

Vancouver Senate

THE EIGHTH REGULAR MEETING OF THE VANCOUVER
SENATE FOR THE 2018/2019 ACADEMIC YEAR

WEDNESDAY, 18 APRIL 2018

6:00 P.M.

**ROOM 182, IRVING K. BARBER LEARNING CENTRE,
1961 EAST MALL**

1. Senate Membership – Dr Kate Ross

a. New Members:

Term from April 1, 2018 to March 31, 2019. One representative elected from each faculty, two from the Faculty of Graduate and Post-doctoral Studies, and five members at-large

Applied Science
Mr Quentin Golsteyn

Arts
Mr Matthias Leuprecht

Commerce and Business Administration
Mrs Priscilla Chan

Dentistry
Mr Austin Chen

Forestry
Ms Danika Coulbourn (Continuing until Replaced)

Graduate and Postdoctoral Studies
Ms Amber Shilling (Continuing)
Ms Alexa Tanner

Land and Food Systems
Ms Ainsley MacDougall (Continuing until Replaced)

Allard School of Law

Mr. Alex Starr

Medicine

Mr. Qadeem Salehmohamed (Continuing until replaced)

Pharmaceutical Sciences

Mr Nick Pang

Science

Ms Katie Gourlay

Members at-large:

Mr Jakob Gattinger - Faculty of Applied Science (Continuing)

Ms Marium Hamid – Faculty of Arts (Continuing)

Mr Max Holmes - Faculty of Arts (Continuing)

Ms Jeanie Malone – Faculty of Graduate & Postdoctoral Studies

Ms Hannah Xiao – Faculty of Science

NB: The Education Student Senator Position transitions in October of each year.

b. Nominating Committee:

This is a call for nominations for two (2) student members of Senate to serve on the Senate Nominating Committee until 31 March 2019 and thereafter until replaced. Nominations are due by 4 pm on Thursday 3 May 2018 to christopher.eaton@ubc.ca. If more than two students are nominated, an election will be held at the May meeting of Senate in accordance with Rule 26 (f) of the *Rules and Procedures of Senate*.

2. Minutes of the Meeting of 28 February 2018– Dr Santa Ono (approval)
(docket pages 4-27)

3. Business Arising from the Minutes – Dr Santa Ono

Ratification of Strategic Plan Changes (approval) (docket pages 28-74)

4. Remarks from the Chair and Related Questions – Dr Santa Ono
(information)

5. Tributes Committee – Dr Sally Thorne

Memorial Minutes for Drs Finlay Morrison and Gordon Selman
(approval) (docket pages 75-77)

6. Reports from the Provost – Dr Andrew Szeri

a. Stadium Road Neighbourhood Development Consultation – with
Associate Vice-President Michael White (information)

- b. UBC Rapid Transit Update – with Associate Vice-President Michael White (information)
- 7. **Academic Policy Committee – Dr Paul Harrison**
Merger of the Okanagan and Vancouver Faculties of Education (approval) (docket pages 78-97)
- 8. **Agenda Committee – Mr Jakob Gattinger**
Timely Distribution of Senate Materials (information) (docket page 98)
- 9. **Awards Committee – Dr Lawrence Burr**
New and Revised Awards (approval) (docket pages 99-108)
- 10. **Curriculum Committee – Dr Peter Marshall**
 - a. Curriculum proposals from the Faculties of Applied Science, Arts, Graduate and Postdoctoral Studies, and Forestry (approval) (docket pages 109-203)
 - b. New Certificate in Dechinta Community and Land-Based Research (information) (docket pages 204-215)
- 11. **Report from the Registrar – Dr Kate Ross**
Confirmation of Approval of Materials Distributed via Email (information) (docket page 216)
- 12. **Other Business**

Section 16 (b) Of the *Rules and Procedures of the Vancouver Senate* states that meetings will adjourn no later than 8:30 p.m. Regrets: Telephone 604.822.5239 or e-mail: facsec@mail.ubc.ca

UBC Senates and Council of Senate website: <http://www.senate.ubc.ca>



VANCOUVER SENATE

MINUTES OF 28 FEBRUARY 2018

DRAFT

Attendance

Present: Dr S. Ono (Chair), Dr K Ross (Secretary), Dr P. Adebar, Mr T. Ahmed, Ms J. Booth, Ms S. Brar, Ms D. Coulbourn, Mr K. Doering, Dr S. Forwell, Mr J. Gattinger, Dr J. Gilbert, Dr V. Greiss, Ms M. Grist, Mr S. Haffey, Dr P. Harrison, Dean R. Helsley, Mr M. Holmes, Dean J. Innes, Dr A. Ivanov, Prof. C. Jaeger, Dr P. Keown, Dr M. Koehoorn, Dr K. Krebs, Dr M. Kuus, Mr D. Lam, Dr K. Lo, Dr D. MacDonald, Ms A. MacDougall, Dr M. MacDougall, Mr K. Madill, Dr P. Marshall, Dr S. Matsui, Dr W. McKee, Mr B. McNulty, Ms S. Ngo, Dean J. Olson, Ms S. Park, Ms S. Parker, Dean S. Peacock, Dean S. Porter, Mr M. Pratt, Dr T. Rogers, Mr Q. Salehmohamed, Ms A. Shilling, Dr J. Shepherd, Prof. A. Sheppard, Dr S. Singh, Mr M. Stewart, Dr A. Szeri, Dr R. Tees, Dr M. Thachuk, Dr S. Thorne, Dr R. Topping, Ms L. Wang, Dean R. Yada

Regrets: Dean G. Averill, Dr R. Boushel, Dr H. Brock, Dr V. Bungay, Dr A. Collier, Dean M. Coughtrie, Dean C. Dauvergne, Dr G. Faulkner, Dr A. Fisher, Dean B. Frank, Dr J. Greenman, Chancellor L. Gordon, Dr C. Godwin, Dr M. Isaacson, Dean D. Kelleher, Dr A. Kindler, Dr P. Meehan, Dr C. Nislow, Dr L. Stothers, Dr M. Upadhyaya

Clerk: Mr C. Eaton

Call to Order

The Chair of Senate, Dr Santa J. Ono, called the sixth regular meeting of the Vancouver Senate for the 2017/2018 Academic Year to order at 6:04 pm.

Senate Membership

NEW MEMBER

The Registrar announced the appointment of James Olson as Dean of the Faculty of Applied Science, replacing James Olson as Dean Pro Tempore of the Faculty of Applied Science, effective 1 March 2018

Minutes of 17 January 2017



Carol Jaeger
Daniel Lam

}

*That the Minutes of the Meeting of 17 January
2018 be adopted as corrected.*

Corrections:

Mr Haffey was in attendance.

*Prof. Sheppard not Dr Shepherd moved the
approval of the December 2017 Minutes.*

Senator Wang prefers Ms not Mr.

Approved

Remarks from the Chair

Dr Ono noted that he had just returned from a productive trip to India where he met with representatives of educational institutions, governments, and industry. In particular, he highlighted meeting with the Indian Institutes of Technology (IITs), and indicated that two IITs, Chennai and Madras, have expressed their interest in having formal relationships with UBC for pedagogy and research. Dr Ono noted that UBC is trying to play a leadership role for gender equity in Indian higher education. In visiting institutions, the overwhelming maleness of their students and faculty was evident (90% plus). To help address this, UBC faculties, including Applied Science in particular, are working in different parts of India to encourage women and girls to have an interest in STEM disciplines. The President noted that a frequent question asked by Indian students is scholarship availability to study at UBC and hopefully the Blue and Gold Campaign will help make more funding available to students, both domestic and international.

The President suggested that yesterday's Federal budget was very good news for universities, including a 25% Increase for Tricouncil grants over 5 years and a funding increase and stabilization for the Canadian Foundation for Innovation (CFI) and to have a more diverse body of researchers. Dr Ono noted that this is the largest increase in science and scholarship funding in the history of Canada.

Dr Ono advised that later on today's agenda is the most recent draft of the strategic plan. He noted that there has been lot of constructive feedback since the last strategic plan from both internal and external stakeholders. UBC's Okanagan campus endorsed the strategic plan last week, and the Administration's hope is that Vancouver would do the same after our discussion tonight. We will take a structured approach to implementation, including metrics, annual reporting to the Board, Senate, and community, and an easily referenced dashboard will be developed to show progress.

The President expressed his thanks to the entire UBC community for their contributions.

Strategic Plan



Dr Ono advised that distributed to Senate was penultimate draft of the strategic plan: Shaping UBC's Next Century, and asked for discussion prior to considering a motion for endorsement.

Senator Holmes asked about endorsing an involving plan. Shouldn't we be approving a final document?

Senator Szeri replied that we are still getting suggestions for added language, including most recently from student government. Once people stop making suggestions then we can stop making changes. If there are significant changes beyond what has already been proposed, we would bring these back to you, but we hope that the Senate would allow for editorial changes if discovered.

Senator Thorne asked, beyond typographical errors and fine-tuning, if we were hearing any substantive concerns at this stage?

Dr Szeri replied no.

Senator Tees said that after endorsement he was hearted to hear that this would be an iterative process and what he was looking for would be an endorsement in principle of the work so far.

Senator Holmes noted the frequent reference to the Indigenous Strategic Plan, a document that does not yet exist. He reminded Senators that Senate was not approving this document in principle, but in full.

The Provost said that the document refers to the Indigenous Strategic Plan it as a work in progress.

Senator Holmes outlined his concerns that sexual violence had not been appropriately referenced in the plan, and stated that that experts should inform this area.

Senator Doering asked for confirmation that metrics would be brought forward to the campus and senate on an annual basis.

Senator Ngo said that she enjoyed reading the plan, finding it encouraging and visionary. She expressed that we should make clear the impact of our alumni globally and improve the language on Arts One.

The provost agreed to review and update that language.

Senator Singh expressed his appreciation for the sustainability language, but noted that the undergraduate research section could be stronger. He suggested that the work of the Faculty of Science in upper years could be built upon here. Secondly, he suggested the language around sexual violence needed to be improved to make clear our priority towards the safety of our



students. Finally, he suggested that we should be strategic in addressing our past challenges with governance head on.

The President agreed that undergraduate research needed to be addressed during implementation, using resources and graduate student support as an example. He suggested that we could emphasize that more. He confirmed that Senator Holmes' comments regarding sexual violence would be incorporated. With referenced to governance, Dr Ono noted that the Board is conducting their own governance review for their operations.

Senator Singh replied said that it was beyond just governance; it was also a matter of internal communications failures.

Senator Brar said that we would be endorsing the creation of the Indigenous Strategic Plan, but would we commit to bringing that plan to Senate for endorsement itself along with the wellbeing plan and if so, when.

Dr Ono agreed that both the Indigenous and wellbeing plans needed to come forward to Senate for endorsement but advised that he was not certain when drafts would be ready for consideration.

Senator Doering said that digital technology should be ambitiously referenced in the plan.

Dr Ono said that he couldn't imagine a future where that wasn't the case for UBC.

Dr Tees said that much of these comments were about the future and implementation; at that time, we'll have a reasonable opportunity to provide advice.

Richard Tees	}	<i>That Senate endorse the strategic plan as</i>
Susan Forwell		<i>amended.</i>

Approved

Candidates for Degrees

Ainsley MacDougall	}	<i>That the candidates for degrees as recommended by the Faculty of Graduate and Postdoctoral Studies be granted the degrees for which they were recommended, effective February 2018, and that a committee comprised of the Registrar, the dean of the faculty and the Chair of the Vancouver Senate be empowered to make any necessary</i>
John Shepherd		

adjustments.

Approved

Academic Policy Committee

Dr Paul Harrison, Chair of the Senate Academic Policy Committee, presented.

Paul Harrison	}	<i>That Senate approved the proposed revisions to</i>
Susan Porter		<i>the Faculty of Graduate and Postdoctoral Studies</i>
		<i>policies on membership in the Faculty and the</i>
		<i>supervision of graduate students as set out in the</i>
		<i>attached form.</i>

Dr Harrison explained the nature of the proposed changes; housekeeping and accommodating UBC Okanagan faculty supervising students with the approval of graduate programs.

Senator Thachuk asked if there was a reciprocal agreement with the Okanagan campus.

Senator Porter said that this was under development at the Okanagan campus.

Approved

Admissions Committee

Professor Carol Jaeger, Chair of the Senate Admissions Committee, presented.

**BACHELOR OF DENTAL SCIENCE, DENTAL HYGIENE – REINSTATEMENT OF ADMISSION OF
DIRECT-ENTRY ADMISSION**

**MASTER OF ENGINEERING LEADERSHIP AND MASTER OF HEALTH LEADERSHIP AND POLICY
– ENGLISH LANGUAGE PROFICIENCY STANDARDS**

**MASTER OF ENGINEERING LEADERSHIP AND MASTER OF HEALTH LEADERSHIP AND POLICY
– TRANSFER
CREDIT**

**MASTER OF ENGINEERING – CHANGES IN ADMISSION REQUIREMENTS AND TRANSFER
CREDIT POLICY**

MASTER OF SCIENCE IN GEOPHYSICS – CHANGES IN ADMISSION REQUIREMENTS



FACULTY OF LAND AND FOOD SYSTEMS – ADMISSION

Carol Jaeger
Michael Pratt

} *That Senate approve the reinstatement of admissions to the Bachelor of Dental Science in Dental Hygiene Degree Completion Admission Option, revised admission requirements and associated Calendar changes, effective for entry to the 2019 Winter Session and thereafter;*

That Senate approve changes in English language proficiency requirements for admission to the Master of Engineering Leadership (Advanced Materials Manufacturing; Clean Energy Engineering; Dependable Software Systems; Green BioProducts; High Performance Building, Integrated Water Management; Naval Architecture and Marine Engineering; Smart Grid Energy Systems; Urban Systems); and Master of Health Leadership and Policy (Clinical Education; Senior Care) programs for entry to the 2018 Winter Session and thereafter;

That Senate approve the regulations for transfer credit for students in the Master of Engineering Leadership (Advanced Materials Manufacturing; Clean Energy Engineering; Dependable Software Systems; Green BioProducts; Integrated Water Management; Naval Architecture and Marine Engineering; Smart Grid Energy Systems; Urban Systems); and Master of Health Leadership and Policy (Clinical Education; Senior Care) for the 2017 Winter Session and thereafter;

That Senate approve Calendar changes to the Calendar entry on Master of Engineering, effective for the 2018 Winter Session and thereafter;

That Senate approve changes in admission requirements for applicants to the Master of Science in Geophysics, effective for entry to the 2018 Winter Session and thereafter; and



That Senate approve changes in admission and readmission requirements for applicants to undergraduate programs in the Faculty of Land and Food Systems, effective for admission to the 2018 Winter Session and thereafter.

Approved

MEMORANDUM OF UNDERSTANDING FOR FUNDING AND RESEARCH SUPPORT OF DOCTORAL EXCHANGE STUDENTS BETWEEN UBC AND SOUTHERN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Carol Jaeger
Anthony Sheppard

}

That Senate approve and recommend to the Council of Senates for approval the terms of the affiliation between UBC and SUSTech, as set out in the “Memorandum of Agreement for Funding Support and Research Exchanges for UBC Doctoral Students Between the College of Engineering Southern University of Science and Technology (SUSTech) and the Faculty of Applied Science University of British Columbia.

NB: Senator Singh abstained from voting.

Approved

DUAL DEGREE PROGRAM OPTION – UBC MASTER OF MANAGEMENT AND YALE UNIVERSITY MASTER OF MANAGEMENT STUDIES

Carol Jaeger
Michael Pratt

}

That Senate approve the proposed Calendar entry on the Dual Degree Program Option: UBC Master of Management/Yale University Master of Management Studies; and

That Senate recommend to the Council of Senates for approval the terms of the affiliation between UBC and Yale University as set out in the “Memorandum of Understanding Between Yale University on Behalf of Its School of Management and the University of British Columbia on Behalf of the UBC Faculty of Commerce and Business



Administration (doing business as the Sauder School of Business).

NB: Senator Singh abstained from voting.

Approved

2018/2019 ENROLMENT TARGETS

Carol Jaeger	}	<i>That Senate approve and forward to the Board of Governors for approval the 2018/2019 Enrolment Targets, as per section 27(2)(r) of the University Act.</i>
Anthony Sheppard		

Senator Doering asked about the cost of educating more domestic students than we were paid for by the Province.

The Provost replied that we didn't know the cost for these 5300 students because we don't assign funded seats to specific programs.

With permission of Senate, Vice-Provost Pamela Ratner spoke, elaborating that an answer to this question was a challenge because we don't have the dollar figure to educate students in any given program. We are committed to educating as many domestic students as we can so long as they have a quality education.

Senator Doering asked what the effect was on the budget for being overenrolled.

Dr Ross said that it was hard to completely hit 100%, so for domestic we aim to have more.

Dean Helsley reminded Senator Doering that tuition was regulated by the Provincial Government and Board of Governors.

Dr Ono said that it was very difficult to have exactly the right number of students attend each program. We try to guess on yields. If we are off on the negative side, it can negatively affect programs. It's laudable to admit as many people as we can.

Approved

NEW APPROACH TO HOLISTIC UNDERGRADUATE ADMISSIONS – CALENDAR CHANGES ON ADMISSION



Carol Jaeger
Anthony Sheppard

}

That Senate approve proposed changes in admission requirements for applicants to the Bachelor of Science in Applied Biology and the Bachelor of Science in Food, Nutrition and Health programs, effective for the 2019 Winter Session and thereafter;

That Senate approve changes in admission requirements for applicants presenting International Baccalaureate and Advanced Placement courses, effective for the 2019 Winter Session and thereafter;

That Senate approve proposed amendments to admission requirements and the UBC Academic Calendar, as circulated; and

That Senate direct the Committee to report back with changes to Policy J-51: Admission Based on Interim Grades for Applicants following Canadian Extra-Provincial Curricula Policy J-52.2 Admission for Secondary School Applicants following the BC/Yukon Curriculum, and Policy J-53: Course-specific Minima for Secondary School Applicants no later than the 16 May 2018 Senate meeting.

Approved

Agenda Committee

Mr Jakob Gattinger, Chair of the Senate Agenda Committee, presented for information the Senate meeting dates for 2018/2019 pursuant to Senate Rule 17 (a):

Wednesday September 19, 2018

Wednesday October 17, 2018

Wednesday November 21, 2018

Wednesday December 12, 2018



Wednesday January 16, 2019

Wednesday February 13, 2019

Wednesday March 20, 2019

Wednesday April 17, 2019

Wednesday May 15, 2019

Senator Gattinger noted that all of these dates followed the usual pattern of the 3rd Wednesday of each month except for the February date, which was being moved forward a week to avoid falling during reading break.

Awards Committee

The Chair of the Senate Awards Committee, Dr Lawrence Burr, presented.

See Appendix A: Awards Report

Lawrence Burr	}	<i>That Senate accept the awards as listed and forward them to the Board of Governors for approval; and that letters of thanks be sent to the donors.</i>
Sean Haffey		

Senator Thatckuk asked if Goldcorp was paying for the two awards listed under their name.

Senator Burr confirmed that they have agreed to pay for these awards for at least 3 years, which is the minimum commitment we will accept for an annual award.

Senator Thatchuk asked why an external award would be approved by UBC

The Registrar replied that the awards were being administered by UBC and the funds would be disbursed by UBC.

Senator Thatckuk asked if we had rules around editorial advertising for donors in awards, suggesting that this would be endorsement by the University of this language.

Senator Burr noted that some people did get carried away and we tried to encourage to cut that material as much as possible, but we do view some degree of descriptive language in the body of the award. He added that that we have gone back in cases of blatant advertising and we will not accept that sort of language.



Senator Harrison agreed with Senator Thatchuk, suggesting that this material could be dated and inaccurate in a few years.

Senator Thatchuk suggested that this could be taken as endorsement of a company and he was uncomfortable with doing so.

Senator Burr confirmed that Senator Thatchuk has similar concerns with other awards.

Senator Keown did not agree with a concern regarding there being an issue in the award language; suggesting that the language was factual.

Senator Holmes agreed it was factual but it this did not seem relevant to the award.

The Chair asked if a senator wished to refer the award back to the committee for review.

Senator Burr noted that this award wasn't out of line with others.

Senator Gattinger expressed a concern with referring the awards back as this could potentially cost several mining students some generous financial support for next year.

Senator Burr confirmed that this was possible.

Senator Haffey said that these award terms didn't seem that atypical and was more neutral as a few others being proposed.

Senator Krebs agreed that this didn't seem that different from other awards. We have a lot of awards with corporation names attached to them.

Senator Thorne said that we are in the middle of a capital campaign to support our students and a little self-aggrandizement was a reasonable price to pay; these did not seem past the line.

Senator Gattinger spoke in favour of approval, noting that Goldcorp was stating factual information about itself.

Senator Jaeger agreed, noting we could change the language later if the facts changed.

Senator Singh note the school preference made in the David KS Sam bursary and asked if this and matching funds were normal.

Senator Burr said that a school or location preference was fairly typical, but the matching funds from UBC were more unusual. This was more towards the specific end but because of the inclusion of anywhere from a Vancouver secondary school the award would have no difficulty in being granted.



The President noted the power of matching funds for donations as an important catalyst for gifts. He noted the use of matching funds to address gender imbalance for awards for scholar-athletes and help correct a historical imbalance.

Senator Burr confirmed for Senator Haffey that these were our first awards with a hashtag in the title.

Senator Sallahmohamed noted that there was no course in the MD program dedicated to medical microbiology so how the medical microbiology awards award would be assessed.

Senator Krebs said that all exam questions were tagged for subjects including medical microbiology.

NB: Mark Thatchuk voted against the motion

Approved

Joint Reports of the Admission and Curriculum Committees

The Chair of the Senate Curriculum Committee, Dr Peter Marshall Presented.

NEW PROGRAM: BACHELOR OF SCIENCE IN FOOD AND RESOURCE ECONOMICS

Peter Marshall	}	<i>That the new Bachelor of Science in Food and Resource Economics (FRE) degree program and its associated new courses be approved.</i>
Ainley MacDougall		

Dr Marshall noted that this was an applied economics degree with science and business material. The Faculty already has a successful masters program in this area.

Senator Harrison asked what the effect of this program be on undergrad enrolment.

With permission of Senate, Dr Scamen said that they did not expect a large increase in students.

Approved

NEW PROGRAMS: MASTER OF SCIENCE AND DOCTOR OF PHILOSOPHY IN MEDICAL PHYSICS



Peter Marshall
Sarah Park

}

That the new Master of Medical Physics and the Doctor of Philosophy in Medical Physics degree program and its associated new course be approved.

Dr Marshall commented that although a new name, this was not a new program area for UBC: we've been teaching in this area since the 1950s.

Approved

NEW PROGRAM: MASTER OF URBAN FORESTRY LEADERSHIP

Peter Marshall
Amber Shilling

}

That the new Master of Urban Forestry (M.U.F.L.) degree program and its associated new course code and new courses be approved

Dr Marshall noted that this was an area where UBC already had undergraduate programming.

Approved

Curriculum Committee

The Chair of the Senate Curriculum Committee, Dr Peter Marshall, presented.

FEBRUARY CURRICULUM PROPOSALS

See Appendix B: Curriculum Report

Peter Marshall
Max Holmes

}

That the new courses, new course code, revised courses, new minor, new major, new dual degree programs, revised programs, and revised program options, brought forward by the faculties of Applied Science, Arts, Commerce and Business Administration, Education, Forestry, and Graduate and Postdoctoral Studies (Applied Science, Arts, Commerce and Business Administration, Education, Forestry, Medicine

and Science) and Land and Food Systems be approved.

Approved

Nominating Committee

The Chair of the Senate Nominating Committee, Dr Richard Tees, presented.

MEMBERSHIP OF THE AD HOC COMMITTEE ON ACADEMIC DIVERSITY AND INCLUSIVITY

Richard Tees	}	<i>That Peter Marshall, Anne Murphy, Santokh Singh, Jakob Gattinger (Student Member of Senate), Marium Hamid (Student Member of Senate), Sara-Jane Finlay, Paola Baca, Debra Martel, Dorine Akwiri (Student), and Jeannie Malone (Student) be appointed to the Ad Hoc Committee on Academic Diversity and Inclusivity until replaced.</i>
Kevin Doering		

Senator Thatchuk noted that the committee was perhaps not balanced for gender.

Several senators questioned the assumption of genders based upon names and appearances.

Senator Doering spoke in favour of the committee.

The Acting Secretary, Mr Eaton, noted an error in the distributed motion and advised that the Nominating Committees recommendation was also to add Senator Thatchuk to the committee.

By general consent, the motion was amended to add Mark Thatchuk as a member.

Approved as
Amended

Reports from the Registrar

2018/2019 ACADEMIC YEAR.



Dr Kate Ross presented on the key dates in the next academic year; she noted that unfortunately we would need to start term 2 on January 2nd as alternatives were not possible given constraints.

Senator Holmes asked if a Term 1 Reading break was possible next year.

Dr Ross replied that this was still being looked at by the Academic Policy Committee

CONFIRMATION OF EMAIL CONSENT TO NOMINATING COMMITTEE RECOMMENDATIONS

Dr Ross confirmed for Senate that the following two resolution that were distributed by email on 8 February 2018 to all Senators had resulted in no objections and thus were considered approved:

That Dr Susan Forwell be appointed to the President's advisory Committee for the Selection of a Vice-President Finance and Operations.

That Dr Sue Grayston be appointed to the President's advisory Committee for the Selection of a Vice-President Development and Alumni Engagement.

Other Business

Senator Doering spoke to a document (Senate 2020) distributed by the student members of Senate that spoke to their priorities over this triennium. He noted that the goal of this document was to inform student and Senate of student initiatives, and that the Administration and Senate were already working towards many of these goals.

Dr Ono thanked the students for the document and the students' work.

Senator Thachuk said it was well written and he was much in agreement with it; he asked if the students had a way of prioritizing their goals?

Senator Doering said that he wasn't comfortable answering that without speaking with his colleagues.

Senator Krebbs asked if this could be looked at by the relevant committees.

The President said we'd make sure it was brought to the committees.

In reply to a question, Mr Eaton advised that term limits were instituted for the Board of Governors in the *University Act* as part of the Duff-Berdahl Report implementation but a deliberate decision was made to not extend that to the Senate as continuity was viewed as integral to its operations and unlike the mostly-appointed Board, a majority of the Senate was elected.

Approved

Adjournment

Seeing no other business, the meeting was adjourned at 7:55 pm.

Appendix A: Awards Report

NEW AWARDS – ENDOWED

John C. Armstrong, QC Bursary in Law

Bursaries totalling \$2,000 have been made available through an endowment established by John Armstrong, QC, along with matching funds from the University of British Columbia, to JD students studying in the Peter A. Allard School of Law. John is an alumnus of the Allard School of Law class of 1964. The bursaries are adjudicated by Enrolment Services. (First award available in the 2018/19 winter session.)

Patrick and Beryl Campbell Centennial Leaders Award

A \$20,000 renewable entrance award has been made available through an endowment established by the Patrick and Beryl Campbell Charitable Trust, along with matching funds from the University of British Columbia, to undergraduate students entering university directly from secondary school or transferring from another post-secondary institution to an undergraduate program of study. Recipients are academically qualified Canadian citizens or permanent residents of Canada, with preference to students who would not be able to attend UBC without financial assistance. In addition to academic merit, consideration is given to leadership skills, community service and recognized extra-curricular achievement. Subject to continued academic standing, the awards will be renewed for a further three years of study or until the first undergraduate degree is obtained (whichever is the shorter period). As an engineer, UBC alumnus Patrick David Campbell (BASc 1947) enjoyed a career that took him from construction sites in remote corners of the world to the role of president of an international pipeline company. Pat and his wife, Beryl, recognized that education provides a foundation for success, and so made a commitment to support accessible education through their philanthropic trust. The awards are made on the recommendation of the Centennial Scholars Entrance Award Committee. (First award available in the 2018/19 winter session.)

Katie and Frank Chang Memorial Prize in Brain Health

Prizes totalling \$1,000 are made available through an endowment established by family and friends in memory of Katie and Frank Chang. The prizes recognize graduating MD students with a strong academic record who plan to pursue brain health as a part of their postgraduate training. The prizes are made on the recommendation of the Faculty of Medicine. (First award available in the 2018/19 winter session.)

Dennis and Daphne Martin Bursary in Engineering

Bursaries totalling \$2,000 have been made available through an endowment established by Daphne Martin, along with matching funds from the University of British Columbia, to students studying engineering in the Faculty of Applied Science. Dennis Martin studied Geological



Engineering at UBC (BASc 1973) and went on to receive his MSc (1978) and PhD (1993) from Imperial College in London, England. He became internationally renowned as a consultant engineer, particularly for his work in slope stability, and was a major supporter of UBC's Geological Engineering program as a teacher and mentor. His wife, Daphne, received a BA (Econ.) from UBC in 1972. The bursaries are adjudicated by Enrolment Services. (First award available in the 2018/19 winter session.)

Djavad Mowafaghian Presidential Scholar Award

Two renewable awards of \$20,000 each per year, totalling up to \$80,000 per student over four years have been made available through an endowment established by the Djavad Mowafaghian Foundation, for domestic students of academic distinction entering an undergraduate program at UBC directly from secondary schools, or transferring directly from other colleges and universities, in Canada or abroad. Criteria for these entrance awards include demonstrated academic and leadership achievements in the arts, community, athletics, or school. Subject to maintaining scholarship standing, the award will be renewed for a further three years of study or until the first undergraduate degree is obtained (whichever is the shorter period). The award is made on the recommendation of Enrolment Services. (First award available in the 2018/19 winter session.)

David K.S. Sam Bursary

Bursaries totalling \$2,220 have been made available through an endowment established in memory of David K.S. Sam (BComm 1982) by his wife Melinda, their two children Samantha and Joshua, and family friends, along with matching funds from the University of British Columbia, for undergraduate students entering UBC who demonstrate financial need. Having immigrated to Canada in his early childhood with few resources, David was always grateful for having been given the opportunity to establish a successful career in finance with Toronto Dominion Bank. It was always in David's heart to help others, especially young people who needed what he called a "hand up, not a hand out." He was a humble, kind and gentle soul who was beloved by all who knew him. Preference in descending order will be given to graduates of the following high schools: John Oliver Secondary, Eric Hamber Secondary, or a Vancouver School Board high school. The bursaries are adjudicated by Enrolment Services. (First award available in 2018/19 winter session.)

NEW AWARDS – ANNUAL

Chartered Professional Accountants' Education Foundation Tom Kennedy Memorial Scholarship

A \$1,000 scholarship is offered annually in memory of Tom Kennedy to an outstanding student entering their fourth year in the Accounting Option of the Sauder School of Business. The recipient must express an intent to become a Chartered Professional Accountant (CPA). The

award is made on the recommendation of the Sauder School of Business. (First award available in the 2018/19 winter session.)

Chartered Professional Accountants' Education Foundation Lam A. Milne Memorial Scholarship

A \$1,000 scholarship is offered annually in memory of Lam A. Milne to an outstanding student entering their fourth year in the Accounting Option of the Sauder School of Business. The recipient must express an intent to become a Chartered Professional Accountant (CPA). The award is made on the recommendation of the Sauder School of Business. (First award available in the 2018/19 winter session.)

Goldcorp #DisruptMining Award

Three awards of \$10,000 each are offered annually by Goldcorp to undergraduate and graduate students in the Faculty of Applied Science who have demonstrated an interest in fostering growth in innovation and disruptive thinking with the potential to benefit the global mining industry. Preference is given to students who are executing a project and/or pursuing research that addresses the challenges faced by the mining industry. These challenges can include increasing the long-term pipeline for metal and mining projects, enhancing production, lowering costs, strengthening safety, enhancing stakeholder support, reducing environmental footprint, facilitating open and transparent markets, and others. Goldcorp is a senior gold producer based out of Vancouver. The company has six mines and four development projects, employing over 15,000 people across the Americas. The awards are made on the recommendation of the Faculty of Applied Science, and in the case of graduate students, in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available in the 2018/19 winter session.)

Goldcorp #DisruptMining Leadership Award

A \$20,000 award is offered annually by Goldcorp to an undergraduate or graduate student in the Faculty of Applied Science who demonstrates leadership skills by engaging in industry events, student activities and/or projects that address challenges faced by the mining industry. These challenges can include increasing the long-term pipeline for metal and mining projects, enhancing production, lowering costs, strengthening safety, enhancing stakeholder support, reducing environmental footprint, facilitating open and transparent markets, and others. Preference is given to First Nations, Inuit, or Métis students of Canada. Goldcorp is a senior gold producer based out of Vancouver. The company has six mines and four development projects, employing over 15,000 people across the Americas. The award is made on the recommendation of the Faculty of Applied Science, and in the case of graduate students, in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available in the 2018/19 winter session.)

Goldcorp Women in Mining Engineering Award



A \$20,000 award is offered annually by Goldcorp to a female student enrolled in the Bachelor of Applied Science program in Mining Engineering. The recipient of this award will demonstrate academic excellence, disruptive thinking, and leadership skills inspiring the next generation of global mining innovators. Goldcorp is a senior gold producer based out of Vancouver. The company has six mines and four development projects, employing over 15,000 people across the Americas. The award is made on the recommendation of the head of the Department of Mining Engineering. (First award available in the 2018/19 winter session.)

Minerva BC Champions for Women in Engineering Bursary

Bursaries totalling \$10,000 are offered annually, through a partnership between the Minerva Foundation for BC Women and the Faculty of Applied Science, to support undergraduate female engineering students in any department or program who demonstrate financial need. Preference will be given to (1) First Nations, Inuit or Métis women of Canada or (2) single mothers. The Minerva BC Champions include the following individuals and their families, who have made the elevation of women in leadership through education the hallmark of their legacy: Jacqueline Frewin, Janet Fleck Ladner, Jocelyne Bourassa, Randy Sung, Suzanne Lee, Thomas Kinloch, the Harrison Buitenhuis family, and the Rix family. The bursaries are adjudicated by Enrolment Services. (First Award Available 2018/19 Winter Session).

PREVIOUSLY APPROVED AWARDS WITH CHANGES IN TERMS OR FUNDING SOURCE

7332 – Peter M. Lansdorp Bursary

Proposed Award Description

A bursary of Bursaries totalling \$12,200 has been endowed have been made available through an endowment established by Professor Dr. Peter M. Lansdorp through his company, Camosun Biotechnology Inc., for a students in any year or Faculty who is are in need of financial assistance to begin or continue his or her their post-secondary education, in amount(s) no less than the recipients' tuition for the year.

Rationale for Proposed Changes

At the request of the donor, the award description is being revised to reflect Dr.

Lansdorp's preference to provide bursaries that are no less than one year's tuition to benefit multiple students as the principal of the endowment continues to grow.

3290 – Medical Microbiology Prize

Proposed Award Description

A \$800 prize has been endowed by the Division of Medical Microbiology, Faculty of Medicine. The prize is offered awarded to the MD student attaining the highest standing in FMED 401



(Host Defense) **medical microbiology** and is made on the recommendation of the Department of Pathology and Laboratory Medicine.

Rationale for Proposed Changes

In collaboration with the Faculty of Medicine and Enrolment Services, the criteria for student selection has been revised to account for changes to curriculum as FMED 401 no longer exists.

5143 – Go Global Self-Initiated Research Award

Proposed Award Description

Awards valued up to \$2,000 each are offered to domestic undergraduate **and international** UBC students participating in recognized student activities through self-initiated international research placements arranged by Go Global. Awards are made on the recommendation of the Go Global International Learning Programs.

Rationale for Proposed Changes

The award description is being updated to reflect that this award is available to domestic and international undergraduate and graduate students.

Appendix B: Curriculum Report

FACULTY OF APPLIED SCIENCE

New course

PLAN 341 (3) Smart Cities: Concepts, Methods and Design.

FACULTY OF ARTS

New courses and revised academic regulations

ASIA 323 (3) History of Cantonese Worlds;
HIST 377 (3) History of Cantonese Worlds;
ENGL 247 (3) Television Studies;
ENGL 248 (3) Mystery and Detective Fiction;
ENGL 327 (3-6) d Cognitive Approaches to the Study of Meaning;
ENGL 365 (3-6) d Modernist Literature;
ASIA 312 (3) Buddhism in Korea;
ASIA 345 (3) Chinese Film Classics;
ASIA 407 (3) North Korea in Historical Context;
ARTH 381 (3) The Artist in the World;
ENGL 334 (3-6) d Literature and the Archive;
ENGL 335 (3-6) d Digital Humanities;
ENGL 336 (3-6) d Print Culture and Media Studies;
ENGL 337 (3-6) d Text and Image;
ENGL 338 (3-6) d Literature and Science;
ENGL 339 (3-6) d Trauma and Memory: Literature, Performance and Theory;
ENGL 360 (3-6) d Early Canadian Writing;
ENGL 370 (3-6) d Literatures and Cultures of Africa and the Middle East;
ENGL 379 (3-6) d Migrations, Movements, and Transnational Networks in Literary and Cultural Production;
GEOG 313 (3) Environmental Justice and Social Change;
GEOG 314 (3) Analysing Environmental Problems;
POLI 379 (3/6) d China in World Politics;
POLI 424 (3/6) d Ethics in Democratic Politics;
ACAM 250 (3) Asian Canadians in Popular Culture;
GRSJ 315 (3) Critical Racial Theories;
GRSJ 316 (3) Queer and Trans of Colour Theorizing;
GRSJ 415 (3) Critical Racial and Anti-Colonial Feminist Approaches;
BIE>Academic Regulations.

FACULTY OF COMMERCE AND BUSINESS ADMINISTRATION

Revised program option, new and revised courses

UBC Bachelor of Commerce Dual Degree with Sciences Po Program Option;
COEC 294 (3) Managerial Accounting;
COMM 294 (3) Managerial Accounting.

FACULTY OF FORESTRY

New dual degree programs, program option and new courses



Dual Degree Program in Forest Sciences and Education;
 Dual Degree Program in Natural Resources Conservation and Education; Land One Cohort Option;
 FRST 101 (3) Principles of Microeconomics for Forestry and Land and Food Systems;
 FRST 110 (3) Land One: First-year Integrative Seminar;
 FRST 150 (3) Scholarly Writing and Argumentation in Forestry;
 WOOD 488 (3) Wood Products Design and Development I;
 WOOD 489 (3) Wood Products Design and Development II;
 UFOR 101 (3) Urban Forest Inventory and Assessment;
 UFOR 201 (3) Introduction to Urban Forest Design;
 UFOR 316 (3) Trees and Shrubs in Landscape;
 UFOR 495 (3) Biodiversity in Urban Areas.

FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

Applied Science

New courses

APSC 520 (6): Co-op Work Term I;
 APSC 521 (6): Co-op Work Term II;
 APSC 522 (6): Co-op Work Term III

Arts

New course code and new courses

COLX Computational Linguistics;
 COLX 521 (1) Corpus Linguistics;
 COLX 523 (1) Advanced Corpus Linguistics;
 COLX 525 (1) Computational Morphology;
 COLX 527 (1) Advanced Computational Morphology;
 COLX 531 (1) Machine Translation;
 COLX 533 (1) Advanced Machine Translation;
 COLX 535 (1) Parsing for Computational Linguistics;
 COLX 561 (1) Computational Semantics;
 COLX 563 (1) Advanced Computational Semantics;
 COLX 565 (1) Sentiment Analysis;
 COLX 581 (1) Natural Language Processing for Low-Resource Languages;
 COLX 585 (1) Trends in Computational Linguistics;
 COLX 595 (6) Capstone Project;
 POLI 567 (3/6) d Norms and Ethics in World Politics

Commerce and Business Administration

New courses

BAEN 548 (1.5) Social Entrepreneurship;
 BAEN 549 (1.5) Innovation and Sustainability;
 BAFI 519 (1.5) Topics in Investment Management;
 BAHF 517 (1.5) Business Communications;
 BASM 510 (1.5) Consulting Simulation

Education

New course



EDCP 533 (3) Health, Outdoor and Physical Experiential Education Curriculum, Pedagogy and Place in the Elementary School

Medicine*New courses*

BIOC 552 (1.5) Membrane Proteins;
BIOC 553 (1.5 credits) Advanced Topics in Lipid Biology;
BIOC 554 (1.5) Nucleic Acids: DNA/RNA Structure and Function;
BIOC 555 (1.5) Epigenetics;
BIOC 557 (1.5) Advanced Topics in Biochemistry;
BIOC 558 (1.5) Advanced Topics in Protein Chemistry I;
BIOC 559 (1.5) Advanced Topics in Protein Chemistry II;
BIOC 560 (1.5) Computational Approaches in Biochemistry.

Science*New program option*

Master of Data Science Computational Linguistic Option

FACULTY OF LAND AND FOOD SYSTEMS*New program options, new minor, new major, and new courses*

Land One Cohort Option;
LFS 110 (3) Land One: First-year Integrative Seminar;
LFS 101 (3) Principles of Microeconomics with Applications to Land and Food Systems;
Minor in Fermentations; Sustainable Agriculture and Environment Major;
GRS 300 (3) Global Water and Energy Nexus

The following draft has been modified by the Office of the Senate to show substantive changes made since the prior meeting of Senate in orange type. Typographical corrections and stylistic changes have not been marked.

STRATEGIC PLAN 2018–2028

SHAPING UBC'S NEXT CENTURY

Inspiring people, ideas and actions for a better world

DRAFT 14 March 2018

A NOTE FROM THE PRESIDENT AND VICE-CHANCELLOR

Welcome to ***Shaping UBC's Next Century*** – the strategic plan of the University of British Columbia (UBC), launched at a time of renewal as we embark on our next century as a leading public university.

The planning process over the last year has given UBC community members the opportunity to share perspectives on what defines UBC and to exchange ideas about our role in the world. ***Shaping UBC's Next Century*** builds on the university's previous strategic plan, *Place and Promise*, and focuses on three themes that we believe are critical to society today: inclusion, collaboration and innovation. This plan describes the strong connections between these themes and the core areas that continue to define what we do as a public university: People and Places, Research Excellence, Transformative Learning and Local and Global Engagement. It also emphasizes our enduring focus on academic excellence and on Indigenous engagement, sustainability and wellbeing. Our relationship with Indigenous people and communities is central to the university; we hold profound commitments to reciprocity, knowledge curation and development.

Shaping UBC's Next Century sets out our collective vision and purpose, as well as our goals and strategies for the years ahead. It will guide our decisions, actions and interactions into the future, and will create a framework for resource allocation across the university. As always, people remain the cornerstone of UBC. The plan reflects our commitment to their health, development and success, without which we will not fulfil our collective potential. We want to inspire the very best in our students, faculty, staff, alumni and partners, and we recognize the degree to which we continue to be inspired by the individuals and the communities with whom we work.

This is our moment to harness the energies and strengths of an extraordinary institution to affect sustainable and positive change, both locally and globally. Our vision of ***Inspiring people, ideas and actions for a better world*** reflects our strongly held belief

that, personally and collectively, we have the desire, capacity and responsibility to make this happen. This is our moment to *inspire*.

I am proud of the way our community has come together to create the direction and spirit so evident in this plan. To the many thousands of individuals – students, faculty, staff, alumni and university partners – who contributed their perspectives and passion to this effort, I offer my deepest thanks.

Professor Santa J. Ono
President and Vice-Chancellor

DRAFT

INTRODUCTION

The process of developing UBC's new strategic plan has helped to forge a consensus about the directions we will take as a public institution. Throughout 2017, thousands of members of the UBC community came together through group discussions, open houses and online to provide input that helped inform the plan. That input was further shaped by a representative Steering Committee, multiple working groups, *alumni UBC*, the Deans, the Executive and diverse university committees. We have also engaged extensively with external partners along the way. UBC has benefited greatly from the contributions and commitment of these individuals and groups and will further benefit from our continued work together as we move into implementation.

We begin by acknowledging that UBC's two main campuses are located on the traditional, ancestral and unceded territories of the xʷməθkʷəy̓əm (Musqueam) and Syilx (Okanagan) peoples, and that UBC's activities take place on Indigenous lands throughout British Columbia and beyond. In recent years, the work of the Truth and Reconciliation Commission of Canada and the publication of its *Final Report* and *Calls to Action*, and the development of the *United Nations Declaration on the Rights of Indigenous Peoples*, have brought renewed attention to the ways in which Canadian educational and other institutions have failed and oppressed Indigenous people. At this historic juncture, UBC renews its commitments, articulated in the 2009 *Aboriginal Strategic Plan*, to addressing this history and charting a way forward that provides a basis for productive co-existence and a more equitable future. **Specific measures are identified throughout this plan, and these are being reviewed and revised in the context of the 2018 *Indigenous Strategic Plan* ([LINK](#)).**

Shaping UBC's Next Century builds on the successes of the past. The university recently celebrated its centennial, marking 100 years of excellence in research, education and service in British Columbia and beyond. UBC's previous strategic plan sparked significant academic achievements, with deepening commitments to Indigenous people

and communities, sustainability and alumni engagement. It channelled institutional attention and activity toward international collaboration, intercultural understanding and outstanding work environments. Collectively, these accomplishments position us well to embrace the opportunities and navigate the challenges that lie ahead. The locations of our campuses and multiple learning and research sites at the western edge of Canada enable fresh perspectives in a fast-changing global landscape. These are reinforced by the relative youth of UBC in the world of higher education.

As a public institution, we are proud to play a pivotal role in British Columbia, shaping and participating in the development of its people, society and economic growth. At the same time, UBC is a globally renowned university, contributing world-leading research, providing distinctive excellence in education, attracting outstanding people domestically and internationally, and collaborating with pre-eminent universities and organizations around the world. The founders of UBC understood the university's potential as a place of engagement; a place where relevant, innovative and impactful research could be conducted; a place where pressing societal issues would be examined, deliberated and resolved; and a place where critical thinking would always be welcomed and informed citizens shaped. We strive to fulfil this potential in all that we do, locally, regionally, nationally and across the world.

This plan identifies key areas in which to focus our efforts, and provides support for decision-making and resource allocation across the university. It allows us to see more clearly our roles in context and creates a basis for external dialogue and engagement. Importantly, it helps us define the outcomes against which we can be held accountable and the metrics by which to assess our progress. ***Shaping UBC's Next Century*** also provides connections across – and support for – the many strategic plans that articulate ambitions and guide activity in constituent parts of UBC, including faculties and university-wide initiatives. In 2014, UBC Okanagan articulated its goals and actions in a visioning exercise entitled *Aspire*, a foundational document for both the campus and our institutional planning (<https://aspire.ok.ubc.ca/>).

We recognize that successful implementation will require sustained leadership, activity and resources. This plan is built upon the strengths of all members of the UBC community – students, faculty, staff, alumni and partners – and it is dependent on their continued engagement and contributions. UBC is intent on ensuring that the necessary supports are in place to help us fulfil the goals and priorities outlined in *Shaping UBC's Next Century*.

In developing this plan, we have renewed our vision and purpose as a university. These reflect an ongoing commitment to excellence in the academic mission, to citizenship and to positive change. We emphasize the people, ideas and actions that enable us, personally and collectively, to achieve these aims and achieve inspirational impact. We also highlight the interconnectedness of UBC's activities, internally and externally, with our local and global partners. Our efforts in the past decade to improve Indigenous relationships, sustainability and alumni engagement, framed through *Place and Promise*, have enabled considerable progress, and these are now widely regarded as fundamental to the UBC community and to our partners. Continued focus in these areas is an essential aspect of our work in research and education. We seek to *inspire* people, ideas and actions, and to build together a creative and dynamic institution comprised of – and connected with – *inspiring* people, ideas and actions. The word *inspire* has another meaning for us, related to its original meaning of “to breathe in”: to do so through deep engagement with societal partners, new forms of academic inspiration and the pursuit of opportunities to serve society better.

Vision

Inspiring people, ideas and actions for a better world

Purpose

Pursuing excellence in research, learning and engagement
to foster global citizenship and advance a sustainable and just society
across British Columbia, Canada and the world

DRAFT

Five enduring values¹ underpin all our activities, interactions and decisions – from classrooms and laboratories to committees and leadership and our interactions with the world. These values act as a compass and a lens through which to view our work.

Values

Excellence. A profound and aspirational value:
the quality of striving to be, and being, outstanding

Integrity. A moral value:
the quality of being honest, ethical and truthful

Respect. An essential and learned value:
regard felt or shown towards different people, ideas and actions

Academic freedom. A unique value of the academy:
a scholar's freedom to express ideas through respectful discourse
and the pursuit of open discussion, without risk of censure

Accountability. A personal and public value:
being responsible for our conduct and actions
and delivering upon our respective and reciprocal commitments

¹ Definitions adapted from: *The Canadian Oxford Dictionary* (2 ed.), Ed. by Katherine Barber, OUP 2004

This plan provides a road map to help UBC reach its potential and a mechanism through which we can be held accountable. Our vision is further articulated through the following 10 goals – the UBC Promise. UBC is an institution where we:

- lead globally in research excellence, discovery, scholarship and creative endeavours;
- inspire and enable students through excellence in transformative teaching, mentoring, advising and the student experience;
- partner with Indigenous communities on and off campus to address the legacy of colonialism and to co-develop knowledge and relationships;
- build a diverse culture that integrates our themes of innovation, collaboration and inclusion, and infuses them through all our activities;
- lead globally and locally in sustainability and wellbeing across our campuses and communities;
- significantly expand student access, alumni networks and institutional partnerships to reinforce global and local connections;
- lead as a first-choice place to learn and work;
- define and leverage the distinctive and complementary strengths of our campuses and learning sites;
- achieve agility in academic support and administration through thoughtful systemic change and simplification; and
- lead as a model public institution, fostering discourse, knowledge exchange and engagement.

UBC will continue to track metrics at the institutional level, many of which are highlighted in the *UBC Annual Report*. We have defined a subset of these that constitute a ‘dashboard’ for ***Shaping UBC’s Next Century***. The metrics will evolve as we identify better methods of evaluation. **They will be reviewed regularly with both Senates and with the Board of Governors, and our performance against these measures will provide a barometer of our progress (<https://annualreport.ubc.ca/>).**

I. Themes and core areas

The thousands of thoughtful comments we received from our students, faculty, staff, alumni and external partners have informed our strategic focus, articulated within the plan as themes and core areas:

- **Themes** represent key opportunities for transformational change in how we work. These cross-cutting areas will enhance our academic impact in an increasingly complex and interconnected world. They are imperative to achieving the vision and objectives of the plan.
- **Core areas** represent the capacities in which we work as a public university. They form the building blocks for progress. They are the mechanisms through which we seek to inspire.

Each of the themes and core areas is described within the plan, and together they have informed our strategies. The strategies have been grouped according to core area, even while recognizing that they have been closely informed by the themes. We provide examples of our work in these themes and core areas throughout the plan, but they represent only a tiny fraction of the full span of our activities.

II. Three themes

During the planning process, the UBC community, together with our partners, converged on three themes: inclusion, collaboration and innovation. By focussing on these themes, we can reinforce and improve on our current achievements in research, teaching and learning, and engagement. We can also support the wellbeing and success of people at UBC. Meaningful progress will require clear leadership and firm action to enable the required changes in culture and practice.

Theme: Inclusion

Embedding equity and diversity across university systems and structures

Sustained excellence in research, education and engagement depends on the integration of diverse perspectives and approaches. As a public institution, UBC has the responsibility to ensure inclusion across students, faculty, staff and alumni, and through all interactions beyond the university. Inclusion is a commitment to access, success and representation of historically underserved, marginalized or excluded populations. Given the long-lasting legacy of colonization of Indigenous peoples, we will continue to prioritize our partnerships with Indigenous peoples and communities. As education is an enabler of social development and mobility, UBC is intent on advancing the inclusion of all those who have been excluded historically based on gender, race, religion, sexuality, age, physical ability or affordability.

The Equity and Inclusion Office at UBC provides leadership and co-ordination to further UBC's commitment to *Inclusive Excellence* – to the integration of support for equity and diversity in the systems and operations of the university. The office offers data collection and analysis, as well as case and issues management, working closely with students, faculty and staff to ensure they have the tools and skills necessary to contribute to socially sustainable communities. Inclusion is also a focus in research and teaching. For example, faculty in the Stigma and Resilience Among Vulnerable Youth Centre in the School of Nursing have used mixed-methods research for close to 15 years with groups of vulnerable youth – such as those experiencing homelessness and characterized by sexual diversity – to examine stigma, violence and trauma, as well as factors that foster resilience. Research conducted in the Department of Geography is examining the relationship between Canadian immigration law and the integration of immigrants in our

cities, including the gendered and generational experiences of belonging for Syrian refugees resettling in Canada.

Our investment in student financial assistance has a strong focus on needs-based bursary support and funding for historically excluded student populations. Late in 2017, we launched the largest fundraising campaign for students in Canadian history: the Blue & Gold Campaign for Students aims to raise \$100 million in student support over three years. Resources are also in place to support international students and commuter students, both integral and vibrant parts of the university community. Led by strong student advocacy efforts, UBC is expanding the use of open textbooks to improve affordability. As of 2016, the creation and dissemination of open educational resources is recognized as an example of *Educational Leadership* activity in consideration for appointment, promotion and tenure decisions. UBC has also launched a diverse set of high-demand public online offerings (massive open online courses or MOOCs), including Reconciliation through Indigenous Education, How to Write a Novel, Climate Change: The Science and Introduction to Marketing. The Library's Open Collections contains over 200,000 publicly available digital objects. UBC is committed to making education more affordable and accessible, with expanded creation and dissemination of open educational resources.

Our intentions are bold and genuine, and there are good examples of positive impacts in inclusion to date. But we must redouble our efforts to make sustained progress. We will work harder to recruit and support students, faculty, staff and leaders who are representative of the full range of people who would like to call UBC home.

Snapshot on Inclusion: The Indian Residential School History and Dialogue Centre (IRSHDC) opens its doors to the public in spring 2018. The Centre was conceived with two key goals in mind. First, it will be a place where former students and survivors, and their families and communities, can access their records and other historical materials gathered by the Truth and Reconciliation Commission of Canada and others. It will be a place for them to share their experiences and to consider, with others, the consequences and implications of what happened to them. Second, the IRSHDC will serve as a source of educational and public information for students at UBC and elsewhere, and for online and in-person visitors. The IRSHDC will connect much of UBC's Indigenous research, learning and engagement, providing a space that promotes inclusion, respect and accountability. (www.irshdc.ubc.ca)

Theme: Collaboration

*Advancing purposeful, co-ordinated action across the university
and with the broader community for enhanced impact*

Because opportunities and challenges are rarely confined to the expertise of a single individual or to disciplinary or institutional boundaries, universities must become more adept at collaboration. From climate change, to emerging public-health issues like the opioid crisis, to our strained social cohesion, progress will require new ways of working within and across disciplines and with the community. These challenges demand a new approach to research, in which interdisciplinary researchers or multidisciplinary teams come together to supplement the work in the disciplines and to advance discovery, scholarship and knowledge exchange. Collaboration also has ramifications in teaching and learning, in curriculum and course design, and in providing students with the latitude to navigate their interests and aptitudes.

With our two campuses and many learning and research sites – and through the strength of our connections across the province and beyond – UBC is well positioned to cultivate collaborative efforts. The School of Biomedical Engineering, formed in 2017 through collaboration between the Faculties of Medicine and Applied Science, offers students access to experts working to advance the role of technology in health sciences and health care. Other examples include the Centre for Inclusion and Citizenship (which connects the UBC School of Social Work with community living organizations seeking to further the integration of persons with intellectual disabilities); the Language Sciences Initiative (which considers the uniquely human phenomenon of language across multiple disciplines); the Okanagan Institute for Biodiversity, Resilience and Ecosystem Services (BRAES) (which brings together faculty members and students across departments working in ecology, biodiversity, conservation and environmental sustainability); the Stewart Blusson Quantum Matter Institute (which seeks to understand and develop new

quantum materials through international collaborations with such partners as the University of Tokyo and the Max Planck Society); and the Pacific Institute for the Mathematical Sciences (PIMS) (which promotes research and education in the mathematical sciences across 10 universities).

These efforts demonstrate the extraordinary value of collaboration in our academic endeavours. Each has succeeded in creating the conditions required to coalesce people, ideas and actions, even where these have challenged institutional and personal norms. We will work hard to remove barriers and, where appropriate, establish mechanisms to encourage further and sustained collaboration – internally and with off-campus partners such as Indigenous communities. The role of ‘catalysts’ or champions in helping establish these new practices will be important.

Theme: Innovation

Cultivating creativity, resilience and shared risk-taking that catalyze new approaches within the university and beyond

In a world characterized by complex societal challenges and heightened public expectations, broad-based innovation is imperative. As institutions of research and learning, universities must embrace creativity and risk-taking across all their activities. Technology and data are reshaping our world and how we interact with one another; this explosion of information is opening new opportunities for study, problem-solving and knowledge exchange beyond the academy. For instructors and learners, there are gains to be had in supplementing the traditional classroom experience and opening access to education through online learning. Universities must support students, faculty and staff in acquiring the skills and competencies necessary for achieving success in this rapidly changing landscape. Beyond its role in the evolution of research and education, this spirit

of innovation must also characterize how public universities operate and steward resources. More specifically, there is a compelling need in British Columbia to be a leading global centre of innovation in order to remain one of the best places in the world in which to live and work.

For many years, UBC has been a leading partner in advancing British Columbia's technology, natural resources, life sciences, cultural and information sectors. We are at the forefront of innovation in green buildings and communities, and have helped lead research that demonstrates the potential for smart cities. Such innovation is fuelled by an expanding network of support for entrepreneurship at the university, campus and faculty levels. This includes technology incubators in the Faculty of Applied Science and the Sauder School of Business, Sauder's Centre for Social Innovation & Impact Investing (S3i) and the Innovation Precinct in the Okanagan that creates a revolutionary new space for research and development activity. The Library's Small Business Accelerator provides free access to reliable resources to help British Columbia businesses and entrepreneurs enhance their performance. The Centre for the Study of Democratic Institutions and the Summer Institute for Future Legislators are part of a broad set of initiatives to encourage innovation in governance. UBC's location in a corridor of innovation anchored by universities and industry across the Pacific Northwest is a crucial underpinning. The Cascadia Urban Analytics Cooperative, through which we work with the University of Washington and Microsoft, is an example of our collective capacity for discovery and impact. Using and integrating approaches from the social and computation sciences, this collaboration seeks to address chronic urban challenges, ranging from homelessness to traffic congestion.

We are also renowned for our long-standing commitment to innovation in teaching and learning. The UBC Vancouver Centre for Teaching, Learning and Technology (CTLT) and the UBC Okanagan Centre for Teaching and Learning (CTL) support faculty in pedagogy and curriculum design. They co-ordinate dedicated annual competitions for

funding that solicit, assess, support and evaluate proposals from faculty members and students for innovation in courses and programs.

Going forward, we must ensure that our efforts in innovation remain purposeful, connected and enduring. They must extend across all our learning, research and operations activities. And they must support constructive engagement with partners beyond the academy.

DRAFT

Snapshot on Innovation: Research conducted at UBC has changed the world in many ways, from ensuring sustainable use of coastal marine ecosystems through UBC's Project Seahorse to developing composite materials used in commercial aircraft. By enabling multiple '**Research to Innovation**' pathways, UBC helps take new knowledge generated from research through to socio-economic impact. . Some of these pathways, such as commercialization through licensing and patenting, have been supported for 30 years, with many notable achievements. These include the largest licensing deal in Canadian history – the \$140-million licensing of a drug for prostate cancer – and the provision of panoramic stitching software used in mobile phones throughout the world. Since 2013, the university has offered support for new venture creation by students, faculty and staff through entrepreneurship@UBC (e@UBC). Many of these endeavours are already having an impact, including Acuva, an easy and low-footprint water-disinfection treatment based on light-emitting diodes (LEDs). Knowledge exchange pathways that translate research results into policies and practices exist across the university. For example, research from the School of Population and Public Health, in partnership with provincial health care and research institutes, has been influential in setting and directing policy in cervical cancer prevention and reproductive health in Canada and around the globe. At the intersection of research, learning and engagement, these pathways extend and deepen UBC's impact.

III. Four core areas and associated strategies

Our work as a public institution is represented by four core areas: *People and Places*, *Research Excellence*, *Transformative Learning*, and *Local and Global Engagement*. UBC has considerable strengths – and exciting new activity – in all four areas. However, there are clear opportunities within each for progress that the plan sets out to address.

Through extensive consultation during 2017, the UBC community provided input that resulted in the distillation of 20 strategies that will help shape the university in the coming years. There are rich connections between the strategies and the themes and core areas. The majority of these strategies embrace multiple facets of our university community, and many engage our external partners. Each is intended to provide support and guidance to the activities of faculties, schools, departments and cross-cutting initiatives, as expressed in their own strategic plans.

Core area: People and Places

*Creating vibrant, sustainable environments that enhance wellbeing
and excellence for people at UBC and beyond*

At the heart of the university's identity, *People and Places* refers to the mutually reinforcing groups of people and locations (physical and virtual) that endow UBC with its special qualities and define how our work is accomplished. Our campuses in Vancouver and the Okanagan are situated on the traditional, ancestral and unceded lands of the Musqueam and Syilx Okanagan communities, respectively. This central fact is foundational to much of the research and educational enterprise of the university and is reflected in important installations on our campuses, including the *Reconciliation Pole* by Haida artist Jim Hart on the Vancouver campus. UBC's location further enables connections with Asia and the Pacific Rim that position the university as a unique place for discourse, learning and engagement.

'People' naturally includes students, faculty, staff, alumni and residents, as well as our Indigenous partners. But also included are postdoctoral research fellows, medical trainees, lifelong learners, emeritus faculty members and retired staff – in addition to volunteers, philanthropic supporters, colleagues at other institutions, and those with whom we work in the local, provincial and federal governments. Our partners include the Health Authorities that provide clinical placements for our 4,000 health students across the province. And they include the disciplinary societies, community and professional associations, and unions that provide the framework for much of our activity. The university simply could not function without these constituents, many of whom connect with UBC in different capacities, and all of whom contribute perspective, knowledge and energy. Together, they make UBC a diverse place in which we thrive as individuals, peers and citizens.

The 'places' of UBC are equally varied. They encompass our campuses and campus communities at Point Grey and Kelowna; locations in downtown Vancouver such as Robson Square; the hospitals at which our health students and faculty conduct much of their work and the additional sites of our distributed medical program; the *Learning Exchange* in Vancouver's Downtown Eastside; and numerous sites of community-based research and learning throughout British Columbia, across Canada and beyond. Our virtual places are expanding rapidly to include online class discussions, internet-hosted open educational resources created by UBC faculty, and conference links that connect our various sites in collaborative research and learning.

Places play a profound role in shaping the experience of the people who work and live in them; people, in turn, are powerful influences on their places. It is our ongoing responsibility to ensure that our activities nurture a positive and reciprocal dynamic between people and places. UBC seeks to promote and protect this interaction through our deep commitments to Indigenous peoples, sustainability and wellbeing. These three aspects of our work, all interdependent, help to differentiate the University of British Columbia.

Indigenous people and places. Over the years, UBC has defined a comprehensive approach on Indigenous engagement, with significant accomplishments achieved under the 2009 *Aboriginal Strategic Plan*. UBC offers 180 courses with Indigenous content, as well as degrees in First Nations and Indigenous studies and languages (2017). The Peter A. Allard School of Law is a leader in Indigenous legal education in North America and the NITEP (Indigenous Teacher Education Program) is a Bachelor of Education program for aspiring Indigenous teachers that builds upon Indigenous identity and cultural heritage. But there remains much work to do. These ambitions are the subject of the 2018 *Indigenous Strategic Plan* ([LINK](#)), which builds upon the foundation laid by the *Aboriginal Strategic Plan*. We need to ensure that a greater number of Indigenous students have access to a full range of educational opportunities, and we must address embedded colonial biases throughout the system. We need to co-create curricula and research

projects on matters of concern to Indigenous people and communities. Finally, UBC must contribute to a better, deeper and broader understanding of Indigenous history and peoples, and the legacy of colonization.

Sustainability. UBC is regarded as a leader in sustainability, with a long track record of innovative practices and programs. We define sustainability as simultaneous improvements in human and environmental wellbeing. Our evidence-informed approach delivers innovation in learning environments, operations, infrastructure and transportation. This includes UBC's use of the campus as a living laboratory – an approach seen in action at the UBC Farm and the Centre for Interactive Research on Sustainability (CIRS), for example. Embedding a research laboratory inside an operational facility, as with our Bioenergy Research and Demonstration Facility (BRDF), differentiates UBC's approach. The *20-Year Sustainability Strategy*, articulated in 2014 (https://sustain.ubc.ca/sites/sustain.ubc.ca/files/uploads/CampusSustainability/CS_PDFs/PlansReports/Plans/20-Year-Sustainability-Strategy-UBC.pdf), provides a long-term framework for the university's planning and activities, but the challenges around climate change are ever more complex, and the stakes are high. We need to intensify our academic and operational efforts on our campuses, in affiliated communities and across the world. We must go beyond minimizing harm to becoming net contributors to human and ecological health.

Wellbeing. In October 2016, UBC became one of the world's first universities to adopt the *Okanagan Charter: An International Charter for Health Promoting Universities & Colleges*. The Charter includes two calls for action: (1) embedding health into all aspects of campus culture, across the administration, operations and academic mandates; and (2) leading health promotion action and collaboration locally and globally. The ensuing UBC Wellbeing and Thrive at UBC programs are system-wide efforts to make the university a better place to live, work and learn. Our focus on mental health is integral to our success as an institution and as a source of influence for positive change in society. UBC's

Wellbeing Strategic Plan (<https://wellbeing.ubc.ca>), under development in 2018, will channel university-wide effort and ensure continued focus.

Universities are increasingly competing for the very best student, faculty and staff talent, and UBC is no exception. In addition to the imperatives noted above, we must address the significant challenges related to housing and transportation, improve the ways in which we work, enhance the student experience and improve quality of life for all members of the university community. These are fundamental to our continuing ability to attract and retain outstanding people. Of course, students eventually become alumni – and in 2017, our alumni numbered more than 325,000 in 140 countries. We have made tremendous strides in building a strong culture of alumni engagement, but UBC must continue to find new ways to retain their attention.

Strategy 1. GREAT PEOPLE: Attract, engage and retain a diverse global community of outstanding students, faculty and staff

Through recruitment, advising and mentorship, professional development and support, we will build and sustain a global university community, representative of all, including historically excluded populations. Consistent with our intention to be a leader in diversity and equity, we will recruit more expansively, including Indigenous students, faculty and staff. We will work to create conditions whereby all faculty and staff feel a deep sense of connection and contribution to the academic purpose of the university. To help address affordability pressures, we will expand financial assistance programs for students, including funding and support for continued growth in open education resources, and we will improve funding for graduate students and postdoctoral fellows. We will enhance support structures and services to help address housing affordability in the Lower Mainland, and address childcare needs for university employees, among other challenges. Professional development and succession planning are vitally important. For this reason, we will strengthen programs that support workplace learning, course access for employees and leadership development through initiatives such as the Academic

Leadership Development Program (ALDP) for faculty, and Managing@UBC and the Community Leadership Program for staff.

*Strategy 2. **INSPIRING SPACES: Create welcoming physical and virtual spaces to advance collaboration, innovation and community development***

We will establish dedicated, accessible and vibrant spaces across the university, community and region that provide forums for interdisciplinary interaction in research, learning and operations and that showcase the impact of our work more broadly. Inspiring indoor and outdoor spaces can be powerful catalysts for new activities and new ways of working, especially when these promote engagement and creativity. With over 65,000 students, nearly 12,000 of whom live on campus, such spaces create tremendous opportunities for faculty, staff and partners to exchange ideas with the next generation. New designs for classrooms will emphasize digital connectivity, group collaboration and problem-based learning. It will be no small feat to re-engineer the traditional classroom, but UBC intends to be a leader in innovative classroom design. Virtual spaces will play an ever-more integral role, and UBC will continue to evolve and strengthen its digital environments. In addition to stimulating collaboration, innovation and community development, these physical and virtual spaces, or ‘hubs’, will demonstrate UBC’s commitment to inclusion and civil discourse, and will nurture an increased sense of community. Well-conceived spaces are also needed to drive and enable interaction within and between our campuses and learning sites and with the broader community. As part of this strategy, we will work with partners on the development of UBC’s downtown Vancouver and regional presence, recognizing that many people live and work beyond easy reach of our campuses.

*Strategy 3. **THRIVING COMMUNITIES: Support the ongoing development of sustainable, healthy and connected campuses and communities***

We will advance sustainability and wellbeing through renewal and innovation in our learning environments, operations and infrastructure. The expansion of the campus as a living laboratory model will address social and environmental issues beyond our

campuses. We will also sustain efforts to make our campuses as safe as possible for those who study, work and live at UBC. **We recognize the past injustices that have occurred at UBC in regards to sexual violence. We will continue to work with all community members to advance knowledge and practice, ensuring that the university does everything in its power to both prevent and respond to sexual violence on our campuses and across university activities.** Working with regional partners and residential communities in sustainable planning and development, we will advocate for better transit to our campuses, as a complement to our focus on housing support. Improvements will not only benefit the thousands of students, faculty and staff who commute to UBC, but will also facilitate engagement with partners beyond the university. Our campuses are situated in spectacular natural settings, and we will ensure harmony with the natural environment through the ecologically sensitive design of new buildings and open spaces. We will promote a supportive culture that enhances wellbeing and mental health, fostering connections and resilience across students, faculty and staff. We will also make our locations more accessible to persons with mobility challenges and those otherwise differently abled, and we will better co-ordinate and raise the visibility of education and research in disability studies. All of this will improve the daily experience of many at UBC.

*Strategy 4. **INCLUSIVE EXCELLENCE: Cultivate a diverse community that creates and sustains equitable and inclusive campuses***

We will review and revise policies, practices and services to reflect our commitment to diversity, equity and inclusion. We will expand learning opportunities for staff and faculty to maximize awareness and understanding of these principles. We will assess the UBC landscape to identify areas needing focussed attention, including systems, structures and processes that can be improved to facilitate better access and success. Enhanced diversity in leadership is a core enabler of effective university governance, and we will seek to create equitable opportunities for advancement and selection. We will promote continued research on issues connected with diversity, equity and inclusion. And we will

establish and implement visible, system-wide accountability mechanisms and metrics that help us assess and manage our progress towards *Inclusive Excellence*.

Strategy 5. SYSTEMS RENEWAL: Transform university-level systems and processes to facilitate collaboration, innovation and agility

To support UBC's academic mission and public mandate, we will transform the ways in which we work through improved administrative systems, fact-based decision-making and clear channels for community input. Our goal is to enable, encourage and streamline collegial governance, enhance collaboration and create better transparency, especially across our Vancouver and Okanagan campuses. UBC has embarked upon an ambitious program to rebuild its student information, human resources and financial management systems to improve their effectiveness and integration; timely implementation of these changes will remain a priority. *UBC will support the development of tools that take advantage of these systems, including our new learning management system. These tools will be created for the benefit of learners, teachers and the broader university, while respecting the privacy of all community members.* Technology will play a crucial role in enabling efforts to work more synergistically across our campuses and learning sites. We will carefully consider any academic policies, incentives and budget models that may be constraining collaboration and innovation, and make changes, where required, to facilitate greater effectiveness.

Snapshot on People and Places: The accomplishments achieved under our *20-Year Sustainability Strategy* are numerous and impressive. Notably, emission reductions of 30 per cent were attained in less than five years through the *Climate Action Plan 2010-2015*, and concerted action is being taken towards the next target of 67 per cent through the recent *Climate Action Plan 2020 Update*. UBC (2017) has some 400 faculty members working on sustainability-related research. We offer about 50 sustainability-related degree programs and over 600 sustainability-oriented courses. The ongoing vision of the *20-Year Sustainability Strategy* features simultaneous improvements in human and environmental wellbeing with an expectation that, by 2035, sustainability will be embedded across the university throughout teaching and learning, research, operations and infrastructure, and community development. This strategy is being implemented across many areas and through a variety of collaborations between the academy and operational units. Our efforts are intentional, inclusive and innovative, as evidenced by our emerging *Green Building Plan*. Metrics and targets are described in all areas, alongside strategies to reach further to accomplish them. (<https://planning.ubc.ca/vancouver/projects-consultations/consultations-engagement/green-building-plan>)

Core area: Research Excellence

Creating and mobilizing knowledge for impact

UBC is a research powerhouse. We are among the world's leading universities for disciplinary research across many fields. Our research has had a profound impact on several areas of society, from groundbreaking work on how infants acquire language to enabling personalized oncogenomics. As one indicator, UBC ranks within the top 30 globally – and, in many cases, much higher – in such disciplines as psychology, education, law, business and economics, life sciences, social sciences and computer science (Times Higher Education World University Rankings by subject). Our strength in research translates into research-based teaching; students at UBC learn from the best in the world. Eight UBC-associated individuals have been awarded Nobel prizes, and our researchers have won numerous other national and international awards. For example, our university community includes 256 Fellows of the Royal Society of Canada and 71 Rhodes Scholars.

Addressing local and global challenges – such as climate change; the largest human migrations of the last half century; and the societal shifts associated with increased automation – requires both disciplinary depth of knowledge and collaboration within and across disciplines and communities. It demands the creation of new knowledge and its accelerated translation into action, through interactions with external partners. It also necessitates resources for research services to enable researchers to achieve excellence in a highly competitive landscape.

UBC researchers are willing and able to address these challenges, having already demonstrated their capacity for impact in many domains – such as the influential work of the BC Centre for Excellence in HIV/AIDS in establishing the global standard of care that helped curb the intensification of the HIV/AIDS pandemic. Through our plan, UBC will create environments that enable our researchers to optimize their contributions, harnessing disciplinary excellence and multidisciplinary collaborations to address

problems of significance to British Columbia and the world. UBC will also support knowledge exchange beyond the academy; we will establish new public scholarship and innovation pathways, ranging from changes in practice and policy to entrepreneurship and commercialization.

Research impact takes a variety of forms. Research might lead to spinoffs that take advantage of technological innovations. But impact is also to be found in projects that lead to social innovations, that change the way research in a certain field is conducted, that inform our understanding of history or culture, or that enrich us and our world through creative works. *Research Excellence* encompasses this broad vision of accomplishment. Our collective aim as a community is to be the place of choice for researchers – whether students, faculty, staff, alumni or external partners – to generate new knowledge and enable pursuits that positively impact the world.

Strategy 6. COLLABORATIVE CLUSTERS: Enable interdisciplinary clusters of research excellence in pursuit of societal impact

We will invest in and support emerging and established research clusters that consist of networks of diverse researchers working in pursuit of common aims. An initial pilot program to support clusters through the UBC Excellence Fund has already enhanced collaborations in areas such as green infrastructure and global challenges to democracy. UBC Health is facilitating collaboration in cross-cutting health research, including Indigenous health, mental health and diabetes. Building on these successes, we will provide researchers with the support needed to collaborate internally across UBC and externally with local and global partners. A key component of this strategy is enhanced research funding to attract postdoctoral fellows and faculty in order to strengthen our impact through these clusters.

Strategy 7. RESEARCH SUPPORT: Strengthen shared infrastructure and resources to support research excellence

UBC will improve support for researchers across the university through enhanced core facilities, spaces and services. These are imperative if researchers are to work effectively and productively. Globally leading research in many disciplines requires sophisticated equipment that depends on significant technical expertise to build and run. By creating capabilities such as the Sequencing + Bioinformatics Consortium for gene sequencing, we can provide state-of-the-art facilities, training and expert advice for both UBC and external partners. We will explore ways to help researchers across all disciplines engage with communities and access scholarly resources. The pilot Indigenous Research Support Initiative, for example, provides support and services for Indigenous communities and researchers engaging in collaborative research. Increasingly, many disciplines require additional platforms to tackle challenging problems. For example, digital technologies are transforming work across the academy, evident in the creation and evolution of an online database of religious history that is changing how historical traditions are studied. UBC will enhance digital research infrastructure to provide researchers with physical and technical support in many areas of scholarship. Priorities include Advanced Research Computing (ARC) resources, technical and scientific support for research data management, data science and local capacity for health researchers to address health research data access challenges.

Strategy 8. STUDENT RESEARCH: Broaden access to, and enhance, student research experiences

UBC will expand opportunities for undergraduates to gain first-hand experience in research, and we will strengthen research experiences for graduate students and postdoctoral fellows. Engagement in research builds in students the ability to apply their learning, create new knowledge and utilize research skills. UBC will develop better mechanisms to match undergraduate students with relevant research projects across the university, and provide them with the appropriate support, building on the success of

such initiatives as the student-run Undergraduate Research Opportunities and Undergraduate Research Awards programs at UBC Vancouver and UBC Okanagan respectively. We will facilitate broadened research pathways for graduate students and postdoctoral fellows, improve their mentorship and supervision, and create opportunities for them to provide mentorship to others. These experiences will provide a firm foundation in skills and expertise for future careers, whether in academia or beyond. Success in this strategy demands an institutional culture that promotes collaboration, inclusion and innovation. We will create an environment that enables such interactions across the university.

Strategy 9. KNOWLEDGE EXCHANGE: Improve the ecosystem that supports the translation of research into action

Many researchers are keen to find pathways for innovation. They want to engage with users of research and wider communities to exchange ideas, knowledge and evidence for societal impact. UBC will enhance existing pathways, including those that facilitate entrepreneurship and commercialization. To our current innovation ecosystem, we will add sector specialists in disciplines such as life sciences to help form collaborations with organizations and individuals beyond the academy that enable the translation of knowledge into policies and practice. We will build expertise in knowledge exchange to help researchers across disciplines find and establish connections with community, corporate and international partners. Collaboration with organizations that help play a translational role, such as the Centre for Drug Research and Development (CDRD), co-located in Vancouver with the Faculty of Pharmaceutical Sciences, will be integral to our efforts. And we will develop better support functions and connections across these multiple pathways. We will also continue to experiment with ways of communicating knowledge so that it is more accessible to a range of communities, from citizens to decision-makers.

Strategy 10. RESEARCH CULTURE: Foster a strong and diverse research culture that embraces the highest standards of integrity, collegiality and service

Research culture comprises the beliefs, expectations and actions of our researchers, including how they select and carry out research projects; review the efforts of peer researchers; mentor and assist colleagues near and far; engage with external research partners; and influentially disseminate discoveries. UBC will further develop the principles and practices that define a collaborative and inclusive research culture and that supports mentorship, scholarship, discovery and creativity. Addressing the problems facing society requires the contributions of all, and we will encourage diversity in perspective and approach. UBC will enable a research culture that interacts in positive and respectful ways with Indigenous people and Indigenous knowledge, and that welcomes the participation of members of other historically excluded groups. Their integrity and vibrancy are integral to UBC's future success.

Snapshot on Research Excellence: Working on problems from multiple perspectives – informed by a depth of expertise in different disciplines – can bring new insights and enable solutions to the hardest problems facing society. Forming partnerships and networks across disciplines requires support to enable new interactions and determine common foundations on which to build. UBC’s research clusters program helps these collaborations occur, coalescing activities and resources in areas of needed impact. At UBC Vancouver, the Research Excellence Clusters Initiative funded 25 clusters in its first year. These span the performing and creative arts, science and engineering, health and the social sciences, and the humanities. The second competition, in 2017, awarded 33 clusters across all disciplines, 16 of which were renewal awards. At UBC Okanagan, five research clusters funded through the Eminence Program are investigating such issues as community health and neurobiology. Interdisciplinary research is also being supported with the establishment of President’s Excellence Chairs in diverse areas, from media studies to brain health. Research clusters exemplify strategic focus across our three themes (inclusion, collaboration and innovation), and they serve as a demonstration project for the cultural and behavioural change envisaged in this plan.

(LINK <https://research.ubc.ca/about-vpri/initiatives/research-excellence-clusters/current-research-excellence-clusters> for updates on current clusters)

Core area: Transformative Learning

*Enabling learning through evidence-based teaching,
mentorship and enriched experiences*

At its best, education is transformative and has a lasting and continuing impact on the learner. UBC is renowned for the excellence and breadth of its education, with a long-established track record in teaching and learning innovation. Transformative programs like Arts One, Science One and *MECH 2* (Engineering) offer dynamic interdisciplinary learning experiences for students and provide faculty with rich environments in which to develop and study creative, effective approaches to teaching. Beyond individual programs, UBC supports transformative learning through initiatives that have involved hundreds of faculty members and impacted thousands of students.

The Carl Wieman Science Education Initiative features extensive evaluation of learning gains and substantial research output on the scholarship of teaching and learning. It is a model now adopted widely by other institutions. Flexible Learning is a university-wide effort to explore technology-enabled teaching innovation. Since its inception in 2013, Flexible Learning has adopted a team-based and scholarly approach to foster, support and evaluate blended learning and teaching enhancement projects that have impacted over 400 courses and 40,000 students. Thousands of students across the university participate in experiential or work-integrated learning each year. The Faculty of Medicine organizes undergraduate medical education across the province through a distributed model that combines face-to-face, online and experiential learning, with many graduates choosing to stay and practice in rural locations as a result. *Transformative Learning* extends also to the broader community, for example, where people from Vancouver's Downtown Eastside are engaged with faculty and students at the UBC Learning Exchange or through the Humanities 101 courses, and from Kelowna at the Downtown Education Project at the Ki-Low-Na Friendship Society.

But changes in learner demographics and interests are reshaping the university. A rapidly diversifying economy, social context and job market demand a different kind of education: one with a greater focus on competencies and transferable skills, such as critical thinking, collaboration and communication, and one that promotes and supports continuous learning. To keep pace with the information age, and to meet the increasing

expectations of students and employers, universities are investing systemically in active, experiential and online models of education. The best among these efforts capitalize on our students' inherent curiosity and drive, engaging them as co-creators of their education. Universities must extend their traditional offerings, based on pedagogical research, to serve our populations better and must rethink programs, spaces and facilities to enable new ways of learning. Faculty and staff are working hard to deliver technological advances. Universities need to support them in this effort.

Our activities at UBC will focus on enhanced support for program redesign around competencies; the development of problem-solving experiences; technology-enabled learning; and continued growth in work-integrated and professional education. Sustained progress in *Transformative Learning* will require leadership across the institution to model, inspire and celebrate excellence in teaching and mentorship. UBC's commitment to its Educational Leadership Stream faculty, whose sole university focus is education, is a bold statement of our intent, and these colleagues will play a pivotal role in achieving our goals.

Strategy 11. EDUCATION RENEWAL: Facilitate sustained program renewal and improvements in teaching effectiveness

UBC will provide greater support for instructors in their drive to be highly effective teachers and to develop their craft. Practices that engage student curiosity and initiative will be particularly emphasized and valued through appointment, tenure, promotion and merit processes. We will expand opportunities for graduate students to learn about teaching in addition to research. More broadly, we will work with faculty, graduate students and postdoctoral fellows to reimagine and strengthen graduate programs as career paths continue to diversify. The university will also sustain and evolve efforts to support faculty members in the ongoing integration of evidence-informed pedagogies into their classrooms, and encourage innovations that have the potential to improve upon traditional learning approaches. Online and blended education, predicated on a clear understanding of the requirements of different learner 'segments', will continue to be

areas of focus in experimentation and evaluation, both on campus and through open platforms. These modalities offer access, connectivity and interaction possibilities that can enhance campus-based learning. In appropriate contexts, they can remove the need for physical co-location.

Strategy 12. PROGRAM REDESIGN: Reframe undergraduate academic program design in terms of learning outcomes and competencies

Like most universities, UBC has traditionally organized its curriculum around a structure of credit hours delineated by courses. The Faculties of Medicine and Arts have adopted more flexible program structures organized around learning outcomes, which allows students to progress through a finer-grained set of learning experiences that build competencies. UBC will move further towards using learning outcomes as a primary organizing principle of program structure and completion. This approach will better engage student curiosity and initiative: it allows for a more individualized approach, supporting learning with clearer feedback to help students focus on competencies they have yet to master. Our plans here must be made with care, as many disciplines face highly structured accreditation requirements and course structures, including many necessary prerequisites. Efforts to redesign programs will need to respect these and will involve strong collaborations between faculty and students, and, in many cases, alumni. The process will be treated as an opportunity to build a better understanding of student learning and how it can be supported most effectively.

Strategy 13. PRACTICAL LEARNING: Expand experiential, work-integrated and extended learning opportunities for students, faculty, staff and alumni

We will work with industry and community partners, as well as alumni, to expand experiential learning – ‘learning by doing’ – across academic programs, and to enhance career services. Where these connections extend beyond the province, they will create opportunities for UBC to broaden its perspective and capacity for influence. We will also strengthen efforts for students to develop professional and research skills while studying, including the Work Learn Program at UBC Vancouver that supports and subsidizes

meaningful work and research experiences on campus. All these efforts will improve the ability of our graduates to secure meaningful employment. Through UBC Extended Learning (ExL), we will support faculty members in expanding online and other accessible offerings – both professional and personal – in response to evolving demand from working practitioners and lifelong learners, many of whom are UBC alumni. Scholarly communication is a skill consistently ranked at the top of those required beyond the degree. In collaboration with all faculties at UBC Vancouver, the Faculty of Arts will create a unit to house academic and professional communications curricula and related services. Our ability to make progress on this strategy is predicated on strong industry and community relationships; we will work hard to deepen and better co-ordinate these connections. It is also incumbent on the university to infuse a passion for continuous learning in our students, faculty and staff.

Strategy 14. INTERDISCIPLINARY EDUCATION: Facilitate the development of integrative, problem-focussed learning

We will further develop academic structures that foster and support opportunities for students from different perspectives and disciplines to work together on complex or emergent problems. Students develop expert thinking faster when they are given well-designed opportunities to integrate concepts they have learned across several courses to tackle new, larger issues and problems. When students across a range of programs work together, the result is a rich, high-level learning experience that builds expertise in ways no individual, discipline-based course can achieve. The Social Ecological Economic Development Studies (SEEDS) program is an example of this approach: it engages students across the university in project work that tackles real-life issues such as waste management and the opioid crisis. UBC will pilot and assess new ways to integrate problem-focussed educational opportunities as an overlay or complement to traditional majors and minors. We will also optimize structures to allow integrative graduate and postdoctoral learning to flourish. In this way, we can work toward a day when UBC

students will graduate with disciplinary expertise *and* experiences and skills that address their passion for a specific topic or challenge.

Strategy 15. STUDENT EXPERIENCE: Strengthen undergraduate and graduate student communities and experience

Through a continued focus on the student experience – outside as well as inside the classroom, across all our campuses and learning sites – we will create opportunities for students to feel more engaged and better supported during their time at UBC. We will expand holistic, developmental and professional student advising and engagement to support students in determining and realizing academic, career and personal goals. This will enable our students to become self-directed learners who navigate – and increasingly shape – their pathways through courses and curriculum. We will heighten efforts to ensure the provision of mental-health resources for all our student populations. Working closely with student government, the university will improve co-ordination across student services, teaching and learning, co-curricular programming, residential life and commuter student experiences. We will continue to develop and improve student ‘hubs’, such as the AMS Nest on the Vancouver campus and the Student Union on the Okanagan campus. Attention to student wellbeing is afforded by major investments in UBC Recreation facilities, and initiatives such as Jump Start and the Collegia seek to help first-year students find their places at UBC. Our work will foster a greater sense of belonging, predicated on personal growth within smaller, diverse communities in the context of a large and complex community.

Snapshot on Transformative Learning: Arts One is an established eight-month program that features learning in small groups with an integrated, interdisciplinary curriculum. Every year, students choose between two themes, such as 'Knowledge and Power' or 'Hero, Anti-Hero', each led by a dynamic team of instructors from different disciplines. Together, students and instructors analyze ancient and contemporary works that have shaped and challenged society across the centuries. Arts One students engage in their learning via expert lectures, seminar discussions and small student-centred tutorials in which they present and workshop their essays. These tutorials form one of the most distinctive and valuable Arts One experiences, fostering independent thinking and scholarly ways of knowing that enable students to thrive beyond their first year. Arts One delivers transformative learning experiences through a commitment to excellent program design and regular renewal. It embodies the understanding that the study of humanities disciplines such as philosophy, history and literature cultivates empathy, perspective and critical thinking. It fosters these competencies in the context of enduring challenges, such as class and power, and emergent ones, such as technological and environmental disruption. (<https://artsone.arts.ubc.ca/>)

Core area: Local and Global Engagement

*Engaging ethically through the exchange
of knowledge and resources for everyone's benefit*

UBC is locally integrated and globally connected; it has always been a place of community engagement. Indeed, global perspective is embedded in the histories and communities that have shaped the local context in British Columbia and at UBC. The balance of Canadian perspective and geographic diversity across our student population is a tremendous strength; how we work together is what sets us apart. Across UBC, faculty, students and staff embody this work in the context of community-engaged research, learning and public service. Local and regional examples include the research forests that promote smart management of some of the province's greatest resources; the Regional Socio-Economic Development Institute of Canada, established at UBC Okanagan to build an understanding of how institutions can function as active participants and drivers in the regional innovation ecosystem; the nearly 200 public events hosted by UBC Okanagan, 55 per cent of them in the community; the Portland Community Clinic that provides not-for-profit dental services in Vancouver's Downtown Eastside; and the Patient and Community Partnership for Education that seeks to effect changes in health curriculum and practice in response to public input. Diverse cultural venues such as the Museum of Anthropology (MOA), Beaty Biodiversity Museum, UBC Botanical Garden and Pacific Museum of the Earth support community learning and enrichment.

Our global networks open new research vistas and create educational opportunities that would not otherwise exist. They also enable UBC to help mobilize positive change across the world and to assist our partners in making progress in their own goals. We have many close and productive associations with universities and organizations throughout North America, Europe, Australia and New Zealand, Africa and Latin America. UBC's Asia-

Pacific connections, built over many years, have yielded a powerful set of partnerships and academic exchanges. UBC is regarded as an educational and policy gateway to China, with the UBC China Council playing a key role in collating knowledge and in catalyzing, facilitating and supporting engagement. UBC boasts the top Asian Studies department in Canada, as well as the oldest and largest Punjabi language program in the country, a model of community-engaged learning. Many other units have developed distinctive research and curriculum strengths oriented toward Asia. Of special note are the increasing numbers of UBC alumni of East, South, Southeast, Central and West Asian heritage, who bring expertise and deep connections to the community when they interact with UBC.

We must continue to play a strong role in engagement, learning about the world around us and empowering people to be good stewards and change makers. This requires an outward orientation in our education, research and community development. It requires a willingness to collaborate and connect, with the passion for engagement that is a part of the fabric of UBC. It requires structures and processes to support the students, faculty and staff who make robust contributions to the intellectual, cultural and economic lives of our communities. It requires UBC to become more open and navigable to external partners. And it requires the capacity to listen and adapt to the evolving needs and dynamics of the world beyond the university.

We will sustain the important work of engagement and expand its scope to connect our local and global efforts more effectively. Our engagement with Asia has a regional and national reflection in our growing engagement with Asian-Canadian communities. Our commitment to improved engagement with Indigenous people is anchored in, but extends beyond, British Columbia. We will also sustain our focus on building meaningful relationships with UBC alumni the world over. Students are involved in much of this activity, whether on campus, in the community or abroad; we will expand opportunities for them to participate.

Strategy 16. PUBLIC RELEVANCE: Deepen the relevance and public impact of UBC research and education

Through dialogue and knowledge exchange, we will work to align UBC's efforts more closely with priority issues in British Columbia and beyond. This will also help ensure that the public is more consistently aware of UBC's academic endeavours. It is important that we recognize the different strengths and local contexts of our Vancouver and Okanagan campuses as we consider opportunities for engagement. From a 2017 base of 130 new community-based and action research projects and learning initiatives that place more than 5,000 students in community settings annually, we will work more closely with our partners to ensure that these are well conceived, managed and evaluated from all perspectives. The School of Public Policy and Global Affairs, established in 2017, is an example of this approach. Its goal is to catalyze a network of scholars, students, external partners and civil society to foster collaboration, creativity and intercultural understanding. This will contribute to solving problems of local importance and global consequence. Programs such as the Public Scholars Initiative, which builds connections and capacity for PhD students interested in explicitly linking their doctoral work to an area of public benefit, will remain a component of this strategy. We will work with government and industry to enhance British Columbia as a place to do business. And we will specifically seek opportunities to collaborate with government and peer institutions to strengthen and realign the post-secondary education system for the benefit of students and citizens in the province.

Strategy 17. INDIGENOUS ENGAGEMENT: Support the objectives and actions of the renewed Indigenous Strategic Plan

Much of the guidance for UBC's Indigenous engagement can be traced back to the first *Aboriginal Strategic Plan* (2009), which outlined 10 key areas of strategic engagement, and beyond that to the *UBC-Okanagan Nation Alliance Memorandum of Affiliation* (2005) and the *UBC-Musqueam Memorandum of Affiliation* (2006). The plan and memoranda have been models of effective action, with implementation reports published in 2010,

2012 and 2014. UBC will adopt a similar approach in implementing ***Shaping UBC's Next Century***. The 2018 *Indigenous Strategic Plan* will continue this work and represent our shared commitment as a university community ([LINK](#)). It will also provide the framework for statements of faculty- and unit-level commitments that will form UBC's response to the *Calls to Action* released in 2015 by the Truth and Reconciliation Commission of Canada.

Strategy 18. ALUMNI ENGAGEMENT: Reach, inspire and engage alumni through lifelong enrichment

Consistent with the *alumni UBC Connecting Forward Strategic Plan* (<https://www.alumni.ubc.ca/about/strategic-plan/>), we will work with *alumni UBC*, together with targeted efforts across faculties and departments, to broaden and deepen engagement through programs that cultivate pride, empower personal growth, support professional development and enable contribution. The plan builds on the vision of a “global alumni community for an exceptional UBC and a better world”; its strategic imperatives are to extend engagement to 50 per cent of all alumni and to double the number of alumni more deeply involved at UBC. Many alumni are in a strong position to provide mentorship, encouragement, connections and collaboration with current students, faculty members and staff. UBC is also in a strong position to provide alumni with opportunities to update their skills or engage in lifelong learning. We will seize opportunities to extend the reach of our alumni programs, services and communications by continuing to increase the effective use of digital technology and digital platforms. The Robert H. Lee Alumni Centre on the Vancouver campus, opened in 2015, provides a fitting hub for much of this engagement.

Strategy 19. GLOBAL NETWORKS: Build and sustain strategic global networks, notably around the Pacific Rim, that enhance impact

We will prioritize and support collaborations that benefit the world and our partners – as well as create value at UBC – and foster new alliances in areas of shared, strategic importance. As of 2017, UBC partners with 11 of the 15 top-ranked universities in the

world in research and educational activities, and has agreements with more than 300 universities and research institutions in more than 50 countries. We have an opportunity to leverage UBC's location and diversity to further strengthen our Pacific Rim engagement, enhancing our capacity for regional and international influence and contributing to social cohesion more broadly. We will support mechanisms, such as the UBC China Council, to advance our relationships and extend our connectedness. We will also simplify processes for international collaboration. Finally, we will continue to expand opportunities for faculty exchanges, for our students to study abroad through *Go Global* and other initiatives, and for international students to participate in exchange programs at UBC. Through collaboration, at home and abroad, we will help students, faculty members and staff broaden their perspectives, learn from peers and colleagues around the globe, and contribute to a shared positive impact.

Strategy 20. CO-ORDINATED ENGAGEMENT: Co-create with communities the principles and effective practices of engagement, and establish supporting infrastructure

Community engagement at UBC has been part of research, teaching, service and student-led initiatives since the institution was founded. We will work with diverse partners to listen, learn and develop shared values for effective engagement. We will better align our structures, processes, funding and incentives to reinforce effective practices consistent with these values, and to reinforce a culture of reciprocity. We will also seek to co-ordinate our efforts and remove barriers to community engagement. The establishment of a joint framework for engagement with local and global partners is the first step. To shift the prevailing model and mindset, UBC will increase support for students, faculty members and staff working with, and in, the community. We will create mechanisms for our partners to access and navigate the university. This strategy also extends to deepening our engagement with campus neighbourhoods to support the unique and vibrant experience of living at UBC.

IV. Other institutional plans

Shaping UBC's Next Century is a strategic plan for the University of British Columbia. It acts as a roadmap to help guide, connect and support other institutional plans. In addition to the university-wide plans referenced throughout the document (*Indigenous Strategic Plan, 20-Year Sustainability Strategy, alumni UBC Connecting Forward Strategic Plan, Wellbeing Strategic Plan, UBC Plan in Health*), a selection of campus and faculty plans from different areas of the university are referenced below.

Vancouver campus

Faculty of Applied Science (<http://strategicplan.apsc.ubc.ca/>)

Faculty of Arts (www.arts.ubc.ca/about-arts/arts-strategic-plan/)

Sauder School of Business
(<http://www.sauder.ubc.ca/~media/Files/Faculty%20Research/sauder-strategy-2012.ashx>)

Faculty of Dentistry (<http://www.dentistry.ubc.ca/about-us/strategic-plan/>)

Faculty of Education (<http://educ.ubc.ca/about/strategic-plan/>)

Faculty of Forestry (<http://www.forestry.ubc.ca/general-information/strategic-plan/>)

Faculty of Land and Food Systems (<http://www.landfood.ubc.ca/actionplan/>)

Peter A. Allard School of Law (<http://www.allard.ubc.ca/about-us/allard-school-law-strategic-plan-2016-2021>)

Faculty of Medicine (<http://stratplan.med.ubc.ca/>)

Faculty of Pharmaceutical Sciences (<http://stories.pharmsci.ubc.ca/catalyst-for-change-strategic-plan>)

Faculty of Science (<https://science.ubc.ca/about/plan>)

Graduate and Postdoctoral Studies (<https://www.grad.ubc.ca/about-us/initiatives-plans-reports/ubcv-graduate-student-strategy-operational-plan>)

Okanagan campus

Aspire (UBC Okanagan visioning plan) (<https://aspire.ok.ubc.ca/>)

Irving K. Barber School of Arts and Sciences

(http://ikbsas.ok.ubc.ca/about/strategic_review.html?PageMode=HTML)

Faculty of Creative and Critical Studies ([LINK TO PLAN](#))

Faculty of Education ([LINK TO PLAN](#))

Faculty of Applied Science – School of Engineering ([LINK TO PLAN](#))

Faculty of Health and Social Development ([LINK TO PLAN](#))

Faculty of Management ([LINK TO PLAN](#))

V. Implementation and accountability

The plan provides thoughtful guidance for action. It is a framework for decision-making, allocation of effort and resources, and evaluation of progress across the university. The plan also provides guidance for engagement beyond our campuses and associated research and learning sites. Faculties and others will review their respective strategic plans and identify opportunities for alignment and synergy.

The next steps will be translating these strategies to actions and creating project plans to guide and align our efforts. Some of these actions will be ongoing, possibly requiring adjustment or different forms of support or additional funding; many will be new, arising in response to the direction and focus of ***Shaping UBC's Next Century***. Some of the latter can or must be initiated in the first year or two of the plan; others will follow. Some will be cross-cutting initiatives; others will be specific to one or more units. Actions will be revisited and renewed annually.

We intend to be thorough and rigorous in implementation. Our actions should be guided by responsible leadership that is accountable for budgets and progress. Our project plans should be public, with milestones and measures that provide assurance about progress. Where possible, we should pilot ideas and assess outcomes before making wholesale change. The plan is intended to encompass most activity across the university, rather than reflect a collection of ancillary tasks. It will accordingly act as a useful mechanism for determining what we might be able to stop or defer doing.

We will continue to seek input from students, faculty, staff, alumni and partners as we move forward. We will track our progress against the objectives of the strategic plan and will check and revise our direction and focus in response to changes both within and beyond the university. Ongoing discussion around prioritization, dependencies and capacity will be critical. We are committed to ensuring that our people and teams are appropriately resourced, supported and connected in the various initiatives that constitute ***Shaping UBC's Next Century***.



6 April 2018

To: Vancouver Senate

From: Tributes Committee

Subject: Memorial Minutes

The Tributes Committee has prepared memorial minutes for the following individual:

Dr. Finlay Morrison

Dr. Gordon Selman

Motion: *That Senate approve the Memorial Minutes for Dr. Finlay Morrison and Dr. Gordon Selman, that they be entered into the Minutes of Senate and copies be sent to the family of the deceased.*

Respectfully submitted,

Dr. Sally Thorne, Chair
Senate Tributes Committee

Dr. Finlay Morrison

Finlay Angus Morrison was born in 1917 in Stornoway, Saskatchewan. After completing high school, Dr. Morrison served as an apprentice pharmacist in Regina and Belcarra, Saskatchewan, before enrolling in the University of Saskatchewan, where he earned his Diploma in Pharmacy. While at the University of Saskatchewan, Dr. Morrison was enrolled in the Canadian Officer Training Corps as an Officer Cadet, and upon his graduation in 1942, attended officer's training school in Gordonhead, British Columbia, and completed basic training in Manitoba. In June of 1943, he was deployed to Europe and posted to the South Saskatchewan Regiment as a platoon commander. Dr. Morrison was later posted to Canadian Army Headquarters outside of London, where he spent the remainder of the war as an aide to Canadian Army Commander, General H.D.G. Crerar. After the war, Dr. Morrison accompanied General Crerar on a cross-country tour of army units and military hospitals throughout Canada.

Following his discharge from the army in 1946, Dr. Morrison returned to Saskatchewan where he practiced pharmacy briefly, before returning to the University of Saskatchewan, where he completed his Bachelor of Science in Pharmacy in 1947. Following his graduation, Dr. Morrison accepted an appointment in the newly-formed Faculty of Pharmacy at UBC. He would spend the next 35 years at UBC, eventually achieving the rank of Professor of Pharmaceutics.

Dr. Morrison was a leading figure in both academic and professional pharmacy in British Columbia throughout his career. He held important leadership roles within the Faculty of Pharmacy, including Associate Dean, and Acting Dean. Dr. Morrison was involved in the drafting of the BC *Pharmacists Act* in 1974, and served as Registrar of the College of Pharmacists of BC from 1956-57, and President of the College from 1973-74. Dr. Morrison also served terms as President of the Pharmacy Examining Board of Canada, and as President of the Association of Faculties of Pharmacy of Canada.

To his family and friends, the Senate and the University of British Columbia offers their condolences and thanks.

Gordon Selman

Gordon Selman was a leading figure in the field of adult education in Canada. Born in Vancouver in 1927, he completed his undergraduate studies at UBC in 1949, and the teacher training program in 1951.

In 1954, Professor Selman returned to UBC to work as the supervisor of citizenship and evening classes in the University's Extension Department. He would continue to work in the Extension Department as a programmer and administrator until 1965. During this period, Professor Selman completed his MA in History, which he had begun 14 years earlier concurrently with the teacher education program. His thesis focused on the history of extension learning at UBC.



In 1965, Professor Selman briefly left the Extension Department, accepting a position as Executive Assistant to the President of UBC, and Secretary to the Board of Governors, but returned to the Extension Department as its Director little more than a year later. He led the Extension Department in this role until 1974, when he was appointed a Professor in the Faculty of Education where he remained until his retirement in 1992.

Over the course of his career, Professor Selman wrote extensively on the subject of adult education, including co-authoring *The Foundations of Adult Education*, which remains a key text in the field of adult education. In addition to his professional and academic work, Professor Selman took on leadership roles in a number of organizations, including the Vanier Institute of the Family, the Vancouver Branch of the United Nations Association of Canada, the Canadian Association for Adult Education, the Open Learning Agency, and the Carold Institute. In recognition of his contributions, he was awarded honorary degrees from Open University and St. Francis Xavier University.

To his family and friends, the Senate and the University of British Columbia offers their condolences and thanks.



a place of mind
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05 April 2018

To: The Okanagan and Vancouver Senates

From: The Okanagan and Vancouver Senate Academic Policy Committees

Re: Proposal to Merge the UBC Faculties of Education

The Academic Policy Committees of the Okanagan and Vancouver Senates have reviewed a proposal to merge the Okanagan and Vancouver Faculties of Education into one cross-campus Faculty of Education with an Okanagan Division and a Vancouver Division. Under the Okanagan Division, a school, the Okanagan School of Education, is proposed. A detailed rationale for the merger is included in the attached proposal.

Both Committees have met with Dean Blye Frank. Faculty of Education members on both campuses have voted in favour of merging the Faculties. Furthermore, a group of faculty members from the Okanagan Faculty Education attended a meeting of the Okanagan Senate Academic Policy Committee to express their support for the proposal.

The proposal incorporates feedback from the Senate Academic Policy Committees as well as from a consultation process with the wider University community that was facilitated by the Deans.

The following is recommended to Senate:

Motion: *That the Senates approve and recommend to the Board of Governors the following, to be effective July 1, 2018:*

That the Faculty of Education on the Okanagan Campus merge with the Faculty of Education on the Vancouver Campus to become one cross-campus Faculty of Education;

That the University establish an Okanagan Division and a Vancouver Division within the expanded Faculty of Education;

That pursuant to Section 3.1 of the University Act, the Board of Governors specify that the Okanagan Senate has responsibility for the Okanagan Division of the Faculty of Education;

That the University establish a School within the Okanagan Division of the Faculty of Education named the “Okanagan School of Education” and that all courses, programs, and faculty previously assigned to the Okanagan Faculty of Education be assigned to the newly established School; and,

That all remaining units, faculty, courses and programs previously assigned to the Vancouver Faculty of Education be assigned to the Vancouver Division of the UBC Faculty of Education.

Respectfully submitted,

Dr. Jan Cioe, Chair, Okanagan Senate Academic Policy Committee

Dr. Paul Harrison, Chair, Vancouver Senate Academic Policy Committee

To: The Vancouver and Okanagan Senate Policy Committees

From: Dr. Blye Frank, Dean, Faculty of Education, Vancouver and Dean *pro tem*, Faculty of Education, Okanagan

Date: March 20, 2018

Re: Merger of the UBC Faculties of Education

Recommendation

It is recommended:

That the Senates approve and recommend to the Board of Governors the following, to be effective July 1, 2018:

- a. That the Faculty of Education on the Okanagan Campus merge with the Faculty of Education on the Vancouver Campus to become one cross-campus Faculty of Education; and,
- b. That the University establish an Okanagan Division and a Vancouver Division within the expanded Faculty of Education; and,
- c. That the University establish a School within the Okanagan Division of the Faculty of Education named the “Okanagan School of Education” and that all courses, programs and faculty previously assigned to the Okanagan Faculty of Education be assigned to the newly established School.
- d. That all remaining units, faculty, courses and programs previously assigned to the Vancouver Faculty of Education be assigned to the Vancouver Division of the UBC Faculty of Education.

Rationale

The proposed recommendation is the result of visioning and wide-ranging consultation over the last four years. Beginning in January of 2014, the faculty members at UBC-O Faculty of Education were tasked with reviewing programs and revising their organizational structure. At that point, the Faculty of Education at UBC-O was charged with the task of reviewing its existing structure and programs, recognizing that without that review, the existing programs, budget, and staffing were unsustainable (see Appendix D – Background). The Faculty of Education at UBC-O considered a number of options, and potential implications, that are included in Appendix B.

Through extensive conversations with the potential partners at UBC-V, the faculty members of UBC-O Faculty of Education have envisioned a new Okanagan School of Education (OSE), responsive to the unique needs of their location. The recommended merger will align the infrastructure of the UBC Faculty of Education across two campuses.

The faculty members in the Faculty of Education at UBC-O and UBC-V have discussed and voted in favour of a merger to become one Faculty of Education at UBC.

Education faculty members on the Okanagan campus voted unanimously in favour of the merger and expressed a very strong preference to be co-located in one Faculty of Education with other Education colleagues, rather than in a different Faculty located on the Okanagan campus. The preponderant rationale for Education-UBC-O expressed by faculty members at the point of the unanimous positive vote focused on how beneficial it would be to them that a merger would provide: (a) direct access to infrastructure supports tailored to the specific needs of Education researchers and (b) a much larger group of Education colleagues housed in the same Faculty.

Within the current research-intensive university context, merging the Faculty of Education at UBC-O and the Faculty of Education at UBC-V will optimize infrastructure and support connections between faculty members in the same multidisciplinary academic discipline – Education - at the two campuses. A merger would provide UBC-O Education colleagues with access to highly specialized supports across a very significant set of offices that have no parallel on the UBC-O campus, including:

- Office of Research in Education led by an Associate Dean, Research in Education with two professional grant support staff, who provide extensive research infrastructure support services;
- Office of Teacher Education led by an Associate Dean, Teacher Education with a very significant staff cohort who provide extensive expertise regarding the BC Curriculum, Ministry of Education, Teacher Regulation Branch, IB Education, and international recruitment in Education;
- Office of Professional Development and Community Engagement led by an Assistant Dean with staff who provide expertise regarding strategic support for Distance, Hybrid and MOOC educational platforms, community-engaged marketing and cohort-based graduate programs.

The proposed structure is also an excellent option for the University because as a result of the merger, research and instructional capacities in one interdisciplinary area will be explicitly tied, permitting collaborations and other benefits of institutional linkage.

Functioning as a second school with the Faculty of Education (there is already a School of Kinesiology) it is clear from recent history that a school organizational structure will permit budgetary and curricular autonomy while providing support for sharing of infrastructure resources. Specifically, it will allow for strategic academic leadership and support for enacting requirements of the Collective Agreement and nurturing career growth suggested in the SAC Guidelines with an Educational context.

Organizational Structure

Functioning as a school within the Faculty of Education, the Okanagan School of Education (OSE) will be charged with carrying out teaching and academic practises and decision-making, while the Faculty of Education will be responsible for organizing teaching and academic processes. As noted in the *Guidelines for the Use of Faculties and Senate in Considering Recommendations for the Establishment of New Departments* (<https://senate.ubc.ca/vancouver/policies/establishment-new-departments>), “A school is generally concerned with the education of a profession - such as librarianship, social work or home economics. It is guided by a director rather than a head”. Responsive to the site and programme needs, the OSE will function with autonomy similar to an academic department.

Within each Faculty, there are often many university functions—including personnel and budget decisions, facilities management, teaching, etc. For the OSE, it makes sense to combine these duties in a central administration, rather than duplicate the effort across multiple institutional structures.

The organizational chart (Appendix A) included here provides an overview of the proposed reporting structure.

Administrative Changes

As a result of the merger, there will be administrative changes within the Okanagan School of Education. The OSE will have a Director, who will report directly to the Dean of Education, and an Associate Director, Teacher Education, who will report to the Director, OSE. There will also be an Associate Director Graduate Programs and an Associate Director, Professional Development / Summer Institute in Education who would also report directly to the OSE Director. The Associate Directors will liaise with the Senior Leadership team of the Faculty of Education (Associate Dean, Teacher Education; Associate Dean, Research; Director, Graduate Studies in Education) to find synergies and efficiencies with the Faculty of Education programs across the two campuses.

Program Structure

The curricula of OSE will be subject to review by a council of the OSE as well as by the curriculum committee of the UBC Faculty of Education.

Students will fall under the policies and regulations of their respective campuses. Any curriculum- or admissions-related changes will be submitted to the Okanagan Senate for approval.

Graduate programs at UBC-O will remain administratively unchanged. Masters and doctoral students on both campuses will have access to a larger pool of faculty to consult about possible program and/or thesis committee membership.

Student appeals will be handled in a manner consistent with existing university policies and procedures for appeals of academic standing on each respective campus (<https://senate.ubc.ca/vancouver/rules/academic> and <https://senate.ubc.ca/okanagan/rules/academic-standing-appeal-procedures>). On the Okanagan campus, appeals shall progress from the instructor, to the Director of the OSE, and then to the Dean of the Faculty of Education.

Student-Related Implications

Consultations with students enrolled in the Faculty of Education, UBC-O and with faculty indicate no perception of the likelihood of any deleterious impact of the merger on either B.Ed. or graduate students.

The B.Ed. degree offered by Faculty of Education, UBC-V and the Faculty of Education, UBC-O are entirely different degrees in terms of length of program and degree requirements. This difference in the B.Ed. degrees is an asset and there is no plan to streamline the two B.Eds. into one B.Ed. degree program. It is possible that the merger may provide greater access for teacher candidates in UBC-V to rural practicum locations and likewise, greater access for teacher candidates in UBC-O to urban and suburban practicum locations.

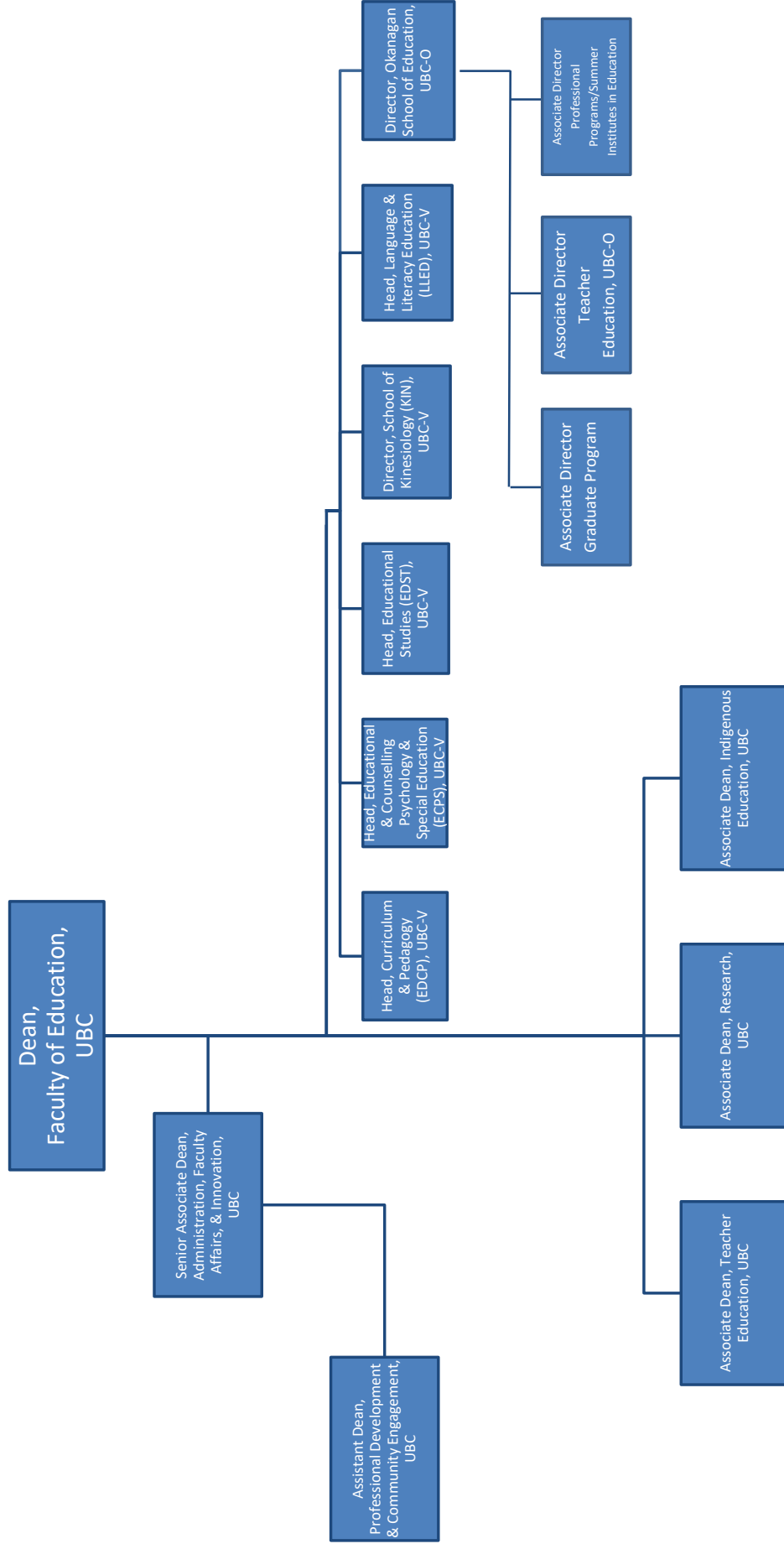
Resource Implications

The resources of the Okanagan School of Education, formerly the Faculty of Education UBC-O, will fall under the overall administrative responsibility of the Dean of the UBC Faculty of Education, As is the case with the School of Kinesiology on the UBC-V campus, the budget of the Okanagan School of Education will be administered as a fiscal object that is autonomous from the budget of the Faculty of Education, Vancouver campus. On the Vancouver campus, the budgets of the four Departments are administered separately from the budget of the School of Kinesiology. In all mission-critical (and quotidian) matters, decisions about the implications of

the budget and faculty hiring, and all other key budget-linked decisions, are made autonomously by the School of Kinesiology. Therefore, in operational terms, we might say that there is a firewall between budgets which will remain. Students enrolled in the OSE are students of UBC-O. Faculty hired at UBC-O remain faculty at the Okanagan campus.

Proposed UBC Faculty of Education Organization Chart

Appendix A



Appendix B: Governance Options

Chris Eaton, the Associate Registrar for Academic Governance & Director, Senate & Curriculum, created the following in response to questions from the UBC-O faculty members. Mr. Eaton was asked to sketch out possibilities for the UBC-O Faculty of Education for the UBC-O faculty members to discuss.

Governance Options and Structural Implications

Key to this table: Faculty members were asked to pose questions prior to Feb. 26, 2016 about potential governance structures. Those questions are summarized on the left-hand column. The remaining columns offer potential governance structures, including the current model. By answering faculty questions across the potential models, Chris Eaton has articulated the variety of implications of each model and potentially compares the options.

Questions arising from Faculty	Model Example: Current Structure	Model Example: Institute at UBC O	Model Example: School w/in UBC O	Model Example: School within UBC V	Other School within a Cross-Campus Faculty
Description of Structure	Small “d” director looks after daily faculty activities, excluding specific budget details director looks after 5.02, tenure and promotion, etc. director drafts workload for	Dean of the Faculty of Education would formally oversee faculty. Department Heads of Education departments oversee discipline-based units.	Dean of Faculty would oversee faculty and represent it to the executive and Senate.	Dean of Faculty would oversee faculty and represent it to the executive and Senate.	Dean of Faculty would oversee faculty and represent it to the executive and Senate. Director of School functions as

	<p>consultation w Dean and faculty</p> <p>director meets regularly with acting dean</p> <p>Dean attends senior management meetings and looks after Faculty concerns</p>	<p>Institute Director would represent Okanagan-based Education faculty matters.</p> <p>Programming would be transferred to Institute, Faculty members to another Faculty.</p>	<p>disciplinary and departmental head.</p> <p>The School would be an academic unit with a regular School meeting (akin to a dept. mtg.) and other governance and decision making structures, e.g., Departmental Standing Personnel Committee (DSPC).</p> <p>Programming and Faculty transferred to School.</p>	<p>disciplinary and departmental head.</p> <p>The School would be an academic unit with a regular School meeting (akin to a dept. mtg.) and other governance and decision making structures, e.g., Departmental Standing Personnel Committee (DSPC).</p> <p>Undergraduate Programming and Faculty would be transferred to School, Graduate Programming transferred to Faculty of Graduate and Postdoctoral Studies. Faculty would be given</p>	<p>disciplinary and departmental head.</p> <p>The School would be an academic unit with a regular School meeting (akin to a dept. mtg.) and other governance and decision making structures, e.g., Departmental Standing Personnel Committee (DSPC).</p> <p>Programming and Faculty transferred to School.</p>
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					membership in Faculty of Graduate and Postdoctoral Studies (with appropriate rank).	
Example of the Structure at UBC	Small d director similar to Faculty of Management	Faculty of Medicine operations at Prince George, Kelowna, Victoria. E.g., the Division of Medical Sciences at UVIC (which is conterminal with the Island Medical Program).	School of Health and Exercise Science within the Faculty of Health and Social Development	Faculty of Medicine	School of Engineering at UBC O within the Faculty of Applied Science at UBC V	
Leadership Options	Dean, with directors or associate deans as appropriate.	Institute Director (Okanagan); comparable title with UBC Faculty of Education	Director with a Dean	Dean with either an associate dean or director for Okanagan programming	Director with a Dean	
Faculty of Education Council (FEC) / everyday management / governance	To be determined by dean and faculty with approval of the Senate under Section 40 of the University Act.	To be determined by the dean, director, Senate and Board under Section 27 of the University Act.	Up to Faculty under Section 40 of the University Act.	To be determined by dean and faculty with approval of the Senate under Section 40 of the University Act.	Up to Faculty under Section 40 of the University Act.	

Budget Issues	As per any other Okanagan faculty	Faculty appointments held in Vancouver; staff appointments held in Okanagan. Budget transfers to cover costs of faculty involvement in teaching program and central administrative costs of Faculty.	As per any other Okanagan faculty	All transferred to Vancouver.	As per Faculty of Applied Science.
Administrative Support for Programs	Faculty staff.	Staff assigned to institute for local matters; central administration handled by Faculty.	School level staff supported by faculty-level staff as appropriate.	Faculty staff	School level staff supported by faculty-level staff as appropriate.
How is curriculum modified / changed and programs added? For example, Senate approvals, etc.	Determined by Faculty Under Section 40 of the Act with approval of Senate under Section 37.	Depends – independent programming or variants of Vancouver B.Ed. programs.	Determined by School, Faculty, and Senate.	Determined by Faculty Under Section 40 of the Act with approval of Senate under Section 37.	Depends – independent programming or variants of Vancouver B.Ed. programs.
How is workload for faculty determined?	By faculty	By departments in consultation with institute.	By School	By departments	By School

How is merit / PSA awarded?	By faculty	By department	By school	By departments	By school
How is tenure and promotion mentored and promoted?	By faculty	By department and Faculty	By school and Faculty	By department and Faculty	By school and Faculty
How are grants / research funding opportunities promoted?	By faculty	By department, in consultation with Institute.	By school and Faculty	By department and faculty	By school and Faculty
How are graduate students supported and advocated for with CoGs, etc.?	By faculty and CoGS	By department, in consultation with Institute	By school and CoGS	By department and UBC Faculty of Graduate and Postdoctoral Studies	By school and CoGS
How would international opportunities be promoted? For example, the Yokohama option, Tokyo School Board, etc.	By Faculty	By Institute with approval of Faculty	By School with approval of Faculty	By School with approval of Faculty	By School with approval of Faculty
How would our existing centres be supported / promoted?	No Change.	Centres can exist within institutes or within faculties directly.	Centres placed under School	Centres placed under School	Centres placed under School

What impact would the various structures have on our flexibility for our very successful Summer Institute in Education / Professional Programs?	No impact	As an academic unit, the institute could offer academic programming on behalf of a faculty.	By School with approval of Faculty	By School with approval of Faculty
How would the various tenure tracks (Professoriate and Professor of Teaching) be supported and developed?	By Faculty	By department, with collaboration/support of the Institute	By School with Faculty	By School with Faculty

Appendix C

Consultations, Feedback, and Responses

The stakeholders at UBC-O and UBC-V have been consulted and provided opportunities to give feedback on an ongoing basis. There have been internal and external consultations (UBC-O and UBC-V faculty members, graduate students, and students).

Date	Consultants	Feedback	Response
2016/09/20	Faculty of Education, UBC-V, Dean Frank mentions the possibility of the merger during opening remarks at the Faculty meeting.		- Desire to explore
2016/10/21	FEC meeting with Dean Frank to propose “department”. Dr. Wendy Carr, Associate Dean, Teacher Education, accompanied Dean Frank.	- Difficult alignment	- Not feasible
2017/01/31	Conversations with the Dean in Vancouver RE: UBC-V Faculty of Education & UBC-O Faculty of Education merger possibilities. Forty-one people (Faculty & Staff) in attendance. Panel attendees: <ul style="list-style-type: none"> • Dr. Susan Crichton, Director – Faculty of Education, UBC-O • Ms. Stephanie Oldford, Academic Governance Officer – Office of the Senate, UBC-V 	<ul style="list-style-type: none"> - Excellent conversation - Lots of discussion - Lots of questions - Concerns about structure and budget 	- Positive

	<ul style="list-style-type: none"> • Mr. Stuart Mackenzie, Director, Financial Reporting & Budgeting – Office of the Comptroller, UBC-V • Mr. Christopher Eaton, Associate Registrar for Academic Governance & Director, Senate & Curriculum, UBC-V 		
2017/06/21	UBC-O Faculty of Education Council Meeting (FEC)	The vote was non-binding, but indicated the wish of the UBC-O faculty members. Seventeen positive votes, no negative votes, and no abstentions (Twelve faculty members voted in person and five voted via email in absentia.)	<p>Motion # 1. That the UBC Faculty of Education Okanagan (UBC-O) and the UBC Faculty of Education Vancouver (UBC-V) merge to become the UBC Faculty of Education.</p> <p><u>Motion # 1:</u> 100% Yes</p> <p>Motion # 2. That once merged, the former UBC Faculty of Education Okanagan becomes the Okanagan Institute of Education (OIE) within the UBC Faculty of Education.</p> <p><u>Motion # 2:</u> 100% Yes</p>
2017/08/29	Conversations with the Dean in Vancouver RE: UBC-V Faculty of Education & UBC-O Faculty of Education merger possibilities. Twenty-two people (Faculty & Staff) in attendance.	- Lots of questions	- Positive

	<ul style="list-style-type: none"> • Dr. Susan Crichton, Director – Faculty of Education, UBC-O attended 		
2017/08/31	<p>Conversations with the Dean in Vancouver RE: UBC-V Faculty of Education & UBC-O Faculty of Education merger possibilities. Twenty-seven people (Faculty & Staff) in attendance.</p>	- Lots of questions	- Positive
2017/09/15	<p>Dean and Dr. Crichton hold Town hall with UBC-O B.Ed. students in Kelowna RE: UBC-V Faculty of Education & UBC-O Faculty of Education merger possibilities.</p>	- Questions regarding restructure	- Positive
2017/09/16	<p>Dean and Dr. Crichton hold Town hall with UBC Okanagan graduate students in Kelowna RE: UBC-V Faculty of Education & UBC-O Faculty of Education merger possibilities.</p>	- Questions regarding restructure	- Positive
2017/09/19	<p>Conversations with the Dean (an open forum with faculty members) in Vancouver RE: UBC-V Faculty of Education & UBC-O Faculty of Education merger possibilities.</p>	- Questions regarding restructure	- Positive
2017/09/28	<p>Town hall with UBC Vancouver B.Ed. students in Vancouver RE: UBC-V Faculty of</p>	- Questions regarding restructure	- Positive

	Education & UBC-O Faculty of Education merger possibilities.		
2017/09/28	Town hall with UBC Vancouver graduate students in Vancouver RE: UBC-V Faculty of Education & UBC-O Faculty of Education merger possibilities.	- Questions regarding restructure	- Positive
2017/11/07	UBC-V FoE Faculty Meeting	Dean's remarks discussing the benefits and challenges of the merger. Senior Associate Dean presented information on the budget snapshot of UBC-O FoE – structural deficit of \$200,000-300,000. This would be firewalled from UBC-V. Faculty discussion and questions focused on: finances, the organization and structure of the administration of the OIE, the state of graduate programs, the teacher education program, and opportunities to have an impact in communities in the Okanagan.	<p>- Online vote November 7-10.</p> <p><u>Total respondents: 89 of 160 Tenure/Tenure-Track Faculty or 56%.</u></p> <p>Motion # 1. That the UBC Faculty of Education Okanagan (UBC-O) and the UBC Faculty of Education Vancouver (UBC-V) merge to become the UBC Faculty of Education.</p> <p><u>Motion # 1:</u> 14% Abstained 29% No 57% Yes</p> <p>Motion # 2. That once merged, the former UBC Faculty of Education Okanagan becomes the Okanagan Institute of Education (OIE) within the UBC Faculty of Education.</p> <p><u>Motion # 2:</u> 18% Abstained 28% No 54% Yes</p>

2017/11/20	UBC-O Senate Academic Policy Committee	Questions regarding: - benefit to the proposed structure for faculty members, the Faculty of Education, students, and the entire University	- Suggested that the document be revised to incorporate feedback and that it be circulated for consultation
2017/11/27	UBC-V Senate Academic Policy Committee	- using the word "Institute" in the title of the proposed school - impact on students - how will the Okanagan School maintain its integrity and independence - what is not solved with the proposed structure?	
2018/1/9	Faculty of Education, UBC-O, Faculty Council	Discussion of document, "Possible Merger of the UBC Faculties of Education" and in particular, proposal for "Okanagan School of Education" (versus prior discussion of/vote on an "Okanagan Institute of Education")	Support for the document "Possible Merger of the UBC Faculties of Education" (version dated Jan. 14, 2018) to go forward to the Senate Academic Policy Committees, UBC-V and UBC-O
Upcoming Meetings			
2018/02	Consultation response review by UBC-O & UBC-V Senate Academic Policy Committees		
2018/04	Senate UBC-V & UBC-O		
2018/06	Board of Governors		

Appendix D

Background

Below is a detailed timeline of the planning and consultation process:

January 23, 2014	Meeting called by Deputy Vice Chancellor (DVC), Provost & Vice Principal; announcement that Dr. Lynn Bosetti, Dean, Education, stepped down and Dr. Gordon Binsted, Dean, Faculty of Health and Social Development, was assigned the position of Acting Dean
March 13, 2014	UBC-O Faculty of Education invited to come together to review program options and plan for reinvention.
March 19, 2014	Financial discussion regarding constraints of faculty/program.
April 14, 2014	Announcement at Faculty of Education Council (FEC) of Dr. Annette LaGrange's retirement set for end of June, which will eliminate the role of Associate Dean moving forward. Dr. Susan Crichton is appointed director effective July 1, 2014.
June 30, 2014	Dr. Annette LaGrange retires as Associate Dean and Associate Professor.
November 18, 2015	FEC begins discussions concerning leadership / organization.
December 16, 2015	Special meeting of the FEC: discussion around leadership organization.
February 17, 2016	FEC: Discussion with Dr. Buszard, Deputy Vice-Chancellor and Principal, and Dr. Mathieson, Provost and Vice-Principal Academic; Extension of Dr. Gord Binsted, Dean, Faculty of Health and Social Development, as Acting Dean until June 30, 2017 pending Board Approval. Dr. Susan Crichton has new contract as director for same time frame.
June 15, 2016	FEC: Motion to ask Dean Frank to become our Acting Dean. Motion to only pursue partnership with Faculty of Education, UBC-V. The vote was fifteen in favor with one abstention.
January 1, 2017	Dr. Blye Frank assumes role of Dean <i>pro tem</i> .
June 21, 2017	UBC Okanagan Faculty voted on the merger. The vote was non-binding, but indicated the wish of the UBC-O faculty members. Seventeen positive votes, no negative votes, and no abstentions (Twelve faculty members voted in person and five voted via email in absentia.)
November 7-10, 2017	<p>UBC-V FoE Faculty voted (via anonymous electronic ballot) on 2 proposed motions. It is recommended:</p> <ol style="list-style-type: none"> 1) That the UBC Faculty of Education Okanagan (UBC-O) and the UBC Faculty of Education Vancouver (UBC-V) merge to become the UBC Faculty of Education. 2) That once merged, the former UBC Faculty of Education Okanagan becomes the Okanagan Institute of Education (OIE) within the UBC Faculty of Education. <p>The vote was non-binding, but indicated the wishes of the UBC-V faculty members.</p>



THE UNIVERSITY
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To: Senate
From: Senate Agenda Committee
Re: Timely Distribution of Senate Materials
Date: 6 April 2018

The Senate Agenda Committee has considered the concerns raised by senators at the previous Senate meeting regarding timely distribution of Senate materials. Presently, the Senate website advises proponents that all materials for Senate meetings must be sent to the Office of the Senate two days prior to the monthly meeting of the Senate Agenda Committee (generally, this would be by midnight on the first Wednesday of each month). However, in recent years, the Senate has been much more flexible about accepting late submissions and revisions, and this has resulted in the final Senate agenda package not being available to senators until two days before the monthly Senate meeting.

The Agenda Committee is sympathetic to the concerns raised by senators who have argued that they do not have sufficient time to review materials. To address this, the Agenda Committee intends to have all Senate material finalized at least one (1) week prior to each Senate meeting, with the aim of giving senators at least five (5) days, including the week-end, to review senate materials; thus the Committee will be enforcing the above two (2)-day deadline much more stringently upon all committees of senate, individual Faculties, and members of the administration. Should urgent materials arise after that deadline, proponents would need to seek the consent of the President under Rule 21(d) to add the matter from the floor of Senate, and the Agenda Committee would suggest that such consent not be granted except in extraordinary circumstances.

Therefore, the Senate Agenda Committee will be revising its submission instructions as follows (new language in bold) effective for the September 2018 meeting of Senate:

“Material for Senate meetings should be sent to the Senate Office by email to senate.vancouver@ubc.ca at least two days prior to an Agenda Committee meeting. **Late submissions or revisions will not be accepted.** Please note that some material may need to be considered by a committee of Senate prior to consideration by Senate as a whole, and thus not all items may be placed directly before the Senate.”

April 2018

From: Senate Awards Committee

To: Senate

Re: New Awards and Changes to Existing Awards

NEW AWARDS – ENDOWED

Aho-Davis Undergraduate Prize in Geological Sciences

A \$3,800 prize has been made available through an endowment established by Gordon Davis to honour the memory of Dr. Aaro Aho, his mentor and partner in exploration in the Yukon Territory. Together with prospector Alan Kulan, they were responsible for the discovery and development of the Anvil Mine and subsequent successful exploration in the district. Aaro Aho and Gordon Davis were both graduates of Geological Engineering at UBC. The Aho-Davis Undergraduate Prize in Geological Sciences is the legacy of the Dr. Aaro Aho Foundation, which has granted \$330,000 in awards to UBC students since 1978. The prize rewards outstanding academic achievement and is available to an undergraduate student completing their final year in a BSc degree in Geological Sciences or Geophysics. Preference is given to a student with field experience and/or a focus on mineral exploration and/or geochemistry. The prize is made on the recommendation of the Department of Earth, Ocean and Atmospheric Sciences. (First award available in the 2018/19 winter session.)

Aho-Davis Undergraduate Transfer Scholarship in Geological Sciences

Scholarships totaling \$3,800 have been made available through an endowment established by Gordon Davis to honour the memory of Dr. Aaro Aho, his mentor and partner in exploration in the Yukon Territory. Together with prospector Alan Kulan, they were responsible for the discovery and development of the Anvil Mine and subsequent successful exploration in the district. Aaro Aho and Gordon Davis were both graduates of Geological Engineering at UBC. The Aho-Davis Undergraduate Transfer Scholarship in Geological Sciences is the successor to the Dr. Aaro Aho Foundation, which has granted \$330,000 in awards to UBC students since 1978. The scholarships are made available to students transferring into years two or three of a Bachelor of Science program in Geological Sciences from another Canadian post-secondary institution, with preference given to those with field experience or a focus on mineral exploration. The scholarships are made on the recommendation of the Department of Earth, Ocean and Atmospheric Sciences. (First award available in the 2018/19 winter session.)

Dr. Wilbert G. Bos Bursary in Physics

Bursaries totalling \$4,000 have been made available through an endowment established in memory of Dr. Wilbert G. Bos, and matched by The University of British Columbia, for undergraduate students in the Department of Physics who demonstrate financial need. Preference is given to students who have overcome adversity. The bursaries are adjudicated by Enrolment Services in consultation with Access and Diversity. (First Award Available 2018/2019 Winter Session).

Nini M. Harris-Lowe Bursary for Chronic Conditions and Disability

Bursaries totaling \$2,000 have been made available through an endowment established by Mr. Rick Lowe (B.Sc.1982) and matched by the University of British Columbia, in memory of his spouse, Mrs. Nina M. "Nini" Harris-Lowe, for students entering or pursuing any eligible degree program who cope with chronic pain, chronic conditions or illness, disabilities or any other impairment that impacts their university studies. Recommendations are made by Enrolment Services in consultation with Access & Diversity. (First Award Available 2018/2019 Winter Session.)

Donald Malcolm Nicholson Bursary in Law

Bursaries totaling \$2,400 have been made available through an endowment established by Elizabeth Nicholson and Allan Nicholson in memory of their uncle, Donald Malcolm Nicholson (LLB 1949), along with matching funds from UBC. These bursaries are for JD students in the Peter A. Allard School of Law. Following the end of World War II, Donald returned to Canada and enrolled in Law at UBC. Upon graduation, he established his law practice in Haney (now Maple Ridge), where he provided a wide variety of legal services to people in the area. His law practice was both a career and a passion. The bursaries are adjudicated by Enrolment Service. (First award available in the 2018/19 winter session.)

David Podmore Bursary in Commerce

Bursaries totalling \$4,000 have been made available through an endowment established by Concert Properties to undergraduate students in the Bachelor of Commerce program at the Sauder School of Business, with preference given to students entering their third or fourth year. The award is in recognition of David Podmore's influential contributions to Concert Properties and the real estate community. David, who holds a bachelor's degree specializing in community planning from the University of British Columbia (1972) and a master's degree (Earth Sciences) specializing in urban planning from the University of Alberta, is the recipient of numerous community and professional awards, including the first Award of Excellence granted by the Real Estate Institute of BC. He has received the Queen Elizabeth II Diamond Jubilee Medal, and in 2014 was invested to the Order of British Columbia. The bursary is adjudicated by Enrolment Services. (First award available in the 2018/19 winter session.)

Gladys and Gerald Sankey Scholarship in Career Counselling

Scholarships totaling \$4,000 have been endowed by an estate gift from Dr. Gerald Sankey (1918-2016) and Mrs. Gladys Sankey (1920-2017). Dr. Sankey was a UBC graduate (B.A. 1943, B.Ed 1954 and M.A. 1959). The scholarships are awarded each year to outstanding master's or doctoral graduate students in the Counselling Psychology program in the Faculty of Education whose studies and career aspirations are focused on career counselling. The recipients will demonstrate potential for contributing to the well-being of students in secondary or post-secondary institutions addressing school-to-work transition issues. The scholarships are made on the recommendation of the Department of Educational and Counselling Psychology, and Special Education in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available 2018/19 winter session.)

Western Union Business Solutions Bursary

Bursaries totaling \$1,200 have been made available through an endowment established by Western Union Business Solutions to undergraduate students who demonstrate financial need. Western Union Business Solutions, a global leader in payment solutions for higher education institutions, has partnerships with over 600 universities, colleges and schools globally and has processed over 180,000 student payments across 200 countries and territories. The bursaries are adjudicated by Enrolment Services. (First award available in the 2018/2019 winter session.)

Alumni UBC Blue & Gold Bursary

Bursaries totalling \$4,000 have been made available through an endowment established in honour of alumni UBC's 100th anniversary, along with matching funds from the University of British Columbia, for undergraduate students who demonstrate financial need. The bursaries are adjudicated by Enrolment Services. (First Award Available in the 2018/2019 Winter Session.)

Brett Family Men's Volleyball Award

One or more awards, which may range from a minimum value of \$500 each to the maximum allowable under athletic association regulations, have been made available through an endowment established by Rob and Vicky Brett. These awards are offered to outstanding members of the UBC Thunderbirds Men's Volleyball Team in any year of study who are in good academic standing. Financial need may be considered. Awards are made on the recommendation of the Athletic Awards Committee. (First award available in the 2018/19 winter session.)

Dr. Michael Graham Clay Presidential Prize

A \$20,000 prize has been made available through an endowment established by Ms. Jennifer Clay and Mrs. Sarah McLeod, in memory of their father, Dr. Graham Clay (M.D. 1956), with matching funds from the University of British Columbia, to a fourth-year MD undergraduate student demonstrating outstanding ability in surgical studies and the promise of an exceptional career in surgery. This student will have been matched to a surgical residency. Dr. Clay had a fulfilling career as a surgeon, specializing in breast cancer treatment. He was highly regarded by

his colleagues, students and patients alike. Dr. Clay helped develop the Screening Mammography Program of BC, was a Clinical Professor Emeritus at UBC and served as the Medical Director of the Clinical Practice Subunit of General Surgery at VGH. His legacy lives on in the patients he saved and the students he taught over his well-lived 85 years. In recognition of his incredible contributions to the medical field, this prestigious prize recognizes a medical student on the recommendation of the Faculty of Medicine and in consultation with the Department of Surgery. (First award available in the 2018/19 winter session.)

Robert and Evelyn McElhanney Bursary in Engineering

A \$2,000 bursary has been made available through an endowment established by the McElhanney family to a second-year undergraduate student enrolled in engineering in the Faculty of Applied Science at the Vancouver campus. This bursary was established in honour of Robert McElhanney (B.A.Sc. 1939) and Evelyn McElhanney (née Lawrence) (Vancouver General Hospital School of Nursing, R.N. 1949), who met in Vancouver and valued the importance of education. The bursary is adjudicated by Enrolment Services. (First award available in the 2018/19 winter session).

Robert and Evelyn McElhanney Bursary in Nursing

A \$2,000 bursary has been made available through an endowment established by the McElhanney family to a second-year undergraduate student enrolled in the nursing program in the Faculty of Applied Science at the Vancouver campus. This bursary was established in honour of Robert McElhanney (B.A.Sc. 1939) and Evelyn McElhanney (née Lawrence) (Vancouver General Hospital School of Nursing, R.N. 1949), who met in Vancouver and valued the importance of education. The bursary is adjudicated by Enrolment Services. (First award available in the 2018/19 winter session).

Medicine Class of 1993 25th Reunion Bursary

A \$2,000 bursary has been made available through an endowment established by the Medicine Class of 1993, along with matching funds from the University of British Columbia, on their 25th reunion, for a student in the MD undergraduate program. The bursary is adjudicated by Enrolment Services. (First award available in the 2018/19 winter session.)

Douglas C. Pryke Memorial Bursary

Bursaries totalling \$2,000 have been made available through an endowment established by Valerie Pryke, along with matching funds from the University of British Columbia, to First Nations, Inuit, or Métis students of Canada enrolled in any undergraduate program. Douglas C. Pryke graduated from UBC Chemical Engineering in 1973, embarking on a 40-year career in the pulp and paper industry. His expertise in the pulp bleaching process was known worldwide, supported by many published articles and with a focus on environmental concerns. He was the founding executive director of the Alliance for Environmental Technology and a fellow for the

Technical Association of the Pulp and Paper Industry (TAPPI). Doug was known for his laughter and impeccable integrity, as well as his great love of music, golf and white-water canoeing. The bursary is adjudicated by Enrolment Services. (First award available in the 2018/19 winter session.)

Carolyn Shaw and Ivan Buzinski Bursary in Physical Therapy

Bursaries totalling \$2,400 have been made available through an endowment established by Carolyn Shaw (B.Sc., Physical Therapy 1993) and Ivan Buzinski (B.Sc., Physical Therapy 1993), along with matching funds from the University of British Columbia, to support one or more students enrolled in the Master of Physical Therapy program who demonstrate financial need. Both Ms. Shaw and Mr. Buzinski are registered physical therapists. The bursaries are adjudicated by Enrolment Services. (First award available in 2018/19 winter session.)

Anona Thorne and Takao Tanabe Graduate Entrance Scholarship in Mathematics

Entrance scholarships totalling \$2,500 are offered annually to students entering a graduate program in Mathematics. Anona Thorne (B.A. '91 Math; M.Sc. '93 Stats) is a double alumna of UBC and went on to an interesting career with the CIHR Canadian HIV Trials Network at Saint Paul's Hospital in Vancouver. Takao Tanabe, her husband, is a well-known Canadian painter. Financial need may be considered. This award is made on the recommendation of the Department of Mathematics in consultation with the Faculty of Graduate and Postdoctoral Studies.

NEW AWARDS – ANNUAL

Graduate Award in Population Health and Engineering

Awards totalling \$2,000 are offered annually by friends and family to honour and remember UBC faculty members in the disciplines of occupational & environmental health and mechanical engineering who dedicated their careers to training and mentoring students to use knowledge from different disciplines with the goal of improving work and community environments. This award is for graduate students enrolled in the School of Population and Public Health or the Department of Mechanical Engineering, who undertake multidisciplinary research or training activities that bridge health and engineering disciplines to improve work or community environments. The awards are made on the recommendation of the Faculty of Medicine in collaboration with the Faculty of Applied Science and in consultation with the Faculty of Graduate and Postdoctoral Studies. (First Award Available in the 2018/2019 Winter Session.)

Ian Kinsey Bursary

A \$2,000 bursary has been made available annually, through an endowment established by Ian Kinsey and held at the University of Victoria, to support students in the Island Medical Program

of the University of British Columbia who are in their second year of study. The bursary is adjudicated by Enrolment Services. (First award available in the 2018/2019 winter session.)

Special University Entrance Scholarship

Scholarships of up to \$2,000 are offered annually by the University of British Columbia to Canadian citizens or Permanent Residents of Canada entering university from secondary schools in Canada or abroad. Criteria for these scholarships include demonstrated academic and leadership achievements in the arts, community, athletics, and school. Preference is given to students who were offered the Outstanding International Student Award but now are no longer eligible for this scholarship as they have since obtained Canadian citizenship or Permanent Residency status. The awards are made on the recommendation of Enrolment Services. (First award available in the 2018/19 winter session.)

Special University Major Entrance Scholarship

Scholarships of up to \$3,000 over 4 years are offered annually by the University of British Columbia to Canadian citizens or Permanent Residents of Canada entering university from secondary schools in Canada or abroad. Criteria for these scholarships include demonstrated academic and leadership achievements in the arts, community, athletics, and school. Subject to continued scholarship standing, the scholarships will be renewed for a further three years of study or until the first undergraduate degree is obtained (whichever is the shorter period). Preference is given to students who were offered the International Major Entrance Scholarship but are no longer eligible as they have since obtained Canadian citizenship or Permanent Residency status. The awards are made on the recommendation of Enrolment Services. (First award available in the 2018/19 winter session.)

Grace Torchy Stewart Adamson Memorial Bursary in Nursing

A \$1,000 bursary is offered annually by Dr. Janet Adamson in memory of her mother, Grace (Torchy) Stewart Adamson, who received her B.S.N from UBC in 1951, to support students in the Bachelor of Science in Nursing program. The bursary will not be awarded to more than one student from the same Province or Territory within a period of 3 years unless no other eligible students can be identified, with preference given to any of the following: students from rural communities; First Nations, Inuit or Métis students of Canada; and/or single parents. The bursary is adjudicated by Enrolment Services. (First award available in the 2018/2019 winter session.)

SUSTech Doctoral Scholarship

Up to twenty renewable scholarships, each valued at \$25,000 per year, are offered annually by the Southern University of Science and Technology (SUSTech) in China to outstanding PhD students in the Faculty of Applied Science. Renewal of scholarship funding is conditional upon recipients making satisfactory progress in their studies; funding will be renewed for a further three years of study or until completion of the PhD program requirements (whichever is the

shorter period). The awards are made on the recommendation of SUSTech and the Faculty of Applied Science, in consultation with the Faculty of Graduate and Postdoctoral Studies.

Bohemia Award in Theatre and Film

Two awards of \$5,000 each are offered annually by Jana Veverka (M.A. 1972 in Directing) and David Fischer (M.F.A. 1978 in Stage Design) to support Master of Fine Arts students in the Department of Theatre and Film. In recognition of David and Jana's careers in and passions for theatre and film, the awards will be offered to students who have achieved excellence in direction, design or production in theatre and/or film. Recommendations are made by the Department of Theatre and Film in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available in 2018/19 winter session.)

Glorisun Fellowship in Buddhist Studies

Fellowships totalling \$60,000 are offered annually by the GS Charity Foundation Limited, Hong Kong, for graduate students in the Faculty of Arts undertaking research on East Asian Buddhism. This award is open to graduate students who live in mainland China, Taiwan, Hong Kong, or Macau or who have lived in one of these regions for at least five years of the past ten years. Preference will be given to students researching Chinese Buddhism. The fellowships will be renewed for a further three years of study or until a graduate degree is completed, whichever is shorter. The fellowships are made on the recommendation of the Department of Asian Studies in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available in the 2018/19 winter session.)

Simons Graduate Award in Disarmament, Global and Human Security

Awards totalling up to \$30,000 are offered annually by The Simons Foundation Canada. The awards will support one or more full-time PhD students to work with the Simons Chair in Disarmament, Global and Human Security on research projects related to nuclear disarmament, or more broadly, global and human security. The awards are made on the recommendation of the UBC School of Public Policy and Global Affairs and the Simons Chair in Disarmament, Global and Human Security in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available in the 2018 Summer Session.)

Danny and Christina Smith Family UBC Football Award

One or more awards, which may range from a minimum value of \$500 each to the maximum allowable under athletic association guidelines, are offered to members of the UBC Thunderbird Football Team in any year of study, who have demonstrated excellent leadership skills and athletic ability and have maintained good academic standing. Preference will be given to graduates of high schools located on Vancouver Island. Financial need may be considered. Awards are made on the recommendation of the Athletics Awards Committee. (First available award in the 2018/19 winter session.)

PREVIOUSLY APPROVED AWARDS WITH CHANGES IN TERMS OR FUNDING SOURCE

1286 – Normand M. Bouchard Memorial Bursary

Current Award Description

Bursaries totalling \$4,750 have been made available through an endowment established by Mr. William and Mrs. Miyo Thornton-Trump in memory of their son, Normand Bouchard (1969–1995). Normand Bouchard was a long-time UBC Film Society Executive who graduated from UBC in 1995. The theatre at the UBC Student Union Building is named after Normand Bouchard. The bursaries are for students in any year or faculty. The adjudication is made by Enrolment Services.

Proposed Award Description

Bursaries totalling \$4,750 have been made available through an endowment established by Mr. William and Mrs. Miyo Thornton-Trump in memory of their son, Normand Bouchard (1969–1995). Normand Bouchard was a long-time UBC Film Society Executive who graduated from UBC in 1995. The theatre at the UBC Student Union Building is named after Normand Bouchard. ~~The bursaries are for students in any year or faculty.~~ **The bursaries are for students enrolled in the Film Production program in the Department of Theatre and Film.** The adjudication is made by Enrolment Services.

Rationale for Proposed Changes

This award was originally established in 1996 as an annual award and in 2015 a RRIF from the donor allowed us to endow it. Recent stewardship activity with the donor led us to revise the award description to better reflect the donor's original intent of having this award be given to a student in the Department of Theatre and Film. We are narrowing the bursary criteria to reflect the donor's original wishes and to reflect the original terms of reference of the endowment.

1834 – Chrysalis Dental Centre - Vancouver Award

Current Award Description

A \$2,500 award is offered annually by Chrysalis Dental Centre - Vancouver to a third year DMD student who demonstrates a special interest and excellence in the field of implantology. The award is made on the recommendation of the Faculty of Dentistry.

Proposed Award Description

A \$2,500 award is offered annually by Chrysalis Dental Centre - Vancouver to a ~~third~~ **fourth** year DMD student who demonstrates a special interest and excellence in the field of implantology. The award is made on the recommendation of the Faculty of Dentistry.

Rationale for Proposed Changes

The award description is being updated to reflect changes to the timing of curriculum.

4823 – Grace Torchy Stewart Adamson Memorial Scholarship in Nursing**Current Award Description**

A scholarship of \$7,950 has been endowed by family, friends, and colleagues in memory of Grace (Torchy) Stewart Adamson, who graduated from VGH School of Nursing (1950) and received a B.Sc.N. from UBC (1951). The award is offered to a student entering the Master's program in Nursing and is based on academic excellence and practical experience. It is made on the recommendation of the School of Nursing in consultation with the Faculty of Graduate and Postdoctoral Studies.

Proposed Award Description

A scholarship of \$7,950 has been endowed by family, friends, and colleagues in memory of Grace (Torchy) Stewart Adamson, who graduated from VGH School of Nursing (1950) and received a B.Sc.N. from UBC (1951). The award is offered to a student entering the master's program in Nursing, **with preference given to those who are studying public health nursing or emergency nursing**, and is based on academic achievement and practical experience. It is made on the recommendation of the School of Nursing in consultation with the Faculty of Graduate and Postdoctoral Studies.

Rationale for Proposed Changes

At the request of the award contact, Development and Alumni Engagement would like to update the award description to more closely align with the legacy of the award's namesake, Grace (Torchy) Stewart Adamson. The letters of the donor's degree were recorded incorrectly and are being revised.

5318 – Sandy Laird Service Award in Mining Engineering**Current Award Description**

Two awards of \$2,200 each have been made available through an endowment established by Sandy Laird, B.A.Sc., 1957 (Mining Engineer) to second-year undergraduate students majoring in Mining Engineering in the Faculty of Applied Science. This award was originally conceived to inspire first-year engineering students to pursue a career in mining engineering leading to

operations management. Recipients have the opportunity to expand their understanding and knowledge of the industry that will help them succeed in their professional career. Strong leadership abilities are critical to advancement in the mining industry; therefore, candidates must have demonstrated leadership through active participation in extracurricular activities in high school, the community, the university and/or sports. The awards are made on the recommendation of the Department of Mining Engineering.

Proposed Award Description

~~Two awards of~~ **Awards totalling** \$4,400 ~~each~~ have been made available through an endowment established by Sandy Laird, B.A.Sc., 1957 (Mining Engineer) to second **and third** year undergraduate students majoring in Mining Engineering in the Faculty of Applied Science. ~~This award was originally conceived to inspire first year engineering students to pursue a career in~~ **These awards are intended for** mining engineering ~~leading to~~ **students who aspire to become industry leaders through careers in mine** operations **and** management. Recipients have the opportunity to expand their understanding and knowledge of the industry ~~that will~~ **to** help them succeed in their professional career. Strong leadership abilities are critical to advancement in the mining industry; therefore, candidates must have demonstrated leadership through active participation in extracurricular activities in high school, the community, the university and/or sports. The awards are made on the recommendation of the Department of Mining Engineering.

Rationale for Proposed Changes

At the request of the donor we are revising the description to apply to third-year students to broaden the candidate pool and allow students the opportunity to benefit from receiving the award for a second year.



18 April 2018

To: Vancouver Senate

From: Senate Curriculum Committee

Re: April Curriculum Proposals (approval)

The Senate Curriculum Committee has reviewed the material forwarded to it by the faculties and encloses those proposals it deems as ready for approval.

The following is recommended to Senate:

Motion: *“That the new course codes, new courses, new program, new specialisation, and new non-thesis option brought forward by the faculties of Applied Science, Arts, Graduate and Postdoctoral Studies (Arts, Education, and Medicine), and Forestry be approved.”*

Respectfully submitted,

Dr. Peter Marshall, Chair

Senate Curriculum Committee



FACULTY OF APPLIED SCIENCE

New program, new course code and new courses

B.A.Sc in Manufacturing Engineering; MANU: Manufacturing Engineering; MANU 230 (3) Manufacturing Engineering Laboratory; MANU 261 (3) Thermodynamics; MANU 265 (3) Machine Dynamics; MANU 270 (3) Production Systems Management I; MANU 330 (3) Manufacturing Engineering Project I; MANU 370 (3) Production Systems Management II; MANU 378 (3) Engineering Materials II; MANU 380 (3) Manufacturing Processes I; MANU 386 (3) Industrial Automation; MANU 399 (1-6) d Special Topics in Manufacturing Engineering; MANU 430 (6) Manufacturing Design Capstone Project; MANU 455 (6) Factory Planning; MANU 480 (3) Manufacturing Processes II; MANU 481 (3) Manufacturing Processes III; MANU 485 (3) Metal Cutting and Machine Tool Vibrations; MANU 487 (3) Machine and Part Metrology; and MANU 499 (1-6) d Special Topics in Manufacturing Engineering.

FACULTY OF ARTS

New course code and new courses

INLB: Indigenous Land-Based Studies; INLB 201 (3-12) d Special Topics in Indigenous Land-based Studies; INLB 210 (3-12) d Land and Indigenous Self-Determination: Introduction to Theoretical Perspectives; INLB 220 (3-12) d Land and Indigenous Self-Determination: Introduction to Methods and Application; INLB 250 (3-12) d Indigenous Knowledge, Science, and Environmental Justice; INLB 251 (3-12) d Introduction to Indigenous Health, Wellness, and Self-determination; INLB 252 (3-12) d Introduction to Gender Justice and Indigenous Communities; INLB 310 (3-12) d Land and Indigenous Self-Determination: Advanced Theoretical Perspectives; INLB 320 (3-12) d Land and Indigenous Self-Determination: Advanced Methods and Application; INLB 401 (3-12) d Advanced Special Topics in Indigenous Land-Based Studies; INLB 450 (3-12) d Decolonizing Science and the Politics of Sustainability; INLB 451 (3-12) d Decolonizing Indigenous Health and Wellness; INLB 452 (3-12) d Gender Justice and Indigenous Resurgence; ACAM 390 (3/6) d Asian Migrations in a Global Context; CHIN 465 (3) Fantasy in Chinese Literature; CHIN 466 (3) Chinese Martial Arts Fiction; CHIN 485 (3) Contemporary Chinese Fiction in Film; CNRS 104 (3) Temples, Tombs, and Tyrants: The Archaeology of the Middle East, Greece, and Rome; CNRS 206 (3) The Archaeology of Life and Death in the Roman Empire; ENGL 393 (3-6) d Ecocriticism; HIST 329 (3) Heroes, Rebels, Villains, Folks: The People Who Shaped Canada; HIST 415 (3-12) d History of Vancouver; LASO 309 (3) Against the Law; and LASO 350 (3-12) d Topics in Law and Society.



FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

Arts

New course and new non-thesis option

GRSJ 511 (3) Difficult Knowledge: Ethics; Praxis of Research in Challenging Settings; and non-thesis option for M.A. in Music

Education

New courses

ETEC 523 (3) Mobile & Open Education; ETEC 524 (3) Learning Technologies: Selection, Design, and Application; and VRHC 513 (3) Case Management and Job Development Counselling.

Medicine

New courses and program revision

MPH: Master of Public Health; MEDI 520 (3) Advanced Topics in Visual Sciences and SPPH 553 (3) Foundations of Public Health Computing.

FACULTY OF FORESTRY

New course and specialisation

HGSE 320 (1-12) d: Special Topics on Social-Ecological Systems in Indigenous Contexts. Forest Sciences: General; and Forest Sciences: Honours.

The University of British Columbia

Faculty of Applied Science

New Program Proposal

**Bachelor of Applied Science
in Manufacturing Engineering**

2018-04-09

Approved at the
APSC Faculty Meeting [2018-03-01]

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1. EXECUTIVE SUMMARY

Overview

The University of British Columbia is a comprehensive research-intensive university, consistently ranked among the 40 best universities in the world. Its Faculty of Applied Science is internationally recognized, with its undergraduate Engineering program consistently ranked in the top 3 in Canada by MacLean's magazine and the QS World Rankings for Engineering and Technology. This proposal draws on that expertise and defines a new program for B.A.Sc. students at UBCV to pursue a rigorous and innovative CEAB¹ accredited Manufacturing Engineering degree in Vancouver. A parallel program is being proposed at UBC's Okanagan campus.

Manufacturing is the 4th largest industry in BC, supporting roughly 161,000 jobs and accounting for 7% of the provincial GDP². It has been a focus area for *the Science Technology and Innovation Council* and the *Government of Canada*. Engineers with the skills required for advanced manufacturing are critical to the growth and maintenance of the sector in Canada. Currently, BC has no manufacturing engineering programs to support this evolving sector and there are very few programs in Canada addressing its evolving needs.

The proposed B.A.Sc. degree will develop engineers specializing in modern manufacturing environments, who will be in demand in both industry and research. It is based on a Manufacturing Engineering curriculum proposed by the International Academy for Production Engineering (CIRP)³. The UBCV program will run in parallel and in cooperation with a separately proposed UBCO program. This will provide opportunities for inter-institutional collaborative teaching, and open up opportunities for students to direct their studies to either technical aspects of production or production management in their final year.

Students will apply to the common engineering first year, and specialize in MANU starting in the second year. Steady-state annual intake will be 50 students. Students will study foundational engineering disciplines, manufacturing processes and platforms, production management and modern and emerging manufacturing practices.

Credential

The credential awarded will be the Bachelor of Applied Science (B.A.Sc.) in Manufacturing Engineering. It is designed to be accredited by the Canadian Engineering Accreditation Board.

Location

The UBCV program, focusing on technical aspects of manufacturing, will be offered in Vancouver. UBCO will offer a focus on Production Management. The first 3 years of each program are designed for equivalency. A *Memorandum of Agreement* between campuses will

¹ Canadian Engineering Accreditation Board

² Mah, T. (2017, May 3). Manufacturing a Growing Industry in BC. Chartered Professional Accountants of BC Industry Update. Retrieved from: <https://www.bccpa.ca/industry-update/news/may-2017/manufacturing-a-growing-industry-in-bc/>

³ Developed by members of an international taskforce including representatives from North America, Europe, Japan and China, and led by UBC Applied Science Professor, and past CIRP President, Yusuf Altintas – See Appendix 1 citation #1

govern opportunities for a limited number of students to take 4th year courses at the sister campus.

Faculty Offering Program

The program will be offered and administered by the Faculty of Applied Science jointly between Materials and Mechanical Engineering. Course instruction will be primarily through APSC with several courses delivered by the Faculty of Science.

Program Start Date

The program will start September 2019. Students will enter the second year of the MANU program after completing the common engineering first year.

Program Completion Time

Anticipated time for completion of the 158 Credit program is 4 years of full-time academic study. Participation in optional co-op, exchange programs, or the addition of Minor programs may extend the duration of study. Students may study part time with the approval of the Dean.

Goals of the Program

The MANU Engineering program will:

- Create a talent pool of uniquely educated engineers satisfying provincial, national and international priorities in the manufacturing sector.
- Prepare students for careers in industry and for advanced education
- Reinforce and build on UBC's leading position in manufacturing engineering education.

Contribution to UBC's Mandate and Strategic Plan

The MANU program aligns with the UBC strategic plan and will enhance the profile of the Faculty of Applied Science and the University. The program will offer an exceptional learning environment and attract students from around the world. It will provide clear opportunities for cooperation and collaboration with UBCO in ways that enhance learning and program quality at both institutions.

Delivery Methods

Required and elective courses address core concepts, skills and graduate attributes in manufacturing engineering. Courses include lectures, flipped classroom, laboratory, tutorials and design projects, and will leverage the expertise of specialized faculty at both campuses through state of the art, video connected classrooms. Students participating in co-op will complete 5 work terms. Eligible students may participate in the *Coordinated International Experience* Exchange program for opportunities for internships and/or study internationally.

Program Learning Outcomes

Graduates will be able to integrate engineering and production management knowledge and skills across a wide range of highly complex manufacturing processes and platforms.

Specifically, at the end of the program, students will be able to:

- Design, operate, and optimize advanced manufacturing environments to create high-value products.
- Develop digital models for manufacturing processes based on the principles of mathematics, physics, thermodynamics, chemistry and materials engineering.

- Design and control manufacturing machinery by applying principles of kinematics, structural mechanics and dynamics, and control methods complemented with knowledge in instrumentation, software engineering and automation.
- Manage the manufacturing environment by applying the principles of production scheduling, inventory and quality control, cost analysis and shop floor automation.
- Communicate effectively in a professional environment through technical reports and presentations. Articulate and justify technical solutions to diverse audiences.
- Recognize and evaluate the societal benefits of manufacturing engineering. Appreciate and evaluate the environmental and societal impact of manufacturing operations.
- Recognize and promote the importance of professional and ethical responsibilities, the evolving nature of manufacturing engineering and the importance of lifelong learning.

Linking Learning Outcomes and Curriculum Design, Optional Work-terms

The number and variety of courses is limited to ensure a robust, streamlined learning experience. Each learning outcome is a core driver of the courses in the program. Work and research experience in the co-op/internship component further support the learning outcomes. The capstone project brings the course-work and practical learning together to demonstrate that the outcomes are achieved.

Program Strengths

The program is comprehensive and grounded in foundational engineering principles. It includes real-life project based courses that develop strong engineering and teamwork skills. Coordination with UBCO will allow for integrating project teams. Students will also study communications and humanities electives. Students will be qualified for accreditation as professional engineers, and well prepared for graduate studies, and careers in industry and entrepreneurship.

Related Programs at UBC or other BC Post-secondary Institutions

There are no B.A.Sc. degrees specifically in Manufacturing in BC, and few in Canada. Although there is insufficient overlap to suggest that the proposed program would compete in any way with UBC's B.Sc. in Wood Products Processing, there may be opportunities for cooperation and synergy between the programs.

Institutional Contact

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APPENDIX A: Appendix to the Executive Summary (for internal UBC purposes only)

Budget and Funding

This program will follow the same tuition model as all other existing B.A.Sc. programs. These programs assess tuition on a per-credit basis. Current rates are published on the UBC website: <http://students.ubc.ca/enrolment/finances/tuition/undergraduate-tuition-fees>

This program will share the common first year of existing UBCV engineering programs. Additionally, a number of the courses for the program, both core and elective, are pre-existing courses. In total we propose the creation of several new courses, with some courses being offered simultaneously and in cooperation at both campuses.

Additional resources to support the program, specifically new faculty hires and staff for the program will be supported by new seats allocated to UBC Vancouver and the Okanagan as part of the “tech expansion”, recently announced (January 16, 2018) by the province and UBC.

Space Requirements

Initially, the program will make use of existing space within the Applied Science footprint, however, this will be a challenge and will only be viable in the short term. After a pilot cohort of 25 students, it is anticipated that at steady state (within 1 or 2 years) the program will enroll up to 50 students each year beyond what APSC currently enrolls and new courses will require space. At steady-state, there may be between 200 and 225 new undergraduates in this program at the Vancouver Campus, and expectations are that the number of graduate students will also increase. Current projections suggest that existing research space will suffice for no more than 2 or 3 years. There will be substantial pressure on classroom space, both in APSC and in other faculties, such as Science, who offer courses core to our program. There will be an almost immediate need for more office space, undergraduate laboratory space and maker space to support the program.

The Faculty of Applied Science has put forward a capital request to support the development of new purpose built space for the programs of Manufacturing and Biomedical Engineering. The space will integrate education, research, maker space and importantly, space for experiential and project based learning in areas of digital twinning, virtual machining, mixed reality robotics, additive manufacturing, composites and advanced metals and materials processing.

Library

The new courses for this program have been reviewed by the library as part of the consultation process. The courses requiring new resources will be funded by the APSC Dean’s Office.

1. Introduction

The University of British Columbia consistently ranks among the 40 best comprehensive research-intensive universities in the world. It creates an exceptional learning environment that fosters global citizenship, advances a civil and sustainable society, and supports outstanding research to serve the people of British Columbia, Canada and the world. Since 1915, UBC's West Coast spirit has embraced innovation and challenged the status quo. Its entrepreneurial perspective encourages students, staff and faculty to challenge convention, lead discovery and explore new ways of learning. It is recognized for its expertise in, among other things, its Faculty of Applied Science. This proposal defines a new program that will continue that tradition of innovation and discovery and has the potential to advance UBC's and BC's reputation, capacity and influence in the rapidly evolving Advanced Manufacturing sector.

The manufacturing sector is one of the biggest drivers of the Canadian economy. It is changing rapidly, becoming more complex and is employing evolving high-tech solutions. To compete on a global scale, Canadian industry needs engineers who are trained and prepared to meet these demands. There are currently a limited number of engineering programs in Canada preparing undergraduates to specialize in manufacturing and the evolving nature of manufacturing engineering. This 158 credit undergraduate program, designed to twin and cooperate with a similar program being concurrently proposed at the UBC's Okanagan campus, represents an innovative approach to filling that niche and contributing to Canadian capacity in advanced manufacturing.

2. Program Rationale

2.1. Defining the Need for the Program

Manufacturing⁴ is a high-tech sector accounting for 11% of Canada's GDP, making it the largest goods producing sector in the country; comfortably ahead of mining, oil & gas at 8.6% and the other traditional sector of the economy, agriculture, forestry and fisheries, at 1.6%. The sector employs 1.7m people nationally, represents 80% of national private sector R&D and accounts for over \$200bn in exports every year. Manufacturing research has become an increasingly timely topic in recent years. The USA, for instance, has invested \$1bn through its *National Network for Manufacturing*. In Canada, Advanced Manufacturing became a *Science Technology and Innovation Council* priority area in 2014, and this positioning was confirmed in the 2017 federal budget, which announced nearly \$1bn in innovation funding support for strategic sectors of the Canadian economy, including advanced manufacturing and digital technologies.

The 2016 *Deloitte's Survey of Global Manufacturing Competitiveness* puts talent as the number 1 source of manufacturing competitiveness. In Canada, over half of the members of the *Association of Canadian Manufacturers & Exporters* report labour shortages. Canada's manufacturing workforce is also ageing. Over 20% of Canada's manufacturing workforce is over 55, up from 10% in 1990. This MANU program, unique in Canada, will address future

⁴ Value-added goods production such as aerospace, automotive, machinery, electronics etc.

demand and is consistent with the province of BC's commitment to substantially increase the number of graduates from new engineering programs in the Province.

The proposed program builds upon the success of the *Advanced Materials Manufacturing* research cluster at UBC, an established research cluster recently funded through the *Vice President Research Grants to Catalyze Research Clusters* (GCRC) competition. The advanced materials manufacturing cluster brings together the academic strengths of 29 engineering faculty in Materials and Mechanical Engineering with experts in Physics and Chemistry, working collaboratively across both campuses. Importantly, this research group has established strong partnerships with many regional and international industrial manufacturing companies, including prominent companies Mercedes Benz, AFCC, Ballard, Seaspan, Avcorp, Rio Tinto Aluminum, Convergent Manufacturing and many local small SME⁵s. These partnerships will be instrumental in helping to ensure students in MANU are exposed to examples of real world engineering design problems in manufacturing. The proposed MANU program may be further strengthened with establishment of the *Learning Factory* in the Okanagan, and a proposed digital twin of the factory in Vancouver, part of the successful Digital Supercluster bid.

2.2. Market Analysis

2.2.1. Market Research Approach

In order to establish the viability of the proposed program, the following activities were undertaken:

1. Market research & industry analysis projections were conducted by an independent consultant⁶ through review and synthesis of the following data:
 - a. Statistics Canada – Canadian socioeconomic database (CANSIM) tables 282-0008 and 282-0087 and catalogue no. 71-001-XIE
 - b. Employment projections from the Government of Canada Canadian Occupational Projection System (COPS) Industry data website
 - c. Population and labour force data from the Government of Canada Canadian Occupational Projection Systems website
2. Validation by external (industry) sector experts was obtained by representatives of many, including some of the largest, manufacturing companies in Canada. These include: ASCO Aerospace Canada, Ayva, Festo Didactic Ltd., DLR Germany, Honeywell Process Solutions, MTU Canada, Nematik Canada and Vertex Precision Manufacturing.

2.2.2. Market Insights

A review of labour market, industry association reports and recent government reports supports the large and growing need for manufacturing engineering graduates ready to take on the new

⁵ Small and Medium Enterprises

⁶ David J. Roughley CPhys MInstP, Strategic Technology Consulting, Gibsons, BC, djrstc@telus.net, 604 886 6888

challenges facing the manufacturing industry in BC, Canada and the world. See *9.1 Appendix 1: Industry and Labour Market Reports*. Specifically, recent surveys have indicated that in general, most industrial and manufacturing growth in Canada to 2024 is expected to arise from productivity improvements and value-added services exploiting advanced and emerging technologies. MANU graduate skills relating to these areas will place them in an especially strong employment position regardless of their field of specialization.

Manufacturing is the 4th largest industry in BC, supporting roughly 161,000 jobs and accounting for 7% of the provincial GDP⁷. After a brief recession in 2008 – 2009, manufacturing sales have been rising steadily in BC, along with manufacturing employment opportunities. In 2014, advanced manufacturing became a *Science Technology and Innovation Council* priority area, and the government of Canada is investing in initiatives designed to promote and protect the manufacturing sector in Canada. These initiatives include creation of economic policy along with promoting skills training and investments in R&D for advanced technologies to support manufacturing⁸. In a series of reports published by the *Canadian Manufacturing Coalition*, entitled *Industrie 2030*, it is noted that for manufacturing in Canada to grow and succeed in the new competitive market we must invest and remain at the forefront of technology and innovation in this sector. To accomplish this, manufacturing must leverage advanced technologies and adopt *Industry 4.0*⁹ strategies including cyber physical production, and digital strategies¹⁰. In May 2017, the *Parliamentary Standing Committee on Industry, Science and Technology* released a report entitled “The Canadian Manufacturing Sector: Urgent Need to Adapt.” It made 17 recommendations for the manufacturing sector in Canada, including a specific recommendation (#3), for the federal government to

“...establish sector councils in order to make students and post-secondary institutions more aware of what skills are required by manufacturing businesses, advanced manufacturing, in merging fields that will be important to Canada’s growth. These sector councils will be tasked to work with local educational institutions to create streams to reemployment, including work experience for students and share best practices on processes and innovation as well as promoting investment”¹¹.

At present BC has no manufacturing engineering program to support this important and evolving sector. Moreover, there are currently very few programs in Canada which aim to address the rapidly evolving needs and changes in the manufacturing sector outlined in these

⁷ Mah, T. (2017, May 3). Manufacturing a Growing Industry in BC. Chartered Professional Accountants of BC Industry Update. Retrieved from: <https://www.bccpa.ca/industry-update/news/may-2017/manufacturing-a-growing-industry-in-bc/>

⁸ Industry Canada (2015). Strengthening Canada’s Manufacturing Sector. Retrieved from: <http://www.ic.gc.ca/eic/site/mfg-fab.nsf/eng/00201.html>

⁹ Industry 4.0 is a name for the current trend of automation and data exchange in manufacturing technologies. It includes cyber-physical systems, the Internet of things, cloud computing and cognitive computing.

¹⁰ Canadian Manufacturers and Exporters (2017). *Industrie 2030 Manufacturing Matters*. Reports Presentations and Speeches. Retrieved from: <https://www.industrie2030.ca/english/actions/reports-presentations-and-speeches.html>

¹¹ Standing Committee on Industry, Science and Technology, Report. (2017). *The Canadian Manufacturing Sector: Urgent Need to Adapt*. Published under the authority of the Speaker of the House of Commons

recent reports. As the manufacturing sector advances there is a need for traditional educational programs to progress and adapt the needs of the sector. Noted by many industry experts skills in *digital design* are required along with *simulation* skills. These two areas are not traditionally part of manufacturing programs. Together these powerful tools support fast-tracking complex manufacturing processes and products, and together count as one of the most powerful advanced mechanisms to compress production cycles and thereby enhance competitive advantage for a company, an industry, or a nation. The wide spread engagement of engineers well versed in these disciplines will precede the wider economic benefits.

The curriculum for the proposed program was well received by our industry advisors across a range of different industries, many of whom would serve as potential employers for graduates from the MANU program. Key insights around current trends in manufacturing from industry advisors have been incorporated into the program, including courses that provide learners with the necessary background, experience and skill to determine best solutions for the following:

- Process and factory automation
- Use of robotics in manufacturing, including industrial, mobile and collaborative robotics.
- Integrated vision and systems sensors
- Motion control systems
- Additive manufacturing including 3D printing for prototyping
- Programming, networking and data analysis to support move to *Industry 4.0*
- Efficiency
- Ensuring safety in manufacturing processes

The proposed program aligns with the feedback of industry, and market projections. Importantly, it aligns with federal government priorities for revitalization of the manufacturing sector in Canada. The courses (core and elective) were determined based on market and industry insights and the CIRP¹² curriculum for Manufacturing Engineering. Students will develop robust core engineering skills in industrial automation, computer aided manufacturing, production management, logistics and control in addition to the business and economic evaluation skills desired by employers. Our optional co-op work experience is designed and timed to align with the need of industry to have students who have had specific experiences prior to the work placement and can stay in the position for extended periods of time.

2.2.3. Potential Sectors of Employment for Graduates

A preliminary analysis of opportunities for graduates of the MANU program (See 9.1 *Appendix 1: Industry and Labour Market Reports, Analysis, and Predictions*) was compiled by review of ongoing and incremental job openings across the country, and used weighting factors to adjust the predictions to reflect

- 1) manufacturing jobs specifically requiring university education,
- 2) industry groupings with engineering intensive jobs, and

3) regional jobs in the province of BC.

The adjusted predictions suggest that over the 10 year analysis and forecast period (2015 -2024) there will be an estimated total of 4849 job openings in British Columbia, i.e. an average of 485 manufacturing engineering job openings per year in BC alone. This compares to the anticipated steady state rate of 100 MANU graduates per year from UBCV and UBCO. Importantly, this does not take into account job openings projected in Alberta and Saskatchewan which may offer additional employment opportunities for MANU grads due to the unique nature of the program. An analysis was conducted which reviewed 362 currently posted job openings (January 2018), comparing the required qualifications and skills to the proposed learning outcomes of the MANU program and its courses. The analysis suggests that approximately 40 of the posted jobs would be suitable for MANU graduates upon program completion. Assuming the postings represent a normal number of jobs posted on a monthly basis the yearly total jobs would be approximately 490. These two approaches to labour market assessment both suggest that there are sufficient job openings for the MANU graduates each year in BC alone.

Finally, over the same analysis period described, most of the industrial and manufacturing growth in Canada is projected to arise from productivity improvements; value added services that leverage advanced and emerging technologies. Graduates from the MANU program will be uniquely trained with the skills necessary to support the projected growth in a variety of primary industries, regardless of their field of specialization. Any future increasing focus of Canadian manufacturing sectors on advanced technologies, digital media and design, to add value and enhance productivity would simply strengthen and expand the number of opportunities and the employability of MANU graduates.

Undergraduate MANU students will take several different pathways upon graduation. These primarily include research, graduate/advanced/professional degrees, industry and entrepreneurial activities. For those that go on to employment, manufacturing engineers may be employed in industrial and government research facilities, government and regulatory agencies, as well as industry in areas of rubber, plastics and chemical manufacturing, manufactured mineral products, computer and electronics manufacturing, aerospace, transportation manufacturing and manufacturing management. Manufacturing engineers may also be employed as consultants in professional business services and in educational services.

2.3. Program Description and Specifications

The structure of the program is analogous to that of other established engineering programs, with a strong unified core and a companion suite of courses to provide breadth. The MANU program's focus is on providing learners with a general engineering knowledge base and a discipline specific focus on integration of domain knowledge from mechanical, materials, electrical and computer engineering applied to modern manufacturing practices.

Students will study foundational engineering disciplines, manufacturing processes and platforms, and production management and modern manufacturing practices, including newly emerging practices in digital modeling, virtual machining, additive manufacturing and

composites. The confluence of these key domain areas will provide learners with the knowledge base to support careers in manufacturing optimization, design and process management that will support the growth and creation of new manufacturing opportunities in BC and in Canada. The program will establish UBC as a leader in manufacturing engineering education.

The full time, 158 credit Vancouver program will enroll 50 new students annually at steady state. This credit load is consistent with other APSC engineering degrees at UBC. The Engineering Physics program, for instance, requires completion of 175 credits. Students will attend 8 academic semesters and most will attend 20 months of Co-op work placement, leading to a CEAB accredited Engineering B.A.Sc. degree in under 5 years (56 months). See 9.2 *Appendix 2: Sample Degree Progression Schedule with Co-op* for sample degree progression schedules with co-op. As in existing APSC undergraduate programs, the curriculum includes the usual common first year engineering experience, and MANU specialization in the subsequent years.

2.3.1. Mission

This program will support the education and development of engineers with a combination of technical and managerial skills preparing them for sought-after careers in the exceptionally demanding and evolving domain of advanced design and manufacturing.

2.3.2. Goals of the Proposed Program

The program will

- Create a talent pool of uniquely educated engineers satisfying provincial, national and international priorities in the manufacturing sector.
- Prepare students for careers in industry and for advanced education.
- Reinforce UBC's leading position in manufacturing engineering education.

2.3.3 Program Learning Outcomes

Broadly:

Graduates of the program will be able to:

- Integrate engineering and management knowledge and skills across a wide range of highly complex manufacturing processes and platforms.

Specifically:

At the end of the program, students will be able to:

- **Design, operate, and optimize** advanced manufacturing environments to create high-value products.

- **Develop digital models** for manufacturing processes based on the principles of mathematics, physics, thermodynamics, chemistry and materials engineering.
- **Design and control manufacturing machinery** by applying principles of kinematics, structural mechanics and dynamics, and control methods complemented with knowledge in instrumentation, software engineering and automation.
- **Manage the manufacturing environment** by applying the principles of production scheduling, inventory and quality control, cost analysis and shop floor automation.
- **Communicate effectively in a professional environment** through technical reports and presentations. Articulate and justify technical solutions to diverse audiences.
- **Recognize and evaluate the societal benefits of manufacturing engineering.** Appreciate and evaluate the environmental and societal impact of manufacturing operations. Recognize the importance of professional and ethical responsibilities, the evolving nature of manufacturing engineering and the importance of lifelong learning.

2.3.4. Program Degree Requirements

The program requires the completion of 158 credits. This is consistent with other UBC APSC engineering degrees, a BAsC in Civil Engineering requires the completion of 157 credits, Mechanical engineering requires the completion of 155 credits and Engineering Physics requires the completion of 175 credits, for example.

The MANU program requires completion of the following mandatory courses:

APSC 100, 101, 160, 201, 261, 278, 279, 450;
CHEM 154;
CPEN 221, 321;
ELEC 203;
ENGL 112;
MANU 230, 261, 265, 270, 330, 370, 378, 380, 386, 430, 480, 481, 485;
MATH 100, 101, 152, 253, 255;
MECH 260, 360, 368, 462, 463, 467, 491;
MTRL 263, 264; 455
PHYS 157, 158, 159, 170; and
STAT 251.

Students must also complete 6 credits in Complementary Studies* and 9 Credits in Technical Electives**. A sample list of technical electives can be found in 9.3 Appendix 3: Sample List of Technical Electives.

* Students should confer with their academic advisor to determine eligible Complementary Studies courses.

** Students should confer with their academic advisor and consult the MANU program webpage for a list of acceptable Technical Electives.

The parallel programs at UBCO and UBCV produce opportunities for students in Vancouver to focus on an area of manufacturing outside of what UBCV offers. Up to 10 students each year from UBCV will be allowed to attend 4th year classes at UBCO, through the cross-campus registration process, in order to focus on Production Management. Similarly, up to 10 students from UBCO will be allowed to attend 4th year classes at UBCV, in order to focus on the technical aspects of manufacturing. UBCV students at UBCO will take the standard Production Management courses that constitute the UBCO 4th year curriculum. See Appendix 4 for a list of 4th year UBCO courses. Those courses will be accepted toward their UBCV degree. All UBCV students will have to meet the degree requirements outlined in Section 2.3.4, including their complementary studies. However, successful completion of the UBCO 4th year program requirements (See Appendix 4) will be accepted collectively in lieu of APSC 450, MANU 430, 480, 481, 485; MECH 462, 463, and 467. Students who attend classes at the UBCO campus to focus on Production Management will not be considered transfer students.

2.3.5. Admission Requirements

Admission requirements for the UBCV Manufacturing Engineering Program will be the same as the admission requirements for all other direct entry engineering programs at the Vancouver campus. For reference, the existing calendar text is available at the following link: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,195,272,28>.

Between mid-March and May 15, students finishing the first year of their common engineering courses submit a *Preference Form* in which they indicate and prioritize the engineering programs they would like to study for the remainder of their degree. Details of this process can be found on the engineering website at <http://students.engineering.ubc.ca/enrolment/placement/?login>.

We will add MANU as an option for students to choose from in March 2019. It will carry the caveat that the program will only be offered if and when it receives approval from the UBC Senate, Board of Governors, and from the Ministry of Advanced Education Skills and Training (AEST). We will select students into the program according to the same processes outlined for the other programs. Students are not limited in the number of placements to which they can apply. They are encouraged to apply to all engineering programs. Therefore, applying to MANU is not a disadvantage to students if the program is not approved by AEST prior to September 2019. The program will not launch unless and until it has Ministry approval.

Transfers into 2nd and 3rd year between the Okanagan and Vancouver campuses will be handled through our standard transfer program.

2.3.6. Program Management and Assessment

The UBCV MANU program will be situated within the Faculty of Applied Science. The program will be managed in the same manner as other undergraduate engineering programs. Decision making and ultimate responsible for the program will lie with the Dean of Applied Science. A Director and Associate Director will be appointed from the Departments of

Mechanical and Materials Engineering, such that one position will be filled from each department and the positions will rotate between the two departments.

To ensure equivalency between the UBCV and UBCO programs in years 1 – 3, there will be a joint curriculum committee consisting of members from both campuses. The committee will advise the Directors and Associate Directors of each program. Any proposed changes to the curriculum of a program will have to be approved by the joint curriculum committee before such changes can be approved by the Faculty.

In alignment with other engineering programs at UBC, which have either an Industrial Advisory Committee (IAC) or a Board of Study, the MANU program will have an IAC who will meet biannually to review all aspects of the program. A typical IAC consists of industry representatives, faculty members from each department involved in the delivery of course material, representatives of student government (program specific) and a representative of the Dean, typically an Associate Dean. Representatives of the Industry partners with whom we have met during the planning stages of this program proposal have agreed to sit on the continuing IAC committee.

In addition to the IAC, this program conforms to the accreditation standards of the Canadian Engineering Accreditation Board (CEAB). As such, an accreditation site visit will occur during the fall of the year during which the first cohort is scheduled to graduate and at least every 6 years thereafter.

2.4. Contribution to UBC Mandate and Strategic Plan

The proposed program aligns with *Inspire*, UBC's new proposed strategic plan.

2.4.1. Inspiring Spaces

“Well-designed spaces are needed to drive and enable interaction within and between our Vancouver and Okanagan campuses.”

“Create welcoming physical and virtual spaces in order to advance collaboration and innovation.”

The UBCV MANU program and its sister program at UBCO were designed specifically for coordination and cooperation and will offer unique opportunities for the programs and their students to work together and advance collaboration and innovation.

2.4.2. Student Experience: Strengthen undergraduate and graduate student communities and experience

“Through a continued focus on the student experience – both inside and outside the classroom – we will create opportunities for students to feel more engaged and better supported during their time at UBC.”

“...(T)he university will improve coordination across student services, teaching and learning, co-curricular programming...”

The MANU program will offer an exceptional learning environment for students and foster a sense of community within and between the campuses.

2.4.3. Practical Learning: Expand experiential, work-integrated and extended learning opportunities for students and alumni

“We will work with industry and community partners to expand experiential learning
– ‘learning by doing’”

The program includes a capstone project in which students work collaboratively on real-world industry problems. Furthermore, we expect most students will participate in the co-op program, which is an exceptionally valuable work learning experience.

2.4.4. Interdisciplinary Learning: Facilitate the development of interdisciplinary, problem-focused learning

“We will develop programs and courses that foster and support undergraduate students from different perspectives and traditional disciplines to work together on complex or emergent challenges.”

The MANU program will provide students with an interdisciplinary program that complements existing expertise in Mechanical and Materials engineering, preparing them for the future jobs in the evolving sector of Manufacturing.

2.4.5. UBC Relevance: Deepen the relevance, impact and public appreciation of UBC research and education

“... align UBC’s efforts with priority issues in British Columbia and beyond. We will improve the approaches we take to respectful co-creation of educational and research collaborations with communities.”

The MANU program was designed in consultation of community partners and was created to meet the current and anticipated future needs of industry in BC and beyond. It will secure UBC’s reputation as a leader in advanced manufacturing engineering education.

2.5. Relationship to Established Programs

2.5.1. The University of British Columbia

The Faculty of Applied Science currently offers 13 different undergraduate engineering programs at the Vancouver campus, and three different undergraduate engineering program options at the Okanagan campus. The MANU program is the first program in APSC that has been entirely conceived and developed collaboratively across both campuses. The program represents an exciting opportunity to build upon the strengths of popular existing programs at both campuses. At the Vancouver campus, B.A.Sc programs in Mechanical Engineering, Computer Engineering, and Electrical Engineering are high demand programs with limited

space. An undergraduate degree focused on manufacturing engineering would offer students interested in robotics, cyber-physical infrastructure and digital manufacturing an additional option to explore outside these more traditional disciplines.

Students in the Faculty of Forestry at UBC may pursue a Bachelor of Science in Wood Products Processing, specifically focusing on the manufacturing of wood products. This program does include fundamentals of wood science, business and advanced manufacturing operations, and offers students an opportunity to complete co-op work terms and a minor in commerce option. It is not an engineering degree. There may be opportunities to explore synergies particularly for 3rd and 4th year technical electives, but it not anticipated that the proposed program will affect enrollment in this existing and award winning program.

The Faculty of Applied Science offers the professional graduate program: Masters of Engineering Leadership in Advanced Materials Manufacturing. This program is open to students who already hold a relevant undergraduate degree and have a minimum of two years relevant work experience and therefore the new proposed program is not anticipated to adversely affect this graduate program. However, graduates of the proposed undergraduate degree may be excellent candidates for the professional Master's program once they have the required employment experience.

2.5.2. Other British Columbia and Canadian Universities

BCIT offers a Bachelor of Technology in Manufacturing, in the School of Energy. The program is offered as a part-time program for individuals who already hold a diploma or degree in a manufacturing related field including mechanical engineering or mechatronics and robotics who are wishing to upgrade their skills to meet the demands of the evolving sector. Applicants must have at least 6 months' work experience. This is not an engineering degree and graduates of the BCIT program would not be eligible for Professional Engineer Status with Engineers and Geoscientists BC.

BCIT also offers a certificate program in Operations Management, with an Industrial Engineering Option through the School of Business. The program is offered as a part-time program to be completed over 3 – 5 years. It is not a bachelor degree program and its graduates would not be eligible for Professional Engineer status.

The University of Victoria offers a Bachelors of Engineering in Mechanical Engineering, allowing students to specialize in areas of advanced materials and computer aided engineering & advanced manufacturing. It is not expected that the proposed B.A.Sc in Manufacturing Engineering will compete for the same students who are wishing to pursue a degree in Mechanical Engineering.

The proposed UBC program is designed to be accredited with the Canadian Engineering Accreditation Board (CEAB). There are currently no fully CEAB accredited undergraduate degree programs in Manufacturing Engineering in B.C. The proposed MANU program at UBC, would be the only program of its kind offered in Western Canada. At present only two Canadian post-secondary institutions offer CAEB accredited undergraduate programs in manufacturing engineering. These programs are listed below.

University	Department	Program	Engineering Discipline
Ontario Institute of Technology <i>*CEAB accredited 2007 – present</i>	Faculty of Engineering and Applied Science	B.Eng B.Eng & Management (honors)	Manufacturing Engineering
Ecole de technologie supérieure (ETS) <i>* CEAB accredited 1990 – present</i>	Department of Automated Production Engineering	B.Eng & optional concentration in Health Technologies	Génie de la production automatisée

A review of the Engineers Canada website lists a total of six programs in Canada offering Manufacturing Engineering. The remaining four currently offer manufacturing engineering programs as options, minors or as courses within their accredited programs. More information about these programs can be found below:

University	Department	Current Programs Offered (2017)
University of Calgary <i>CEAB accredited 1997 – 2015</i>	Mechanical & Manufacturing Engineering	B. Sc. Mechanical Engineering with a minor in manufacturing
University of Manitoba <i>CEAB accredited 2003 – 2013</i>	Mechanical Engineering	B. Sc. Mechanical Engineering with Manufacturing Option (12 courses)
McMaster University in collaboration with Mohawk <i>CEAB accredited 1982 – 2005</i>	W Booth School of Engineering Practice & Technology	B. Tech Manufacturing Engineering Technology
Quebec à Trois-Rivières <i>CAEB accredited 1987 – 1999</i>	Génie Mécanique	B.Eng Mechanical Engineering or Mechatronics Engineering

Included in this proposal is a summary of accredited *industrial* engineering programs offered in Canada. Industrial engineering is a related but distinctly different engineering discipline. However, as manufacturing continues to evolve adopting more data driven, automated and computerized processes, there may be increased overlap between disciplines of industrial and manufacturing engineering. Modern manufacturing engineering programs focusing on training students for future jobs in the evolving sector, similar to the program offered by École de Technologie Supérieure (ETS) and this proposed program contain elements of both industrial engineering and traditional manufacturing engineering.

Industrial engineering programs focus on the integration of people, materials, machines and information and tend to focus on training students in specific streams of human factors engineering, operations research management and can extend into areas of health care management and finance management. Programs combine the principles of engineering design with project management and the study of human factors (social sciences). Manufacturing is one area where industrial engineers can apply their broad overall training. There are currently nine Canadian post-secondary institutions offering undergraduate programs in industrial engineering.

University	Department	Program	Engineering Discipline
Concordia University 1995 – present	Department of Mechanical, Industrial & Aerospace Engineering	B.Eng	Industrial Engineering
Dalhousie University 1969 - present	Department of Industrial Engineering	B.Eng	Industrial Engineering
Ecole Polytechnique 1973 – present	Department of Mathematics and Industrial Engineering	B.Ing	Genie industriel
Universite Laval 2014 – present	Department of Mechanical Engineering	B.Ing	Genie industriel
Universite Quebec a Trios-Rivieres 1980 – present	Department of Industrial Engineering	B.Ing	Genie industriel
University of Regina 1984 – present	Faculty of Engineering & Applied Science	B.A.Sc	Industrial systems Engineering
Ryerson University 1992 - present	Mechanical & Industrial Engineering	B.Eng,	Industrial Engineering
University of Toronto 1965 – present	Department of Mechanical & Industrial Engineering	B.A.Sc. Minor offered in Advanced Manufacturing	Industrial Engineering
Windsor 1974 – present	Department of Mechanical, Automotive and Materials Engineering	B.A.Sc.	Industrial Engineering

In addition to UBC graduate programs, graduates of the UBC MANU undergraduate program will be well positioned for application to Canadian graduate programs in Manufacturing, Advanced Manufacturing or Industrial Engineering including but not limited to the following:

University	Department	Program
University of Alberta	Mechanical Engineering	M.Eng, M.Sc. or Ph.D. in Engineering Management
University of Calgary	Mechanical & Manufacturing Engineering	M.Eng, M.Sc. or Ph.D. in Mechanical & Manufacturing Engineering
Concordia University	Department of Mechanical, Industrial & Aerospace Engineering	M.Eng, M.A.Sc or Ph.D. in Industrial Engineering
Dalhousie University	Department of Industrial Engineering	M.Eng, M.A.Sc or Ph.D. in Industrial Engineering
Ecole Polytechnique	Department of Mathematical & Industrial Engineering	M.Eng, M.Sc, Ph.D, or DESS in Industrial Engineering (DESS – <i>diplome d'etudes superieures specialisees</i>)
Universite Laval	Department of Mechanical Engineering	DESS, in Industrial Engineering & Postgraduate microprogram in Industrial Engineering – Production Management & Technology
University of Manitoba	Department of Mechanical Engineering	M.Eng, M.Sc or Ph.D in Manufacturing & Production
McMaster University	W Booth School of Engineering Practice & Technology	M.Eng Manufacturing
University of Regina	Faculty of Engineering & Applied Science	M.Eng., M.A.Sc., or Ph.D in Industrial Systems Engineering
Ryerson University	Faculty of Engineering & Architectural Science	M.Eng, M.A.Sc, or Ph.D in Mechanical & Industrial Engineering
University of Toronto	Mechanical & Industrial Engineering	M.Eng in Advanced Manufacturing, M.A.Sc and Ph.D, Industrial Engineering
University of Windsor	Mechanical, Automotive & Materials Engineering	M.Eng & M.A.Sc in Industrial Engineering

International post-secondary institutions of note offering similar undergraduate degrees Manufacturing Engineering include:

University	Department	Program	Engineering Discipline
Dublin Institute of Technology	School of Mechanical and Design Engineering	B.Eng (honors)	Manufacturing Engineering
University of New South Wales	School of Mechanical & Manufacturing Engineering	B. Eng	Mechanical & Manufacturing Engineering

Northwestern University	McCormick School of Engineering	B.Sc	Manufacturing & Design Engineering
Texas A&M University	Department of Engineering Technology and Industrial Distribution	B.Sc	Manufacturing & Mechanical Engineering Technology

2.5.3. Level of support and recognition from other post-secondary institutions

UBC is recognized as one of the Canada's leading academic centers for Engineering. The MANU program is designed to meet the accreditation standards of the Canadian Engineering Accreditation Board (CEAB). Coordination and cooperation between the sister programs at UBCV and UBCO are described in Section 2.3.4.

2.6. Target Students

Engineering programs at UBC currently receive 4 qualified applications for every available seat in the existing programs. MANU students will be drawn from the same strong candidate pool. Traditionally, approximately 89% of our students register directly out of high school, and <2% transfer to UBC engineering from other degree programs at UBC. The MANU program will target students who are interested in combining traditional disciplines of mechanical, materials, electrical and computer engineering to support newly emerging areas in manufacturing technology.

2.6.1. Enrolment Predictions and Capacity

The first year of the program will enroll a reduced pilot cohort of 25 students. Subsequent years' enrollment will be capped at 50 new students per year at the Vancouver campus. It is anticipated that steady-state capacity can be reached in 1 to 2 years. Due to high application pressure, we anticipate no difficulty in reaching these targets. At steady state, APSC will enroll an additional 20 students into first year engineering to account for the MANU students.

2.6.2. Tuition Rationale

Tuition for the MANU program will be the same as for other UBC engineering programs.

2.6.3. Scholarships

Students in the MANU program will have access to the same scholarship opportunities as other UBC engineering students, namely, the UBC Undergraduate Engineering Scholarship.

2.6.4. Opportunities for Further Study

The MANU program will prepare students for advanced research degrees in engineering (i.e. Ph.D., M.A.Sc.), and for graduate professional programs such as the Master of Engineering Leadership once the graduate has the appropriate professional work experience. Graduate programs at other institutions for which MANU graduates would be strong candidates are described in Section 2.5.2.

3. Program Resources

3.1. Program Funding and Budget

New funding to support the development and launch of the MANU program has been secured from provincial funding already announced in support of the “tech expansion” across the province. The proposed plan allocates 160 new seats for MANU across both campuses, and includes a provision for start-up funding to support costs associated with bridging new faculty and staff hires. Base funding for the MANU program will be used to support the new hires for the program in collaboration with departments of Mechanical, Materials and Electrical and Computer engineering where appropriate.

This program will follow the same tuition model as all other existing B.A.Sc. programs. These programs assess tuition on a per-credit basis. Current rates are published on the UBC website: <http://students.ubc.ca/enrolment/finances/tuition/undergraduate-tuition-fees>

This program will share the common first year of existing UBCV engineering programs. Additionally, a number of the courses for the program, both core and elective, are pre-existing courses. In total we propose the creation of fourteen new courses.

Additional financial and human resources are required to manage and deliver the new program. Final details are being confirmed at this time. In brief, we anticipate hiring a total of seven new faculty, in Vancouver including two instructors and five research faculty to support the development and teaching of the MANU courses. A similar complement of faculty will be hired in the Okanagan. Importantly, faculty hires across both campuses will be coordinated as to not duplicate expertise and maximize opportunities for synergy within the program.

3.2. Space Requirements

Initially, the program will make use of existing space within the Applied Science footprint. This includes a 25-student first pilot year. We expect to reach capacity within the next year or two. It is anticipated the program will enroll up to 50 students each year beyond what APSC currently enrolls at the Vancouver campus. At steady-state, there may be between 200 and 225 new undergraduates in this program and expectations are that the number of graduate students will also increase. As the program grows, current classroom space within the Faculty will be insufficient for the program.

The Faculty of Applied Science Dean’s Office will support the renovation of teaching space to ensure that there are sufficient classrooms available that are video-linked to the Okanagan campus to encourage cross-site teaching where possible, and encourage interaction of students at both campuses throughout the program.

Following the establishment of the MANU program, additional laboratory and office space will be required to accommodate professors hired to deliver the new programming and as part of overall growth of the Faculty of Applied Science at the Vancouver campus. The first three research faculty hires can be integrated into existing research space, additional temporary space will need to be identified for the additional research faculty hires.

Over the longer term, the Faculty is expected to increase the overall engineering footprint to support the expansion of the MANU and the Biomedical Engineering program. To support this expectation, the Faculty of Applied Science has put forward a capital request to support the development of new purpose built space for the programs of Manufacturing and Biomedical Engineering. The space will integrate education, research, maker space and importantly, space for experiential and project based learning in areas of digital twinning, virtual machining, mixed reality robotics, additive manufacturing, composites and advanced metals and materials processing.

3.3. Library Resources

The new courses for this program have been reviewed by the library. Courses requiring new resources will be funded by the APSC Dean's Office.

3.4. Qualified Faculty

UBC Engineering has faculty experienced, qualified and recognized as leaders in their fields. This includes the numerous faculty currently engaged in the core engineering courses that current students and MANU students will take, as well as faculty with specific expertise related to manufacturing and advanced materials manufacturing. A list of Faculty with expertise in MANU is found in *9.5 Appendix 5: Faculty Expertise in Manufacturing Engineering*. Funding for the MANU program will be used to hire additional faculty at both the Vancouver and Okanagan campuses who will be able to collaborate with and form strong partnerships in the already strong advanced manufacturing research cluster faculty members. At present this includes a total of 29 faculty, with 2 CRC Tier I chairs, 3 CRC Tier II chairs, and 2 Professorships.

UBC's advanced manufacturing research excellence has traditionally been anchored on a core group of academics within the Departments of Materials and Mechanical Engineering. Over the last 5 years, this group, has widened to include 30 PIs from across the Faculty of Applied Science and, within the Faculty of Science, the Departments of Physics and Chemistry. We have strengths across seven research themes:

- (1) composites
- (2) mixed reality robotics
- (3) additive manufacturing
- (4) advanced metals processing
- (5) virtual machining
- (6) digital modelling and
- (7) materials catalysis and clean energy manufacturing.

This combination of varied expertise makes us unique. No other university in Canada can claim capacity in both composite material manufacturing and advanced metal processing.

Our careful fostering of academic excellence has led to measurable success:

- A \$6m NSERC strategic network for lightweight magnesium applications (*Poole*),
- A \$5m NSERC strategic network for automated machining (*Altintas*),

- A \$10m Composites Research Network (*Poursartip*) - renewed for a second \$5m term in 2016,
- Prometheus, a \$20m multi-institutional CFI award in advanced materials science, led by *Ko*, and
- A \$5m partnership with Fraunhofer Institute focused on materials and manufacturing for clean energy applications (*Merida, Wilkinson et al*).

The group has collaborated with some 160 academic and governmental partners over the last decade, and approximately 130 industrial partners. Our metrics show an exceptional record of scholarly output, for example with the highest number of research citations per faculty member per year in Canada. This combined expertise will be an excellent resource for the MANU programs and their students.

4. Calendar Statement – Program

Category: 1

<p>Category: Applied Science</p> <p>Faculty: Applied Science</p> <p>Department: Materials Engineering</p> <p>Faculty Approval Date: 01/03/18</p> <p>Effective Session (W or S): W</p> <p>Effective Academic Year: 2019</p>	<p>Date: January 2018</p> <p>Contact Person: Warren Poole</p> <p>Phone: 604 822-3674</p> <p>Email: warren.poole@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>MANU Manufacturing Engineering</p>	<p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course code</p> <p>Rationale for Proposed Change: This subject code is needed to identify new courses specific to and required for the new (proposed) BASc in Manufacturing Engineering. This will differentiate it from courses that are not manufacturing engineering courses.</p>

Category: 1

<p>Category: 1</p> <p>Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019</p>	<p>Date: January 2018 Contact Person: Warren Poole Phone: 604 822-3674 Email: warren.poole@ubc.ca</p>
<p>Homepage >> Course Descriptions >> Courses by Faculty/School/College>> Faculty of Applied Science</p> <p>Proposed Calendar Entry:</p> <p>.</p> <p>.</p> <p>.</p> <p>LARC Landscape Architecture</p> <p>MANU Manufacturing Engineering</p> <p>MECH Mechanical Engineering</p> <p>.</p> <p>.</p> <p>.</p>	<p>URL: http://www.calendar.ubc.ca/vancouver/courses.cfm?page=code&institution=2</p> <p>Type of Action: Adding new course code to Academic Calendar</p> <p>Rationale for Proposed Change: A new course code for MANU should be represented in the course codes.</p> <p>Present Calendar Entry:</p> <p>.</p> <p>.</p> <p>.</p> <p>LARC Landscape Architecture</p> <p>MECH Mechanical Engineering</p> <p>.</p> <p>.</p> <p>..</p>

Category: 1

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: January 2018 Contact Person: Warren Poole Phone: 604 822-3674 Email: warren.poole@ubc.ca																		
<p>URL: Homepage>>Faculties, Colleges, and Schools >> The Faculty of Applied Science >> Bachelor of Applied Science>> Manufacturing Engineering</p> <p>Proposed Calendar Entry:</p> <p>Bachelor of Applied Science (B.A.Sc.) in MANUFACTURING ENGINEERING</p> <p>Program Overview The Faculty of Applied Science offers a program leading to the Bachelor of Applied Science in Manufacturing (MANU) Engineering. The program is offered jointly between the departments of Mechanical Engineering and Materials Engineering.</p> <p>The Mission of the MANU program is to develop engineers with technical and managerial skills preparing them for sought-after careers in the exceptionally demanding and evolving domain of advanced design and manufacturing.</p> <p>Program Requirements</p> <p>Second Year</p> <table border="0"> <tr><td>APSC 201</td><td>3</td></tr> <tr><td>APSC 278</td><td>3</td></tr> <tr><td>APSC 279</td><td>1</td></tr> <tr><td>CPEN 221</td><td>4</td></tr> <tr><td>ELEC 203</td><td>3</td></tr> <tr><td>MANU 230</td><td>3</td></tr> <tr><td>MANU 261</td><td>3</td></tr> <tr><td>MANU 265</td><td>3</td></tr> <tr><td>MANU 270</td><td>3</td></tr> </table>	APSC 201	3	APSC 278	3	APSC 279	1	CPEN 221	4	ELEC 203	3	MANU 230	3	MANU 261	3	MANU 265	3	MANU 270	3	<p>URL: N/A <i>[please create a calendar page]</i></p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new undergraduate program page in Manufacturing Engineering in the Faculty of Applied Science</p> <p>Rationale for Proposed Change: A new program is being proposed.</p>
APSC 201	3																		
APSC 278	3																		
APSC 279	1																		
CPEN 221	4																		
ELEC 203	3																		
MANU 230	3																		
MANU 261	3																		
MANU 265	3																		
MANU 270	3																		

MATH 253	3	
MATH 255	3	
MECH 260	3	
MTRL 263	3	
MTRL 264	3	
Total Credits: 41		
Third Year		
APSC 261	3	
CPEN 321	4	
MANU 330	6	
MANU 370	3	
MANU 378	3	
MANU 380	3	
MANU 386	3	
MECH 360	3	
MECH 368	3	
MECH 491	3	
MTRL 455	3	
STAT 251	3	
Total Credits: 40		
Fourth Year		
APSC 450	2	
MANU 430	6	
MANU 480	3	
MANU 481	3	
MANU 485	3	
MECH 462	3	
MECH 463	4	
MECH 467	4	
Technical Electives ²	9	
Complementary Study ¹	3	
Total Credits: 40		

1 See Complementary Studies Courses.

2 To be chosen in consultation with departmental advisors

Cooperative Education Experiential Work Terms

The optional cooperative education experiential learning placements is a valuable aspect of the Bachelor of Applied Science in Manufacturing Engineering program. Students are highly encouraged to take advantage of this program. Participating students will typically complete five 4-month experiential learning placements coordinated through the Applied Science Co-op Program. Work terms can take place during the Winter or Summer terms. Students should refer to the program website for the current schedule. Students wishing to participate but unable to complete one or more co-op terms should consult with a departmental advisor.

Contact Information

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Vancouver, BC V6T 1Z4

Category: 1

<p>Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019</p>	<p>Date: January 2018 Contact Person: Warren Poole Phone: 604 822-3674 Email: warren.poole@ubc.ca</p>
<p>URL: Homepage>>Faculties, Colleges, and Schools >> The Faculty of Applied Science >> Bachelor of Applied Science>> Introduction</p> <p>Proposed Calendar Entry:</p> <p>Introduction The Faculty offers programs of undergraduate study leading to the Bachelor of Applied Science in the following areas of engineering: Biomedical Engineering, Chemical Engineering, Chemical and Biological Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Engineering Physics, Geological Engineering, Integrated Engineering, Manufacturing Engineering, Materials Engineering, Mechanical Engineering, and Mining Engineering.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p>The Faculty of Applied Science admits suitably qualified applicants directly from secondary school into first-year engineering. Study</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p>	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,195,272,26</p> <p>Present Calendar Entry:</p> <p>Introduction The Faculty offers programs of undergraduate study leading to the Bachelor of Applied Science in the following areas of engineering: Biomedical Engineering, Chemical Engineering, Chemical and Biological Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Engineering Physics, Geological Engineering, Integrated Engineering, Materials Engineering, Mechanical Engineering, and Mining Engineering.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p>The Faculty of Applied Science admits suitably qualified applicants directly from secondary school into first-year engineering study.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p>Type of Action: Include the proposed new degree program in the BASc Introduction page.</p> <p>Rationale for Proposed Change: The list of programs should include the new program when it is approved by the Ministry of Advanced Education and it is launched.</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Daan Maijer Phone: 604-822-6013 Email: Daan.Maijer@ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 230 (3) Manufacturing Engineering Laboratory</p> <p>Theory, operational constraints, and problem solving in traditional manufacturing processes. Casting, heat treatment, bulk deformation (i.e. rolling, extrusion, drawing), machining, joining, and shaping of composites. Experiments in process and product characterization. [1-2*-0; 1-2*-0]</p> <p><i>Corequisites:</i> none <i>Prerequisites:</i> none</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Yusuf Altintas Phone: (604) 822-5622 Email: altintas@mech.ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 261 (3) Thermodynamics</p> <p>Thermodynamic system and properties, thermodynamic processes; work and heat interactions. Conservation of energy and First Law, internal energy and enthalpy, the Second Law and entropy, application to manufacturing processes.</p> <p>[3-0-0]</p> <p><i>Prerequisites:</i> all of MATH 101, MATH 152, and PHYS 158 <i>Co-requisite:</i> MATH 255</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Yusuf Altintas Phone: (604) 822-5622 Email: altintas@mech.ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 265 (3) Machine Dynamics</p> <p>Classifications of mechanisms, velocity, acceleration and force analysis, graphical and computer-oriented vector and matrix methods, balancing, flywheels, gears, gear trains, cams.</p> <p>[3-0-0]</p> <p><i>Prerequisites:</i> all of MATH 101, MATH 152, PHYS 158, and PHYS 170 <i>Co-requisite:</i> MATH 255</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Yusuf Altintas Phone: (604) 822-5622 Email: altintas@mech.ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 270 (3) Production Systems Management I</p> <p>Impact of operations in increasing productivity and reducing waste. [3-0-0]</p> <p><i>Prerequisites:</i> none <i>Co-requisite:</i> none</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Daan Maijer Phone: 604-822-6013 Email: Daan.Maijer@ubc.ca
Proposed Calendar Entry: MANU 330 (6) Manufacturing Engineering Project I Project-based, multi-step manufacturing engineering design and problem solving. [1-4-0; 1-4-0] <i>Prerequisites:</i> MANU 230 <i>Co-requisite:</i> none	URL: N/A Present Calendar Entry: None Type of Action: New course Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program. This is the first of two projects courses where students will apply engineering design principles and problem-solving methods in the context of projects in manufacturing engineering. ✓ Not available for Cr/D/F grading (undergraduate courses only) Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Daan Maijer Phone: 604-822-6013 Email: Daan.Maijer@ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 370 (3) Production Systems Management II Functional area of production and operations management. Decision-making, capacity planning, aggregate planning, inventory management, distribution planning, materials requirements planning and quality control. [3-0-0]</p> <p>Prerequisites: MANU 270 Co-requisite: none</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program. This is the first of two projects courses where students will apply engineering design principles and problem-solving methods in the context of projects in manufacturing engineering.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Goran Fernlund Phone: 604-822-3673 Email: goran.fernlund@ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 378 (3) Engineering Materials II Materials selection for different design criteria; importance of shape and processing variables; computer software in selection. Credit will be granted for only one of MTRL 280 or MANU 378. [2-0-3]</p> <p><i>Prerequisites:</i> APSC 278</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Chadwick Sinclair Phone: 604-822-3352 Email: chad.sinclair@ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 380 (3) Manufacturing Processes I</p> <p>Correlation between material properties and processability for practical engineering manufacturing routes. Calculations and design. Application of heat/mass/fluid transport, mechanics and thermodynamics to manufacturing processes. [2-0-3]</p> <p><i>Prerequisites:</i> All of APSC 278, APSC 279, and MANU 261, and one of MECH 280 or MTRL 263</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Yusuf Altintas Phone: (604) 822-5622 Email: altintas@mech.ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 386 (3) Industrial Automation</p> <p>Principle components of manufacturing automation, modeling of sensors-actuators and control systems, robotic programming, programmable logical control (PLC) systems and development of PLC ladder diagrams. [2-2-1]</p> <p>Prerequisites: All of MANU 265 and MATH 255 Co-requisite: MANU 330</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Yusuf Altintas Phone: (604) 822-5622 Email: altintas@mech.ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 399 (1-6)d Special Topics in Manufacturing Engineering</p> <p><i>Prerequisites : Third-year standing.</i></p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This 300-level course code will allow the MANU program to be flexible and address advanced current and special topics as they arise due to changes in technologies and industries or due to new expertise in UBC. Through version codes, we will also be able to pilot new courses if the need arises. Variable value credit assignment allows flexibility to match the special topic or version to an appropriate credit level.</p> <p>Topics for an initial version of this course have not been identified.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Daan Maijer Phone: 604-822-6013 Email: Daan.Maijer@ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 430 (6) Manufacturing Design Capstone Project</p> <p>Project-based, multi-step, multi-part Capstone design project involving manufacturing engineering design methods, problem solving. [1-4-0; 1-4-0]</p> <p><i>Prerequisites:</i> MANU 230</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Daan Maijer Phone: 604-822-6013 Email: Daan.Maijer@ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 455 (3) Factory Planning</p> <p>Resources planning, layout and logistics. Modular production and cyber-physical manufacturing systems in laboratory scale, virtual manufacturing and factory automation. [2-2-0]</p> <p><i>Prerequisites:</i> none.</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be an optional technical elective course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Chadwick Sinclair Phone: 604-822-3352 Email: chad.sinclair@ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 480 (3) Manufacturing Processes II</p> <p>Numerical modeling of manufacturing processes, linkage between material, process, properties and product geometry, heat/mass transport, thermodynamics and design principles applied to practical engineering processes. [2-0-3]</p> <p>Prerequisites: All of MANU 380, MECH 491, and MECH 462</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Chadwick Sinclair Phone: 604-822-3352 Email: chad.sinclair@ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 481(3) Manufacturing Processes III Integrating concepts of primary (casting), secondary (deformation), and tertiary (machining and surface treatment) processes and economic and environmental assessment. [2-0-3]</p> <p><i>Prerequisites:</i> MANU 480</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Yusuf Altintas Phone: (604) 822-5622 Email: altintas@mech.ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 485 (3) Metal Cutting and Machine Tool Vibrations Metal cutting and grinding mechanics; prediction of force-torque-power in turning, drilling, milling and grinding operations. Machine tool vibrations, forced and self-excited vibrations in machining, experimental modal testing of machine tools, chatter, and stability. Credit will be granted for only one of MANU 485 or MECH 592. [2-2-0]</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be a required course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Yusuf Altintas Phone: (604) 822-5622 Email: altintas@mech.ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 487 (3) Machine and Part Metrology Laser interferometer measurement of volumetric accuracy; error mapping, modeling and compensation of errors, rotation metrology, spindle accuracy. Part dimension and surface metrology. Metrology instruments: Coordinate measurement machine, surface profile meter, laser interferometer and ball bar. [2-2-0]</p> <p>Prerequisites: All of MANU 265, MATH 255, and MECH 368 Co-requisite: MANU 430</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This will be an optional technical elective course in the new Bachelor of Applied Science in Manufacturing Engineering program.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

Category: (1)

Faculty: Applied Science Department: Materials Engineering Faculty Approval Date: 01/03/18 Effective Session (W or S): W Effective Academic Year: 2019	Date: 01/03/18 Contact Person: Yusuf Altintas Phone: (604) 822-5622 Email: altintas@mech.ubc.ca
<p>Proposed Calendar Entry:</p> <p>MANU 499 (1-6)d Special Topics in Manufacturing Engineering</p> <p><i>Prerequisites:</i> Fourth-year standing</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This 400-level course code will allow the MANU program to be flexible and address advanced current and special topics as they arise due to changes in technologies and industries or due to new expertise in UBC. Through version codes, we will also be able to pilot new courses if the need arises. Variable value credit assignment allows flexibility to match the special topic or version to an appropriate credit level.</p> <p>Topics for an initial version of this course have not been identified.</p> <p>√ Not available for Cr/D/F grading (undergraduate courses only)</p> <p>Rationale for not being available for Cr/D/F: Courses in Applied Science cannot be taken on a Cr/D/Fail basis</p>

FNIS-INLB: First Nations Studies INLB – Create new course code, Indigenous Land-Based Studies

INLB 201 (3-12) d Special Topics in Indigenous Land-based Studies

<p>Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Email: glen.coulthard@ubc.ca; Arts.Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry: INLB 201 (3-12) d Special Topics in Indigenous Land-based Studies</p> <p>Topics and location will vary from year to year. Experiential, intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s). For further information, email inlb.arts@ubc.ca.</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: INLB 201 is located in a community-based setting, and co-led by UBC faculty, Indigenous Elders, and community experts, introducing students to Indigenous place-based pedagogies and research methodologies. Topics will vary from year to year, depending on the topics most relevant to the community and instructor expertise. Regardless of the specific topic, this immersive and experiential course integrates leading-edge academic research with land-based learning rooted in Indigenous knowledge and tradition. In this way, it advances current best practices in collaborative, community-led, place-based learning with Indigenous communities. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.</p> <p>The purpose of this special topics course is to supplement existing courses offered by First Nations and Indigenous Studies</p>

	<p>(FNIS) by focusing on a topic that is timely and significant for Indigenous community partners, and by situating students in a land-based context. It builds off existing place-based learning opportunities established by FNIS and fulfils the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration between Indigenous students, scholars, and communities.</p> <p>INLB 201 is designed to be mutually beneficial for UBC and Indigenous community partners. It is accessible to UBC students, as well as northern and community-based students, providing them with an opportunity to advance their professional and personal development. It aligns with UBC's strategic plan, <i>Place and Promise</i>, which commits to developing community partnerships, curricula, and research that benefits Aboriginal communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples.</p>
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INLB 210 (3-12) d Land and Indigenous Self-Determination: Theoretical Perspectives

<p>Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Phone: 778-834-8705 Email: glen.coulthard@ubc.ca; Arts.Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry: INLB 210 (3-12) d Land and Indigenous Self-Determination: Introduction to Theoretical Perspectives</p> <p>Cultural, political, and economic context that informs the experiences of Indigenous people and communities. Experiential,</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p>

<p>intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s).</p>	<p>Rationale for Proposed Change:</p> <p>INLB 210 is an introductory-level theory course on the politics of land and Indigenous self-determination that takes place outside of the classroom, on Indigenous territory, advancing current best practices in collaborative, community-led, place-based learning with Indigenous communities. In this course, students will engage in a transformative curriculum that integrates leading-edge academic theory with land-based learning rooted in Indigenous knowledge and tradition. By immersing students in a community setting, it provides them with a wholly unique opportunity to put the cultural, political, and economic theory they are learning into context and into practice through learning land-based skills such as moosehide tanning, medicine gathering, and storytelling. It is co-taught by UBC faculty, Indigenous Elders, and community experts, introducing students to Indigenous place-based pedagogies and research methodologies. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.</p> <p>While this course complements existing theory courses offered in First Nations and Indigenous Studies (FNIS), it deepens students theoretical engagements by focusing on Indigenous relationships to land. It builds on existing place-based learning opportunities at UBC and fulfils the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration between Indigenous students, scholars, and communities.</p>
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	<p>INLB 210 is designed to be mutually beneficial for UBC and Indigenous community partners. It is accessible to UBC students, as well as northern, Indigenous and community-based students, providing them with an opportunity to advance their professional and personal development. It aligns with UBC's strategic plan, <i>Place and Promise</i>, which commits to developing community partnerships, curricula, and research that benefits Aboriginal communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples.</p>
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INLB 220 (3-12) d Land and Indigenous Self-Determination: Methods and Application

<p>Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Phone: 778-834-8705 Email: glen.coulthard@ubc.ca; Arts.Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry: INLB 220 (3-12) d Land and Indigenous Self-Determination: Introduction to Methods and Application</p> <p>Applied cultural, political, and economic land-based practices that inform and advance Indigenous self-determination. Experiential, intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s).</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: INLB 220 is an introductory-level methods course in which students engage in applied land-based practices such as fishing, gathering medicine, drum making, and storytelling, all according to Indigenous knowledge and tradition. Located in a community setting, on Indigenous territory, and co-taught by UBC faculty and</p>

	<p>Indigenous Elders and community experts, it pushes the envelope in terms of current best practices in collaborative, community-led, place-based learning with Indigenous communities. Guided by Indigenous Elders, students engage in daily activities on the land, which provide a fundamental and experiential basis for understanding Indigenous community relations, governance, and decision-making. Meanwhile UBC faculty foster their critical thinking and methodological approach to working in and with Indigenous communities. In this way, this course provides an immersive and transformative curriculum that integrates leading-edge academic research with land-based pedagogies. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.</p> <p>INLB 220 is designed to be mutually beneficial for UBC and Indigenous community partners. It is accessible to UBC students, as well as northern and community-based students, providing them with an opportunity to advance their professional and personal development. It aligns with UBC's strategic plan, <i>Place and Promise</i>, which commits to developing community partnerships, curricula, and research that benefits Aboriginal communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples.</p>
<i>INLB 250 (3-12) d Indigenous Knowledge, Science, and Environmental Justice</i>	
Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017	Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Phone: 778-834-8705

Effective Session (W or S): S Effective Academic Year: 2018	Email: glen.coulthard@ubc.ca ; Arts.Curriculum@ubc.ca ;
<p>Proposed Calendar Entry: INLB 250 (3-12) d Indigenous Knowledge, Science, and Environmental Justice</p> <p>Indigenous ecological knowledge, its intersections with western scientific knowledge, and approaches to environmental justice. Experiential, intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s).</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: INLB 250 introduces students to scientific inquiry and ecological knowledge from within Indigenous epistemologies. Located in a community setting, on Indigenous territory, and co-taught by UBC faculty and Indigenous Elders and community experts, it pushes the envelope in terms of current best practices in collaborative, community-led, place-based learning with Indigenous communities.</p> <p>With guidance from Indigenous Elders, students undertake daily activities on the land, such as fishing, gathering medicine, and preparing meat and fish. These land-based practices will provide an experiential basis for understanding Indigenous peoples' ecological knowledge, supplemented by academic literature and instruction. With support from UBC faculty, students will approach scientific inquiry by asking what we might learn from our relationships with plants, animals, and land, and how these relationships might guide environmental justice, stewardship, and governance. In this way, this course provides an immersive and transformative curriculum that integrates leading-edge academic research with land-based pedagogies and methodologies. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential</p>

	<p>to revitalize Indigenous peoples' communities and knowledge systems.</p> <p>INLB 250 is designed to be mutually beneficial for UBC and Indigenous community partners. It is accessible to UBC students, as well as northern and community-based students, providing them with an opportunity to advance their professional and personal development. It aligns with UBC's strategic plan, <i>Place and Promise</i>, which commits to developing community partnerships, curricula, and research that benefits Aboriginal communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples.</p>
<i>INLB 251 (3-12) d Introduction to Indigenous Health, Wellness, and Self-determination</i>	
<p>Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Email: glen.coulthard@ubc.ca; Arts. Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry: INLB 251 (3-12) d Introduction to Indigenous Health, Wellness, and Self-determination</p> <p>Introduction to the social, political, cultural, and gendered determinants of Indigenous Peoples' health and wellness. Experiential, intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s).</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: INLB 251 introduces students to a land- and place-based approach to Indigenous health research. Located in a community setting, on Indigenous territory, and co-taught by UBC faculty and Indigenous Elders and community experts, it pushes the envelope in terms of current best practices in collaborative, community-led,</p>

	<p>place-based learning with Indigenous communities.</p> <p>Through daily activities led by Indigenous Elders on the land, students will learn about Indigenous peoples' traditional and resurgent health and wellness practices, including: medicinal plants, land-based subsistence and nutrition, healing, and mental health care. With instruction from UBC faculty and support from the literature, students will begin to make connections between the wellbeing of the land and the social, political, cultural, and gendered determinants of Indigenous Peoples' health. In this way, this course provides an immersive and transformative curriculum that integrates leading-edge academic research with land-based pedagogy. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.</p> <p>This course supplements existing courses offered in First Nations and Indigenous Studies (FNIS), by situating Indigenous health and community wellness in a land-based context. It builds on existing place-based learning opportunities at UBC and fulfils the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration between Indigenous students, scholars, and communities.</p> <p>INLB 251 is designed to be mutually beneficial for UBC and Indigenous community partners. It is accessible to UBC students, as well as northern and community-based students, providing them with an opportunity to advance their</p>
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	professional and personal development. It aligns with UBC's strategic plan, <i>Place and Promise</i> , which commits to developing community partnerships, curricula, and research that benefits Aboriginal communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples.
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INLB 252 (3-12) d Gender Justice and Indigenous Communities

<p>Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Email: glen.coulthard@ubc.ca; Arts.Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry: INLB 252 (3-12) d Introduction to Gender Justice and Indigenous Communities</p> <p>Introduction to the politics of gender and sexuality from Indigenous perspectives, with a focus on intersectionality. Experiential, intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s).</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: INLB 252 introduces students to the politics of gender and sexuality from Indigenous perspectives, with a focus on the connection between gendered violence and settler colonialism. Students will be exposed to land-based practice and resistance movements from an intersectional feminist lens. Located in a community setting, on Indigenous territory, and co-taught by UBC faculty and Indigenous Elders and community experts, it pushes the envelope in terms of current best practices in collaborative, community-led, place-based learning with Indigenous communities.</p> <p>Students will engage in daily land-based activities, led by Indigenous Elders,</p>

	<p>including moosehide tanning, gathering medicines, and storytelling. They will consider the responsibilities and teachings that accompany each these practices in light of gender roles, responsibilities, empowerment, and relationships to land. With support from UBC faculty and academic literature, they will begin to make connections between colonial violence against the land and violence against women and queer/two-spirit people. In this way, this course provides an immersive and transformative curriculum that integrates leading-edge academic research with land-based pedagogy. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.</p> <p>This course complements existing courses pertaining to the politics of gender and Indigenous feminism offered in First Nations and Indigenous Studies (FNIS), by approaching these issues from within a community- and land-based perspective. It situates gender justice as integral to land-based movements. It builds on existing place-based learning opportunities at UBC and fulfils the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration between Indigenous students, scholars, and communities.</p> <p>INLB 252 is designed to be mutually beneficial for UBC and Indigenous community partners. It is accessible to UBC students, as well as northern and community-based students, providing them with an opportunity to advance their professional and personal development. It aligns with UBC's strategic plan, <i>Place and</i></p>
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	<i>Promise</i> , which commits to developing community partnerships, curricula, and research that benefits Aboriginal communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples.
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INLB 310 (3-12) d Land and Indigenous Self-Determination: Theoretical Perspectives

Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018	Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Email: glen.coulthard@ubc.ca ; Arts.Curriculum@ubc.ca ;
Proposed Calendar Entry: INLB 310 (3-12) d Land and Indigenous Self-Determination: Advanced Theoretical Perspectives Theorizing land and self-determination from Indigenous cultural, political, and economic perspectives. Experiential, intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s). Prerequisites: INLB 210	URL: N/A Present Calendar Entry: N/A Type of Action: Create new course  Rationale for Proposed Change: INLB 310 is an advanced theory course on the politics of decolonization and Indigenous self-determination that takes place outside the classroom, on Indigenous territory, advancing current best practices in collaborative, community-led, place-based learning with Indigenous communities. In order to accommodate students at various stages in their academic journey, there is a lower-level and upper-level version of this course. This course expands on themes of INLB 210. As with INLB 210, the curriculum integrates leading-edge academic theory with land-based learning rooted in Indigenous knowledge and tradition. However, INLB 310 draws on the cumulative principle that guides Indigenous pedagogies, by building on the connections students have already

	<p>begun to weave between land-based theory and practice. Immersed in a community setting, students will be able to expand on the foundation they have built in lower-level courses by deepening their skills and understanding of the theoretical and political principles behind land-based practices such as moosehide tanning, medicine gathering, and storytelling. This course is co-led by UBC faculty, Indigenous Elders, and community experts, advancing students' engagement with Indigenous place-based pedagogies and research methodologies. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.</p> <p>This course advances existing theory courses offered in First Nations and Indigenous Studies (FNIS), strengthening the program's focus on Indigenous relationship to land. As with INLB 210, it builds on existing place-based learning opportunities at UBC and fulfils the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration between Indigenous students, scholars, and communities.</p> <p>INLB 310 is designed to be mutually beneficial for UBC and Indigenous community partners. It is accessible to UBC students, as well as northern, Indigenous, and community-based students, providing them with an opportunity to advance their professional and personal development. It aligns with UBC's strategic plan, <i>Place and Promise</i>, which commits to developing community partnerships, curricula, and research that</p>
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	benefits Aboriginal communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples. It builds off existing place-based learning opportunities established by First Nations and Indigenous Studies (FNIS) and fulfils the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration between Indigenous students, scholars, and communities.
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INLB 320 (3-12) d Land and Indigenous Self-Determination II: Methods and Application

<p>Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Email: glen.coulthard@ubc.ca; Arts.Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry: INLB 320 (3-12) d Land and Indigenous Self-Determination: Advanced Methods and Application</p> <p>Advanced cultural, political, and economic land-based practices that guide decolonization and Indigenous self-determination. Experiential, intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s). Prerequisites: INLB 220</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: INLB 320 is an advanced methods course in which students advance their skills in applied land-based practices such as fishing, gathering medicine, drum making, and storytelling, according to Indigenous knowledge and tradition. Located in a community setting, on Indigenous territory, and co-taught by UBC faculty and Indigenous Elders and community experts, it pushes the envelope in terms of current best practices in collaborative, community-led, place-based learning with Indigenous communities. In order to accommodate students at various stages in their academic</p>

	<p>journey, there is a lower-level and upper-level version of this course. This course expands on themes and skills developed in INLB 220. With guidance from Indigenous Elders, students undertake daily activities on the land, which deepen their understanding of Indigenous leadership, governance, and reciprocity. Meanwhile UBC faculty seek to expand their critical thinking and methodological approaches to working in and with Indigenous communities. In this way, this course provides an immersive and transformative curriculum that integrates leading-edge academic research with land-based pedagogies. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.</p> <p>While this course complements existing methods courses offered in First Nations and Indigenous Studies (FNIS), it re-contextualizes methods in a community-based and land-based setting. It builds on existing place-based learning opportunities at UBC and fulfils the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration between Indigenous students, scholars, and communities.</p> <p>INLB 320 is designed to be mutually beneficial for UBC and Indigenous community partners. It is accessible to UBC students, as well as northern and community-based students, providing them with an opportunity to advance their professional and personal development. It aligns with UBC's strategic plan, <i>Place and Promise</i>, which commits to developing community partnerships, curricula, and research that benefits Aboriginal</p>
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	communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples.
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INLB 401 (3-12) d Advanced Special Topics in Indigenous Land-Based Studies

<p>Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Email: glen.coulthard@ubc.ca; Arts.Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry: INLB 401 (3-12) d Advanced Special Topics in Indigenous Land-Based Studies</p> <p>Topics and location will vary from year to year. Advanced experiential, intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s). For further information please consult the departmental website.</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: INLB 401 is located in a community-based setting, and co-led by UBC faculty, Indigenous Elders, and community experts, advancing students' engagement with Indigenous place-based pedagogies and research methodologies. Topics will vary from year to year, depending on the topics most relevant to the community and instructor expertise. In order to cater to different topics and accommodate students at various stages in their academic journey, there is a lower-level and upper-level version of this course. Regardless of the specific topic, this immersive and experiential course that integrates leading-edge academic research with land-based learning rooted in Indigenous knowledge and tradition. In this way, it advances current best practices in collaborative, community-led, place-based learning with Indigenous communities. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.</p>

	<p>The purpose of this special topics course is to supplement existing upper-level courses offered by First Nations and Indigenous Studies (FNIS). Situating students in a land-based context, it will focus on an advanced topic that is timely and significant for Indigenous community partners. It builds off existing place-based learning opportunities established FNIS and fulfils the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration between Indigenous students, scholars, and communities.</p> <p>INLB 401 is designed to be mutually beneficial for UBC and Indigenous community partners. It is accessible to UBC students, as well as northern and community-based students, providing them with an opportunity to advance their professional and personal development. It aligns with UBC's strategic plan, <i>Place and Promise</i>, which commits to developing community partnerships, curricula, and research that benefits Aboriginal communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples.</p>
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INLB 450 (3-12) d Decolonizing Science and the Politics of Sustainability

<p>Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Email: glen.coulthard@ubc.ca; Arts.Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry: INLB 450 (3-12) d Decolonizing Science and the Politics of Sustainability</p> <p>Decolonizing ecological knowledge, environmental justice, and the discourse of sustainability. Experiential, intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s).</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: INLB 450 deepens students' understanding of Indigenous relationships to land, ecological knowledge, and approaches to environmental justice. Located in a</p>

	<p>community setting, on Indigenous territory, and co-taught by UBC faculty and Indigenous Elders and community experts, it deepens and advances current best practices in collaborative, community-led, place-based learning with Indigenous communities.</p> <p>In order to accommodate students at various stages in their academic journey, there is a lower-level and upper-level version of this course. This course expands on themes of INLB 250. By engaging in daily land-based practices led by Indigenous Elders, such as fishing and gathering medicine, students will delve deeply into Indigenous relationships with the land and water. With support from the academic literature and UBC faculty, students will build connections between these place-based practices and epistemologies, resource management, climate justice, and self-determination. In this way, this course provides an immersive and transformative curriculum that integrates leading-edge academic research with land-based pedagogies and methodologies. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.</p> <p>This course advances students' grasp of Indigenous knowledges and practices introduced in INLB 250 by delving deeper into land-based skills and into the discourse around sustainability and resource management. It supplements existing courses offered in First Nations and Indigenous Studies (FNIS) with a targeted focus on ecological knowledge and climate justice. It builds on existing place-based learning opportunities at UBC and fulfils</p>
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	<p>the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration between Indigenous students, scholars, and communities.</p> <p>INLB 450 is designed to be mutually beneficial for UBC and Indigenous community partners. It is accessible to UBC students, as well as northern and community-based students, providing them with an opportunity to advance their professional and personal development. It aligns with UBC's strategic plan, <i>Place and Promise</i>, which commits to developing community partnerships, curricula, and research that benefits Aboriginal communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples.</p>
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INLB 451 (3-12) d Decolonizing Indigenous Health and Wellness

<p>Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Email: glen.coulthard@ubc.ca; Arts.Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry: INLB 451 (3-12) d Decolonizing Indigenous Health and Wellness</p> <p>The colonial determinants of Indigenous Peoples' health and wellness. The governance of land in relation to health. Experiential, intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s).</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: INLB 451 applies a decolonial approach to Indigenous health governance and research. It advances student's grasp of the impacts of colonialism on Indigenous peoples' health and the importance of land-based practice for individual and community</p>

	<p>wellbeing. Located in a community setting, on Indigenous territory, and co-taught by UBC faculty and Indigenous Elders and community experts, it pushes the envelope in terms of current best practices in collaborative, community-led, place-based learning with Indigenous communities.</p> <p>In order to accommodate students at various stages in their academic journey, there is a lower-level and upper-level version of this course. This course expands on themes of INLB 251. With leadership from Indigenous Elders, students deepen their engagement with land-based practices central to INLB 251, advancing their understanding of land-based medicine, nutrition, and healing. With support from UBC faculty and the literature, students will look more closely at the impacts of colonial dispossession, policy, and resource development on Indigenous health, and efforts of Indigenous peoples to assert traditional and resurgent health practices and governance. In this way, an immersive and transformative curriculum that integrates leading-edge academic research with land-based learning pedagogy. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems. This course supplements and expands upon existing courses offered in First Nations and Indigenous Studies (FNIS), by re-contextualizing notions of health and wellness, as issues central to land, governance, and community self-determination. It builds on existing place-based learning opportunities at UBC and fulfils the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration</p>
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	<p>between Indigenous students, scholars, and communities.</p> <p>INLB 451 is designed to be mutually beneficial for UBC and Indigenous community partners. It is accessible to UBC students, as well as northern and community-based students, providing them with an opportunity to advance their professional and personal development. It aligns with UBC's strategic plan, <i>Place and Promise</i>, which commits to developing community partnerships, curricula, and research that benefits Aboriginal communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples.</p>
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INLB 452 (3-12) d Gender Justice and Indigenous Resurgence

<p>Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Acknowledged: August 8, 2017 Contact Person: Dr. Glen Coulthard and Lois Nightingale Email: glen.coulthard@ubc.ca; Arts.Curriculum@ubc.ca</p>
<p>Proposed Calendar Entry: INLB 452 (3-12) d Gender Justice and Indigenous Resurgence</p> <p>The theory and politics of gender and sexuality from Indigenous perspectives. Emphasis on decolonial and intersectional Indigenous feminisms and queer/two-spirit theory. Experiential, intensive land-based course designed and delivered in collaboration with academic faculty and Indigenous community partner(s). Students are eligible for Pass/Fail or percentage grading.</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: INLB 452 is an advanced course that expands students' understanding of the politics of gender and sexuality from an intersectional, and decolonial lens. It provides students a unique opportunity to explore Indigenous feminist and queer politics through both theory and applied land-based practice. Located in a community setting, on Indigenous territory,</p>

	<p>and co-taught by UBC faculty and Indigenous Elders and community experts, it pushes the envelope in terms of current best practices in collaborative, community-led, place-based learning with Indigenous communities.</p> <p>In order to accommodate students at various stages in their academic journey, there is a lower-level and upper-level version of this course. This course expands on themes of INLB 252. Building cumulative knowledge of Indigenous land-based practices, students will hone their skills in moosehide tanning, medicine gathering, and storytelling, all guided by Indigenous Elders and community experts. At the same time, with support from UBC faculty, they will build deeper connections between movements for land, self-determination, and gender justice. In this way, the course provides an immersive and transformative curriculum that integrates leading-edge academic research with land-based pedagogy. As current literature, research, and practice demonstrate, pedagogy rooted in the land offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.</p> <p>This course complements and advances existing courses pertaining to the politics of gender and Indigenous feminism offered in First Nations and Indigenous Studies (FNIS). Situating gender relations within land- and community-based relations, it centres feminist and queer/two-spirit theory as integral to Indigenous resistance and resurgence. It builds on existing place-based learning opportunities at UBC and fulfils the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration</p>
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<p>Category: (1) Faculty: Arts Department: Asian Canadian and Asian Migration Studies program Faculty Approval Date: 2018 Feb 15 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Date: September 30, 2017 Contact Person: Lois Nightingale Email: Arts.Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry: ACAM 390 (3/6) d Asian Migrations in a Global Context</p> <p>Transpacific, migratory and socio-cultural connections of Asian migrations in a global context.</p> <p><i>Prerequisites:</i> Minimum 2nd year standing, 3rd year standing recommended.</p>	<p>URL: “ACAM”</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: To create a 300-level course for students to explore the histories, cultures, and geographies of Asian migrations in global contexts. Coursework includes field trips, workshops, lectures, and presentations from guest speakers. Students will be encouraged to connect what they learn to ongoing issues facing Asian migrant communities in Canada.</p>
<p>Category: 1 Faculty: Arts Department: CNERS Faculty Approval Date: 2018 Feb 15 Effective Session (W or S): W Effective Academic Year: 2018</p>	<p>Date: 7/10/17 Contact Person: Lois Nightingale Email: Arts.Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry:</p> <p>CNRS 104 (3) Temples, Tombs, and Tyrants: The Archaeology of the Middle East, Greece, and Rome</p> <p>The rise of civilizations, cultural interconnections, and power dynamics in the ancient Middle East (including Egypt), Greece, and Rome (10,000 BCE – 300 CE). Archaeological methods and interpretation, and analysis of ancient artifacts in UBC collections.</p>	<p>URL: “CNRS”</p> <p>Present Calendar Entry:</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: This course reflects the desire of CNERS to develop courses that connect the full period and geography covered by the department (Mediterranean, Europe, and Middle East, c. 10,000 BCE–300 CE) and to offer a new gateway to Classical and Middle Eastern Archaeology courses at higher levels.</p>

Category: 1 Faculty: Arts Department: CNERS Faculty Approval Date: 2018 Feb 15 Effective Session (W or S): W Effective Academic Year: 2018	Date: Oct 31, 2017 (Recd) Contact Person: Lois Nightingale Email: Arts.Curriculum@ubc.ca ;
Proposed Calendar Entry: CNRS 206 (3) The Archaeology of Life and Death in the Roman Empire The lives of non-elite individuals and groups living under the Roman Empire, seen through material evidence and its interpretation. Identity, urbanism, economy, agriculture, diet, religion, “Romanization,” and burial. <i>Prerequisites: None. CNRS 104 or ARCL 203 recommended.</i>	URL: “CNRS” Present Calendar Entry: n/a Type of Action: New course Rationale for Proposed Change: This course is intended to fill a lacuna in current course offerings (CNERS currently offers Roman Art & Architecture—CLST 332—and Roman history courses) and to complement the new introduction to Classical/Middle Eastern archaeology (CNRS 104) as a logical “next step,” allowing students to build on the methods taught there and expand knowledge of one historical context (the Roman Empire) in which such methods can be applied. It is being offered at the 200 level because it remains more thematic and introductory than other 300-level courses (like CLST 332).

Category: [1] Faculty: Arts Department: History Faculty Approval Date: Feb 15, 2018 Effective Session (W or S): W Effective Academic Year: 2018	Date: 30 October 2017 Contact Person: Lois Nightingale Phone: Email: Lois.Nightingale@ubc.ca ;
Proposed Calendar Entry: HIST 329 (3) Heroes, Rebels, Villains, Folks: The People Who Shaped Canada Canadian history through the lens of individual people’s lives and their social impact. Themes include race, class, gender,	URL: “HIST” Present Calendar Entry: HIST 329 (6) Canadian Lives: A Social and Cultural History A survey of Canadian society from colonial times to post-industrialization through the lenses of race, class, and gender. Topics

<p>sexuality, indigeneity, colonialism, slavery, immigration, moral regulation, and activism.</p>	<p>include colonialism, slavery, immigration, religion, industrialization, citizenship, sexuality, social movements, and moral regulation.</p> <p>Type of Action: Change current 6-credit course to 3 credits. Update title and calendar description.</p> <p>Rationale for Proposed Change: Note: HIST 329 has not been offered in over 5 years. We ask to use this number because the focus of this course reflects the focus of the previous version of HIST 329.</p> <p>Many years ago, HIST 329 served as one of the History Department's staple upper-level survey courses in Canadian history, offering students a critical introduction to race, class, gender, and Canadian society. More recently, the course has not been offered for a number of reasons, including declining enrollments and a less flexible 6-credit structure, which has not been as amenable to faculty availability or student needs. The proposed changes are aimed at addressing these issues, revising the approach to teaching Canadian social history, increasing student interest, and returning an important subject to the regular rotation of courses in the department.</p> <p>On the surface level, it is hoped that the proposed title and description will attract more initial student interest by emphasizing the remarkable and interesting people at the heart of Canadian history.</p> <p>This change is not only a surface revision, however, but also reflects a new structure and approach to teaching Canadian social history. While still maintaining a similarly wide chronological, geographical, and topical scope, the proposed version of HIST 329 moves away from the claim to be</p>
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	<p>a survey of the important developments in Canadian social history – an exercise that is now recognized as both unrealistic and undesirable from a pedagogical point of view. The revised HIST 329 will instead use specific people’s lives – whether remembered now as heroes, rebels, villains, or ordinary folks – as a “hook” into a deeper examination of key changes and historical issues in Canadian society. Lectures will introduce individual people’s lives and stories, situate them in wider historical contexts, and consider their historical significance. Students will then investigate these issues further through discussion of assigned primary and secondary sources – some focusing specifically on the individual, and others examining the wider social contexts and historical themes that their lives shaped and now illuminate. Taken together, this structure and focus will deepen students’ understanding of specific people as historical agents – whether considered ordinary and extraordinary – and their relationship to key themes and developments in Canadian history. It will also introduce a more diverse and flexible approach to social history itself, for example by positioning major political figures in their wider social contexts and encouraging students to consider their accomplishments from new perspectives. It will also help students to understand and assess broader historical issues including change over time, the relationship between evidence and interpretation, historical significance, and the role of people as historical actors.</p> <p>The change in credit structure reflects an additional practical note. Students are now more likely to do co-op, study abroad, and similar programs in their 3rd year. Offering HIST 329 – an elective without prerequisites – as a 3-credit course will be</p>
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	<p>more flexible, better facilitate these co-curricular choices, and thus be more attractive for potential students.</p> <p>Taken together, then, these changes are aimed at supporting a revived course and a revised approach to teaching Canadian social history in the department.</p>
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<p>Category: [1] Faculty: Arts Department: History Faculty Approval Date: Feb 15, 2018 Effective Session (W or S): W Effective Academic Year: 2018</p>	<p>Date: 11 Oct 2017 Contact Person: Lois Nightingale Phone: Email: Lois.Nightingale@ubc.ca;</p>
<p>Proposed Calendar Entry:</p> <p>HIST 415 (3-12) d History of Vancouver</p> <p>Selected themes in the history of Vancouver, exploring how the study of the past illuminates or explains major debates in the city today.</p>	<p>URL: “HIST” Present Calendar Entry:</p> <p>Type of Action: New course</p> <p>Rationale for Proposed Change: For many years, the History Department has offered occasional topics-based courses in the history of Vancouver. The History Department also offers HIST 485: Asian Migrant Communities in Vancouver. However, no course on the general subject has been added to the Calendar, despite the rich wealth of locally available material (primary and secondary sources, as well as the city itself); several faculty members with related expertise; and the subject’s critical significance and relevance to everyone who lives, works, or studies at UBC-Vancouver. The proposed course aims to fill this gap and regularize the department’s occasional and rotating offerings in the area. In so doing, it will enable us to offer a course that engages with the historical issues that continue to shape the city that, in turn, shapes the campus community.</p> <p>The proposed course will also complement the university’s mission and develop the UBC curriculum in other specific ways. For</p>

	<p>instance, while the university's next strategic plan has not yet been finalized, this course speaks to the draft strategic priorities published in Spring 2017 – particularly taking note of the commitment to “local/regional/global.”</p> <p>At the departmental level, this proposal for the History of Vancouver course co-exists with a proposal to reduce HIST 305: History of British Columbia from 6 to 3 credits. Instead of offering one two-term introduction to British Columbia's history, these changes – in combination – will instead offer a ladder approach to teaching in this area. Though one will not be a formal prerequisite for the other, HIST 415 is designed to build on a one-term HIST 305, offering a 400-level course that mixes lectures and discussions, and offers a deeper investigation of the history of this region.</p> <p>Finally, it is hoped that this course will interest a significant number of students from across the university. While it is not designed as a formal prerequisite for any program, it should attract not only History majors, but also students in Canadian Studies, Indigenous Studies, Journalism, and related disciplines. More broadly, as an elective, it should also interest a diverse range of students who want to learn more about the place where they live and work, whether they are visitors on exchange, new residents to the city, or long-time Vancouverites.</p>
<p>Category: (1) Faculty: Arts Department: Law and Society Minor Program Faculty Approval Date: Feb 15, 2018 Effective Session (W or S): W Effective Academic Year: 2018-19</p>	<p>Date: 27 October 2017 Contact Person: Lois Email: Arts.Curriculum@ubc.ca;</p>
	<p>URL: “LASO”</p>

<p>Proposed Calendar Entry:</p> <p>LASO 309 (3) Against the Law</p> <p>Competing approaches to law and legal authority shaped by conflicts over historical and contemporary inequalities, including the exercise of and challenges to coercive law enforcement and claims made for legal redress.</p> <p>Pre-requisite: LASO 204</p>	<p>Present Calendar Entry:</p> <p>Type of Action: New Course</p> <p>Rationale for Proposed Change: This interdisciplinary course provides an upper-level lecture course that contributes to the core curriculum of the Minor in Law and Society. LASO 204 Introduction to Law and Society sets the foundation for the Minor and LASO 309 provides the opportunity for an upper-level experience to advance and develop its intellectual themes. This course considers together the various disciplinary approaches to law and society topics in a more rigorous and sophisticated academic context.</p>
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<p>Category: (1) Faculty: Arts Department: Law and Society Minor Program Faculty Approval Date: Feb 15, 2018 Effective Session (W or S): W Effective Academic Year: 2018</p>	<p>Date: 27 October 2017 Contact Person: Lois Nightingale Email: Arts.Curriculum@ubc.ca;</p>
<p>Proposed Calendar Entry: LASO 350 (3-12) d Topics in Law and Society</p> <p>Interdisciplinary approaches to topics such as the purpose of law, retribution and punishment, restorative justice, ethics, property ownership, human rights, gender equality, legal change, or civil disobedience.</p> <p>Prerequisite: LASO 204</p>	<p>URL: “LASO” Present Calendar Entry: NA</p> <p>Type of Action: New Course</p> <p>Rationale for Proposed Change: This is a special topics course to allow the Law and Society program to offer courses by an individual or a team of instructors with different disciplinary approaches on a topic central to Law and Society that may vary from year to year. It also provides an opportunity to pilot an upper-level course that may later receive its own code to further develop the Law and Society Minor program.</p>

ENGL 393 (3-6) d Ecocriticism

Category: (1) Faculty: Arts Department: English Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): W Effective Academic Year: 2018	Date: April 19, 2017 Contact Person: Lois Nightingale Email: Arts.Curriculum@ubc.ca;
Proposed Calendar Entry: ENGL 393 (3-6) d Ecocriticism <p>Ecocriticism and the environmental humanities encompassing more specific methodologies, such as queer ecology, ecofeminism, postcolonial, decolonizing, and transnational environmentalisms, environmental art.</p> <p>Prerequisite: (Pre-requisites must be met by the first day of class or students will be withdrawn). Third-year standing; and 3 credits of 100- and/or 200-level English or one of WRDS 150 or 350; ASTU 100 or 101; ARTS 001. Recommended: 6 credits of 100- and/or 200-level English and/or writing courses.</p>	Type of Action: New course Rationale for Proposed Change: <p>This course, Ecocriticism, will enable students to explore new research in the Environmental Humanities as well as the methods for and the histories of ecocriticism, which study may include topics as diverse as nature writing, utopia, the Anthropocene concept, literary imaginings of environmental degradation and protest, and environmental thinking framed at multiple scales – local, global, transnational, postcolonial, decolonizing, and planetary.</p> <p>This course will form part of a new interdisciplinary Environment and Society minor in the Faculty of Arts.</p> <p>This course forms part of an extensive revision by the Department of English to its undergraduate curriculum. New course offerings reflect current developments in the discipline of English Literary Studies; they respond vigorously to faculty teaching interests, allowing the development of new curricular approaches with enough flexibility to accommodate the ongoing transformation of our strategy for achieving the pedagogical goals articulated in our departmental learning outcomes; and they articulate relevance to student needs, preparing learners to engage the contemporary world with critical acuity and robust cultural literacy.</p>

MUSC: School of Music***MA>Music –add a non-thesis option***

Category: (1) Faculty: Arts Department: Music Faculty Approval Date: Feb 15, 2018 Effective Session (W or S): W Effective Academic Year: 2018	Date: December 11, 2017 Contact Person: Michael Tenzer with cc to Lois Nightingale Email: michael.tenzer@ubc.ca ; Lois.Nightingale@ubc.ca ;
Calendar Navigation: The Faculty of Graduate and Postdoctoral Studies > Degree Programs > Music Proposed Calendar Entry: Music ... Doctor of Philosophy ... Doctor of Musical Arts ... Master of Arts The M.A. program, offered in the fields of historical musicology, music theory and ethnomusicology, is designed to acquaint the student with methods of scholarly research. Admission Requirements In addition to meeting the Faculty of Graduate and Postdoctoral Studies' minimum academic standards for admission, applicants must fulfill supplemental admission requirements as outlined by the Program. Program Requirements The Program provides broad general training in addition to opportunities for specialized research in particular areas of	URL: http://www.calendar.ubc.ca/Vancouver/index.cfm?tree=12,204,828,1202 Present Calendar Entry: Music ... Doctor of Philosophy ... Doctor of Musical Arts ... Master of Arts The M.A. program, offered in the fields of historical musicology, music theory and ethnomusicology, is designed to acquaint the student with methods of scholarly research. Admission Requirements In addition to meeting the Faculty of Graduate and Postdoctoral Studies' minimum academic standards for admission, applicants must fulfill supplemental admission requirements as outlined by the Program. Program Requirements The Program provides broad general training in addition to opportunities for specialized research in particular areas of

<p>inquiry. Prescribed curricula are flexible, providing latitude to meet diverse individual needs.</p> <p>Credit requirements for the M.A. are 30-32 credits in a mixture of prescribed and elective courses, depending on the field of emphasis. Proficiency in one appropriate language must be demonstrated. A thesis is normally required; substitution with appropriate coursework requires approval from the School of Music. The program normally takes two years to complete.</p>	<p>inquiry. Prescribed curricula are flexible, providing latitude to meet diverse individual needs. A thesis is required and the program is normally of two years' duration.</p> <p>Credit requirements for the M.A. are: 30-32 credits, typically including a 6-credit thesis, and 14-18 credits of required courses. Proficiency in one appropriate language must be demonstrated.</p> <p>Type of Action: We seek a non-thesis option, meaning that for some students (on the advice of faculty) two 3-credit, 500-level courses may be substituted for 6 credits of Music 549 (Thesis). Other program requirements remain unchanged, but are described with revised language. (The prescribed courses for each of the three fields of emphasis are stipulated in the School of Music's Graduate Handbook.)</p> <p>Rationale for Proposed Change: A non-thesis option will have benefits for some students. The faculty believe that the thesis and non-thesis options are both viable preparation for continuation to a PhD, depending on the background and interests of the student. The non-thesis option will in some cases have advantages for students who want to pursue other goals following the MA.</p> <p>The proposed changes are all manageable solely within the School of Music's own advising and consultation procedures, will be applied judiciously on a case-by-case basis, and will have no budgetary or curricular impact because sufficient graduate seminars are already offered on a regular basis. The library impact can be supported with existing resources.</p> <p>Consultations:</p>
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	Faculty of Graduate Studies and Faculty of Arts (Office of the Dean).
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UBC Curriculum Proposal Form

Change to Course or Program

Category: 1

Faculty: Education Department: MET Faculty Approval Date: September 18, 2017 Effective Session (W or S): W Effective Academic Year: 2017	Date: February 11, 2017 Contact Person: Jennifer Shapka Phone: 604.822.5253 Email: jennifer.shapka@ubc.ca
Proposed Calendar Entry: <div style="background-color: yellow; padding: 2px;">ETEC 523 (3)– Mobile & Open Education</div> <div style="background-color: yellow; padding: 2px;">Experiential immersion in the proven and emerging educational potentials of mobile technologies and open learning. Theory and strategy of mobile and open education through collective critical analysis of trending knowledge.</div>	URL: http://www.calendar.ubc.ca/vancouver/courses.cfm?page=code&code=ETEC Present Calendar Entry: NA Type of Action: Regularization of an existing “special topics” course in the Master of Educational Technology program, which is a fully online course-based masters (MET). Rationale for Proposed Change: ETEC 565M has been offered four times since activation in 2013 under the “special topics” category of MET. It fills an important gap in the MET program. <div style="display: flex; align-items: flex-start;"> <input style="margin-right: 10px;" type="checkbox"/> <div> Not available for Cr/D/F grading (undergraduate courses only) (Check the box if the course is NOT eligible for Cr/D/F grading and provide the rationale for this below. Note: Not applicable to graduate-level courses.) </div> </div> Rationale for not being available for Cr/D/F: The default is that undergraduate courses are offered for Cr/D/F unless there is a significant reason as to why it should not be so. <div style="display: flex; align-items: flex-start;"> <input style="margin-right: 10px;" type="checkbox"/> Pass/Fail or <input style="margin-left: 20px; margin-right: 10px;" type="checkbox"/> Honours/Pass/Fail grading (Check one of the above boxes if the course will be graded on a P/F or H/P/F basis. Default grading is percentage.) </div>



UBC Curriculum Proposal Form Change to Course or Program

Category: (1)

Faculty: Education Department: MET Faculty Approval Date: September 18, 2017 Effective Session (W or S): W	Date: February 2, 2017 Contact Person: Jennifer Shapka Phone: 604.822.5253 Email: jennifer.shapka@ubc.ca
Proposed Calendar Entry: ETEC 524 (3) Learning Technologies: Selection, Design, and Application Theoretical frameworks to assist educators in evaluating, selecting, and using various learning technologies. Hands-on experience using a range of learning technologies and platforms, including learning and content management systems and multimedia and social media tools.	URL: http://www.calendar.ubc.ca/vancouver/courses.cfm?page=code&code=ETEC Present Calendar Entry: n/a Type of Action: Regularization of an existing “special topics” course in the Master of Educational Technology program, which is a fully online course-based masters (MET). Rationale for Proposed Change: This course has been taught since 2009/2010. It fills a gap in the MET program, providing hands-on opportunities to students to explore different technologies and design learning environments based on current research. <input type="checkbox"/> Not available for Cr/D/F grading (undergraduate courses only) (Check the box if the course is NOT eligible for Cr/D/F grading and provide the rationale for this below. Note: Not applicable to graduate-level courses.) Rationale for not being available for Cr/D/F: The default is that undergraduate courses are offered for Cr/D/F unless there is a significant reason as to why it should not be so. <input type="checkbox"/> Pass/Fail or <input type="checkbox"/> Honours/Pass/Fail grading (Check one of the above boxes if the course will be graded on a P/F or H/P/F basis. Default grading is percentage.)



UBC Curriculum Proposal Form Change to Course or Program

Category: 1

<p>Faculty: Education Department: Educational and Counselling Psychology and Special Education Faculty Approval Date: Sept 18, 2017 Effective Session (W or S): W Effective Academic Year: 2017</p>	<p>Date: August 24, 2016 Contact Person: Izabela Schultz Phone: 604.822.5251 Email: ischultz@telus.net</p>
<p>Proposed Calendar Entry: (40 word limit for course descriptions)</p> <p>VRHC 513 (3) Case Management and Job Development Counselling</p> <p>Integration of theoretical constructs and research evidence to develop the competencies required for the case management/coordination of a continuum of vocational/rehabilitation counselling services, including job development, placement strategies and interventions.</p> <p>This course is not eligible for Credit/D/Fail grading</p>	<p>URL: http://www.calendar.ubc.ca/vancouver/courses.cfm?page=code&code=VRHC</p> <p>Present Calendar Entry: NA</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change:</p> <p>VRHC 513(3) is a required specialized vocational rehabilitation course that builds on the knowledge and skills acquired in Medical, Psychosocial, and Vocational Aspects of Disability, Foundations of Disability and Rehabilitation, Assessment and Counselling courses as well as supervised clinical training. It integrates and applies competencies learned during the duration of the program in the real-life workplace environment. It is the final vocational course of the program and is required for career entry. Case and disability management and job search counselling, while working with both employer and employee, are core competencies of Vocational</p>



Rehabilitation Counsellors

The Vocational Rehabilitation Counselling (VRHC) Program addresses psychosocial and vocational impact of neurological, physical, sensory, mental health, neuropsychological and pain related disabilities and chronic illness.

This area of focus prepares students for independent practice in health care and rehabilitation field, including psychosocial and vocational assessment, vocational and return to work interventions, adjustment and rehabilitative counselling, job development and placement, case and disability management, as well as research and program evaluation

The proposed course focuses on employment with case management/disability management/interventions including return to work, job placement and development. Formerly this course was achieved with two courses, Case/Disability Management (VRHC 511) and Job Placement and Development (VRHC 504)

In the past, these two courses had a significant content overlap and redundancies. The material was needlessly split into two portions, which we addressed by the synthesis of the content. In this process, we were guided by the integrated biopsychosocial model of return to work, to avoid prior fragmentation of the material.



**Not available for Cr/D/F grading
(undergraduate courses only)**



	<p>(Check the box if the course is NOT eligible for Cr/D/F grading and provide the rationale for this below. Note: Not applicable to graduate-level courses.)</p> <p>Rationale for not being available for Cr/D/F: The default is that undergraduate courses are offered for Cr/D/F unless there is a significant reason as to why it should not be so.</p> <p><input type="checkbox"/> Pass/Fail or <input type="checkbox"/> Honours/Pass/Fail grading (Check one of the above boxes if the course will be graded on a P/F or H/P/F basis. Default grading is percentage.)</p>
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UBC Curriculum Proposal Form Change to Course or Program

Category: 1

Faculty: Medicine Department: Population and Public Health Faculty Approval Date: Dec 8, 2017 Effective Session (W or S): W Effective Academic Year: 2018	Date: December 2, 2018 Contact Person: Ameer Manges Phone: 604-822-9203 Email: ameer.manges@ubc.ca
Proposed Calendar Entry: Master of Public Health The M.P.H. is a two-year non-thesis program with a 12-week, full-time practicum. The program is available in two formats: <ul style="list-style-type: none"> Traditional classroom-based curriculum: on-campus classes scheduled on a Monday to Friday timetable. Distributed learning format: each course consists of three full days on campus, one day per month. An additional 15 hours of curriculum is online for each course. Full day classes will be scheduled Thursday, Friday, Saturday, or Sunday. Courses will be scheduled so that classes for four separate courses can take place over three extended weekends (Thursday, Friday, Saturday, Sunday) in a term. ... Program Requirements The M.P.H. is a two-year non-thesis degree consisting of a minimum of 42 credits: <ul style="list-style-type: none"> 21 core, required credits <ul style="list-style-type: none"> SPPH 400 SPPH 500 SPPH 502 SPPH 503 SPPH 504 SPPH 525 SPPH 553 9 core, elective credits (pick 3 from below list) <ul style="list-style-type: none"> SPPH 522 SPPH 527 SPPH 538 SPPH 540 SPPH 542 SPPH 545 SPPH 547 6 elective credits 6 practicum credits (SPPH 508) Students must also complete the Faculty of Medicine Responsible Conduct of Research course. We encourage	URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12.204.828.1420 Present Calendar Entry: Master of Public Health The M.P.H. Program is a two-year non-thesis program. It will normally be completed in three academic terms and one term devoted to a practicum. The M.P.H. program is available in two formats: <ul style="list-style-type: none"> Traditional classroom-based curriculum: on-campus classes scheduled on a Monday to Friday timetable. Distributed learning format: each course consists of three full days on campus, one day per month. An additional 15 hours of curriculum is online for each course. Full day classes will be scheduled Thursday, Friday, Saturday, or Sunday. Courses will be scheduled so that classes for four separate courses can take place over three extended weekends (Thursday, Friday, Saturday, Sunday) in a term. Program Requirements The M.P.H. is a two-year non-thesis degree consisting of 42 credits: 30 required credits, including 24 course credits, a 6 credit practicum, and 12 elective credits. A minimum of three academic terms will be required to complete course requirements and the practicum. For additional information on program requirements, please refer to the SPPH website. Type of Action: New curriculum for the UBC Master of Public Health program. We also updated the description of the program to more accurately reflect our admission requirements. In addition, we deleted mention of how many terms it takes to complete the program as we want to encourage students to take more than the minimum in order to gain a better understanding of the public health field. We also mention that the program is two years, which makes the mention of terms redundant. Rationale for Proposed Change: See attached proposal document. Please note that SPPH 553 is a new course that will be created in another Category 1 form.



students to take courses beyond the program requirements in order to gain additional knowledge in public health. For more information about requirements, please refer to the [MPH website](#).

☐ **Pass/Fail or** ☐ **Honours/Pass/Fail grading**
(Check one of the above boxes if the course will be graded on a P/F or H/P/F basis. Default grading is percentage.)



UBC Curriculum Proposal Form Change to Course or Program

Category: 1

<p>Faculty: Medicine Department: Ophthalmology and Visual Sciences Faculty Approval Date: October 21, 2016 Effective Session (W or S): Summer Effective Academic Year: 2018</p>	<p>Date: February 20, 2018 Contact Person: Ipek Oruc Phone: 604-675-8866 Email: ipor@mail.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>MEDI 520 (3) Advanced Topics in Visual Sciences</p> <p>Fundamental principles of vision from basic physiology to clinical syndromes across the visual pathway spanning the globe, ocular structures including the retina, up to striate and extrastriate cortices.</p> <p><i>Pre-requisites:</i> None.</p>	<p>URL: http://www.calendar.ubc.ca/vancouver/courses.cfm?page=code&code=MEDI</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: Although a number of individual topics in visual science are discussed separately in broader courses in neuroscience and perception, no single course exists that offers a comprehensive treatment of vision science. The department of Ophthalmology and Visual Sciences is offering MEDI 520 to improve the educational experience of graduate students enrolled in various graduate programs across UBC including the Graduate Program in Neuroscience, Psychology, and Experimental Medicine. Ophthalmology faculty including basic scientists and clinicians represent the full spectrum of expertise required to offer a comprehensive course of this scope.</p> <p><input type="checkbox"/> Not available for Cr/D/F grading (undergraduate courses only) (Check the box if the course is NOT eligible for Cr/D/F grading and provide the rationale for this below. Note: Not applicable to graduate-level courses.)</p> <p>Rationale for not being available for Cr/D/F: The default is that undergraduate courses are offered for Cr/D/F unless there is a significant reason as to why it should not be so.</p>



	<input type="checkbox"/> Pass/Fail or <input type="checkbox"/> Honours/Pass/Fail grading (Check one of the above boxes if the course will be graded on a P/F or H/P/F basis. Default grading is percentage.)



UBC Curriculum Proposal Form Change to Course or Program

Category: 1

Faculty: Medicine Department: Population and Public Health Faculty Approval Date: Dec 8, 2017 Effective Session (W or S): W Effective Academic Year: 2018	Date: November 30, 2017 Contact Person: Shaine Meghji Phone: 604-822-2827 Email: shaine.meghji@ubc.ca
Proposed Calendar Entry: SPPH 553 (3) Foundations of Public Health Computing Data gathering, cleaning, analysis, and visualization to produce key results using statistical software. <i>This course is not eligible for Credit/D/Fail grading.</i> <i>Prerequisite:</i> SPPH 400, SPPH 502	URL: http://www.calendar.ubc.ca/vancouver/courses.cfm?code=SPPH Present Calendar Entry: N/A Type of Action: Create new course Rationale for Proposed Change: Change course # from SPPH 581A to SPPH 553. Course has successfully run as pilot course, should be moved to permanent course number. <input type="checkbox"/> Pass/Fail or <input type="checkbox"/> Honours/Pass/Fail grading (Check one of the above boxes if the course will be graded on a P/F or H/P/F basis. Default grading is percentage.)



UBC Curriculum Proposal Form Change to Course or Program

Category: (1)

<p>Faculty: Forestry Department: Forest and Conservation Sciences Faculty Approval Date: Feb. 16, 2018 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Date: 02/15/2018 Contact Person: Rob Kozak Phone: 604-822-2402 Email: rob.kozak@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>HGSE 320 (1-12) d Special Topics on Social-Ecological Systems in Indigenous Contexts.</p> <p>This course will be offered, as opportunities arise, by scientists visiting the Haida Gwaii Higher Education Society. The course is expected to be of a specialized nature and be at a level appropriate for upper level students.</p>	<p>URL: N/A</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create a new entry in the calendar. To create a suite of new HGSE Special Topic Courses</p> <p>Rationale for Proposed Change: A suite of generic course numbers is needed to allow for creating new opportunities for students to custom-tailor their education to their interests, allowing them to explore and deepen their knowledge in the area of conservation and environmental studies with an indigenous/aboriginal perspective, as well being able to partake in the Reconciliation process. Students will have a greater opportunity to customize their UBC degrees to their career goals/needs as well as the various instructors will be able to pilot concept courses that they can eventually roll out as full-pledged HGSE courses.</p>



UBC Curriculum Proposal Form Change to Course or Program

Category: 1

Faculty: Forestry Department: Forest & Conservation Sciences Faculty Approval Date: Effective Session (W or S): W Effective Academic Year: 2018/19	Date: Oct. 13, 2017 Contact Person: Allan Carroll Phone: 2-3360 Email: allan.carroll@ubc.ca																																																																																																						
Proposed Calendar Entry: Degree Requirements Forest Sciences: General <table style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9e1f2;"> <th style="text-align: left; padding: 2px;">First Year</th> <th style="width: 10%;"></th> </tr> <tr> <td>ENGL 100-level</td> <td style="text-align: right;">6</td> </tr> <tr> <td>BIOL 111, 121, and 140¹</td> <td style="text-align: right;">8</td> </tr> <tr> <td>CHEM 121 (111) and 123</td> <td style="text-align: right;">8</td> </tr> <tr> <td>MATH 100 and 101 or MATH 102 and 103²</td> <td style="text-align: right;">6</td> </tr> <tr style="background-color: yellow;"> <td>CONS 101 (or FRST 100)</td> <td style="text-align: right;">3</td> </tr> <tr> <td>APBI 200</td> <td style="text-align: right;">3</td> </tr> <tr style="background-color: yellow;"> <td>Total Credits</td> <td style="text-align: right;">34</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9e1f2;"> <th style="text-align: left; 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FRST 350 ^{4,5} or FRST 351 ^{4,5} immediately preceding third year	2																																																																																																						
Third and Fourth Years																																																																																																							
FRST 302	3																																																																																																						
FRST 307	3																																																																																																						
FRST 395	3																																																																																																						



THE UNIVERSITY OF BRITISH COLUMBIA

FRST 430	3	FRST 399	3 3
FRST 495 or BIOL 416	3	FRST 430	3 3
Area of Concentration⁶	9	FRST 495 or BIOL 416	6 3
General electives	9	FRST 498⁶	12 6
Forestry electives⁷	18	Area of Concentration⁷	9 12
Total Credits	56	General electives	18 9
Including FRST 351 preceding third year	2	Forestry electives⁸	63 18
¹ Students with Biology 12 should replace BIOL 111 with BIOL 112.		Total Credits	2 63
² Students may take MATH 180, 184 (4 credits) or MATH 110 (6 credits) instead of MATH 100 or 102 (3 credits), but the credit difference cannot be applied towards program elective requirements.		Plus FRST 351 immediately preceding third year	2
³ PHYS 100 is suggested for students who do not have credit for Physics 12.		¹ Students with Biology 12 should replace BIOL 111 with BIOL 112.	
⁴ Credit will be given for only one of FRST 350 or FRST 351.		² Students may take MATH 180, 184 (4 credits) or MATH 110 (6 credits) instead of MATH 100 or 102 (3 credits), but the credit difference cannot be applied towards program elective requirements.	
⁵ Students will be assigned to the most appropriate course based on their levels of forestry and field experience as determined by the course instructors.		³ PHYS 100 is suggested for students who do not have credit for Physics 12.	
⁶ Students will choose 9 credits from one of the groupings below for their Area of Concentration. Substitutions may be allowed at the discretion of the Director of the Forest Sciences Program.		⁴ Credit will be given for only one of FRST 350 or FRST 351.	
<i>Plant genetics/genomics/physiology:</i>		⁵ Students will be assigned to the most appropriate course based on their levels of forestry and field experience as determined by the course instructors.	
CONS 302; FRST 311, 413, 432; APBI 318; BIOL 335, 338, 352.		⁶ A 6-credit B.Sc. thesis will be completed in fourth year.	
<i>Forest ecology and management:</i>		⁷ An area of concentration must be declared before the start of third year. Courses should be selected in consultation with the Forest Science Program Director.	
FRST 305, 310, 320, 385, 408; APBI 401, 402.		⁸ All 300- and 400-level FRST and CONS courses that are not specifically required for the program are eligible as Forestry electives as long as students have the necessary prerequisites.	
<i>Biodiversity conservation and management:</i>			
CONS 330, 481, 486, 495; FRST 386; APBI 416.			
<i>International forestry/sustainability:</i>			
FRST 411, 415, 439, 444; CONS 330, 425; WOOD 461.			
<i>Geomatics/mensuration:</i>			
CONS 340; FRST 232, 239, 339, 443 (or GEOB 373), 490; GEOB 370, 479.			
⁷ All 300- and 400-level APBI, CONS, FRST and UFOR courses that are not specifically required for the program are eligible as Forestry electives as long as students have the necessary prerequisites.			
Forest Sciences: Honours Admission:			
The BSFS Honours specialization is restricted to students with a minimum 80% average in the following core courses: FRST 200, 201, 210, 211 and 231. Exceptions may be made at the discretion of the Director of the Forest Sciences Program. Application for admission to the honours specialization should be made to the Director of the Forest Sciences Program. Applications will be accepted in the first week of September, January or May of the 3 rd academic year. Students in the Honours specialization can also			

Type of Action:

Create general and honours BSFS specializations.

Rationale for Proposed Change:

Not all students entering the BSFS program intend to pursue a graduate degree. As a consequence, they do not benefit from FRST 498 – B.Sc. Thesis in Forestry. Removal of this course from the program to create a general BSFS specialization will allow students to focus on an elected Area of Concentration. For BSFS students that do intend to pursue a graduate degree, experience in data collection, analysis, and writing is essential. Creation of a BSFS Honours specialization with FRST 498 (B.Sc. Thesis in Forestry) as a required course, together with an additional 3 credits in the Area of Concentration, will provide this experience. Entrance into the Honours specialization will be restricted to students with at least 80% average in the following core courses: FRST 200,



register in the dual degree in Education and Forest Sciences following consultation with the Program Director.	201, 210, 211 and 231.
First and Second Years	
Same as Forest Sciences: General	
Total Credits 65	
Third and Fourth Years	
FRST 302 3	
FRST 307 3	
FRST 395 3	
FRST 399 3	
FRST 430 3	
FRST 495 or BIOL 416 3	
FRST 498 ⁸ 6	
Area of Concentration ⁹ 12	
General electives 9	
Forestry electives ¹⁰ 18	
Total Credits 65	
Including FRST 351 preceding third year 2	
⁸ A 6-credit B.Sc. thesis will be completed in fourth year.	
⁹ An area of concentration must be declared before the start of third year. Courses should be selected in consultation with the Forest Science Program Director.	
¹⁰ All 300- and 400-level APBI, CONS, FRST and UFOR courses that are not specifically required for the program are eligible as Forestry electives as long as students have the necessary prerequisites.	

18 April 2018



Vancouver Senate
THE UNIVERSITY OF BRITISH COLUMBIA

Docket Page 204 of 216
Office of the Senate
Brock Hall | 2016 - 1874 East Mall
Vancouver, BC V6T 1Z1

Phone 604 822 5239
Fax 604 822 5945
www.senate.ubc.ca

18 April 2018

To: Vancouver Senate
From: Senate Curriculum Committee
Re: March Certificate Proposals (information)

Please find attached the following certificate programs for your information:

Dechinta Community and Land-Based Research Certificate

Respectfully submitted,

Dr. Peter Marshall, Chair

Senate Curriculum Committee

Proposed Name of Certificate Program:

Dechinta Community and Land-Based Research Certificate

Date of Submission:**Sponsoring Faculty/Department/School:**

First Nations and Indigenous Studies, Institute for Critical Indigenous Studies, Faculty of Arts

Contact Person:

Name	Glen Coulthard
Title	Associate Professor, First Nations and Indigenous Studies and Political Science
Telephone	778 384 8705
Email	gsc@mail.ubc.ca

Supporting UBC Partners or External Partners:

Dechinta Centre for Research and Learning, Yellowknives Dene Territory, Denendeh (Northwest Territories)

Program Description (maximum 250 words):

This certificate is part of a unique partnership between UBC First Nations and Indigenous Studies (FNIS) and the Dechinta Centre for Research and Learning, based on the traditional and unceded territory of the Yellowknives Dene First Nation (YKDFN), Denendeh. It is designed primarily for northern Indigenous students, providing them with the opportunity to engage in a program that formally recognizes the importance of integrated land-based learning in the north (see Target Learners below). To complete the certificate students must complete 15 course credits (one semester) in Indigenous Land-Based Studies. They will travel to Dechinta, where they will become immersed in transformative and interdisciplinary curricula that integrates leading-edge academic course instruction with land-based learning such as fishing, gathering medicine, and storytelling, according to Dene knowledge and tradition. All courses are co-led by a small team of academic and community faculty, including cultural experts, Dene Elders, and professors from academic institutions, including FNIS. The courses offer a combination of Indigenous land-based pedagogies and research methodologies, as well as academic literature, lectures, and discussion focused on some of the most pressing issues facing northern Canada. Our approach is guided by the belief that Indigenous knowledge and practices of self-determination are central to current scholarly questions regarding our relationships to the land and one another. As a collaborative land-based initiative, the certificate will support a new generation of students, researchers, and community leaders by providing practical learning experiences based in Dene epistemologies and enhanced through the highest level of scholarly instruction by faculty.

Rationale for the Program (maximum 250 words):

The vision and rationale for this certificate program have developed through meaningful consultation between UBC, Dechinta, and YKDFN. Forging a new path in land-based educational programming, every aspect is designed to be mutually beneficial for UBC and Dene community partners, and to advance current best practices in community-led Indigenous

education. It provides northern Indigenous students with the opportunity to advance their professional and personal development, through a certificate that recognizes land-based learning and engages issues most relevant to them. It advances the goals of UBC's strategic plan, *Place and Promise*, which commits to developing critical community partnerships, curricula, and research that have value for Aboriginal communities and students. It also aligns with the pathways envisioned in UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples. It builds off existing land-based opportunities for learning established by FNIS (for example, a two-week seminar at Dechinta offered through Go Global) and fulfills FNIS's broader pedagogical commitments to transform knowledge into lived experience, and foster knowledge creation through ethical engagement between Indigenous students, scholars, and communities. Given the recent announcement and construction of the Indian Residential School History and Dialogue Centre at UBC, these commitments take on even more significance. This certificate program helps to establish and strengthen meaningful relationships between UBC and Indigenous peoples that will sustain such an initiative. Most importantly, as current literature, research, and practice demonstrate, pedagogy rooted in land and place has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.

Proposed Length/Duration (indicate hours, credits, months, etc.):

To complete the certificate, students are required to complete 15 credits. This includes two core courses (six credits) and three electives (nine credits). Typically, this will be completed over one 13-week semester, which is comprised of: four weeks of directed study (readings and preliminary assignments) to prepare for courses; six weeks (240 hours) at Dechinta on Dene territory engaged in intensive course instruction on the land; and three weeks of directed study to complete course work and final assignments. This way, the period of land-based instruction, which is more time-intensive, is book-ended by directed study that is less demanding of students' time, yet still critical for their knowledge generation and synthesis (see program delivery format below). The total number of hours of instruction and course work are equal to the amount that a student can expect from one full-time semester at UBC (approximately 300 hours of study).

Proposed Curriculum Topics (list by brief descriptive titles only):

Students will enroll in the two core courses and three of the electives. The proposed courses offer diverse and wide-ranging subject matter which stem from Indigenous knowledge in the north. The interdisciplinary course offerings reflect the holistic and interconnected facets of Indigenous knowledge, land-based practices, and pedagogies. Such unique and diverse subjects will appeal to northern students and to students from a wide range of disciplines. Further, they include lower and upper level options to accommodate students at different stages of their educational trajectories. While enrolled students in both levels will participate in lectures, discussions, and land-based activities together, there will be higher expectations for students enrolled in upper level courses, particularly in terms of their intellectual engagement with the academic materials and critical reflections on land-based components (see Student Assessment/Grading Methods below).

Core courses:

- INLB 210 or INLB 310 Indigenous Land and Self-Determination: Theoretical Perspectives

- INLB 220 or INLB 320 Indigenous Land and Self-Determination: Methods and Application

Examples of elective courses include:

- INLB 250 or INLB 450 Indigenous Knowledge, Science, and Environmental Justice
- INLB 251 or INLB 451 Decolonizing Indigenous Health and Wellness
- INLB 252 or INLB 452 Gender Justice and Indigenous Communities
- FNIS 260 or FNIS 360 Applied Learning: Collaborative Place-Based Research
- INLB 201 or INLB 401 Special Topics

As this is a partnership between UBC and Dechinta, the content and land-based activities of the elective courses may vary from year to year, depending on Dechinta's planned programming, location(s) on the land, and community partners. While the core courses remain consistent, the electives are designed to adapt to different community contexts and to be implemented through reciprocal input and collaboration between academic and community faculty.

Target Learners:

The target population for the certificate is Indigenous students from the north seeking opportunities for personal growth and professional development and/or post-secondary course credits. However, other students who are interested in the certificate will also be able to apply, including Indigenous students from communities outside of the north, non-Indigenous students, and students who have already completed a degree at UBC or another institution.

Student Admission Criteria:

The Dechinta Community and Land-Based Research Certificate welcomes a diverse range of applicants with a range of achievements and life experiences, and with a strong interest in learning from the land and northern Indigenous communities. Applicants may include Indigenous leaders, negotiators, students and community members with the following qualifications:

- A strong interest in northern Indigenous land-based practices and knowledge
- Experience working in northern Indigenous community-based contexts
- Usually will have completed grade 12 and/or have post-secondary education

The admission process for students is as follows:

1. Complete the UBC Non-Degree Studies application:

<https://secure.students.ubc.ca/nondegree/apply.cfm>

2. Provide a brief statement on academic history, including high school, any postsecondary education, technical training, etc. (250-500 words)

3. Answer a set of interview questions that will be reviewed by both Dechinta and FNIS.

Interview questions may include:

- a) Why do you want to attend Dechinta?

- b) How do you think Dechinta will be different from your previous educational experiences?
- c) What do you think might be challenging at Dechinta?
- d) What qualities or skills will you bring to the group?
- e) What are some of your experiences (work, community, education, etc.) that might make you a strong student here?
- f) Please share an important life goal. How might Dechinta help you work towards achieving this goal?
- g) Please describe your experience in a group environment where a situation (positive or negative) arose. What was the specific situation and what was your role in the solution or outcome?
- h) Please provide the name, email and phone number for a faculty member, employer, or personal reference that can comment on your suitability for this program.

Decisions will be made by a selection committee with representation from Dechinta administration, as well as academic and community faculty.

Students can appeal an admissions decision by contacting info.dechinta@ubc.ca within two weeks of the decision. Like with UBC's undergraduate appeals process, it will require a letter from the student outlining the reasons for the appeal and the circumstances relating to it, which will be reviewed in consultation between FNIS and Dechinta. If their appeal is denied, they can choose to have their appeal letter forwarded to the UBC Senate Admissions Committee for review.

Student Assessment/Grading Methods:

Student evaluation is collaboratively determined by academic and community faculty who are on site for each course semester. Students are assessed on the basis of a combination of academic assignments and land-based practices, including:

- written, oral, and visual academic assignments;
- engaged participation in the discussion of course materials;
- demonstrated presence and participation in the land-based learning components, including building and maintaining ethical relationships with community instructors; and
- demonstrated contribution towards caring for and maintaining the community on-site, including: participation in governance; training and involvement in conflict resolution; supporting Elders; and essential tasks such as tending to fires, cleaning up, and setting up and taking down camp for land-based activities.

Indigenous land-based practices, knowledge, and skills are weighted equally with more standard academic assignments. This unique combination of land-based and academic engagements promote specific program-level learning objectives and outcomes. For example, upon successful completion of this certificate students will be able to:

- Analyze historical and theoretical concepts related to settler-colonialism and Indigenous politics in northern Canada
- Read and write in the field of Indigenous Studies at a university level

- Assess ethical considerations and apply appropriate methods and skills required to work with and in specific Indigenous communities
- Develop and execute research projects based on Indigenous and land-based knowledge
- Perform land-based practices, such as fishing, gathering medicine, and tanning hides, in a manner that is appropriate and demonstrates a sophisticated knowledge of the cultural and political significance of such activities
- Analyze and describe the ways in which Indigenous knowledge and self-determination is conveyed, transmitted, and revitalized through story, relationships to the land, and relationships to one another
- Demonstrate a grasp of the historical background and theoretical tools required to further their education or other professional pursuits in fields related to Indigenous Studies

While on-site activities—including lectures, discussions, and land-based activities—take place together as a group, achievement and grading expectations differ for students enrolled in upper and lower level courses. Accordingly, there are higher expectations for students enrolled in upper level courses, both in terms of the volume of course readings, the length and depth of course assignments, and their critical and intellectual engagement with land-based components.

Program Delivery Format:

This one-semester program is primarily delivered through intensive and immersive curricula on-site at Dechinta in Yellowknives Dene Territory, Denendeh. At the start of the semester, students will do approximately four weeks of directed study from home to prepare for their courses. During this time, faculty members will provide remote consultation and direction to students (via email and other web-based platforms) as they begin to work on readings and preliminary assignments, and prepare for land-based components. They will then travel to Dechinta, where they will live on-site for approximately six weeks engaged in intensive course instruction and land-based learning. This is delivered through lectures and seminar discussions, guided by faculty and paired with daily land-based instruction from Dene Elders and community experts in activities such as fishing, gathering and preparing medicine, tanning hides, and storytelling, all according to Dene tradition and knowledge systems. While at Dechinta, students will also share responsibility with academic and community faculty to care for and maintain the community's social and physical environment, through fostering meaningful ethical relationships, participating in community governance, and completing essential tasks such as tending to fires, cleaning up, supporting Elders, and setting up and taking down camp for land-based activities. Upon leaving Dechinta, students will have approximately three weeks to complete their final assignments, synthesizing what they learned. Again, they will have access to remote consultation and guidance from faculty members.

Marketing/Promotion Strategy:

The certificate will be promoted via websites, social media, posters and listservs by both Dechinta and FNIS. We will also work with community partners in the north, such as Deton'cho (Yellowknives Dene Land Corporation), Dene Najo (a leadership organization) and the Yellowknives Dene First Nation, to promote and advertise the certificate.

Assessment of Impact on Departmental and University Resources:

The Dechinta partnership is a key initiative for First Nations and Indigenous Studies, and the partnership has been well supported by the Faculty of Arts Dean's Office and Institute for Critical Indigenous Studies. Glen Coulthard, Associate Professor FNIS and Political Science, and Tanya Bob, Curriculum Coordinator at FNIS, are partnership leads at UBC, and will collaborate with FNIS, Dechinta and on-campus colleagues on the implementation of the certificate. In addition, Dr. Coulthard's teaching assignment is split between Dechinta (6 credits) and UBC (3 credits) and in the future, FNIS plans to have other faculty teach on-site at Dechinta.

Assessment of Financial Viability:

The implementation of the certificate will require faculty and staff resources. FNIS is committed to our partnership with Dechinta Centre for Research and Learning, and has taken this into consideration in our strategic planning.

Current Program Advisory Committee Members (list names and affiliations):

- Margot Leigh Butler, Academic Director, Hum (Humanities 101 Community Programme)
- Glen Coulthard, member of the Yellowknives Dene First Nation; and Associate Professor, First Nations and Indigenous Studies and Department of Political Science
- Sarah Hunt, Assistant Professor, First Nations and Indigenous Studies and Department of Geography
- Daniel Justice, Chair, First Nations and Indigenous Studies
- Coll Thrush, Associate Professor, Department of History
- Mark Turin, Chair, First Nations and Endangered Languages
- Tanya Bob, Student Advisor and Practicum Coordinator, First Nations and Indigenous Studies

Deans/Department Heads Expected to Approve Proposal:

Sheryl Lightfoot, Chair, First Nations and Indigenous Studies
Rumee Ahmed, Associate Dean of Arts

FNIS-INLB: First Nations Studies***Certificate in Dechinta Community and Land-Based Research***

<p>Category: (1) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Date: November 13, 2017 Contact Person: Lois Nightingale for Dr. Glen Coulthard Email: Arts.Curriculum@ubc.ca;</p>
<p>Calendar Navigation: Homepage > Faculties, Colleges, and Schools > The Faculty of Arts > Certificate in Dechinta Community and Land-Based Research</p> <p>Proposed Calendar Entry: Dechinta Community and Land-Based Research Certificate</p> <p>This certificate is part of a unique partnership between First Nations and Indigenous Studies and Dechinta Centre for Research and Learning. The certificate offers students an experiential, intensive land-based program in Denendeh (Northwest Territories). Students will be immersed in courses that integrate academic instruction with land-based learning such as moose hide tanning, fishing, gathering medicine, and storytelling, all according to Dene knowledge and tradition.</p> <p>The Dechinta certificate is designed and delivered in collaboration with academic and community faculty, including Indigenous Elders, cultural experts, and UBC professors.</p> <p>For information on the application process, students can visit http://fnis.arts.ubc.ca/dechinta</p> <p>Admissions decisions will be based on student experience and interest in learning from the land. Applications will be</p>	<p>URL: New URL required</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new certificate</p> <p>Rationale for Proposed Change: The Dechinta Community and Land-Based Research Certificate formally recognizes the importance of integrated land-based learning, particularly for students in Denendeh (Northwest Territories). It advances current best practices in collaborative, community-led, place-based learning with Indigenous communities. It provides students a unique opportunity to be immersed in curricula that integrates leading-edge academic course instruction with land-based learning rooted in Indigenous knowledge and tradition. It is co-led by UBC faculty and Indigenous community partner(s), introducing students to Indigenous place-based pedagogies and research methodologies. As current literature, research, and practice demonstrate, pedagogy rooted in the land such as this offers students enriched educational experiences and has the profound potential to revitalize Indigenous peoples' communities and knowledge systems.</p> <p>The certificate is designed to be mutually beneficial for UBC and Indigenous community partners. It is targeted at</p>

<p>evaluated by a selection committee made up of academic and community faculty.</p> <p>Certificate Requirements</p> <p>To complete the certificate students must complete 15 course credits at Dechinta Centre for Research and Learning, including:</p> <ul style="list-style-type: none"> • INLB 210 (3) or INLB 310 (3) • INLB 220 (3) or INLB 320 (3) • 9 credits of INLB courses or pre-approved courses in a related area of study. 	<p>northern students, providing them with an opportunity to advance their professional and personal development. It aligns with UBC's strategic plan, <i>Place and Promise</i>, which commits to developing community partnerships, curricula, and research that benefits Aboriginal communities and students. Further, it advances UBC's Aboriginal Strategic Plan by fostering reciprocal intercultural understanding and sustainable engagement with Indigenous peoples. It builds off existing place-based opportunities established by First Nations and Indigenous Studies (FNIS) and fulfils the commitments of FNIS to transform knowledge into lived experience, and to foster knowledge creation through ethical engagement and collaboration between Indigenous students, scholars, and communities.</p>
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Faculty of Arts > Table of Contents – Edit to add Certificate in Dechinta Community and Land-Based Studies

<p>Category: (2) Faculty: Arts Department: First Nations and Indigenous Studies Faculty Approval Date: Nov 30, 2017 Effective Session (W or S): S Effective Academic Year: 2018</p>	<p>Acknowledged: November 8, 2017 Contact Person: Lois Nightingale Email: Arts.Curriculum@ubc.ca;</p>
<p>Calendar Navigation: Homepage > Faculties, Colleges, and Schools > The Faculty of Arts</p> <p>Proposed Calendar Entry: The Faculty of Arts</p> <p>Contents</p> <p>Introduction →</p> <p>Bachelor of Arts →</p> <p>Bachelor of Fine Arts →</p> <p>Bachelor of International Economics →</p> <p>Bachelor of Media Studies →</p>	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,197,0,0</p> <p>Present Calendar Entry: The Faculty of Arts</p> <p>Contents</p> <p>Introduction →</p> <p>Bachelor of Arts →</p> <p>Bachelor of Fine Arts →</p> <p>Bachelor of International Economics →</p> <p>Bachelor of Media Studies →</p> <p>Co-operative Education Programs →</p>

Co-operative Education Programs →	Diploma in Applied Creative Non-Fiction →
Diploma in Applied Creative Non-Fiction →	Diploma in Art History →
Diploma in Art History →	Diploma in Film Production →
Diploma in Film Production →	Diploma in Linguistics →
Diploma in Linguistics →	Certificates in Theatre Design, Technology →
Certificate in Dechinta Community and Land-Based Research	Institutes →
Certificates in Theatre Design, Technology →	Graduate Programs →
Institutes →	Academic Staff →
Graduate Programs →	
Academic Staff →	
	<p>Type of Action: Edit Faculty of Arts, Table of Contents, to add new Certificate in Dechinta Community and Land-Based Research.</p> <p>Rationale for Proposed Change: <i>Note: This proposal is linked to a category 1 proposal creating a new Certificate in Dechinta Community and Land-Based Research.</i></p>

INLB – Create new course code, Indigenous Land-Based Studies

<p>Category: (1) Faculty: Arts</p> <p>Department: First Nations and Indigenous Studies</p> <p>Faculty Approval Date: Nov 30, 2017</p> <p>Effective Session (W or S): S</p> <p>Effective Academic Year: 2018</p>	<p>Acknowledged: August 8, 2017</p> <p>Contact Person: Dr. Glen Coulthard and Lois Nightingale</p> <p>Phone: 778-834-8705</p> <p>Email: glen.coulthard@ubc.ca; Arts.Curriculum@ubc.ca;</p>
<p>Calendar</p> <p>Navigation: Homepage > Course Descriptions > Courses by Subject Code INLB</p> <p>Proposed Calendar Entry:</p>	<p>URL: TBA</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create new a new course code, “INLB”, within the First Nations Studies Area. INLB is short for Indigenous Land-Based Studies.</p> <p>Rationale for Proposed Change:</p>

Courses by Subject Name – Edit to add Indigenous Land-Based Studies (INLB)

Category: (2) Faculty: Arts	Acknowledged: November 8, 2017
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<p>Department: First Nations and Indigenous Studies</p> <p>Faculty Approval Date: Nov 30, 2017</p> <p>Effective Session (W or S): S</p> <p>Effective Academic Year: 2018</p>	<p>Contact Person: Lois Nightingale</p> <p>Email: Arts.Curriculum@ubc.ca;</p>																		
<p>Calendar Navigation: Homepage > Course Descriptions > Courses by Subject Name</p> <p>Proposed Calendar Entry: Courses by Subject Name</p> <p>This chapter provides an archive of courses offered by UBC. For current course sections and schedules, please visit the online Course Schedule.</p> <p>....</p> <table> <tr> <td>HIST</td> <td>History</td> </tr> <tr> <td>HUNU</td> <td>Human Nutrition</td> </tr> <tr> <td>INLB</td> <td>Indigenous Land-Based Studies</td> </tr> <tr> <td>INDO</td> <td>Indonesian</td> </tr> <tr> <td>INFO</td> <td>Information Studies</td> </tr> </table>	HIST	History	HUNU	Human Nutrition	INLB	Indigenous Land-Based Studies	INDO	Indonesian	INFO	Information Studies	<p>URL: http://www.calendar.ubc.ca/vancouver/courses.cfm?page=name</p> <p>Present Calendar Entry: Courses by Subject Name</p> <p>This chapter provides an archive of courses offered by UBC. For current course sections and schedules, please visit the online Course Schedule.</p> <p>....</p> <table> <tr> <td>HIST</td> <td>History</td> </tr> <tr> <td>HUNU</td> <td>Human Nutrition</td> </tr> <tr> <td>INDO</td> <td>Indonesian</td> </tr> <tr> <td>INFO</td> <td>Information Studies</td> </tr> </table> <p>Type of Action: Edit, Courses by Subject Name, to add new course code, INLB, Indigenous and Land-Based Studies.</p> <p>Rationale for Proposed Change: <i>Note: This proposal is linked to a category 1 proposal creating a new INLB Course Code.</i></p>	HIST	History	HUNU	Human Nutrition	INDO	Indonesian	INFO	Information Studies
HIST	History																		
HUNU	Human Nutrition																		
INLB	Indigenous Land-Based Studies																		
INDO	Indonesian																		
INFO	Information Studies																		
HIST	History																		
HUNU	Human Nutrition																		
INDO	Indonesian																		
INFO	Information Studies																		

Courses by Subject Code – Edit to add INLB (Indigenous Land-Based Studies)

<p>Category: (2) Faculty: Arts</p> <p>Department: First Nations and Indigenous Studies</p> <p>Faculty Approval Date: Nov 30, 2017</p> <p>Effective Session (W or S): S</p> <p>Effective Academic Year: 2018</p>	<p>Acknowledged: November 8, 2017</p> <p>Contact Person: Lois Nightingale</p> <p>Email: Arts.Curriculum@ubc.ca;</p>
Calendar Navigation:	URL:

<p>Homepage > Course Descriptions > Courses by Subject Name</p> <p>Proposed Calendar Entry: Courses by Subject Code</p> <p>This chapter provides an archive of courses offered by UBC. For current course sections and schedules, please visit the online Course Schedule.</p> <p>...</p> <table><tr><td>INDS</td><td>Interdisciplinary Studies</td></tr><tr><td>INFO</td><td>Information Studies</td></tr><tr><td>INLB</td><td>Indigenous Land-Based Studies</td></tr><tr><td>ISCI</td><td>Integrated Sciences</td></tr><tr><td>ITAL</td><td>Italian</td></tr></table>	INDS	Interdisciplinary Studies	INFO	Information Studies	INLB	Indigenous Land-Based Studies	ISCI	Integrated Sciences	ITAL	Italian	<p>http://www.calendar.ubc.ca/vancouver/courses.cfm?page=name</p> <p>Present Calendar Entry: Courses by Subject Code</p> <p>This chapter provides an archive of courses offered by UBC. For current course sections and schedules, please visit the online Course Schedule.</p> <p>...</p> <table><tr><td>INDS</td><td>Interdisciplinary Studies</td></tr><tr><td>INFO</td><td>Information Studies</td></tr><tr><td>ISCI</td><td>Integrated Sciences</td></tr><tr><td>ITAL</td><td>Italian</td></tr></table> <p>Type of Action: Edit, Courses by Subject Name, to add new course code, INLB, Indigenous and Land-Based Studies.</p> <p>Rationale for Proposed Change: <i>Note: This proposal is linked to a category 1 proposal creating a new INLB Course Code.</i></p>	INDS	Interdisciplinary Studies	INFO	Information Studies	ISCI	Integrated Sciences	ITAL	Italian
INDS	Interdisciplinary Studies																		
INFO	Information Studies																		
INLB	Indigenous Land-Based Studies																		
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INDS	Interdisciplinary Studies																		
INFO	Information Studies																		
ISCI	Integrated Sciences																		
ITAL	Italian																		



To: Senate
From: Registrar
Re: Confirmation of Email Consent to Nominating Committee Recommendations
Date: 23 March 2018

This is confirmation that no objections were received to the two motions distributed to all senators via email on 16 March 2018 by the deadline of 23 March 2018, and thus both resolutions are considered approved pursuant to rule 24 of the *Rules and Procedures of Senate*:

“That Senate accept the awards as listed and forward them to the Board of Governors for approval; and that letters of thanks be sent to the donors.”

“That Senate appoint Dr Mieka Koehoorn and Dr Theresa Rogers to the President’s Advisory Committee for the Appointment of an Associate Vice-President Research and Innovation”

The following approved awards will be entered into the minutes of Senate for the April meeting as an appendix:

New Awards:

Piara Singh and Kartar Kaur Dhillon Memorial Education Abroad Award

Monarch Pediatric Dental Centre Achievement Award

Women in Engineering Entrance Scholarship

Previously Approved Awards with Changes in Funding or Terms:

George Kennedy Prize in Global Resource Systems

Weir-MacDiarmid Family Bursary in Medicine