to the number who participated face to face in previous years. A benefit of the recorded events is that these are now available to postgraduate research students as professional development experiences via UC's Learn site. The event was delivered as a collaborative effort by staff from the Postgraduate Research Office, Library and Academic Skills.

The UC Business School's postgraduate recruitment campaign "Study Business in 2021" for July and August focuses on promoting the School's suite of postgraduate qualifications. The campaign targets three key domestic audiences: students graduating in 2020; mature students with a degree, especially those whose jobs and/or career opportunities have been adversely impacted by the COVID-19 pandemic; and professionals with management experience looking to advance their leadership skills via an MBA-level qualification. The School is also continuing to promote the UC-wide FutureU campaign to the mature student audience.

Advancement

The University has a programme of 'institutional advancement' work to improve our capability to raise funds from sources other than students and research customers. To assist with this work, UC

commissioned the More Partnership, which has provided the first draft of the Advancement Strategy and Case for Support for UC to review. This will be further developed in coming weeks.

The Sir Admiral Tait Scholarship received $340,000 from Lady Tait, allowing the three-year undergraduate scholarship to be offered in perpetuity for a student from Timaru Boys' High School.

The Teece Museum was awarded $12,282 from the Lottery Environment & Heritage Fund towards a heritage collection survey project. Information from the survey can be used in due course to support upcoming celebrations for UC's 150th anniversary. The Annual Appeal for 2020 is due to be sent in August focusing on Bright Start Scholarships, Children's University and COVID-19 research in Antarctica. Ngaio Marsh Theatre seats are almost sold out and plaques are in place for those purchased so far.

Finances

The University has worked very hard to mitigate the financial impact of the COVID-19 pandemic response. This work is paying off for 2020, with a modest deficit currently forecast. The University was budgeting for an operating **surplus** as at the end of 2020 of $3.818 million, but it is currently forecasting an operating **deficit** of $2.022 million.

June 2020	Actual Year to Date $000	Budget Year to Date $000	Budget Variance Year to Date $000 Fav/(Unfav)	Budget Full Year $000	Forecast Full Year $000	Full Year Forecast to Budget Variance $000 Fav/(Unfav)
Net Surplus/(Deficit)	(1,704)	(18,324)	*16,620*	3,818	(2,022)	*(5,840)*
Capital Expenditure	46,321	59,103	*12,782*	111,988	99,183	*12,805*
Cash/ Short Term Investments	256,991	232,723	*24,268*	153,628	178,271	*24,643*

UC is currently running a favourable variance to budget of $16.620 million. This favourable variance relates mainly to $17.274 million less operating expenses (largest savings are in travel and conference expenses, consultancy expenses, outsourcing/contracts, scholarships, contractors, promotional activities and laboratory consumables). Some of these favourable variances will be sustained and have been reflected in the year-end forecast.

Other favourable variances relate to $6.642 million more Student Achievement Component (SAC) and domestic student fees. Of this total, $0.730 million relates to the 2019 SAC wash-up (although actual year-to-date SAC for the current year is favourable by $3.595 million, this is forecast to be unfavourable against the full-year budget by $1.793 million) and $1.189 million to lower personnel expenses.

This favourable variance has been partially offset by unfavourable variances coming from ($4.074 million) less research external income, ($1.675 million) less sundry income and ($1.495 million) more depreciation.

We are forecasting for a deficit below budget for the full year. Expected reductions in revenue in relation to international tuition fees, domestic tuition fees and SAC, the Performance-Based Research Fund and research income and forecast increases in expenses in relation to depreciation

expenditure are partially offset by improved interest revenue and forecast reductions in expenses in relation to personnel and operating expenses.

Capital expenditure is $12.782 million below budget. Most projects are under budget but expenditure related to the UC Futures projects is $8.480 million over the year-to-date budget of $0.731 million, largely as a result of making the final Rehua payment of $9.184 million in March, which was not considered in the budget as it was expected in 2019. The remaining capital spend (excluding UC Futures) is favourable by $21.262 million, against a year-to-date budget of $58.372 million. As one might expect, the COVID-19 lockdown significantly curtailed capital expenditure, but it is now returning to normal levels.

The June 2020 cash position of $256.991 million is higher than budget by $24.267 million. The higher than expected opening cash balance and lower capital spend have been partially offset by less cash from operating activities (largely due to less income).

For further details, please refer to the latest monthly financial report.

Ensure that the University's costs and funding mechanisms are efficient, simple and transparent.

The University has recently completed a full review of the economics of its courses by analysing the course size and financial position of each course. This has revealed that larger courses remain more financially viable than small courses, even taking into account significant differences in government subsidy for each one. This information has been placed on a dashboard for internal use and to further our aim to provide transparency for staff about our costs and funding mechanisms.

Simplify, automate and reduce business processes with a humanistic approach.

UC has simplified the applicant journey for school leaver scholarships by making it possible to apply for all our scholarships on one form. Applications opened in June and the University has begun to promote these scholarship offerings for new students in 2021.

In June we were also able to offer the May round of UC Master's Scholarships. Processing of these scholarships was expedited to assist students affected by COVID-19. The Pōhā Iti Bursary has also been set up to provide financial assistance to UC students negatively affected by COVID-19.

The Process Improvement Programme started as a Robotics Process Automation (RPA) proof of concept at the beginning of 2019. This proved very successful and the full project kicked off in July 2019. In the year since then, significant milestones that the project has reached include:

- establishing a process automation Centre of Excellence
- having 13 virtual robots (called 'bots') in production
- saving over 12,000 annualised work hours
- processing nearly 100,000 transactions and saving 3,700 hours during COVID-19 lockdown (26 March – 25 May)
- completing several bot enhancements
- establishing a user group
- running a process automation training workshop on 8 July 2020, which enabled 20 UC staff with a mix of skills to develop their own simple bot to enter transactions
- assessing over 60 opportunities to automate.

Use technology and data in a responsible, ethical, effective and efficient way to enable and empower our people and communities.

The University recently advertised for a new Chief Digital Officer, signalling the beginning of an evolution in our approach to designing and delivering our information systems and technology

services. Michael Oulsham has now been appointed to this role and will start in October. Michael was previously at Air NZ and based in Silicon Valley in the US.

Environmentally Sustainable

To enable the sustainability projects defined in the Strategy for 2020, and to prioritise projects from 2021–2030, we are setting up a new Programme Board, chaired by Professor Jan Evans-Freeman, Pro-Vice-Chancellor Engineering, and supported by staff in the Sustainability Office. The Board will meet three to four times a year to oversee implementation plans and guide direction throughout the coming years. There is a diverse range of expertise on the Board, and Ngāi Tūāhuriri is represented.

Establish a carbon neutrality initiative to ensure that UC will be carbon net neutral by 2030.

The University of Canterbury's (UC) goal of becoming carbon net neutral by 2030 has received a $6.24 million boost with the announcement of Government funding towards new energy infrastructure at UC's Ilam campus (covering a large amount of the cost of a new $15.6m biomass boiler at the Ilam Campus). The biomass boiler will replace two coal boilers by March 2022, and will run on waste-wood from renewable plantations. Installing biomass boilers will result in an immediate reduction of coal emissions at the Ilam campus from 11,000 tonnes annually to 2,200 tonnes annually – an 80% reduction.

Minister for Climate Change the Hon. James Shaw, co-leader of the Green Party and the Minister for Climate Change, visited UC on 15 July to announce the funding, which is part of the Government's $200m State Sector Decarbonisation Funding (SSDF) project via the Energy Efficiency and Conservation Authority. He was welcomed by myself, Chancellor Sue McCormack and the team behind UC's Low Carbon Energy Strategy (LCES).

Communications and Profile

News media

Over the period 10 June to 8 July 2020, UC had 645 mentions across national online, print and broadcast media. A range of topics was covered, including a celebration of UC's 147th Foundation Day. A video on new research into humpback whale migration caught media attention, as did funding for research into whether kea experience joy.

There was high interest in the new CUP book *Merchant, Miner, Mandarin* for its intriguing and topical account of late 19th-century society, industry and race relations. Research into necessary steps behind championing inclusivity and diversity in academia was also of interest to media. Coverage of COVID-19 continues to decrease, although expert warnings against complacency still appear to be sought after from time to time. In addition to the positive media coverage UC generated, we handled 70 media queries over this period.

The following UC news stories appeared in national media over this period:

- Climate Explained: what was the climate and sea level like at times in Earth's history when carbon dioxide in the atmosphere was at 400ppm?
- New Zealand needs to prepare for the arrival of medical "Al"
- New MBA course maximises data to drive post-COVID strategy
- Did a tragic family secret influence Kate Sheppard's mission to give New Zealand women the vote?

- Corporate governance: ruled by code not a CEO
- Water fluoridation saves poorest children from hospitalisation
- $1.2m funding boost for Parkinson's disease study
- New Zealand academics rediscover the joy of kea research
- UC sponsors Young New Zealander of the Year Award
- Reserve Bank walks the post-COVID tightrope
- New tool puts New Zealand on track for safer state highways
- Forestry scholarships grow diversity
- US engineer designs resilient building
- Climate Explained: what Earth would be like if we hadn't pumped greenhouse gases into the atmosphere
- Human impact throws tree seeding out of sync – new study
- UC professor explores the changes that are being made to contempt laws in August
- Emergency nurses warn against Covid complacency
- New discovery tracking humpback whale migration from space
- Community minded UC student helps struggling migrant workers
- I can't stand by – calling out sexism in academia
- Innovation aims to boost safety for young rugby players
- *Merchant, Miner, Mandarin* shines light on race relations in late 19th century NZ
- Young recorder virtuoso goes for Baroque
- UC academic and students researching newly discovered ancient forest
- ACE system supports success of all first-year students at UC
- 2 new COVID-19 cases in New Zealand, but elimination of community transmission still stands
- 'Shovel-ready' projects ignore important aspects of community resilience
- Happy 147th birthday, University of Canterbury!
- New strategies needed for marketing in the New Normal
- UC interns go 'inside the rope' with Crusaders
- Unravelling the bimolecular secrets of bacteria

Our @UCNZ Twitter account following and engagement continue to grow. In the period 10 June to 10 July 2020, we tweeted our teaching and research stories on average twice per day (up 11.5% from the previous month) and followers grew by 94.

In the same period we published nine articles for The Conversation (up from one in the previous month). In total, UC content reached around 600,000 views for this period.

On 13 July Professor Geoff Chase and some research students appeared on TVNZ 1 discussing how, as engineers, they have responded with a technical solution to a global demand for ventilators amid the COVID-19 pandemic.

The following were among the other academics featured in the media.

Associate Professor Debra Wilson (UC Law) was interviewed on the RNZ Nine to Noon programme on public perceptions of surrogacy and the laws surrounding it. Her research findings are being used to inform law changes in the United Kingdom and may impact on a private member's bill in the ballot here in New Zealand. See https://bit.ly/2AFhwGo

Professor Ursula Cheer (UC Law) was also interviewed on the Nine to Noon programme. She explained the changes that will come into force in August under the Contempt of Court Act 2019,

which was passed last year, and the implications of these changes for the media and the public. See https://bit.ly/3dqyuW8

Associate Professor Alfred Guender (UC Business – Economics) was one of 16 experts and economists giving views on future Reserve Bank of New Zealand official cash rate movers and other economic trends, including mortgage rates and monetary policy. See https://www.propertynoise.co.nz/rbnz-survey-negative-cash-rate-is-imminent-say-experts/

Professor Elisabeth McDonald (UC Law) presented a webinar for the Institute of Judicial Studies (the educational arm of the New Zealand judiciary) on the key findings from her recently published book *Rape Myths as Barriers to Fair Trial Process* (Canterbury University Press, 2020).

Professor Annick Masselot (UC Law) gave an interview entitled "Women, Pandemic and an Uncertain Future" for the religious online media platform A Thoughtful Faith Podcast, in which she focused on the many gender inequalities that the COVID-19 pandemic has exposed. Listen to it at https://www.athoughtfulfaith.org/333-women-pandemic-and-an-uncertain-future-prof-annick-masselot/?fbclid=IwAR3WTxlvlKr44JYkIBVWS-HNUapUORmVXzxSYRavy_fzVtbxrsH7PwG95Co

Finally, I am pleased to record that I have been appointed to the Board of NZQA for a three year term. This will enable UC to contribute to and learn from wider discussion on relevant educational topics across the sector.

Past Events	
25 June 2020	Attended a workshop for Academic Board Hosted a Brown Bag Lunch on Social Sciences at UC
26 June 2020	Met with Anu Nayar, Partner Deloitte - Cyber, Privacy and Resilience Zoom meeting with Prof. Bruce McKenzie, Acting V-C Lincoln University
29 June 2020	Hosted Christchurch Knowledge Commons meeting
30 June 2020	Spoke at UC Staff Forum
1 July 2020	Attended Zoom meeting with Tristan Denley – Executive Vice-Chancellor and Chief Academic Officer of University Systems, Georgia Attended the signing of the MOU with ChristchurchNZ
3 July 2020	Attended a Recovery Opportunities meeting hosted by Christchurch City Council CEO, Dawn Baxendale Appointment with David Meates, CEO CDHB
6 July 2020	Āttended the Heads' Forum
7 July 2020	Met with Margaret Austin and Michele Bannister Zoom meeting with the VC of University of Auckland, Dawn Freshwater
9 July 2020	Met with Gabrielle Moore, TEU Zoom meeting with Prof. Bruce McKenzie, Acting V-C Lincoln University
10 July 2020	Zoom meeting with a Partner of More Partnership, Moss Cooper Meet with Board Chair and Principal of Bishop Julius Hall Met with Dom Dowding Attended a Zoom meeting hosted by Universities NZ Attended Academic Board
13 July 2020	Zoom meeting with Prof. Neil Quigley, Vice-Chancellor, Waikato University
14 July 2020	Spoke with Pat Ahluwalia, MFAT
15 July 2020	Spoke at engagement for Minister Shaw's visit to UC Attended seminar by Jeremy Lightfoot's Met with Canterbury Police District Commander, Superintendent John Price
16 July 2020	Met with Southern Parallel Sports Campus Project Director, Catherine Stuart

17 July 2020	Met with Ambassador of Mexico, HE Mr Alfredo Rogerio Perez
27 July 2020	Met with Gabrielle Moore and delegates, TEU Attended UC School of Music Gala Concert
28 July 2020	Met with Director of Research First, Carl Davidson
29 July 2020	Spoke at Student Forum at UC

Upcoming Events	
30 July 2020	Attending Powhiri in Auckland for VC of University of Auckland, Dawn Freshwater
31 July 2020	Meeting with CE of Waimakariri District Council, Jim Palmer, and Mayor Dan Gordon
3 August 2020	Meeting with James Stringer, Box 112
4 August 2020	Meeting with Nuha Fathina, UCSA - Commerce
5 August 2020	Hosting a Christchurch Knowledge Commons meeting
6 August 2020	Attending a Zoom meeting hosted by Universities NZ Attending a meeting with ANZ's Chief Economist, Sharon Zollner
7 August 2020	Attending an orientation day for NZQA
11 August 2020	Attending a formal dinner at UC's College House
12 August	Attending a Learner Success meeting with TEC Attending a meeting of the Canterbury Tertiary Education Chaplaincy Committee
14 August 2020	Attending Academic Board
21 August 2020	Attending a Zoom meeting hosted by Universities NZ
24 August 2020	Attending UC's Early and Emerging Career Researcher Award ceremony
25 August 2020	Speaking at Rongo o te Wā at UC

Memorandum/Pukapuka

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

To:	**Ki:**	University Council
From:	**Nā:**	Professor Cheryl de la Rey, Vice-Chancellor
Date:	**Rā:**	21 July 2020
Subject:	**Kaupapa:**	**Academic Board report**

Recommendations:

- ***that the Council notes the report of the Academic Board;***
- ***that the Council approves the following proposals and forwards them to CUAP and TEC for their approval:***

  a) The introduction of a Diploma in Advancing University Studies;
  b) The introduction of a new endorsement Taha Hinengaro Health and Wellbeing Practice to the Postgraduate Diploma in Health Sciences;
  c) The introduction of a Professional Master of Computer Science;
  d) The introduction of a Bachelor of Environmental Science with Honours and a Bachelor of Environmental Science
  e) The introduction of a Bachelor of Data Science

Purpose:

To advise Council on the Academic Board proceedings at its July meeting.

Executive Summary:

The Board considered various items including new proposals for CUAP consideration, library retention of examination papers and trends in the distributions of expenses.

Key Points/Strategic fit:

The discussions encompassed the strategy's aims of being an Accessible, Flexible Future-Focussed education provider, nurturing staff, thriving students with organisational efficacy.

Financial implications:

None.

Attachments:

- **CUAP Proposals**
- **Academic Board report**

Full papers commence overleaf.

Paper Progress:

To:	Date:	Decision:
PFRC/RAC	N/A	
SLT	N/A	
FPRC/ARC	N/A	
COUNCIL	July 2020	Pending

TE POARI AKORANGA | ACADEMIC BOARD

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

RECOMMENDATIONS TO THE COUNCIL

FROM A MEETING OF THE ACADEMIC BOARD

HELD ON FRIDAY 10 JULY 2020

BUSINESS FROM THE CHAIR

The Chair congratulated Professor Turnbull who had been appointed to the position of Deputy Chair. She also recorded her appreciation to Associate Professor Travis Horton for his work in the interim period.

REPORT FROM THE VICE-CHANCELLOR

The Vice-Chancellor:

- reported that she was continuing to meet with the other Vice-Chancellors and representatives from the Ministry of Education about opening to international students. She was not expecting a final decision for some time, but hoped that a workshop due to be held in mid-August might provide some more information. Universities were planning a range of scenarios for 2021;
- noted that the recent staff forum had included financial information from Keith Longden. Board members would continue to be informed as the situation unfolds;
- recorded her thanks to staff for all their achievements during Semester 1 under trying conditions. Professor Moran and her team were reflecting on lessons from examinations which could be taken into the future;
- congratulated Rod Oudshoorn on his recent appointment as Director of Facilities Management;
- noted that her written report recorded that she has resumed meeting with various people in the City in line with the strategic vision. She noted that she is pleased to be working with Professor Veer on developing relationships in the City as part of UC's aim to become a more Engaged University.

Questions and comments from the floor included:

- Due to the pandemic, there may be high graduate unemployment by the end of the year. Has there been any market research done to find out if there is potential interest in opening up Honours programmes for example? The Vice-Chancellor confirmed that there is ongoing work in this area. The two Deputy Vice-Chancellors and Dean of Postgraduate Studies are exploring transitions offerings to encourage graduates into postgraduate study. Professor Fee said that at a recent Product Design Industry Advisory meeting, employers had been cautiously optimistic about employing graduates. Professor Evans-Freeman said that staff in Chemical and Process Engineering had contacted 25 known graduate employers who had indicated that they were less likely to hire graduates, other than in the food industry, and so the School was making plans on the basis of this research.
- A member welcomed the appointment of Rob Oudshoorn and also David Mather as new Acting Safety officer;

- A member thanked the Vice-Chancellor for including more financial information in her report. He queried the use of the term 'favourable' as possibly misleading when applied to variance on capital spend.

REPORT FROM THE UCSA

Ms Mills said that for students, grade release marked the end of Semester 1. On the whole students had been pleased with their results, despite the challenging semester and she thanked all staff involved. She said that the Re-Ori calendar was packed with events including the first directed specifically at Postgraduate students. Ms Hibbert-Schooner highlighted the Matariki market to be run by te Akatoki.

The UCSA was also reflecting on the lockdown experience and on lessons for the future. Ms Mills stressed the importance of the class rep system and said that there was now a new video resource on the work of class reps. The Vice-Chancellor reminded members that first year students had only been able to attend campus for five weeks before shutdown so asked that everyone make a special effort to welcome them back.

A member asked whether it was known if many students intended to continue to study remotely. Ms Mills said she was aware that UC had surveyed students about this. From her perspective UCSA had not carried out any formal research, but informally there had been huge interest in Re-Ori events which was a positive indication. The Vice-Chancellor added that the halls of residence had reported that the vast majority of their students would be returning.

REPORT FROM THE ACADEMIC ADMINISTRATION COMMITTEE

The Deputy Vice-Chancellor (Academic) introduced the report and requested the relevant Dean speak to the curricula changes presented. She explained that the first proposal came from the Colleges of Arts, Business and Law and Science and asked the Dean of Business to speak to it.

1. Introduction of a Diploma in Advancing University Studies

Dr James noted that this was a new market for UC, with the qualification aimed at students who had achieved level 6 in various countries, sometimes called an Associate degree, with the diploma intended to provide them with a route in to a taught Master's programme. Students would complete cultural and subject specific elements in the same major as their previous qualification.

A member welcomed the proposal and asked if this qualification might also be of help to non-native English speakers who had achieved level 6. Dr James confirmed that such students entering taught Master's degrees in Business would be encouraged to participate as part of their orientation and transition. He agreed that how the Diploma is marketed will be important. Given the current global pandemic, the proposal would be rewritten to give more prominence to how the qualification would align with the domestic market.

Motion:

That, on condition that the proposal is amended to include information on the domestic market, the Academic Board endorse the introduction of the Diploma in Advancing University Studies and that the proposal be forwarded to Council for approval.

Carried

2. Introduction of a new endorsement Taha Hinengaro | Health and Wellbeing Practice to the Postgraduate Diploma in Health Sciences

The Dean of Education, Health and Human Development asked the proposer Dr Mark Wallace-Bell to introduce the proposal. He said that the endorsement had been designed to respond to workforce demands, fitting in with a new national framework, and would provide a pathway for

current health professionals to upskill. He confirmed that if new postgraduate courses in related fields were developed these could be incorporated.

Motion:
That the Academic Board endorse the introduction of a new endorsement Taha Hinengaro Health and Wellbeing Practice to the Postgraduate Diploma in Health Sciences and that the proposal be forwarded to Council for approval.

Carried

3. Introduction of a Professional Master of Computer Science

The Dean of Science said that this 12 month, 180 point Master's degree was developed to meet demand for graduates and had been the subject of wide consultation across the university.

A member asked why the title 'professional master' had been adopted, as to his mind this implied that the degree was accredited by a professional body, that there was an interview process, a code of ethics and continuing professional development. Professor Willig, the proposer, responded that there is no professional accrediting authority for postgraduate computer science in New Zealand. Alternative titles had been considered but Master of Applied Computer Science sounded too close to a conversion Masters, and Master of Science in Computer Science was too close to the existing research route. This had also been queried by the AAC. It was suggested that further work on definitions for 'professional', 'research' and 'applied' might be carried out at the AAC.

Another member noted that teaching would take place over summer and queried how staff leave would be taken into consideration. Professor Willig said that the intention is to hire specialist fixed term staff to meet this need.

Motion:
That the Academic Board endorse the introduction of a new Professional Master of Computer Science and that the proposal be forwarded to Council for approval.

Carried by a majority (two against)

4. Introduction of a Bachelor of Environmental Science with Honours and a Bachelor of Environmental Science

Professor Moran thanked the Dean of Arts and his colleagues for starting discussions about opportunities for Arts contributions to this area which would continue. Associate Professor S Gaw, Associate Professor A Brower, Professor Zawar-Reza and Ms A Chapman who had all helped develop the proposal were introduced to the Board.

The Dean of Science explained that this proposal is for a four year honours degree with an exit qualification at third year of the Bachelor of Environmental Science. It is intended that the degree will be semi-professionally accredited by the Environment Institute of Australia and New Zealand (EIANZ). It will have a common first year and six interdisciplinary majors. The degree proposal builds on an existing major and has been subject to consultation and helpful feedback and will continue to evolve. Professor Shulmeister, the Head of School of Earth and Environment, said that the degree was timely when reflecting on recent environmental issues such as the drought in the North Island and the Australian bushfires and noted that the University of Queensland had seen a 166% increase in enrolments in a similar degree in the last year. He acknowledged that some degrees, such as those related to the mining industry had been subject to a boom/bust model, but there was evidence that the demand for graduates in Environmental Science would continue to be high. Some consultation had taken place with potential employers, but due to the impact of the COVID-19 situation, this had been more limited than might otherwise have been the case. Dr Brown commented that the proposal would be welcomed by iwi who were grappling with a range of environmental issues. Following a question, it was confirmed that the intention was to retain the Environmental Science major in the BSc at least in

the short term. The Dean also confirmed that there would be strong advice to help students choose their major. A member suggested that ACCT340 might be an added to the elective course schedule. There was also the suggestion that UC might have a wider discussion on converting three year degrees to 480 point Honours degrees to give the university a point of difference at market.

Motion:
That the Academic Board endorses the introduction of a new Bachelor of Environmental Science with Honours and a Bachelor of Environmental Science and that the proposals be forwarded to Council for approval.

Carried

5. Introduction of a Bachelor of Data Science
The Dean of Science noted that this three year, 360 point degree integrates computer science, mathematics and statistics and features five associated subject majors and is a development from across the Colleges. Members agreed that there was scope for further expansion in the future into more quantifiable social science areas.

Motion:
That the Academic Board endorses the introduction of a new Bachelor of Data Science and that the proposal be forwarded to Council for approval.

Carried

LIBRARY RETENTION OF EXAMINATION PAPERS
Professor Heinemann said that he had submitted the motion to coincide with the regular scheduled review of the Examinations – Principles and Procedures Policy as he felt it was timely for this part of the policy to be considered. He said that the mechanism for making petitions for exemptions to the criteria was not clear or timely and that the process should be appropriate for the outcome. Professor Moran agreed that it made sense for this to be discussed at the AAC and she supported the motion.

A member said that he did not think this particular provision regarding examination papers needed review as they were a useful revision tool for students. Professor Wiltshire, who said that there were discipline-specific issues with the policy – in his area, there were only a limited number of questions possible, and he felt that the lockdown situation which had led to an open book examination, and thus more difficult questions, had been off-putting to students and had led to a longer tail in achievement. Ms Mills said that the UCSA had reflected on the policy and the importance of past papers to students, but also the efficacy and appropriateness of different forms of assessment. She proposed an amendment to the motion:

Motion:
That the Academic Board requests that the Deputy Vice-Chancellor Academic, in consultation with a representative range of academic staff ***and students****, reconsider the policy of automatically archiving end of semester final examination in the Library for the purposes of student access.*
Seconded by Professor Mason
Following further discussion the amended motion was put.

Carried

TRENDS IN THE DISTRIBUTION OF EXPENSES
Dr Dixon spoke to his motion. He said that when making decisions, Council should be informed by trends in the distribution of major categories of expenses over previous years. He said that UC no longer publishes a full analysis of general operating expenses as for example the University of Waikato does. He said that now that UC has agreed a new strategic plan, these factors are particularly important especially as the current investment plan is due for renewal in 2021.

Professor Lawson queried if this was an appropriate matter for the Academic Board. He responded that although there was not much research on universities, from a school sector perspective, research from Australia and the UK showed that the more resource available, the better students perform academically.

A member suggested that alongside the major categories of expenses he had highlighted, other areas were equally important such as relative cost change indices covering equipment and personnel. Other suggestions were that there should be a thorough look at whether UC is getting good value for money spent, the allocation of postgraduate scholarships and if there have been significant changes over time, why these had occurred.

The Chief Financial Officer was asked to respond. He said that the timescale indicated that the timeline since 2005 was a huge historical period that included the earthquakes when there had been a drop in both student and staff numbers. Some of the information regarding finance charges related to the University bond and interest costs. He said that Council reviews the financial situation on an annual basis, and in addition the Senior Leadership Team look at service area costs very carefully.

Motion:
That Te Poari Akoranga | Academic Board thanks the Te Kaunihera o TWWW | University Council for publishing the Annual Report | Te Pūrongo ā-Tau 2019. The Board notes the continuing trends revealed by this latest report and those going back to 2005 (i.e., before the Earthquake) (see https://www.canterbury.ac.nz/about/governance/annual-reports/) in the distribution of major categories of expenses, as presented in Table A to this motion. In light of the signals these metrics provide, it advises Te Kaunihera | Council to evaluate the trends in question and their future implications, should they continue, including:
- equity between generations of members of the university, be they students, academics, alumni/ae or other, and

- the balance between the quantities of staff resources, whether academic, professional or otherwise, and other uses of money to pursue strategy, obtain administrative advice, develop administrative systems, attract customers, conduct research, reposit knowledge, criticise society and stage programmes of learning.

Defeated (21 for, 21 against, casting vote against)

REPORT FROM THE LIBRARY COMMITTEE
Associate Professor Grimshaw noted that UC research showed 56% of students no longer buy textbooks due to their cost and he recommended staff think about Open Educational Resources (OER). Sara Roberts had given a presentation to the Library Committee around these themes which he suggested should be repeated at College meetings and the UC Learning and Teaching Committee.

REPORT FROM THE LEARNING AND TEACHING COMMITTEE
A member commented that SET should not be the major factor in improving courses and promotion but that consideration should be given to student work and student results following assessment. Members agreed that there should be a range of measures, and that there is a need for different ways for teachers to demonstrate quality teaching.

REPORT FROM THE RESEARCH COMMITTEE
Dr Dixon suggested that the supervisor refresher courses should be run on a collegiate basis. Professor McAuliffe thanked him for his feedback and said that as a fairly new Dean of Postgraduate Research she had decided to set up online training and was interested in professional upskilling of both existing supervisors and new staff to meet best practice guidelines.

The refresher courses would not be mandatory, but UC staff have a collective responsibility to provide high quality supervision to students. Associate Professor Kamp highlighted that there was a large group of new academic staff in her School and that the opportunity to build their capacity with training at a local level was welcomed.

GENERAL BUSINESS

Professor Heinemann commended the work that had gone into the Master's Thesis Work Policy and Guidelines.

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Diploma in Advancing University Studies

Template 1.

Purpose of the proposal

To introduce a NZQF Level 7 Diploma in Advancing University Studies

EXECUTIVE SUMMARY

To introduce a NZQF Level 7 Diploma, a Diploma in Advancing University Studies, which provides a pathway for domestic and international students who have completed the equivalent of a level 6 qualification into a taught Master's programme which require a level 7 qualification for entry. The Diploma can also be made available to students who have a level 7 degree but do not meet the GPA requirement for entry into a Master's degree programme.

The proposal supports the following elements of the UC 2020 Strategy:

- Expand the nationalities and cultures represented in our student body (Internationalisation)
- Deliver a curriculum that prepares our students to be enquiring and enables them to create and contribute knowledge for a better society (Education)
- Grow and diversify revenue to become an economically sustainable university able to initiate new, high impact projects. (Organisational Efficacy)
- Promote understanding of Aotearoa New Zealand's place in the world and its cultural distinctiveness (Internationalisation/Bicultural Competence and Confidence)

The proposal supports the University's strategy to diversify its international student base as many of the countries whose degrees are considered level 6 or who award "associate degrees" which are considered to be the equivalent of a level 6 course.

This diploma complements UC's existing offerings by providing a pathway to taught Master's degrees in the Colleges by utilising current undergraduate courses.

The diploma complements the current Graduate Diplomas in that students who take the DipAdvUniStud would not qualify for entry to a GradDip as they either wouldn't have a Level 7 degree or they wouldn't meet the GPA requirement for entry to the GradDip.

Predicted numbers are between 20 – 50 students per year, with an expected conversion of 60% to a Master's degree the following year.

Programme Overview

The Diploma in Advancing University Studies is a one year (two semester) programme that incorporates the development of written, cultural and subject specific subject knowledge for students in order to meet the entry requirements for a conversion taught Master's degree. The diploma would enable the student to

upgrade the level of their qualification (from a NZQF level 6 to NZQF level 7) or their GPA in order to meet the Master's entry requirements.

Candidates are required to have completed the equivalent of an NZQF level 6 qualification (associate degree) or better. The programme consists of 120 points, 15 points for WRIT101, 15 points from a set of BICC related courses, and 90 points of 300-level courses of which 60 points of must be in a single subject, which will normally be the subject of their degree or associate degree as prerequisites for all 300-level courses must be met. Candidates are also required to complete an academic writing course and a bicultural confidence course as part of the diploma unless this is waived due to completing similar courses in their previous qualification.

Proposed new regulations

2020 UC Calendar page number 566

Diploma in Advancing University Studies (DipAdvUniStud – 120 points)

These regulations must be read in conjunction with the General Regulations for the University.

1. Version

(a) These Regulations came into force on 1 January 2021.
(b) This Diploma was first offered in 2021.

2. Variations

In exceptional circumstances the Dean or Arts (Academic), Dean of Business or Academic Dean of Science may approve a personal programme of study which does not conform to these Regulations.

3. The structure of the qualification

To qualify for the Diploma in Advancing University Studies a student must:

(a) satisfactorily pass a minimum of 120 points from courses from Schedule V from the Bachelor of Arts, Bachelor of Commerce and Bachelor of Science; and
(b) satisfactorily pass a minimum of 90 points at 300-level; and
(c) satisfactorily pass a minimum of 60 points at 300-level in a single subject
(d) satisfactorily pass the courses in Schedule C to these regulations and 15 points of courses from one of the groups in Schedule E to these regulations unless waived by the relevant Dean.

4. Admission to the qualification

To be admitted to the Diploma in Advancing University Studies a student must have:

(a) completed a qualification at the equivalent of level 6 or better on the New Zealand Qualifications Framework that consists of a minimum of 2 years fulltime tertiary study; and
(b) been approved as a student for the Diploma by the Dean or Arts (Academic), Dean of Business or Academic Dean of Science depending on the intended major.

5. Subjects

The subjects of the Diploma are Accounting; Anthropology; Art History and Theory; Astronomy; Biochemistry; Biological Sciences; Chemistry; Chinese; Cinema Studies; Classics; Computer Science; Cultural Studies; Data Science; Digital Humanities; Economics; Education; English; English Language; European and European Union Studies; French; Finance; Geography; Geology; German; History; Human Services; Information Systems; Japanese; Linguistics; Management; Māori and Indigenous Studies; Marketing;

Mathematics; Media and Communication; Music; Philosophy; Physics; Political Science and International Relations; Psychology; Russian; Sociology; Spanish; Statistics; and Te Reo Māori

6. Time limits

The time limit for this qualification is 48 months.

7. Transfers of credit, substitutions and cross-credits

This qualification adheres to the Credit Recognition and Transfer Regulations, with no additional stipulations.

8. Progression

This qualification adheres to the General Regulations for the University

9. Honours, Distinction and Merit

Honours, Distinction and Merit are not awarded for this qualification.

10. Pathways to other qualifications

(a) A student who has completed the requirements for the Diploma in Advancing University Studies but has not yet graduated, may apply to the Dean of Arts (Academic), Dean of Business or Academic Dean of Science to be admitted to the Bachelor of Arts, Bachelor of Commerce or Bachelor of Science respectively and have credits transferred.

(b) A student who has graduated with the Diploma in Advancing University Studies from the University of Canterbury, may apply to the Dean of Arts (Academic), Dean of Business or Academic Dean of Science to be admitted to the Bachelor of Arts, Bachelor of Commerce or Bachelor of Science respectively and have their Diploma in University Studies subsumed according to the General Regulations to the University.

(c) A student for the Diploma in Advancing University Studies who has not met the requirements for the Diploma in University studies but who has satisfied all requirements for the Certificate in Arts, Certificate in Languages, Certificate in Commerce, Certificate in Science or Diploma in Languages may apply to the appropriate Dean to withdraw from the Diploma and be awarded the Certificate.

Schedule C: Compulsory Courses for the Diploma of Advancing University Studies

For full course information, go to www.canterbury.ac.nz/courses

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
WRIT 101	Writing for Academic Success	15	SU1	Campus	R: ENGL 117
			S1	Campus	
			S2	Campus	

Schedule E: Elective Courses for the Diploma of Advancing University Studies

For full course information, go to www.canterbury.ac.nz/courses

Group 1: Elective courses from the Bachelor of Arts

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ

ARTH 217	Kiwi Icons: Introduction to Art in Aotearoa New Zealand	15	SU2	Campus	P: 15 points at 100-level Art History and Theory and any 15 points from the BA schedule; or 45 points from the Arts schedule; or by approval SU2of the Head of Department R: ARTH 110
CINE 213	Kiriata: Māori Film and Media	15	S2	Campus	P: Any 15 points at 100 level from CINE, MAOR, or TREO, or any 60 points at 100 level from the Schedule V of the BA. R: MAOR 268 EQ: MAOR 268
COMS 102	Introduction to News and Journalism	15	S2 S2	Campus Distance Learning	
EDUC 103	Education, Culture and Society	15	S2 S2	Campus Distance Learning	R: EDUC 120 and TEDU 111 EQ: TEDU 111
ENGL 110	Māori Writing in English	15	NO		
ENGL 201	Inventing New Zealand in Literature	15	S1	Campus	P: Any 15 points at 100 level from ENGL, or any 60 points at 100 level from the Schedule V of the BA.
EURA 101	Global Europe	15	S1 S1	Campus Distance Learning	R: EURO 101
FREN 226	From Wīwī to Iwi: Comparing Cultures in the Francosphere	15	S2	Campus	Any 60 points at 100 level from any Subject. R: FREN 326
HIST 128	New Zealand History from Waka to Wētā	15	NO		R: HIST 108, HIST 109, HIST 124
HIST 243	Kiwi Culture	15	S1	Campus	P: Any 15 points at 100 level in HIST or CLAS 120, or any 60 points at 100 level from the Schedule V of the BA. R: HIST 352
HSRV 204	Culture, Indigeneity and Citizenship: Critical Debates for the Human Services	15	S2	Campus	P: Any 15 points at 100 level from HSRV or SOWK, or any 60 points at 100 level from the Schedule V of the BA.
LING 102	Language and Society in New Zealand and Beyond	15	S2 S2	Campus Distance Learning	R: ENLA 102 EQ: ENLA 102
MAOR 107	Aotearoa: Introduction to Traditional Māori Society	15	S1 S1	Campus Distance Learning	R: PACS 102 EQ: PACS 102
MAOR 108	Aotearoa: Introduction to New Zealand Treaty Society	15	SU2 S2 S2	Distance Learning Campus Distance Learning	R: CULT 114, MAOR 113 (prior to 2006) EQ: CULT 114
MAOR 165	He Timatanga: Engaging with Māori	15	S1	Campus	
MAOR 212	Māori and Indigenous Development	15	S1	Campus	P: Any 15 points at 100 level from HIST, MAOR, SOWK, or TREO, or any 60 points at 100 level from the Schedule V of the BA. R: HIST 262, HIST 379 EQ: HIST 262
MAOR 219	Te Tiriti: The Treaty of Waitangi	15	S2	Campus	P: Any 15 points at 100 level from CULT, HIST, HSRV, MAOR, POLS, SOCI, SOWK, or TREO, or any 60 points at 100 level from the Schedule V of the BA. R: POLS 218, POLS 258, HIST 268, SOCI 209, HSRV 207, CULT 219

					EQ: POLS 218, POLS 258, HIST 268, SOCI 209, HSRV 207, CULT 219
MUSA 150	Music in Aotearoa New Zealand	15	S2	Campus	R: CULT 150 EQ: CULT 150
POLS 103	Introduction to New Zealand Politics and Policy	15	S1	Campus	
TREO 110	Conversational Māori for Absolute Beginners	15	SU2 S1 S2	Campus Campus Campus	R: MAOR 105, MAOR 110, MAOR 111, MAOR 112, MAOR 115, MAOR 124, MAOR 125

Group 2: Elective courses from the Bachelor of Commerce

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BSNS 201	Business and Culture	15	S1	Campus	P: Any 60 points. RP: ACCT 102, ECON 104, MGMT 100
			S2	Campus	

Group 3: Elective courses from the Bachelor of Science

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
SCIE 101	Science, Society and Me	15	S2	Campus	

PGDipHealSc (Taha Hinengaro Health and Wellbeing Practice)

Template 1.

SECTION A

Purpose of the proposal

To introduce a new PGDipHealSc endorsement (Taha Hinengaro Health and Wellbeing Practice) to provide a new vocational studies pathway for the mental health and addictions workforce.

EXECUTIVE SUMMARY

The proposal is to add an endorsement in Taha Hinengaro Health and Wellbeing Practice to the existing Postgraduate Diploma in Health Science. The endorsement provides the opportunity for registered health practitioners and health care workers to develop the necessary knowledge and skills to effectively support people experiencing mild to moderate mental health and addiction problems in the community. The endorsement will draw on research and knowledge in the fields of Psychology, Counselling, Motivational Interviewing, Focused Acceptance and Commitment Therapy and cultural approaches to health care delivery. Multiple skills and approaches from within these fields prepare students to work in newly created roles called Health Improvement Practitioners. It will build on either undergraduate studies in Psychology or related field, or studies leading to registration in health related professions. The endorsement is 120 points.

The New Zealand Government Inquiry into Mental Health and Addiction (He Ara Oranga: report of the Government into Mental Health and Addiction) published in December 2018 identified that one in five people in New Zealand experience significant mental illness or mental distress. The Inquiry identified the need for well-being and community-based solutions, including increased access to psychological/talking therapies that can be offered by both primary care and non-governmental organisations (NGOs). Existing talking therapies need to be modified to accommodate the unique cultural needs and perspectives of Māori in Aotearoa New Zealand, Pasifika people, as well as be responsive to diverse ages, backgrounds and perspectives. Motivational Interviewing (MI), Counselling, Focused Acceptance and Commitment Therapy (FACT) and Cognitive Behaviour Therapy (CBT) talking therapies have a strong evidence of effectiveness for treating common mental health (e.g. depression and anxiety), substance misuse (e.g. alcohol and cannabis abuse). The PGDipHealSci endorsement will contribute to training additional practitioners in evidenced based interventions in order to increase access to talking therapies and thereby improve mental health and addictions outcomes for individuals and the community.

Alignment with UC strategic vision

The PGDipHealSc endorsement will enable UC to contribute to the hauora wellbeing of Canterbury residents by training existing health practitioners to increase their knowledge and skills to provide evidence based therapies to address mental health and addiction issues. By developing these courses in partnership with kaupapa Māori services, UC will further develop its commitment to training students who are biculturally competent and confident. The PGDipHealSc endorsement will increase UC's presence and impact in Christchurch by enabling UC to work with partners in the community (e.g., Pegasus Health, Pura Pura whetū) to improve hauora wellbeing of the community of Ōtautahi Christchurch and Waitaha Canterbury. The PGDipHealSc endorsement will give students the choice to complete a two year diploma via a mix of courses. For Pasifika peoples, the adoption of

'Pasifika ways' to enable Pasifika health and wellbeing is required. This is a holistic approach incorporating Pasifika languages, identity, connectedness, spirituality, nutrition, physical activity and healthy relationships. By working in partnership with Pasifika community organisations (for example Vaka Tautua), the PGDipHealSc endorsement will be tailored to incorporate these specific cultural needs.

It is anticipated that there will be 12 students enrolling in the PGDipHealSc endorsement each academic year. Financial support for health sector employees to take the PGDipHealSc endorsement is available from the NZ Ministry of Health Ministry of Health via Te Pou o te Whakaaro Nui (Mental Health, addiction and disability workforce development). Te Pou Whakaaro Nui (or Te Pou as it is commonly referred to) is a national centre of evidence based workforce development for the mental health, addiction and disability sectors in New Zealand. This funding would enable the organisations (such as CDHB, Pegasus Health, and other PHOs) to access Te Pou monies to fund their staff to complete the PGDipHealSc endorsement courses.

The programme will require staffing of 1.0FTE academic position. As existing courses are utilised this is an increase of 0.75FTE to current staffing.

Market research to date has been broad and demonstrated an interest from CDHB, Pegasus Health (mental health services) and the Waitaha PHO Primary Mental Health Manager to upskill existing staff in evidenced based MH interventions.

Programme Overview

To be awarded the endorsement students will have the option of completing a suite of courses tailored to their specific needs and practice context. The endorsement will comprise one compulsory 30 point course (HLTH430), and two compulsory 15 point courses (COUN682, SOWK612) and 60 points from five other optional 30 point courses.

This is to ensure that graduates have the required foundational knowledge, skills and cultural awareness on which they can build specific talking therapy competencies.

The psychology courses PSYC442 and PSYC443 are both part of a new proposal for a Postgraduate Certificate and Diploma in CBT that is being developed by colleagues in the School of Psychology Speech and Hearing. The integration of these courses into this new Health Sciences endorsement is supported by the Health Workforce Development group.

- **HLTH430: Motivating Behaviour Change 1 30 points**
- **COUN682: Focused acceptance and Commitment therapy 15 points (new course)**
- **SOWK612- Mana Motuhake, a Bicultural Analysis 15 points**
- HLTH431: Motivating Behaviour Change 2-30 points
- PSYC 442 Clinical Practice Guidelines and Introduction to Cognitive Behaviour Assessment- 30 points
- PSYC 443 Cognitive Behaviour Therapy Case Conceptualisation and Intervention- 30 points
- COUN 671: Counselling and Psychology: Theories and Skills-30 points
- COUN 681: Solution Focused Theory and Skills – 30 points

Proposed new regulations

2020 UC Calendar page number 345 – insert the following endorsement information into Schedule S: Subject Courses for the Postgraduate Diploma in Health Sciences

Taha Hinengaro - Health and Wellbeing Practice	HLTH430, COUN682 and SOWK612 and

	60 points from HLTH431, COUN671, COUN681, PSYC442, PSCY443 or other relevant approved courses

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Professional Master of Computer Science

Template 1.

Purpose of the proposal

This proposal is to introduce a Professional Master of Computer Science (PMCS – 180-points).

EXECUTIVE SUMMARY

The Computer Sciences have seen significant and continued demand over the last decade with high employment prospects. The Department of Computer Science and Software Engineering (CSSE) has been exploring opportunities to meet this strong growth and demand, as well as ensuring that graduates have skills and knowledge that are relevant and current to the field. This particular programme, the 180-points Professional Masters of Computer Science (PMCS), is aimed at two distinct cohorts: (a) recent graduates in Computer Science looking to acquire advanced subject knowledge in the field, but without the intention of moving into research; (b) practitioners in the field looking to upskill in a different subfield of their practice. The programme is deliberately targeted at the applied end of the spectrum, with the research work being project based. More strongly research-focussed candidates would be directed to the existing 240-points MSc in Computer Science (or just 120-points thesis-only for students entering with a suitable honour's degree) or the Doctor of Philosophy programmes.

The degree will comprise a minimum 180-points, and will build on prior study of a minimum of a three-year bachelor's degree in the computer sciences (e.g. including computer science, computer engineering, software engineering, or data science), or equivalent. The programme of study will be offered by coursework only, as a coherent collection of taught courses (120 points) and project work (60 points). The programme is structured such that students can complete the degree within one calendar year. To this end, the main part of the project will be delivered over summer.

The initial interest in the PMCS was to cater for an international market of students with computer science qualifications looking to up-skill and gain a qualification from a highly ranked reputable institution, such as ours. The IRO have indicated a strong interest particularly from the Indian subcontinent. It is difficult to know to what the implications of the COVID-19 situation will bring or when our national borders may reopen, however there still may be a strong demand when borders do open to students and we wish to be ready for this.
A second market of interest relates to a potential domestic market downturn and a desire for people to undertake up-skilling. There is very strong evidence to indicate a demand for short programmes, such as 180-point 1-year Master's, in times of economic recession [https://rogersmyth.com/going-against-the-flow-how-does-the-economic-cycle-affect-tertiary-education/]. It is unclear at this stage what effect the COVID-19 situation may have on the IT industry. Pre-COVID-19 the industry has been in extremely buoyant state

with all our graduates easily finding employment. The industry has also shown signs of being more resilient than others during the last few months with a continual search by employers for staff. If the IT market remains strong then we would not expect as much interest in the programme, and If the market weakens then we are in a position to assist.

Finally, as the general economy is expected to weaken and that we will enter a significant recession, and if the IT industry remains relatively strong, then there could be a small market of people with a background equivalent to a BSc (Computer Science) looking for up-skilling and a formal qualification in the field, for which the PMCS is perfectly placed to provide. A worst-case outcome is that this programme may see mostly a transfer of students from the PGDipSc (Computer Science) into it. This still presents an overall gain to the University of 60-points per student, or 0.5EFTS, per transfer.

The financial costing has been undertaken based on:

Yr1 - Domestic 5EFTS International 5EFTS

Yr2 - Domestic 5EFTS International 10EFTS

Yr3 - Domestic 10EFTS International 20EFTS

Programme Overview

The programme is open to students who have a BSc degree or equivalent in a relevant computing discipline, e.g. computer science, computer engineering or software engineering. Study for the degree will normally be full-time, but the Dean may approve part-time enrolment.

To complete the PMCS students require:

- Coursework component (all NZQF level-8 or higher): 120 points from COSC 401-449, COSC 462-469, COSC 471-474, SENG 401, SENG 403-499, DATA 430-439. With the approval of the Head of Department, up to 30 points may be replaced by appropriate courses from another subject. Students who consider changing into the MSc in Computer Science need to take COSC 469. The 30 points from other subjects may be taken from non-project courses in ENCE, MATH, MBIS or STAT courses at 400- or 600- level, MAOR 404, or other courses approved by the Head of Department.
- Project component: 60 points from the project course COSC680 “Computer Science Professional Project” (NZQF level-9)

Students may exit the programme early and be eligible for other qualifications:

- The PGCertSc – after completion of a minimum of 60 points of coursework.
- The PGDipSc – after completion of a minimum of 120 points of coursework.

A student at the end of the coursework, but prior to completion of the Project, may seek permission from the Dean of Science to transfer into a Master of Science in Computer Science (240-point programme). Such a student will need to have taken the research methods course COSC 469.

Besides the more traditional lecture-based courses, we will adopt an experiential learning approach for the project, where students run their project in a self-directed manner and will have to reflect on their approach.

The programme is structured such that students can complete the degree within one calendar year. To this end, the main part of the project will be delivered over summer.

The program will normally take in students for S1 (February) or S2 (July). The following table shows the pathways of the degree for these different groups of students:

	Entry in February	Entry in July
Feb/S1	60 points of COSC/SENG/Other courses	
July/S2	60 points of COSC/SENG/Other courses	60 points of COSC/SENG/Other courses
Summer	Project	Project
Feb/S1		60 points of COSC/SENG/Other courses

Proposed new regulations

UC Calendar 2020

Conferment of Qualifications Regulations

P 49: Under "College of Science" **Add**: Professional Master of Computer Science

UC Qualifications

P 65: Under "College of Science" **Add:** The degree of Professional Master of Computer Science (PMCS – 180 points)

Postgraduate Certificate in Science (PGCertSc)

P 513: Number 10 (Pathways to other qualifications) **Modify**: (a) A student who has completed the requirements for the PGCertSc with at least a B Grade Point Average in courses for the Certificate, and who has not yet graduated, may apply to the Academic Dean of Science to be admitted to the Postgraduate Diploma in Science, or the Bachelor of Science with Honors, or the Master of Science, in the same subject, **or the Professional Master of Computer Science**, provided that they meet the regulations for that degree.

Postgraduate Diploma in Science (PGDipSc),

P 522: Regulation 10

Add: (c) A student who has completed the requirements for the PGDipSc in Computer Science with at least a B Grade Point Average in courses for the Postgraduate Diploma, and who has not yet graduated, may apply to the Academic Dean of Science to be admitted to the **Professional Master of Computer Science** and have credits transferred.

Master of Science

P 539: Regulation 10

Add: (c) A student who has presented Part I of a Master of Science degree in Computer Science, but who has not submitted Part II, may apply to the Academic Dean of Science to be admitted to the **Professional Master of Computer Science** and have credits transferred.

ADD THIS SECTION:

The Degree of Professional Master of Computer Science (PMCS – 180 points)

These regulations must be read in conjunction with the General Regulations for the University.

1. Version

(a) These Regulations came into force on 1 January 2021.
(b) This degree was first offered in 2021

2. Variations

In exceptional circumstances the Academic Dean of Science may approve a personal programme of study which does not conform to these regulations.

3. The Structure of the Qualification

To qualify for the Professional Master of Computer Science a student must be credited with a minimum of 180 points towards the qualification; including

(a) 120 points from Schedule E; and
(b) 60 points from Schedule C to these regulations.

4. Admission to the Qualification

To be admitted to the Professional Master of Computer Science a student must have:

(a) satisfied the Admission Regulations for admission to the University; and
(b) qualified with a New Zealand Bachelor's degree in the field of computer science, computer engineering, software engineering or a similar field with either:
    i. a B Grade Average in 300-level courses; or
    ii. recognition of prior learning and/or experience in the field, including any qualifying programme, as approved by the Head of Department; or
    iii. been admitted with Academic Equivalent Standing and
(c) been approved as a candidate for the degree by the Academic Dean of Science.

5. Subjects

The degree will be awarded without endorsement, majors or minors.

6. Time Limits

This qualification adheres to the general regulations of the University with a time limit of 36 months.

7. Transfers of Credit, Substitutions and Cross-Credits

This qualification adheres to the General Conditions for Credit and Transfer Regulations, with no additional stipulations.

8. Progression

This qualification adheres to the general regulations to the University with the following stipulation:

A student may not fail more than 30 points in this qualification.

9. Honours, Distinction and Merit

This qualification adheres to the General Regulations for the University and may be awarded with distinction and merit.

10. Qualification exit and upgrade pathways

(a) There are no advancing qualifications for this degree.

(b) A student who has not met the requirements of the Professional Master of Computer Science may apply to the Academic Dean of Science for admission and transfer of credit to either of these programmes:
    i. Postgraduate Certificate in Science;
    ii. Postgraduate Diploma in Science; or
    iii. Master of Science with Part I completed.

Schedule E: Elective Courses for the Degree of Professional Master of Computer Science

(a) COSC 401-449, COSC 462-469, COSC 471-474
(b) SENG 401, 403-499
(c) DATA 430-439
(d) Up to 30 points from non-project courses in ENCE, MATH, MBIS or STAT at 400- or 600-level, MAOR 404, or other courses approved by the Head of Department.

A student wishing to apply for a transfer to the Master of Science in Computer Science Part 2 must take COSC 469.

Schedule C: Compulsory Course for the Degree of Professional Master of Computer Science

(a) COSC 680 – Professional Project in Computer Science

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

(Bachelor of Environmental Science with Honours and Bachelor of Environmental Science)

Template 1.

(CUAP criterion 6.1.1)

EXECUTIVE SUMMARY

Te Rāngai Pūtaiao | College of Science proposes to build on the existing strength and success of our burgeoning Environmental Science major in the BSc to create a semi-professionally accredited Bachelor of Environmental Science with Honours (BEnvSci (Hons)) degree, along with an exit qualification of a Bachelor of Environmental Science. The BEnvSci (Hons) will foster students' passion for the environment, and empower them to create a better world. This empowerment requires an interdisciplinary set of skills ranging from data collection and analysis to communication. Thus we propose a carefully designed four year qualification that will develop students' environmental knowledge and skills throughout the degree. Student learning will be reinforced with kanohi ki kanohi | face to face practical field and lab components at every level, culminating in a community and culturally-engaged project-based research experience.

The BEnvSci (Hons) will leverage existing strengths from around Te Whare Wānanga o Waitaha | University of Canterbury, from Te Rāngai Pūtaiao | College of Science and partner Colleges. To respond to environmental challenges in a rapidly changing world, our graduates will need a suite of interdisciplinary knowledge and skills. To provide these, the degree will weave together a series of research-led courses into a kete | basket of ideas and skills. Students will focus on biophysical sciences, with social science input at each year level. This scientific understanding of the environment will empower our students to make a difference in the world they are poised to inherit.

Our graduates' knowledge kete will be a strong balance between a deep grounding in one of six majors, and broader interdisciplinary understanding of the physical, biological, and social world. Students will build a foundation of knowledge and skills through core courses in the bio-physical sciences (Biology, Chemistry, Geography and Geology). As such the interdisciplinarity offered in the degree occurs primarily between the biophysical sciences, and is bolstered with social science contributions (Human Geography, Psychology) at every year level (GEOG206, PSYC341 plus modules in ENVR101 and 411). Interdisciplinarity is also built into the core ENVR courses. As such, graduates will build an understanding of Indigenous and global issues, Aotearoa New Zealand's environmental management systems, bicultural relationships, communication, and professional conduct. All of these skills and ideas in the kete will culminate, in community-and culturally engaged applications of students' integrated skill-set (in ENVR302 and 411).

Key features of the proposed Bachelors of Environmental Science with Honours degree include:

- Four year honours degree (with an exit qualification available at year three*)

- Semi-professional accreditation from the Environment Institute of Australia and New Zealand (EIANZ)
- A prescribed set of 100 level foundational courses for students entering the degree programme.
- Six choices of interdisciplinary major: Freshwater; Ecosystem Health and Biosecurity; Environmental Change; Environmental Contamination; Environmental Hazards and Disasters; and Sustainable Coasts.
- Prescribed programmes of study for each major.
- Embedded understanding of the interface between Mātauranga Māori and western scientific knowledge systems within a Ki Uta Ki Tai / Mountains to the Sea approach, including a commitment to bicultural co-designed teaching and research activities with mana whenua
- Embedded intercultural confidence and global awareness
- Embedded professional skills
- Quantitative analytical skills
- Field and laboratory-based learning
- Course options from colleges across Te Whare Wānanga o Waitaha │University of Canterbury
- A work integrated learning requirement of 400 hours

*Students who do not meet the requirements to progress from year three to year four of the qualification will be eligible for admission to a 3 year Bachelor of Environmental Science.

Environmental Science was introduced at UC in 2017 as a double major in the BSc, where it is studied as a major alongside another science subject. Three new courses ENVR101, ENVR201, and ENVR301 were developed and introduced. The ENVR major and the associated new courses have proven very popular with students. Enrolments increased from 66 in the 2017 intake of ENVR101, to 176 at 3 June 2020 (Table 1).

Table 1: Enrolments in UC Undergraduate Environmental Science Courses

Course code	2017	2018	2019	2020
ENVR101	66	145	174	176*
ENVR201		34	89	91*
ENVR301			35	64

*Semester 2 course enrolments as of 3/06/20

The proposed new degree will strengthen the Environmental Science programme at UC by building on UC's already considerable strength in teaching and research within environmental science.

Establishing a BEnvSci (Hons) degree is one of the College of Science's strategic goals for 2020. The proposed qualification has several strengths, including:

1. This would be the first EIANZ accredited degree in New Zealand, enhancing both the employability of BEnvSci (Hons) graduates and the attractiveness of the degree to incoming students.

2. UC would be the first university in NZ to offer a Bachelor of Environmental Science with Honours degree, making the programme distinct and marketable

3. The Bachelor of Environmental Science (Hons) would have a distinct biophysical and interdisciplinary identity, building on UC's current success with named specialist undergraduate degrees (e.g. Product Design, Criminal Justice, and Forestry Science)

4. As a specific named degree, core content can be specified without breaching the more flexible BSc regulations. For example, the proposed qualification allows for compulsory courses in Biology, Chemistry, and Earth Science courses at first year.

5. Students would graduate with a four year honours degree, which is the minimum qualification identified by employers for entering a career in Environmental Science.

6. The degree will be attractive to international students due to its content and the accreditation.

7. It progresses UC's commitment to valuing Māori identities and knowledge, and to kaitiakitanga. The proposed degree will produce graduates who can fill the national and global need for bicultural competence and understanding of Indigenous issues in the environmental science profession. The degree aligns with Tangata Tū, Tangata Ora (University of Canterbury's Strategic Vision 2020-2030), and in particular will deliver on the teaching and community engagement objectives. The degree programme has been designed to address the Rautaki Whakawhanake Kaupapa Māori | Strategy for Māori Development, UC's Bicultural Competence and Confidence Framework (BiCC) and UC's Pasifika Strategy 2019-23.

Te Whare Wānanga o Waitaha | University of Canterbury is well placed to offer a strong Environmental Science ki uta ki tai|mountains to the sea programme due to our physical location, partnership with Ngāi Tuāhuriri, excellent teaching and research facilities, and field stations. Waitaha|Canterbury has diverse environments, including urban, rural and conservation land, making it the ideal setting to study environmental science. Our strong research links with Crown Research Institutes including AgResearch, ESR, Manaaki Whenua |Landcare Research, and NIWA strengthen research-led teaching. UC is also uniquely placed to offer an Environmental Science programme that ensures the relevance of, and responsiveness to, te Tiriti o Waitangi | Treaty of Waitangi and its principles are recognised and reflected. Fundamental to this is the partnership between agreement between Ngāi Tūāhuriri and UC, which will guide collaboration and drive outcomes to support the partnership through this degree.

Market research and existing enrolments predict the number of enrolments in the BEnvSci (Hons) would be 100 per year, thus building to an overall programme cohort of around 400 students by the fourth year of offering. There is strong support for the proposed degree from current students, employers, school science teachers, and career advisors. Students surveyed liked the more specialised nature of the degree. Employers supported the semi-professional nature of the degree and the ability for students to develop in-depth understanding in a particular area of environmental science. The strong grounding in core bio-physical sciences and analytical skills at 100 level, the 30 point projects, work integrated learning, and applied skills also had strong appeal for employers.

Three additional academic staff are required to bring in the expertise required to underpin a broad Environmental Science programme as well as to enhance teaching capacity. It is envisaged that at least one of the new academics would be able to lead or provide guidance in Mātauranga Māori and Kaupapa Māori. The introduction of these new staff will be staggered starting in 2021. A 1.0 FTE technician is required to support the field component of the degree and an additional 0.5 FTE for administrative support is required.

Programme Overview

Students enrolling in the first year of the Bachelor of Environmental Science with Honours will have met the University of Canterbury's requirements for university entrance and will have completed science subjects in NCEA level 3.

The proposed degree is a four year 480 point degree with common majoring core content at each level. The first year consists of 6 prescribed courses to ensure a thorough grounding in bio-physical sciences and analytical skills. From second year onwards the students will select one of six inter-disciplinary majors. At 300 level students will complete a group project in ENVR302 that will enable them to develop skills in research and community engagement as well as further their teamwork skills. Students will complete an honours research project at 400 level. Graduating students will have completed a work integrated component of 400 hours as requirement for gaining accreditation for completing the degree. The requirements for this will be developed in consultation with the Environmental Science Advisory Board and the accrediting body EIANZ.

The courses in the majoring core of the BEnvSci(Hons) are shown in Table 2. This core interdisciplinary content encompasses key environmental science concepts, physical earth processes, environmental change, environmental quality, ecology and conservation, data analysis, ecology and conservation, environmental decision making (resource management, and environmental psychology), environmental ethics, risk assessment and communication, and statistics. Key skills embedded across the programme are bicultural competence, community engagement, professional skills, fieldwork, quantitative skills and the ability to work in teams.

Table 2: Core courses required for the Bachelor of Environmental Science with Honours with the graduate profiles mapped.

Level	Core courses	BENvSci(Hons) Graduate Profile*
100	• ENVR101 Introduction to Environmental Science	1, 2, 5, 9, 10, 11
	• BIOL112 Ecology, Evolution and Conservation	1, 5, 9
	• STAT101 Statistics 1	2, 5, 9
	• CHEM114/CHEM111 Foundations of Chemistry/ Chemical Principles and Processes	1,5,9
	• SCIE101 Science, Society and Me	
	• GEOG106 Global Environmental Change	4, 9, 10, 11
		1, 4, 5, 9, 10, 11
200	• ENVR201 Environmental Science and Practice	1, 2, 5, 6, 8, 9, 10, 11
	• GEOG206 Resource and Environmental Management	4, 5, 9
	• BIOL274 Principles of Ecology	1, 4, 5, 9
	• ONE of following data analysis courses BIOL209 Biological Data Analysis GEOG205 Introduction to GIS and Science GEOG208 Remote Sensing for Geospatial Analysis	2, 5, 7, 9
300	• ENVR301 Environmental Science: Cities and Coasts	1, 2, 5, 9, 11
	• ENVR302 Professional and project skills in Environmental Science	1, 2, 4, 5, 6, 7, 8, 9, 10

	• PSYC341 Environmental Psychology	4, 5, 9, 11
400	• ENVR411 Case studies in Environmental Science • ENVR415 Assessing and communicating environmental effects and risks • ENVR480 Honours project	1, 2, 4, 5, 6, 7, 9, 10, 11 1, 2, 5 , 9, 10,11 1, 2, 3, 5, 7, 9, 10, 11

*****Graduate profile 3 is addressed through the majors

The interdisciplinary majors enable students to follow their interests and identify clear career pathways. Students will be encouraged to determine their own learning pathway based on the majors and the elective courses. Advice as to appropriate choices of electives will be provided throughout the degree. A description for each major and the courses contained within it are presented below

Ecosystem Health and Biosecurity Major

Ecosystems are dynamic ecological entities that provide a variety of goods and services upon which people depend. These include the provision of nutrient cycling, primary production and food production, soil formation, habitat provision, pollination, clean air, extreme weather mitigation, and human mental and physical well-being. Ecosystem condition can vary as a result of human activities that influence disturbance regimes (fire, flooding, drought), biodiversity and biosecurity, climate change, and exploitation of ecological resources. Ecosystem health is a concept that integrates an understanding of ecological principles and environmental conditions with the impacts of anthropogenic activities. Graduates of the BEnvSci(Hons) Ecosystem Health major will develop a deep understanding of ecological principles and a range of lab and field skills that will enable them to contribute to the sustainable use and management of natural resources.

After the completion of this degree, students will be able to:

- Apply the main concepts in population, community and ecosystem ecology to appropriate local and global situations.
- Understand the problems affecting ecosystems locally and globally, and be able to discuss how ecological knowledge can be applied to achieve solutions.
- Develop and implement field sampling protocols, undertake data analysis and interpretation of findings, and present findings in written form.
- Develop the skills required to engage with mana whenua partners and other stakeholders in working towards agreed desirable outcomes.

Environmental Change Major

Earth is changing rapidly. In less than one human life-time average global temperatures have increased by 1℃, global ice loss has been described as 'unprecedented', and numerous ecosystems have become degraded. In order to help repair Earth, Environmental Scientists need to first understand how key Earth systems operate, and identify important interactions and feedbacks between these systems. Graduates of the 'Bachelor of Environmental Science Environmental Change' will develop a diverse 'toolbox' of skills that will enable them to help tackle a range of environmental issues. They will possess a strong foundation in Earth system science and also understand the importance of human activities on our environment.

After the completion of this degree, students will be able to:

- Describe the science underlying a range of environmental change issues, and provide sound options for environmental mitigation and management.
- Utilise a range of observational data to calculate rates of environmental change including uncertainty analysis.

- Work with key global and/or regional system models to predict future change
- Develop the skills required to engage with mana whenua partners and other stakeholders in working towards agreed desirable outcomes.

Environmental Contamination Major

Globally environmental contamination is threatening ecosystems and human health. Understanding and management of environmental contamination is crucial for delivering on the United Nations Sustainable development goals. There is a growing demand for skilled professionals who can work with mana whenua, communities, industry and governments to determine the extent of and mitigate the impacts of environmental contamination. This major explores chemical and biological (e.g. microbial) contaminants and their impacts on the environment.

After the completion of this degree, students will:

- Understand the sources and drivers of environmental contamination.
- Have developed the skillset required for assessing chemical and biological contaminants in the environment.
- Understand the flux of contaminants and critical exposure pathways.
- Have knowledge of potential prevention, mitigation, and remediation strategies for environmental contamination.
- Possess the skills required to engage with mana whenua partners and other stakeholders in working towards agreed desirable outcomes.

Environmental Hazards and Disasters Major

This major allows environmentally passionate students to develop their interest in reducing the negative impacts that result when natural hazard events trigger disasters. It builds on the general environmental systems background provided by core degree papers to develop capability in earth and social sciences, building understanding of socio-ecological systems, and the conditions that give rise to disasters. Graduates will be in a strong position to consider and assess ways in which society can adapt to avoid or mitigate anticipated hazard impacts. This major provides an ideal pathway to professional qualification in Disaster Risk and Resilience (e.g. MDRR), which is a rapidly-developing focus in NZ and globally.

After the completion of this degree, students should:

- Demonstrate ability to collect data and access required information (social science, earth system science, policy/legal/institutional) relevant to an actual or potential hazard or disaster situation.
- Demonstrate ability to understand, process and analyse this information in the relevant context.
- Demonstrate ability to synthesise a range of potential adaptation or mitigation options.
- Demonstrate understanding of the need to communicate relevant information to the full range of stakeholders (communities, officials, scientists) both orally and in writing.
- Have developed the skills required to engage with mana whenua partners and other stakeholders in working towards agreed desirable outcomes.

Freshwater Major

Water covers around 70% of Earth's surface, with less than 3% of this being freshwater and only 0.3% easily accessible for human use. Global population growth, development and associated resource exploitation is threatening freshwater and coastal systems, and placing people and infrastructure at risk of water related hazards. To secure a sustainable future, Environmental Scientists require understanding of how water cycles around our planet, the myriad of life it supports, and key threats to freshwater and coastal environments.

This major provides students with a strong grounding in earth system science and appreciation of "ki uta ki tai | mountains to the sea" approaches to water challenges. Graduates will have developed an ability to think holistically about water management, and possess a range of skills that will enable them to contribute to the sustainable management of freshwater resources and ecosystems. This major provides an ideal pathway to a professional qualification in Water Resources Management (e.g. MWRM) as offered through the Waterways Centre for Freshwater Management.

After the completion of this degree, students will:

- Understand and explain global water resources from environmental and societal perspectives, including the global hydrological cycle, key feedbacks and tipping points, and implications of climatic and environmental change.
- Collect and analyse hydrological data in order to calculate key hydrological parameters at the catchment scale and describe how human activities can influence catchment hydrology
- Identify and describe threats to the sustainability of freshwater systems from the mountains to the sea, with specialist scientific knowledge and investigation skills in selected mountain, catchment, river and/or coastal environments.
- Develop the skills required to engage with mana whenua partners and other stakeholders in working towards agreed desirable outcomes.

Sustainable Coasts Major

More than half the world's population lives in coastal zones, with many nations depending on ocean resources to sustain life and underpin their economy. Meanwhile 95% of Earth's coastal oceans are overfished, sea levels are rising at increasing rates, storm cycles are changing, flooding is the number one natural hazard affecting human settlement, and some seas now contain more plastic than living organisms. The island nation of Aotearoa New Zealand provides an ideal laboratory for environmental scientists to investigate and learn how to live sustainably as a part of coastal and marine environments. Graduates of this major will have a strong grounding in Earth and ecosystem science as it applies to coastal, marine and connected urban and river environments. They will have developed an ability to think holistically about the sustainable use and management of coastal and marine resources, and possess a range of skills that will enable them to contribute to a future where people thrive alongside, and as a part of, blue edge environments.

After the completion of this degree, students will:

- understand coastal and marine environments as complex, bio-physical systems;
- have an awareness of human impacts on coastal and marine environments and vice versa;
- be able to identify and describe threats to the sustainability of coastal and marine ecosystems;
- be familiar with a range of resource use and hazard mitigation solutions to living with coastal and marine environments; and
- have gained experience in analysing, interpreting and solving complex 'blue edge' interface environment problems.
- have developed the skills required to engage with mana whenua partners and other stakeholders in working towards agreed desirable outcomes.

Work-integrated component

Graduating students will have completed a work-integrated component of 400 hours as a requirement for gaining accreditation for completing the degree. The work-integrated component will be administered

through ENVR200 (a new 'zero point' course, modelled on the existing UC Engineering work-integrated learning course). ENVR200 will be developed in consultation with the Environmental Science Advisory Board and the accrediting body EIANZ. It is envisaged that the students would complete the work-integrated component in between 200 and 300 level and 300 and 400 level through internships and summer studentships.

Progression and Exit pathways

To progress to the fourth year of the BEnvSci(Hons), students are required to achieve a B grade average in ENVR301 and ENVR302 and to have completed all required 300 level courses.

Students may choose to transfer to a BSc after the completion of the 100 level BEnvSci(Hons) courses. For students who choose or are unable to complete the four year degree, the exit qualification at 300 level will be a Bachelor of Environmental Science (with admission at the discretion of the Academic Dean of Science).

Employment pathways

Areas in which BEnvSci(Hons) graduates are likely to find employment include local and regional government, environmental consultancies, local and international non-governmental organisations, Māori organisations, central government agencies (Ministry for the Environment, Ministry for Business Innovation and Employment, Department of Conservation, Ministry for Primary Industries), Crown Research Institutes and environmental non-governmental organisations in New Zealand. Graduates of the current Environmental Science major in the BSc have been employed by, amongst others Environment Canterbury in water quality and consent planning, Selwyn District Council in consent planning, and environmental consulting.

Graduate pathways

Students completing the BEnvSci (Hons) would be eligible to complete a Master of Science by thesis in Biology, Disaster Risk and Resilience, Environmental Science, and Water Resource Management. They may also choose to enrol in one of the following 180 point Masters programmes:

Master of Antarctic Science, Master of Applied Data Science, Master of Disaster Risk and Resilience, Master of Policy and Governance, Master of Teaching and Learning, Master of Strategic Communication and Graduate Diploma in Journalism

Students graduating with a BEnvSci (Hons) will also be eligible to continue to a PhD in Environmental Science.

Bachelor of Environmental Science with Honours (BEnvSci(Hons) – 480 Points)

These regulations must be read in conjunction with the General Regulations for the University.

1. Version

(a) These Regulations came into force on 1 January 2021.
(b) This degree was first offered in 2021.

2. Variations

In exceptional circumstances the Academic Dean of Science may approve a personal programme of study which does not conform to these regulations.

3. The Structure of the Qualification

To qualify for the Bachelor of Environmental Science with Honours a student must be credited with a minimum of 480 points towards the qualification including;

(a) a minimum of 270 points from Schedule C to these regulations; and
(b) a minimum of 135 points in a single major from Schedule S to these regulations; and
(c) all remaining courses to be chosen from Schedule E to these regulations including

(i) a minimum of 30 points from Group 1;
(ii) all remaining points must come from Group 2; and

(d) must complete ENVR200 Environmental Science Work Experience

4. Admission to the Qualification

All students must satisfy the Admission Regulations for the University to be admitted to this qualification.

5. Subjects

The subjects for the degree are listed in Schedule S to these Regulations.

6. Time Limits

The time limit for this qualification is 8 years.

7. Transfers of Credit, Substitutions and Cross-Credits

This qualification adheres to the General Conditions for Credit and Transfer Regulations, with no additional stipulations.

8. Progression

This qualification adheres to the General Regulations for the University, with the following stipulation(s):

(a) A student is not permitted to enrol in any 400 level courses prior to completion of 360 points of course work at 100, 200 and 300 level, including all courses for Schedule C, the major in Schedule S and from Schedule E; and

(b) pass ENVR301 and ENVR302 with at least a B Grade Point average.

(c) A student who has failed at least 30 points at 400-level, must apply to the Academic Dean of Science to repeat the failed course(s) or to substitute other courses in their place.

9. Honours, Distinction and Merit

This qualification adheres to the General Regulations for the University and may be awarded with Honours, with the following stipulations:

(a) The BEnvSci(Hons) may be awarded with First, Second, or Third Class Honours. Second Class Honours will be listed as Division I or Division II.

(b) Honours are calculated on the basis of achievement in the 400-level courses for the degree. Only the grade for the first attempt at a course will be considered in the calculation.

(c) To be eligible for Honours a student must:

(i) complete all courses for the BEnvSci(Hons) in no more than 8 years of study; and

(ii) ii. Complete the 300-level and 400-level courses for the BEnvSci(Hons) within four years of their first enrolment in any 300-level course for the degree.

10. Upgrade and Exit Pathways to Other Qualifications

(a) The Academic Dean of Science may permit a student to graduate with the Bachelor of Environmental Science under the following circumstances:

(i) The student is not eligible to enrol in 400-level courses.

(ii) The student exceeds the time limit.

(iii) The student is unable to complete the Honours degree due to extenuating circumstances.

(b) A student who has not met the requirements for the Bachelor of Environmental Science with Honours or who wishes to transfer to the Bachelor of Science may apply to the Academic Dean of Science for admission.

(c) A student who has not met the requirements for the Bachelor of Environmental Science with Honours may apply to the Academic Dean of Science to graduate with a Certificate of Science.

(d) A student with an incomplete Bachelor of Science may apply to the Academic Dean of Science for admission to the BEnvSci(Hons).

(e) There are no upgrades for this qualification.

Schedule C: Compulsory Courses for the Degree of Bachelor of Environmental Science with Honours

The following outlines the Core requirements:

100-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
SCIE101	Science Society and Me	15	S2	Campus	
ENVR101	Introduction to Environmental Science	15	S2		
STAT101	Statistics 1	15	S1, S2, SU2		R: STAT111, STAT112, DIGI103 EQ: STAT111, STAT112, DIGI103
BIOL112	Ecology, Evolution and Conservation	15	S2		
GEOG106	Global Environmental Change	15	S2		R: GEOG103

And 15 points selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
CHEM114	Foundations of Chemistry	15	S1		R: (1) NCEA: 14 credits NCEA Level 3 Chemistry, or (2) CIE: at least D grade in CIE AL Chemistry or A grade in CIE ASL Chemistry, or (3) IB: at least Grade 4 in IB HL Chemistry or Grade 6 in IB SL Chemistry, or (4) at least B Grade in BRDG 022 or BRDG023. Students who have been credited with any of CHEM111, CHEM112 or BCHM112 cannot subsequently be credited with CHEM114. Concurrent enrolment in CHEM114 and CHEM111 is not permitted.
CHEM111	Chemical Principles and Processes	15	S1, S2		P: (1) NCEA: at least 14 credits NCEA Level 3 Chemistry, or (2) CIE: at least D grade in CIE AL Chemistry or A grade in CIE ASL Chemistry, or (3) IB: at least Grade 4 in IB HL Chemistry or Grade 6 in IB SL Chemistry, or (4) CHEM114, or at least B Grade in BRDG023.

200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
ENVR201	Environmental Science and Practice	15	S2		P: ENVR101
GEOG206	Resource and Environmental Management	15	S2		P: Any 30 points of 100 level geography, or GEOG106 and ENVR101, or entry with approval of the Head of Department.
BIOL274	Principles of Ecology	15	S1		P: BIOL112 R: BIOL270

And one course selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL209	Biological Data Analysis	15	S1		P: STAT101 or 15 points of 100 level MATH
GEOG205	Introduction to Geographic Information Systems and Science	15	S1		P: 45 points at 100-level or above, from any degree schedule. R: DIGI205 and GISC422
GEOG208	Remote Sensing for Geospatial Analysis	15	S2		P: Any 30 points of 100-level Science, Engineering or Commerce R: GEOG313

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
ENVR301	Environmental Science: Cities and Coasts	15	S1		P: ENVR201
ENVR302	Professional and field skills for Environmental Scientists	30	S2		P: HOD approval
PSYC341	Environmental Psychology	15	S2		P: PSYC206, OR 30 points of 100-level Psychology PLUS 15 points of relevant advanced courses approved by the Head of Department. RP: Any of BIOL112, GEOG106, GEOG107, GEOG108 RP: Any of BIOL112, GEOG106, GEOG107, GEOG108

400-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
ENVR415	Assessing and communicating Environmental Effects and Risks	15	S1		P: Subject to approval of the Head of Department.

ENVR411	Case Studies in Environmental Science	15	S2		P: Subject to approval of the Head of Department.
ENVR480	Research Project	30	W		P: Subject to approval of the Head of Department.

Schedule S: Majors for the Degree of Bachelor of Environmental Science with Honours

Note: The following information outlines the requirement for the individual majors. These requirements are in addition to Schedule C: Compulsory Courses

Ecosystem Health and Biosecurity

200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL275	Field Ecology	15	S1		C: BIOL274 R: BIOL270
BIOL273	New Zealand Biodiversity and Biosecurity	15	S2		P: BIOL112 or BIOL113 R: BIOL114
BIOS201	Issues in New Zealand Biosecurity	15	S2		P: 60 points at 100-level R: BIOS101

And one course selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL213	Microbiology	15	S2		P: BIOL111. RP: BIOL231/BCHM202 RP: BIOL231/BCHM202
GEOG201	Environmental Processes: Principles and Applications	15	S1		P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG201 prior to 2009.
SOIL203	Soil Fertility	15	S2		P: 30 points from CHEM, GEOL, BIOL, or by approval Chair Forestry Board of Studies R: SOIL201
WATR201	Freshwater Resources	15	S2		P: Any 75 points at 100 level

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL309	Experimental Design and Data Analysis for Biologists	15	S2		P: BIOL209

And 30 points selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL332	Genetics, Evolution and Ecology of	15	S2		P: BIOL215 or BIOL271

	Invasive Species				
BIOL336	Ecological and Evolutionary Models	15	S1		P: BIOL209 or 15 Points of 200-level COSC or DATA or EMTH or ENCE or PHYS or MATH or STAT
BIOL371	Evolutionary Ecology	15	S1		P: BIOL271
BIOL375	Freshwater Ecosystems	15	S2		P: BIOL270 and BIOL209
BIOL377	Global change and Biosecurity	15	S1		P: BIOL209 and BIOL270
BIOL378	Population Ecology and Conservation	15	S1		P: BIOL209 and BIOL270
BIOL384	Marine Ecosystems	15	S2		P: (1) BIOL270 and (2) BIOL209. RP: BIOL212 R: BIOL374 RP: BIOL212

400-level
A minimum of 30 points from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL420	Terrestrial Ecology	15	S2		P: Subject to approval of the Head of School. RP: BIOL378 Population Ecology and Conservation R: BIOL478 RP: BIOL378
BIOL423	Evolutionary Ecology	15	S2		P: Subject to approval of the Head of School. R: BIOL478
BIOL424	Community Ecology	15	S2		P: Subject to approval of the Head of School. R: BIOL471
BIOL425	Freshwater Ecology	15	S1		P: Subject to approval of the Head of School. R: BIOL472
BIOL426	Conservation Biology	15	S2		P: Subject to approval of the Head of School. R: BIOL474
BIOL427	Global Change Biology	15	S1		P: Subject to approval of the Head of School. R: BIOL479
BIOL428	Marine Biology and Ecology	15	S1		P: BIOL270 or BIOL250 R: BIOL473
FORE447	Environmental Forestry	30	S2		P: Subject to approval to the Chair, Forestry Board of Studies

					R: FORE444, FORE445, BIOL379

Environmental Change

100-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
ANTA102	Antarctica: The Cold Continent	15	S1		

200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
ANTA201	Antarctica and Global Change	15	S2		P: 30 points from 100-level Antarctic Studies, Biology, Geography or Geology courses
BIOL273	New Zealand Biodiversity and Biosecurity	15	S2		P: BIOL112 or BIOL113 R: BIOL114

And one of:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG201	Environmental Processes: Principles and Applications	15	S1		P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG201 prior to 2009.
GEOG215	Environmental Hazards and Disasters	15	S2		P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG305

300-level

45 points selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL377	Global Change and Biosecurity	15	S1		P: BIOL209 and BIOL270
GEOG311	Coastal Studies	15	S1		P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.
GEOG312	Snow, Ice and Climate	15	S2		P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.
PHYS330	Environmental and Climate Modelling	15	S2		P: (COSC121 or EMTH171 or BIOL209) AND (PHYS285 or ENVR201 or GEOG201)

					R: PHYS430

400-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL427	Global Change Biology	15	S1		P: Subject to approval of the Head of School. R: BIOL479
GEOG412	Alpine and Polar Environments	30	S2		P: Entry subject to approval of the Head of Department. R: GEOG408 and GEOG410

Environmental Contamination

100-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL111	Cellular Biology and Biochemistry	15	S1		R: ENCH281 and BCHM111 EQ: BCHM111

200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL213	Microbiology	15	S2		P: BIOL111. RP: BIOL231/BCHM202 RP: BIOL231/BCHM202
CHEM247	Analytical Chemistry	15	S1		P: CHEM111 or CHEM112 (BCHM112)

And one of:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG201	Environmental Processes: Principles and Applications	15	S1		P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG201 prior to 2009.
HLTH214	Environmental and Occupational Health	15	S2		P: Any 60 points at 100 level from any subject, or any 30 points at 100 level from HLTH or SPCO, or any 15 points at 100 level from HLTH.
SOIL203	Soil Fertility	15	S2		P: 30 points from CHEM, GEOL, BIOL, or by approval Chair Forestry Board of Studies R: SOIL201
WATR201	Freshwater Resources	15	S2		P: Any 75 points at 100 level

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
ENVR303	Environmental Toxicology	15	S1		P: BIOL274 and CHEM247

And 30 points selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ

BIOL313	Advanced Microbiology	15	S2		P: BIOL213
BIOL309	Experimental Design and Data Analysis for Biologists	15	S2		P: BIOL209
CHEM340	Environmental Chemistry and Toxicology	15	S1		P: 30 points from CHEM281; BCHM281; CHEM211; CHEM255; WATR201 R: CHEM324
PHYS330	Environmental and Climate Modelling	15	S2		P: (COSC121 or EMTH171 or BIOL209) AND (PHYS285 or ENVR201 or GEOG201) R: PHYS430

400-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
WATR402	Water Quality and Quantity Assessment	15	S2		P: (1) Entry is subject to approval by the Programme Director (2) BSc, BE, BEMP (LU) or equivalent qualification or experience in a field of relevance in water resource management

And a minimum of 30 points selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL455	Applied Molecular Microbiology	15	S1		P: Subject to approval of the Head of School. RP: BIOL313, BIOL333, BCHM301/BCHM331 R: BIOL493
ENVR414	Current Issues in Environmental Chemistry	15	S2		P: CHEM324 or ENCN281 or equivalent study
WATR401	Advanced Water Resources	15	S1		P: (1) Entry is subject to approval by the Programme Director (2)BSc, BE(Hons), BEMP (LU) or equivalent qualification or experience in a field of relevance in water resource management
WATR403	Water Management, Policy and Planning	15	S2		P: (1) Entry is subject to approval by the Programme Director, (2) BSc, BE, BEMP(LU) or equivalent qualification or experience in a field of relevance in water resource management.

Environmental Hazards and Disasters

100-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOL113	GeoHazards	15	S2		

200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG215	Environmental Hazards and Disasters	15	S2		P: 30 points of Geography or Geological Sciences at 100 level; or 30 points from Science, Arts, Commerce, or Engineering. R: GEOG305
GEOL246	Earth Surface Dynamics	15	S2		P: 30 points from GEOL, MATH, EMTH, BIOL, CHEM, PHYS at 100 level, GEOG106, ENVR101. RP: GEOL111; GEOL113; GEOG109; 100-level maths
COMS232	Risk and Crisis Communication	15	S2		P: 15 points at 100-level in COMS. Students without this prerequisite but with at least a B average in 60 points of relevant courses, may enter the course with the approval of the Department Co-ordinator or the Undergraduate Co-ordinator for COMS.

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG351	Rethinking Development	15	S2		P: Any 30 points of 200 level Geography, or approval of the Head of Department. R: GEOG212
GEOL354	Geodynamics and Geohazards	15	S1		P: Any 45 points at 200 level from GEOL.

And 15 points selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG323	Geospatial Analysis in the Social and Environmental Sciences	15	S1		P: 30 points of 200-level Geography, including GEOG205, or in special cases with approval of the Head of Department.
GEOG324	Web GIS and Geoinformatics	15	S2		P: 30 points of 200-level Geography, including GEOG205, or in special cases with approval of the Head of Department. RP: COSC121, or equivalent introductory programming course.

GEOG325	Health, Wellbeing and the Environment	15	S2		P: 30 points of Geography at 200 level; or 30 points from Science, Arts or Health Sciences. R: GEOG322

400-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
DRRE401	Introduction to Disaster Risk and Resilience	15	S1		P: Subject to approval of the Programme Director R: HAZM401
DRRE402	Natural Hazard Risk Assessment	15	S1		P: Subject to approval of the Programme Director R: HAZM410, ENCI601 RP: 100-level statistics

And one course selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG404	Resource and Environmental (REM) Management in New Zealand	30	S2		P: Entry subject to approval of the Head of Department. R: GEOG444
HLTH403	Environmental Health	30	S2		

Freshwater
200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
WATR201	Freshwater Resources	15	S2		P: Any 75 points at 100 level
GEOG201	Environmental Processes: Principles and Applications	15	S1		P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG201 prior to 2009.

And 15 points selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
CHEM247	Analytical Chemistry	15	S1		CHEM111 or CHEM112 (BCHM112)
BIOL213	Microbiology	15	S2		P: BIOL111. RP: BIOL231/BCHM202

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
WATR301	Water Resource Management		S1		P: 45 points at 200 level in any subject area.

And 30 points selected from

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ

BIOL375	Freshwater Ecosystems	15	S2		P: BIOL270 and BIOL209
GEOG311	Coastal Studies	15	S1		P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.
GEOG312	Snow, Ice and Climate	15	S2		P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.
CHEM340	Environmental Chemistry and Toxicology	15	S1		P: 30 points from CHEM281; BCHM281; CHEM211; CHEM255; WATR201 R: CHEM324

400-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
WATR402	Water Quality and Quantity Assessment	15	S2		P: (1) Entry is subject to approval by the Programme Director (2) BSc, BE, BEMP (LU) or equivalent qualification or experience in a field of relevance in

And 15 points selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
WATR401	Advanced Water Resources	15	S1		P: (1) Entry is subject to approval by the Programme Director (2)BSc, BE(Hons), BEMP (LU) or equivalent qualification or experience in a field of relevance in water resource management
WATR403	Water Management, Policy and Planning	15	S2		P: (1) Entry is subject to approval by the Programme Director, (2) BSc, BE, BEMP(LU) or equivalent qualification or experience in a field of relevance in water resource management.

And one course selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL425	Freshwater Ecology	15	S1		P: Subject to approval of the Head of School. R: BIOL472
ENGE414	Applied Hydrology	15	S1		P: (1) MATH101 or MATH102 or MATH103 and (2) approval from the Head of

					Department of Geological Sciences R: ENGE478
GEOG409	Coasts and Rivers	30	S1		P: Entry subject to approval of the Head of Department. R: GEOG437
GEOG412	Alpine and Polar Environments	30	S2		P: Entry subject to approval of the Head of Department. R: GEOG408 and GEOG410
ENVR414	Current Issues in Environmental Chemistry	15	S2		P: CHEM324 or ENCN281 or equivalent study

Sustainable Coasts
200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL212	Marine Biology and Ecology	15	S1		P: BIOL112 and BIOL113
GEOG201	Environmental Processes: Principles and Applications	15	S1		P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG201 prior to 2009.
GEOG215	Environmental Hazards and Disasters	15	S2		P: 30 points of Geography or Geological Sciences at 100 level; or 30 points from Science, Arts, Commerce, or Engineering. R: GEOG305
BIOL275	Field Ecology	15	S1		C: BIOL274 R: BIOL270

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL384	Marine Ecosystems	15	S2		P: (1) BIOL270 and (2) BIOL209. RP: BIOL212 R: BIOL374
GEOG311	Coastal Studies	15	S1		P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.

And 15 points selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL309	Experimental Design and Data Analysis for Biologists	15	S2		P: BIOL209
BIOL377	Global change and Biosecurity	15	S1		P: BIOL209 and BIOL270

BIOL378	Population Ecology and Conservation	15	S1		P: BIOL209 and BIOL270
GEOG323	Geospatial Analysis in the Social and Environmental Sciences	15	S1		P: 30 points of 200-level Geography, including GEOG205, or in special cases with approval of the Head of Department.
GEOG324	Web GIS and Geoinformatics	15	S2		P: 30 points of 200-level Geography, including GEOG205, or in special cases with approval of the Head of Department. RP: COSC121, or equivalent introductory programming course.

400-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG409	Coasts and Rivers	30	S1		P: Entry subject to approval of the Head of Department. R: GEOG437
BIOL428	Marine Biology and Ecology	15	S1		P: BIOL270 or BIOL250 R: BIOL473

Schedule E: Elective Courses for the Degree of Bachelor of Environmental Science with Honours

Students must include a minimum 30 points from Schedule E; Group 1

Group 1

Any Language courses (CHIN, CLAS, FREN, GRMN, JAPA, RUSS, SPAN, TREO) from Schedule V to the Bachelor of Arts degree.

100 level

COMS101 Media and Society
COMS104 Introduction to Strategic Communication
ECON104 Micro Economics
ECON105 Introduction to Macroeconomics
FORE111 Trees, Forests and the Environment
FORE131 Trees in the Landscape
HLTH110 Epidemiology
HLTH111 Global Health
MAOR108 Aotearoa: Introduction to New Zealand Treaty Society
MAOR172 Science, Maori and Indigenous Knowledge
PHIL110 Science: Good, Bad, Bogus
PHIL138 Logical and Critical Thinking
POLS103 Introduction to New Zealand Politics
SPCO126 Land Journeys and Ethics

200 level

ANTH213/313 Environment, Development and Disaster
COMS232 Risk and Crisis Communication
ECON225 Environmental Economics
HLTH214 Environmental and Occupational Health
MAOR212 Maori and Indigenous Development
MAOR219 Te Tiriti: The Treaty of Waitangi
MGMT230 Business, Society and the Environment
PHIL203 Dinosaurs, Quarks and Quasars: The Philosophy of Science
PHIL240 Bioethics: Life, Death, and Medicine
PHIL249 Environmental Ethics
POLS216 City Politics and Urban Policy
SOCI220 Environment and Society

300 level
ACCT340 Social and Environmental Reporting
LAWS327 International Environmental Law
LAWS356 Special Topic: Selected Topics in Natural Resource Law
LAWS364 Law of the Sea.
MGMT335 Business Sustainability
POLS304 Environmental Politics and Policy
SOCI355 Sociology of the City

400/600 level
ENNR423 Sustainable Energy Systems
FORE443 Biosecurity Risk Management
FORE447 Environmental Forestry
HLTH403 Environmental Health
POLS440 Principles and Practice of Policy and Governance
POLS443 Science, Technology and Environmental Policy

Group 2:
Any ANTA, BIOL, BCHM, CHEM, GEOG, GEOL, MATH, PSYC, STAT and WATR courses from Schedule V to the Bachelor of Science and Schedule S to the Bachelor of Science with Honours degrees.

100 level
ASTR109 The Cosmos: Birth and Evolution
ASTR112 Astrophysics
COSC121 Introduction to Computer Programming
PHYS101 Engineering Physics A: Mechanics, Waves, Electromagnetism and Thermal Physics
PHYS102 Engineering Physics B: Modern Physics and Electromagnetism (2)
PHYS111 Introductory Physics for Physical Sciences and Engineering

200 level
DATA201 Data Wrangling
SOIL203 Soil Fertility

400 level

DATA416 Contemporary Issues in Data Science

DATA417 The Trustworthy Data Scientist

DATA422 Data Wrangling for Data Science

DRRE401 Introduction to Disaster Risk and Resilience

DRRE402 Natural Hazard Risk Assessment

ENGE414 Applied Hydrogeology

Bachelor of Environmental Science (BEnvSci - 360 points)

These regulations must be read in conjunction with the General Regulations for the University.

1. Version

(c) These Regulations came into force on 1 January 2021.
(d) This degree was first offered in 2021.

2. Variations

In exceptional circumstances the Academic Dean of Science may approve a personal programme of study which does not conform to these regulations.

3. The Structure of the Qualification

To qualify for the Bachelor of Environmental Science a student must be credited with a minimum of 360 points towards the qualification, including;

(e) a minimum of 210 points from Schedule C to these regulations; and
(f) a minimum of 90 points in a single major from Schedule S to these regulations; and
(g) all remaining courses to be chosen from Schedule E to these regulations including
  (i) a minimum of 30 points from Group 1;
  (ii) all remaining points must come from Group 2.

4. Admission to the Qualification

(a) All students must satisfy the Admission Regulations for the University to be admitted to this qualification.
(b) All students must be approved by the Academic Dean of Science.

5. Subjects

The subjects for the degree are listed in Schedule S to these Regulations.

6. Time Limits

The time limit for this qualification is 8 years.

7. Transfers of Credit, Substitutions and Cross-Credits

This qualification adheres to the General Conditions for Credit and Transfer Regulations, with no additional stipulations.

8. Progression

This qualification adheres to the General Regulations for the University.

9. Honours, Distinction and Merit

Honours, Distinction and Merit are not awarded for this qualification.

10. Upgrade and Exit Pathways to Other Qualifications

(a) A student who has completed the requirements for the Bachelor of Environmental Science but has not yet graduated, and who meets the requirements for entry to the 400 level courses for the BEnvSci (Hons) may apply to the Academic Dean of Science to be admitted to the BEnvSci (Hons) and have credits transferred.

(b) A student who has graduated with the Bachelor of Environmental Science, and meets the requirements for entry to the 400 level courses for the BEnvSci (Hons) may apply to the Academic Dean of Science to be admitted to the BEnvSci (Hons) and have their BEnvSci subsumed as stipulated in the General Regulations to the University, Section 10.

Schedule C: Compulsory Courses for the Degree of Bachelor of Environmental Science

The following outlines the Core requirements

100-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
SCIE101	Science Society and Me	15	S2	Campus	
ENVR101	Introduction to Environmental Science	15	S2		
STAT101	Statistics 1	15			R: STAT111, STAT112, DIGI103 EQ: STAT111, STAT112, DIGI103
BIOL112	Ecology, Evolution and Conservation	15	S2		
GEOG106	Global Environmental Change	15	S2		R: GEOG103

And 15 points selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
CHEM114	Foundations of Chemistry	15	S1		R: (1) NCEA: 14 credits NCEA Level 3 Chemistry, or (2) CIE: at least D grade in CIE AL Chemistry or A grade in CIE ASL Chemistry, or (3) IB: at least Grade 4 in IB HL Chemistry or Grade 6 in IB SL Chemistry, or (4) at least B Grade in BRDG 022 or BRDG023. Students who have been credited with any of CHEM111, CHEM112 or BCHM112 cannot subsequently be credited with CHEM114. Concurrent enrolment in CHEM114 and CHEM111 is not permitted.
CHEM111	Chemical Principles and Processes	15	S1/ S2		P: (1) NCEA: at least 14 credits NCEA Level 3 Chemistry, or (2) CIE: at least D grade in CIE AL Chemistry or A grade in CIE ASL Chemistry, or (3) IB: at least Grade 4 in IB HL Chemistry or Grade 6 in IB SL Chemistry, or (4) CHEM114, or at least B Grade in BRDG023.

200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
ENVR201	Environmental Science and Practice	15	S2		P: ENVR101
GEOG206	Resource and Environmental Management	15	S2		P: Any 30 points of 100 level geography, or GEOG106 and ENVR101, or entry with approval of the Head of Department.
BIOL274	Principles of Ecology	15	S1		P: BIOL112 R: BIOL270

And one course selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL209	Biological Data Analysis	15	S1		P: STAT101 or 15 points of 100 level MATH
GEOG205	Intro to GIS and Science	15	S1		P: 45 points at 100-level or above, from any degree schedule. R: DIGI205 and GISC422
GEOG208	Remote sensing for Geospatial Analysis	15	S2		P: Any 30 points of 100-level Science, Engineering or Commerce R: GEOG313

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
ENVR301	Cities and Coasts	15	S1		P: ENVR201
ENVR302	Professional and field skills for Environmental Scientists	30	S2		P: HOD approval
PSYC341	Environmental Psychology	15	S2		PSYC 206, OR 30 points of 100-level Psychology PLUS 15 points of relevant advanced courses approved by the Head of Department. RP: Any of BIOL112, GEOG106, GEOG107, GEOG108

Schedule S: Majors for the Degree of Bachelor of Environmental Science

Note: The following information outlines the requirement for the individual majors. These requirements are in addition to Schedule C: Compulsory Courses

Ecosystem Health and Biosecurity

200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL275	Field Ecology	15			C: BIOL274 R: BIOL270

BIOL273	New Zealand Biodiversity and Biosecurity	15			P: BIOL112 or BIOL113 R: BIOL114
BIOS201	Issues in New Zealand Biosecurity	15			P: 60 points at 100-level R: BIOS101

And one course selected from:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL213	Microbiology	15			P: BIOL111. RP: BIOL231/BCHM202 RP: BIOL231/BCHM202
GEOG201	Environmental Processes: Principles and Applications	15			P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG201 prior to 2009.
SOIL203	Soil Fertility	15			P: 30 points from CHEM, GEOL, BIOL, or by approval Chair Forestry Board of Studies R: SOIL201
WATR201	Freshwater Resources	15			P: Any 75 points at 100 level

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL309	Experimental Design and Data Analysis for Biologists	15			P: BIOL209

And 30 points selected from

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL332	Genetics, Evolution and Ecology of Invasive Species	15			P: BIOL215 or BIOL271
BIOL336	Ecological and Evolutionary Models	15			P: BIOL209 or 15 Points of 200-level COSC or DATA or EMTH or ENCE or PHYS or MATH or STAT
BIOL371	Evolutionary Ecology	15			P: BIOL271
BIOL375	Freshwater Ecosystems	15			P: BIOL270 and BIOL209
BIOL377	Global change and Biosecurity	15			P: BIOL209 and BIOL270
BIOL378	Population Ecology and Conservation	15			P: BIOL209 and BIOL270

BIOL384	Marine Ecosystems	15			P: (1) BIOL270 and (2) BIOL209. RP: BIOL212 R: BIOL374 RP: BIOL212

Environmental Change
100-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
ANTA102	Antarctica: The Cold Continent	15	S1		

200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
ANTA201	Antarctica and Global Change	15			P: 30 points from 100-level Antarctic Studies, Biology, Geography or Geology courses
BIOL273	New Zealand Biodiversity and Biosecurity	15			P: BIOL112 or BIOL113 R: BIOL114

And one of:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG201	Environmental Processes: Principles and Applications	15			P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG201 prior to 2009.
GEOG215	Environmental Hazards and Disasters	15			P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG305

300-level
45 points selected from

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL377	Global Change and Biosecurity	15			P: BIOL209 and BIOL270
GEOG311	Coastal Studies	15			P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.
GEOG312	Snow, Ice and Climate	15			P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.
PHYS330	Environmental and Climate Modelling	15			P: (COSC121 or EMTH171 or BIOL209) AND (PHYS285 or ENVR201 or GEOG201) R: PHYS430

Environmental Contamination

100-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL111	Cellular Biology and Biochemistry	15	S1		R: ENCH281 and BCHM111 EQ: BCHM111

200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL213	Microbiology	15			P: BIOL111. RP: BIOL231/BCHM202 RP: BIOL231/BCHM202
CHEM247	Analytical Chemistry	15			P: CHEM111 or CHEM112 (BCHM112)

And one of:

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG201	Environmental Processes: Principles and Applications	15			P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG201 prior to 2009.
HLTH214	Environmental and Occupational Health	15			P: Any 60 points at 100 level from any subject, or any 30 points at 100 level from HLTH or SPCO, or any 15 points at 100 level from HLTH.
SOIL203	Soil Fertility	15			P: 30 points from CHEM, GEOL, BIOL, or by approval Chair Forestry Board of Studies R: SOIL201
WATR201	Freshwater Resources	15			P: Any 75 points at 100 level

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
ENVR303	Environmental Toxicology	15			P: BIOL274 and CHEM247

And 30 points selected from

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL313	Advanced Microbiology	15			P: BIOL213
BIOL309	Experimental Design and Data Analysis for Biologists	15			P: BIOL209
CHEM340	Environmental Chemistry and Toxicology	15			P: 30 points from CHEM281; BCHM281; CHEM211; CHEM255; WATR201 R: CHEM324

PHYS330	Environmental and Climate Modelling	15			P: (COSC121 or EMTH171 or BIOL209) AND (PHYS285 or ENVR201 or GEOG201) R: PHYS430

Environmental Hazards and Disasters
100-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOL113	GeoHazards	15	S1		

200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG215	Environmental Hazards and Disasters	15			P: 30 points of Geography or Geological Sciences at 100 level; or 30 points from Science, Arts, Commerce, or Engineering. R: GEOG305
GEOL246	Earth Surface Dynamics	15			P: 30 points from GEOL, MATH, EMTH, BIOL, CHEM, PHYS at 100 level, GEOG106, ENVR101. RP: GEOL111; GEOL113; GEOG109; 100-level maths
COMS232	Risk and Crisis Communication	15			P: 15 points at 100-level in COMS. Students without this prerequisite but with at least a B average in 60 points of relevant courses, may enter the course with the approval of the Department Co-ordinator or the Undergraduate Co-ordinator for COMS.

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG351	Rethinking Development	15			P: Any 30 points of 200 level Geography, or approval of the Head of Department. R: GEOG212
GEOL354	Geodynamics and Geohazards	15			P: Any 45 points at 200 level from GEOL.

And 15 points selected from

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
GEOG323	Geospatial Analysis in the Social and Environmental Sciences	15			P: 30 points of 200-level Geography, including GEOG205, or in special cases with approval of the Head of Department.
GEOG324	Web GIS and Geoinformatics	15			P: 30 points of 200-level Geography, including GEOG205, or in special cases with approval of the Head of Department.

					RP: COSC121, or equivalent introductory programming course.
GEOG325	Health, Wellbeing and the Environment	15			P: 30 points of Geography at 200 level; or 30 points from Science, Arts or Health Sciences. R: GEOG322

Freshwater
200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
WATR201	Freshwater Resources	15			P: Any 75 points at 100 level
GEOG201	Environmental Processes: Principles and Applications	15			P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG201 prior to 2009.

And 15 points selected from

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
CHEM247	Analytical Chemistry	15			P: CHEM111 or CHEM112 (BCHM112)
BIOL213	Microbiology	15			P: BIOL111. RP: BIOL231/BCHM202

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
WATR301	Water Resource Management	15			P: 45 points at 200 level in any subject area.

And 30 points selected from

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL375	Freshwater Ecosystems	15			P: BIOL270 and BIOL209
GEOG311	Coastal Studies	15			P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.
GEOG312	Snow, Ice and Climate	15			P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.
CHEM340	Environmental Chemistry and Toxicology	15			P: 30 points from CHEM281; BCHM281; CHEM211; CHEM255; WATR201 R: CHEM324

Sustainable Coasts
200-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ

BIOL212	Marine Biology and Ecology	15			P: BIOL112 and BIOL113
GEOG201	Environmental Processes: Principles and Applications	15			P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG201 prior to 2009.
GEOG215	Environmental Hazards and Disasters	15			P: 30 points of Geography or Geological Sciences at 100 level; or 30 points from Science, Arts, Commerce, or Engineering. R: GEOG305
BIOL275	Field Ecology	15			C: BIOL274 R: BIOL270

300-level

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL384	Marine Ecosystems	15			P: (1) BIOL270 and (2) BIOL209. RP: BIOL212 R: BIOL374
GEOG311	Coastal Studies	15			P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.

And 15 points selected from

Course Code	Course Title	Pts	2020	Location	P/C/R/RP/EQ
BIOL309	Experimental Design and Data Analysis for Biologists	15			P: BIOL209
BIOL377	Global change and Biosecurity	15			P: BIOL209 and BIOL270
BIOL378	Population Ecology and Conservation	15			P: BIOL209 and BIOL270
GEOG323	Geospatial Analysis in the Social and Environmental Sciences	15			P: 30 points of 200-level Geography, including GEOG205, or in special cases with approval of the Head of Department.
GEOG324	Web GIS and Geoinformatics	15			P: 30 points of 200-level Geography, including GEOG205, or in special cases with approval of the Head of Department. RP: COSC121, or equivalent introductory programming course.

Schedule E: Elective Courses for the Degree of Bachelor of Environmental Science with Honours

Students must include 30 points from Schedule E; Group 1

Group 1

Any Language courses (CHIN, CLAS, FREN, GRMN, JAPA, RUSS, SPAN, TREO) from Schedule V to the Bachelor of Arts degree.

100 level

COMS101 Media and Society
COMS104 Introduction to Strategic Communication
ECON104 Micro Economics
ECON105 Introduction to Macroeconomics
FORE111 Trees, Forests and the Environment
FORE131 Trees in the Landscape
HLTH110 Epidemiology
HLTH111 Global Health
MAOR108 Aotearoa: Introduction to New Zealand Treaty Society
MAOR172 Science, Māori and Indigenous Knowledge
PHIL110 Science: Good, Bad, Bogus
PHIL138 Logical and Critical Thinking
POLS103 Introduction to New Zealand Politics
SPCO126 Land Journeys and Ethics

200 level

ANTH213/313 Environment, Development and Disaster
COMS232 Risk and Crisis Communication
ECON225 Environmental Economics
HLTH214 Environmental and Occupational Health
MAOR212 Maori and Indigenous Development
MAOR219 Te Tiriti: The Treaty of Waitangi
MGMT230 Business, Society and the Environment
PHIL203 Dinosaurs, Quarks and Quasars: The Philosophy of Science
PHIL240 Bioethics: Life, Death, and Medicine
PHIL249 Environmental Ethics
POLS216 City Politics and Urban Policy
SOCI220 Environment and Society

300 level

ACCT340 Social and Environmental Reporting
LAWS327 International Environmental Law
LAWS356 Special Topic: Selected Topics in Natural Resource Law
LAWS364 Law of the Sea.
MGMT335 Business Sustainability
POLS304 Environmental Politics and Policy
SOCI355 Sociology of the City

Group 2

Any ANTA, BIOL, BCHM, CHEM, GEOG, GEOL, MATH, PSYC, STAT and WATR courses from Schedule V to the Bachelor of Science.

100 level

ASTR109 The Cosmos: Birth and Evolution

ASTR112 Astrophysics
COSC121 Introduction to Computer Programming
PHYS101 Engineering Physics A: Mechanics, Waves, Electromagnetism and Thermal Physics
PHYS102 Engineering Physics B: Modern Physics and Electromagnetism (2)
PHYS111 Introductory Physics for Physical Sciences and Engineering

200 level

DATA201 Data Wrangling
SOIL203 Soil Fertility

Basic Degree Structure

	Degree structure degree core courses + major core courses	degree core courses	major core courses	options/electives
Degree core courses	100 level	90		30
Major core courses	200 level	60	45	15
Options	300 level	60	45	15
§ethics	400 level	60	45	15

* data analysis

bicultural competency and confidence

100	ENVR101 Introduction to Environmental Science	STAT101 Statistics 1*	ONE of CHEM114 Foundations of Chemistry/ CHEM111 Chemical Principles and Processes	BIOL112 Ecology, Evolution and Conservation	GEOG106 Global Change	SCIE101 Science, Society and Me	OPTION	OPTION
200	ENVR201 Environmental Science & Practice#	GEOG206 Resource and Environmental Management§#	ONE of BIOL209 Biological Data Analysis/ GEOG205 Intro to GIS and Science/ GEOG208 Remote sensing for geospatial analysis*	BIOL274 Principles of Ecology	MAJOR 200 level	MAJOR 200 level	OPTION	OPTION
300	ENVR301 Cities and Coasts	ENVR302 Professional and field skills in Environmental Science§*		PSYC341 Environmental Psychology	MAJOR 300 level	MAJOR 300 level	MAJOR 300 level	OPTION
400	ENVR415 Assessing and communicating environmental effects and risks§	ENVR411 Case studies in Environmental Science	ENVR480 Research Project (hons)*#§		MAJOR 400 level	MAJOR 400 level	MAJOR 400 level	OPTION

Major: Ecosystem Health and Biosecurity

100	ENVR101 Introduction to Environmental Science	STAT101 Statistics 1*	ONE of CHEM114 Foundations of Chemistry/ CHEM111 Chemical Principles and Processes	BIOL112 Ecology, Evolution and Conservation	GEOG106 Global Change	SCIE101 Science, Society and Me	OPTION	OPTION
200	ENVR201 Environmental Science & Practice#	GEOG206 Resource and Environmental Management§#	ONE of BIOL209 Biological Data Analysis/ GEOG205 Intro to GIS and Science/ GEOG208 Remote sensing for geospatial analysis*	BIOL274 Principles of Ecology	BIOL275 Field Ecology	BIOL273 New Zealand Biodiversity and Biosecurity	ONE of SOIL203 Soil Fertility/ WATR201 Freshwater Resources/ GEOG201 Environmental Processes: Principles and Applications / BIOL213 Microbiology	BIOS201 Issues in New Zealand Biosecurity
300	ENVR301 Cities and Coasts	ENVR302 Professional and field skills in Environmental Science§*		PSYC341 Environmental Psychology	BIOL309 Experimental Design and Data Analysis for biologists	30 points from BIOL332 Genetics, Evolution and Ecology of Invasive Species/ BIOL336 Ecological and Evolutionary Models/ BIOL371 Evolutionary Ecology/ BIOL375 Freshwater Ecosystems/ BIOL377 Global Change and Biosecurity/ BIOL378 Population Ecology and Conservation/ BIOL384 Marine Ecosystems		OPTION
400	ENVR415 Assessing and communicating environmental effects and risks§	ENVR411 Case studies in Environmental Science	ENVR480 Research Project (hons)*#§		30 points from BIOL420 Terrestrial Ecology/ BIOL423 Evolutionary Ecology/ BIOL424 Community Ecology/ BIOL425 Freshwater Ecology/ BIOL426 Conservation Biology/ BIOL427 Global Change Biology/ BIOL428 Marine Biology and Ecology/ FORE447 Environmental Forestry (30pts)		OPTION	OPTION

Major: Environmental Change

100	ENVR101 Introduction to Environmental Science	STAT101 Statistics 1*	ONE of CHEM114 Foundations of Chemistry/ CHEM111 Chemical Principles and Processes	BIOL112 Ecology, Evolution and Conservation	GEOG106 Global Change	SCIE101 Science, Society and Me	ANTA102 Antarctica: The Cold Continent	OPTION
200	ENVR201 Environmental Science & Practice#	GEOG206 Resource and Environmental Management§#	ONE of BIOL209 Biological Data Analysis/ GEOG205 Intro to GIS and Science/ GEOG208 Remote sensing for geospatial analysis*	BIOL274 Principles of Ecology	ANTA201 Antarctica and Global Change	GEOG201 Environmental Processes OR GEOG215 Environmental Hazards and Disasters	BIOL273 New Zealand Biodiversity and Biosecurity	OPTION
300	ENVR301 Cities and Coasts	ENVR302 Professional and field skills in Environmental Science§*	PSYC341 Environmental Psychology	45 points from GEOG312 Snow, ice, climate, GEOG311 Coastal Studies, BIOL377 Global change and biosecurity, PHYS330 Environmental and Climate Modelling				OPTION
400	ENVR415 Assessing and communicating environmental effects and risks§	ENVR411 Case studies in Environmental Science	ENVR480 Research Project (hons)*#§	GEOG412 Alpine and polar environments			BIOL427 Global Change Biology	OPTION

Major: Environmental Contamination

100	ENVR101 Introduction to Environmental Science	STAT101 Statistics 1	ONE of CHEM114 Foundations of Chemistry/ CHEM111 Chemical Principles and Processes	BIOL112 Ecology, Evolution and Conservation	GEOG106 Global Change	SCIE101 Science, Society and Me	BIOL111 Cellular Biology and Biochemistry	OPTION
200	ENVR201 Environmental Science & Practice#	GEOG206 Resource and Environmental Management§#	ONE of BIOL209 Biological Data Analysis/ GEOG205 Intro to GIS and Science/ GEOG208 Remote sensing for geospatial analysis*	BIOL274 Principles of Ecology	BIOL213 Microbiology	CHEM247 Analytical Chemistry	ONE OF SOIL203 Soil Fertility/ WATR201 Freshwater Resources/ GEOG201 Environmental Processes: Principles and Applications/ HLTH214 Environmental and Occupational Health	OPTION
300	ENVR301 Cities and Coasts	ENVR302 Professional and field skills in Environmental Science§*	PSYC341 Environmental Psychology	30 points from CHEM340 Environmental Chemistry and Toxicology/ BIOL313 Advanced Microbiology/ PHYS330 Environment and Climate Modelling/ BIOL309 Experimental Design and Data Analysis for Biologists			ENVR303 Environmental Toxicology	OPTION
400	ENVR415 Assessing and communicating environmental effects and risks§	ENVR411 Case studies in Environmental Science	ENVR480 Research Project (hons)*#§	WATR402 Water Quality and Quantity Assessment	30 points from ENVR414 Current Issues in Environmental Chemistry/ BIOL455 Applied and Molecular Microbiology/ WATR403 Water Management, Policy and Planning/ WATR401 Advanced Water Resources			OPTION

Major: Environmental Hazards and Disasters

100	ENVR101 Introduction to Environmental Science	STAT101 Statistics 1	ONE of CHEM114 Foundations of Chemistry/ CHEM111 Chemical Principles and Processes	BIOL112 Ecology, Evolution and Conservation	GEOG106 Global Change	SCIE101 Science, Society and Me	GEOL113 GeoHazards	OPTION
200	ENVR201 Environmental Science & Practice#	GEOG206 Resource and Environmental Management§#	ONE of BIOL209 Biological Data Analysis/ GEOG205 Intro to GIS and Science/ GEOG208 Remote sensing for geospatial analysis*	BIOL274 Principles of Ecology	GEOL246 Earth surface dynamics	GEOG215 Environmental Hazards and Disasters	COMS232 Risk and Crisis Communication	OPTION
300	ENVR301 Cities and Coasts	ENVR302 Professional and field skills in Environmental Science§*		PSYC341 Environmental Psychology	GEOL354 Geodynamics and Geohazards	GEOG351 Rethinking Development	ONE of GEOG323 Geospatial Analysis in the Social and Environmental Sciences/ GEOG324 Web GIS and Geoinformatics/ GEOG325 Health, Wellbeing and Environment	OPTION
400	ENVR415 Assessing and communicating environmental effects and risks§	ENVR411 Case studies in Environmental Science	ENVR480 Research Project (hons)*#§		DRRE401 Introduction to Disaster Risk and Resilience	DRRE402 Natural Hazard Risk Assessment	GEOG 404 Resource and Environmental Management (REM) in New Zealand OR HLTH403 Environmental Health	

Major: Fresh Water

100	ENVR101 Introduction to Environmental Science	STAT101 Statistics 1	ONE of CHEM114 Foundations of Chemistry/ CHEM111 Chemical Principles and Processes	BIOL112 Ecology, Evolution and Conservation	GEOG106 Global Change	SCIE101 Science, Society and Me	OPTION	OPTION
200	ENVR201 Environmental Science & Practice#	GEOG206 Resource and Environmental Management§#	ONE of BIOL209 Biological Data Analysis/ GEOG205 Intro to GIS and Science/ GEOG208 Remote sensing for geospatial analysis*	BIOL274 Principles of Ecology	WATR201 Freshwater Resources	GEOG201 Environmental Processes	CHEM247 Analytical Chemistry OR BIOL213 Microbiology and Genetics	OPTION
300	ENVR301 Cities and Coasts	ENVR302 Professional and field skills in Environmental Science§*		PSYC341 Environmental Psychology	TWO OF BIOL375 Freshwater Ecosystems/ GEOG311 Coastal Studies/ GEOG312 Snow, Ice, Climate/ CHEM340 Environmental Chemistry and Toxicology		WATR301 Water Resource Management	OPTION
400	ENVR415 Assessing and communicating environmental effects and risks§	ENVR411 Case studies in Environmental Science	ENVR480 Research Project (hons)*#§		WATR402 Water Quality and Quantity Assessment	WATR401 Advanced Water Resources or WATR403 Water Management, Policy and Planning	ONE of BIOL425 Freshwater Ecology/ GEOG409 Coasts and Rivers (30pts) /GEOG412 Alpine and Polar Environments (30pts) / ENGE414 applied Hydrogeology/ ENVR414 Current Issues in Environmental Chemistry	OPTION

Major: Sustainable coasts

100	ENVR101 Introduction to Environmental Science	STAT101 Statistics 1	ONE of CHEM114 Foundations of Chemistry/ CHEM111 Chemical Principles and Processes	BIOL112 Ecology, Evolution and Conservation	GEOG106 Global Change	SCIE101 Science, Society and Me	OPTION	OPTION
200	ENVR201 Environmental Science & Practice#	GEOG206 Resource and Environmental Management§#	ONE of BIOL209 Biological Data Analysis/ GEOG205 Intro to GIS and Science/ GEOG208 Remote sensing for geospatial analysis*	BIOL274 Principles of Ecology	GEOG201 Envrionmental Processes: Principles and Applications	BIOL212 Marine Biology and Ecology	GEOG215 Environmental Hazards and Disasters	BIOL275 Field Ecology
300	ENVR301 Cities and Coasts	ENVR302 Professional and field skills in Environmental Science§*		PSYC341 Environmental Psychology	GEOG311 Coastal Studies	BIOL384 Marine Ecosystems	ONE of BIOL309 Experimental Design and Data Analysis for Biologists/ BIOL377 Global Change and Biosecurity/ BIOL378 Population Ecology and Conservation /GEOG323 Geospatial Analysis in the Social and Environmental Sciences/ GEOG324 Web GIS and Geoinformatics	OPTION
400	ENVR415 Assessing and communicating environmental effects and risks§	ENVR411 Case studies in Environmental Science	ENVR480 Research Project (hons)*#§		GEOG409 Coasts and Rivers		BIOL428 Marine Biology and Ecology	OPTION

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

(Bachelor of Data Science)

Template 1.

SECTION A

Purpose of the proposal

1. To introduce a Bachelor of Data Science (BDataSc). This new qualification is a professionally-aligned, non-accredited degree and will include 5 associated subject majors: 1) Data Science*, 2) Bioinformatics, 3) Spatial Data Science, 4) Population Health Data Science and 5) Computational Linguistics.

[*Please note: the current Data Science major within the Bachelor of Science (BSc) will move under the BDataSc and no new enrolments will be permitted in the major]

2. To allow entry into the MSc in Data Science for students from the new Bachelor of Data Science.

EXECUTIVE SUMMARY

This proposal introduces the Bachelor of Data Science (BDataSc) a new degree with five majors. Each subject major consists of a set of ***core courses*** in Data Science, Computer Science, Mathematics, Statistics, and a set of courses from another ***knowledge domain*** (discipline), such as Biology, Geography (Spatial Data Science), Linguistics, and Health Sciences. The BDataSc consists of 360 points of study, and includes a 30 point project-based course at 300-level so that students graduate 'work ready'.

The BDataSc aims to leverage the explosive growth of (big) data and associated computational analytics so as to provide graduates with the skills, knowledge and competencies needed to contribute to the fast developing data science-based professions.

Development of the BDataSc has occurred in consultation – and collaboration – with staff from across te Rāngai Pūtaiao | the College of Science, te Rāngai Pūkaha | the College of Engineering, te Rāngai Toi Tangata | the College of Arts, and te Rāngai Ako me te Hauora | the College of Education, Health, and Human Development at te Whare Wānanga o Waitaha | the University of Canterbury (each College is supporting a subject major in BDataSc), as well as with industry and government agencies with an interest in the graduate skills that the BDataSc will provide.

The BDataSc structure is unique, in that it will create a cross-campus data science ecosystem through a core set of courses that are linked to Schools/Departments within four colleges. The BDataSc has been designed to graduate students with an in-depth understanding of (i) data science and (ii) another knowledge domain/area of application. This feature of the programme will broaden students' opportunities to contribute as graduates to professions that increasingly need staff that possess strong computing, analytic and communication skills.

The target market for the programme will be both domestic and international students. The appeal of the programme to students includes (i) its relevance to the employment market and (ii) the attractive employment prospects for graduates.

On the basis of market research, a total of 30 EFTS has been forecast for the BDataSc. These are domestic students; no international EFTS are anticipated. To break even, a total of 24 domestic EFTS

is required in year 1 (2021). After overhead recoveries, the BDataSc is estimated to make a net surplus in year 1 (2021), year 3 (2023) and year 4 (2024).

At the level of the overall programme, the BDataSc will address the University of Canterbury Graduate Profile attributes as follows:

Graduate attribute	Addressed through
Critically competent in a core academic discipline	Competency in the core data science component will be developed through taught components, practice-informed content, case studies, and essays.
Employable, Innovative and Enterprising	Opportunities to develop key data science skills and attributes will be developed through lab work, assignments and experiential learning.
Biculturally competent and confident (BiCC)	BiCC will be developed through mātauranga Māori-related curriculum content and through opportunities for projects in Māori-related data science areas, including data sovereignty.
Engaged in the community	Engagement in the community will occur through work integrated learning opportunities, industry projects, and guest speakers from the data science industry.
Globally Aware	Students will develop their global awareness through course content based on global data science issues.

Programme Overview

Students intending to complete the BDataSc in any of the associated subject majors will need to have met the normal requirements for university entrance, as per te Whare Wānanga o Waitaha | the University of Canterbury's current undergraduate degree regulations. Students will have the option of selecting a course of study focused on one of the five specified programmes, aligned with the subject areas of either Bioinformatics, Computational Linguistics, Data Science, Population Health Data Science, or Spatial Data Science.

Each subject major shares a 'core' set of courses (195 points), plus a set of knowledge domain specific (disciplinary) courses (165 points), and a set of electives (see Schedule S under regulations).. At 100 level, all specified programmes share a common core of 5 degree specific courses, ensuring students are introduced to the key concepts in Data Science and have the fundamental skills/knowledge such as relevant programming, mathematics and statistics and computer science; and SCIE101. At 200 level there are five courses which all students will need to complete, to build upon the concepts learned in the previous year progressing the set of knowledge and skills obtained at 100 level. At 300 level, three courses form the 'core' content with advanced concepts in Data Science, Computer Science, and Statistics are prescribed. At 300-level, a research project-based course (0.25 EFTS) is also a shared feature amongst the subject majors where practical stakeholder and types of problems that result from community engagement are a key focus, to prepare a work-ready cohort.

To satisfy the requirements of the Bachelor of Data Science (BDataSc) degree, all students will complete the following as the 'core' content set of courses:

- 75 points at 100 level, comprising of SCIE101, MATH102, DATA101, COSC121, COSC122
- 75 points at 200 level, comprising of DATA201, DATA203, STAT201 or STAT202, COSC262, PHIL240
- 45 points at 300 level, comprising of DATA301, DATA303, and either STAT315 or STAT318

[1. Majoring in ***Bioinformatics***]

To satisfy the requirements of this specified programme, in addition to the 'core' set of courses specified above, students will complete the following:

- 45 points at 100 level, comprising BIOL111, BIOL112, and one 15-points elective (Schedule S)
- 45 points at 200 level, comprising BIOL215, BIOL231, BIOL271
- 75 points at 300 level, comprising BIOL333, BIOL334, BIOL337, BIOL338

*Table 1 Core courses in Grey, capstone course in Yellow, * indicates new course (each cell is 15 points unless otherwise indicated)*

SCIE101	**MATH102**	**DATA101***	**COSC121**	**COSC122**	**BIOL111**	**BIOL112**	**Elective**
DATA201	**DATA203**	**STAT201 or STAT202**	**COSC262**	**PHIL240**	**BIOL215**	**BIOL231**	**BIOL271**
DATA301	**DATA303**	**STAT315 or STAT318**	**BIOL333**	**BIOL334**	**BIOL338* (30 points)**		**BIOL337 ***

[2. Majoring in ***Computational Linguistics***]

To satisfy the requirements of this specified programme, in addition to the 'core' set of courses specified above, students will complete the following:

- 45 points at 100 level, comprising LING 101, LING 102; and one 15-points elective (Schedule S)
- 45 points at 200 level, comprising LING 217, LING 223; and one 15-points elective (Schedule S)
- 75 points at 300 level, comprising LING 310, LING315, COSC 367; and one 15-points elective (Schedule S)

*Table 2 Core courses in Grey, capstone course in Yellow, * indicates new courses (each cell is 15 points unless otherwise indicated)*

SCIE101	**MATH102**	**DATA101***	**COSC121**	**COSC122**	**LING 101**	**LING 102**	**Elective**
DATA201	**DATA203**	**STAT201 or STAT202**	**COSC262**	**PHIL240**	**LING 217**	**LING 223**	**Elective**
DATA301	**DATA303**	**STAT318**	**COSC 367**	**LING 315***	**LING 310 (30 points)**		**Elective**

[3. Majoring in ***Data Science***]

To satisfy the requirements of this specified programme, in addition to the 'core' set of courses specified above, students will complete the following:

- 45 points of electives at 100 level (Schedule S)
- 45 points at 200 level, comprising COSC 265, 1 course from STAT211-299, and one 15-points elective (Schedule S)
- 75 points at 300 level, comprising COSC 367, STAT315, DATA309, and one 15-point elective (Schedule S); NOTE: students must complete both STAT315 and STAT318

*Table 3 Core courses in Grey, capstone course in Yellow, * indicated new courses (each cell is 15 points unless otherwise indicated)*

SCIE101	**MATH102**	**DATA101***	**COSC121**	**COSC122**	**Elective**	**Elective**	**Elective**
DATA201	**DATA203**	**STAT201 or STAT202**	**COSC262**	**PHIL240**	**COSC265**	**1 from STAT211-299**	**Elective**

DATA301	**DATA303**	**STAT318**	**COSC367**	**STAT315**	**DATA309* (30 points)**	**Elective**

[4. Majoring in ***Population Health Data Science***]

To satisfy the requirements of this specified programme, in addition to the 'core' set of courses specified above, students will complete the following:

- 45 points at 100 level, comprising HLTH110, GISC101, and one 15-point elective (Schedule S)
- 45 points at 200 level, comprising HLTH213, HLTH214, and one 15-point elective (Schedule S)
- 75 points at 300 level, comprising GEOG325, HLTH312, HLTH309, and one 15-point elective (Schedule S)

*Table 4 Core courses in Grey, capstone course in Yellow, * indicates new courses (each cell is 15 points unless otherwise indicated)*

SCIE101	**MATH102**	**DATA101***	**COSC121**	**COSC122**	**HLTH110**	**GISC101***	**Elective**
DATA201	**DATA203**	**STAT201 or STAT202**	**COSC26**	**PHIL240**	**HLTH213**	**HLTH214**	**Elective**
DATA301	**DATA303**	**STAT315 or STAT318**	**GEOG325**	**HLTH312**	**HLTH309* (30 points)**		**Elective**

[5. Majoring in ***Spatial Data Science***]

To satisfy the requirements of this specified programme, in addition to the 'core' set of courses specified above, students will complete the following:

- 45 points at 100 level, comprising GEOG106 or GEOG110, GISC101, and one 15-point elective (Schedule S)
- 45 points at 200 level, comprising GEOG205, GEOG208, and one 15-point elective (Schedule S)
- 75 points at 300 level, comprising GEOG323, GEOG324, GISC309, and one 15-point elective (Schedule S)

*Table 5 Core courses in Grey, capstone course in Yellow, * indicates new courses (each cell is 15 points)*

SCIE101	**MATH102**	**DATA101***	**COSC121**	**COSC122**	**GEOG106 or GEOG110**	**GISC101***	**Elective**
DATA201	**DATA203**	**STAT201 or STAT202**	**COSC262**	**PHIL240**	**GEOG205**	**GEOG208**	**Elective**
DATA301	**DATA303**	**STAT315 or STAT318**	**GEOG323**	**GEOG324**	**GISC309* (30 points)**		**Elective**

Proposed new regulations

UC Calendar 2020 page 35 General Conditions for Credit;

Regulation 4a Amend to read:

"(a) A student for the BA, BCom, BDataSc, BSc, BSpC or BYCL degrees may complete a minor in a subject area from any one of these degrees unless otherwise specified in the degree regulations. The student must pass courses specified for a minor in that subject area as listed in the relevant degree regulations."

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Bachelor of Data Science (BDataSc – 360 Points)

These regulations must be read in conjunction with the General Regulations for the University.

1. Version

(a) These Regulations came into force on 1 January 2021

(b) This degree was first offered in 2021

2. Variations

In exceptional circumstances the Academic Dean of Science may approve a personal programme of study which does not conform to these regulations.

3. The Structure of the Qualification

To qualify for the Bachelor of Data Science a student must:

(a) be credited with a minimum of 360 points towards the qualification; and

(b) be credited with a minimum of 165 points from Schedule C Group 1, 15 points from Schedule C Group 2 and 15 points from Schedule C Group 3 to these regulations; and

(c) have satisfied the requirements for a major in a subject as specified in Schedule S; and

(d) be credited with ;

i. a minimum of 225 points above 100-level and;

ii. a minimum of 105 points at 300-level.

4. Admission to the Qualification

All students must satisfy the Admission Regulations for the University to be admitted to this qualification.

5. Subjects

The majors for the degree are listed in Schedule S to these Regulations

6. Time Limits

The qualification adheres to the General Regulations for the University with a time limit of 10 years.

7. Transfers of Credit, Substitutions and Cross-Credits

This qualification adheres to the General Conditions for Credit and Transfer Regulations, with no additional stipulations.

8. Progression

This qualification adheres to the General Regulations for the University, with no additional stipulations.

9. Honours, Distinction and Merit

Honours, Distinction and Merit are not awarded for this qualification

10. Upgrade and Exit Pathways to Other Qualifications

A student who has not met the requirements for the Bachelor of Data Science or who wishes to transfer to the Certificate of Science may apply to the Academic Dean of Science for admission.

Schedule C: Compulsory Courses for the Degree of Bachelor of Data Science

The following outlines the Core requirements

Schedule C Group 1

100-level

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
SCIE101	Science Society and Me	15	S2	Campus	
MATH102	Mathematics 1A	15			
DATA101	Introduction to Data Science	15			
COSC121	Introduction to Computer Programming	15			
COSC122	Introduction to Computer Science	15			

200-level
Students must complete 15 points from Schedule C Group 2 and:

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
DATA201	Data Wrangling	15			
DATA203	Data Science Multivariable Methods	15			
COSC262	Algorithms	15			
PHIL240	Bioethics: Life, Death and Medicine	15			

300-level
Students must complete 15 points from Schedule C Group 3 and:

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
DATA301	Big Data Computing and Systems	15			
DATA303	Computational Data Methods	15			

Schedule C Group 2

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
STAT201	Applied Statistics	15			
STAT202	Regression Modelling	15			

Schedule C Group 3

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
STAT315	Multivariate Statistical Methods	15			
STAT318	Data Mining	15			

Schedule S: Subject Courses for the Degree of Bachelor of Data Science
Note: The following information outlines the requirement for the individual majors. These requirements are in addition to Schedule C: Compulsory Courses

Bioinformatics

100-level

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
BIOL111	Cellular Biology and Biochemistry	15			
BIOL112	Ecology, Evolution and Conservation	15			

200-level

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
BIOL215	Origins and Classification of Life	15			
BIOL231	Foundations in Molecular Biology	15			
BIOL271	Evolution	15			

300-level

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
BIOL333	Molecular Genetics	15			
BIOL334	Evolutionary Genetics and Genomics	15			
BIOL337	Bioinformatics	15			
BIOL338	Bioinformatics Project	30			

All remaining courses to be chosen from:
Any undergraduate course at UC

Computational Linguistics

100-level

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
LING101	The English Language	15			
LING102	Language and Society in New Zealand and Beyond	15			

200-level

Students must complete 45 points of 200-level LING or DIGI including:

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
LING217	Grammatical Structure	15			
LING223	Text Analytics	15			

300-level

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
LING310	Linguistic Research and New Zealand English	30			
LING315	Natural Language Processing	15			

And

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
COSC367	Artificial Intelligence	15			

All remaining courses to be chosen from:
Other LING or DIGI courses
COSC 261
Any 200-level DATA course
Any 200-level STAT course
Any 300-level DATA course
Any 300-level STAT course
Any 300-level COSC course

Data Science
100-level
Any 100-level course at UC

200-level
Students must complete 15 points from STAT211-299
And

Course Code	Course Title	Pts		2021	Location	P/C/R/RP/EQ
COSC265	Relational Database Systems	15				

300-level
Students must complete 15 points from STAT315 and STAT318

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
COSC367	Artificial Intelligence	15			
STAT315	Multivariate Statistical Methods	15			
DATA309	Data Science Capstone Project	30			

All remaining courses to be chosen from:
Any 200-level course at UC
Any 300-level COSC course
Any 300-level DATA course
Any 300-level MATH course
Any 300-level SENG course
Any 300-level STAT course

Population Health Data Science

100-level

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
GISC101	Introduction to Spatial Data Science	15			
HLTH110	Epidemiology	15			

200-level

45 points of 200-level GEOG/HLTH including

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
HLTH213	Health Systems and Policy	15			
HLTH214	Environmental and Occupational Health	15			

300-level

Students must complete a minimum of 60 points of GEOG/HLTH at 300 level including

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
GEOG325	Health, Wellbeing and Environment	15			
HLTH312	Health Planning, Implementation and Evaluation	15			
HLTH309	Population Health Data Science Capstone Project	30			

All remaining courses to be chosen from:

100-level

GEOG110
HLTH106
HLTH111
HLTH101

200-level

GEOG205
GEOG217
HLTH202

300-level

GEOG323
GEOG324

Spatial Data Science

100-level

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ

GISC101	Introduction to Spatial Data Science	15			

And Either:

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
GEOG106	Global Environmental Change	15			

Or

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
GEOG110	People, Places and Environments	15			

200-level
45 points of 200-level GEOG including

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
GEOG205	Introduction to Geographic Information Systems and Science	15			
GEOG208	Remote Sensing for Geospatial Analysis	15			

300-level
Students must complete a minimum of 60 points of GEOG/GISC at 300 level including

Course Code	Course Title	Pts	2021	Location	P/C/R/RP/EQ
GEOG323	Geospatial Analysis in the Social and Environmental Sciences	15			
GEOG324	Web GIS and Geoinformatics	15			
GISC309	Spatial Data Science Capstone Project	30			

All remaining courses to be chosen from:
100-level
ENVR101

200-level
GEOG201
GEOG211
GEOG222

300-level
GEOG310
GEOG325
GEOG333

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Master of Science Schedule S

Data Science

P: Met the 300 level requirements for the Bachelor of Data Science, or the BSc in Data Science.