Vancouver Senate

# THE SIXTH REGULAR MEETING OF THE VANCOUVER <br> SENATE <br> FOR THE 2018/2019 ACADEMIC YEAR 

WEDNESDAY, 13 FEBRUARY 2019
6:00 P.M.
Freidman 153, 2177 Wesbrook Mall

1. Call to Order - Dr Santa Ono (information)
2. Senate Membership - Dr Kate Ross (information)

Nominating Committee
As a result of the call for nominations issued on 16 January 2019, Mr J. Maximillian Holmes is acclaimed as elected to the Senate Nominating Committee until 31 March 2019 and thereafter until replaced.
3. Minutes of the Meeting of 16 January 2019 - Dr Santa Ono (approval) (docket pages 3-18)
4. Business Arising from the Minutes - Dr Santa Ono (information)
5. Remarks from the Chair and Related Questions - Dr Santa Ono (information)
6. Candidates for Degrees - Dr Santa Ono (approval)

The list as approved by the faculties of Graduate \& Postdoctoral Studies is available for advance inspection at the Senate Office, and will also be available at the meeting. The Chair of Senate calls for the following motion:

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 2019, 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 adjustments.
(2/3 majority required).
7. Tributes Committee - Dr Sally Thorne

Memorial Minute for Dr Anne Pomoroy Autor (approval) (docket pages 19-20)
8. Academic Building Needs Committee - Dr Michael Isaacson Suitability
and Usage of Learning Spaces (approval) (docket pages 21-54)
9. Admissions Committee - Prof. Carol Jaeger
a) Vantage College - Transfer and Advance Credit (approval) (docket pages 55-57)
b) Admission Requirements - Undergraduate Program/Master of Management Dual Degree Program (approval) (docket page 55, 58-62)
c) Undergraduate Enrolment Targets 2019/20 (approval) (docket pages 63-73)
10. Agenda Committee - Mr Jakob Gattinger

2019-2020 Senate Meeting Schedule (information) (docket page 74)
11. Awards Committee - Dr Lawrence Burr

New and Revised Awards (approval) (docket page 75-79)
12. Curriculum Committee - Dr Peter Marshall
a) Curriculum Materials from the Faculties of Applied Science, Arts, Commerce \& Business Administration, Education, Forestry, Graduate \& Postdoctoral Studies, Land \& Food Systems, and Science (approval) (docket pages 80-194)
b) New certificates in Financial Economics, International Politics, International Relations, and General Arts Studies (information) (docket pages 195-201)
13. Nominating Committee - Dr Richard Tees

Committee Adjustments (approval) (docket page 202)
14. Report from the Provost - Dr Andrew Szeri

Update on Peter Wall Institute for Advanced Studies (information)
15. Report from the Registrar - Dr Kate Ross

2019-2020 Term Dates (information) (docket pages 203-204)
16. Other Business

# VANCOUVER SENATE 

## MINUTES OF 16 January 2019

## DRAFT

## Attendance

Present: S. Ono (Chair), K. Ross (Secretary), P. Adebar, S. Bates, R. Boushel, V. Braithwaite, L. Burr, P. Chan, A. Chen, A. Dulay, G. Faulkner, B. Fischer, A. Fisher, S. Forwell, B. Frank, I. Frigaard, J. Gattinger, J. Gilbert, S. Gilbert, Q. Golsteyn, K. Gourlay, J. Greenman, M. Hamid, P. Harrison, M. Holmes, A. Ivanov, C. Jaeger, A. Kindler, M. Koehoorn, C. Krebs, M. Kuus, H. Leong, M. Leuprecht, K. Lo, P. Loewen, D. MacDonald, A. MacDougall, K. Madill, J. Malone, P. Marshall, S. Matsui, W. McKee, B. McNulty, P. Meehan, A. Murphy, J. Olson, N. Pang, S. Parker, T. Rogers, J. Shepherd, A. Sheppard, A. Shilling, S. Singh, A. Starr, M. Stewart, L. Stothers, C. Surniawan, A. Tanner, M. Thachuk, M. Upadhyaya, H. Xiao, R. Yada.

Regrets: T. Ahmed, M. Aronson, G. Averill, V. Bungay, A. Collier, M Coughtrie, C. Dauvergne, C. Godwin, L. Gordon, S. Grayston, V. Griess, R. Helsley, J. Innes, M Isaacson, Dr Kelleher, P. Keown, C. Marshall, S. Ngo, C. Nislow, S. Porter, A. Sheppard, M Stewart, R. Tees, S. Thorne, R. Topping.

Clerk: C. Eaton

## Call to Order

The Chair of Senate, Dr Santa Ono, called the fifth regular meeting of the Vancouver Senate for the 2018/2019 Academic Year to order at 6:01 pm.

Minutes of 12 December 2018

Claudia Krebs $\} \quad$| That the Minutes of the Meeting of 12 December |
| :--- |
| 2018 be adopted as corrected: |

Peter Marshall

Correction: Senators Gattinger Porter, and Krebs were present

## Remarks from the Chair

Dr Ono welcomed Senate back after the holiday break. He advised that in further of the strategic plan, UBC will be funding 20 new pilot projects and change initiatives. These proposals were specifically selected for their strong potential to significantly advance the plan’s four core areas, People and Places, Research Excellence, Transformative Learning and Local \& Global Engagement. Dr Ono said that he was especially pleased to note that seven of the projects directly relate to Indigenous engagement, including an Indigenous Engagement Training Program, an expansion of SAGE (Supporting Aboriginal Graduate Enhancement) and Building UBC’s Response to the Truth and Reconciliation Commission Calls to Action. He further advised that many of the projects are cross-campus and dual campus initiatives.

Dr Ono announced that Ainsley Carry will be joining UBC as Vice-President, Students. He will formally begin the role on April 1. Dr. Carry comes to UBC from the University of Southern California, where he has served as vice-president, student affairs, since August 2013. Before joining USC, Dr. Carry served as vice-president, student affairs, at Auburn University. He has also served in leadership positions at Southern Methodist University, the University of Arkansas, Temple University and the University of Florida. Dr Ono suggested that Dr Carry will be a strong addition to the executive team at UBC. The president further noted that he hoped to be able to announce a new Vice-President External Affairs shortly, and thanked everyone for their service on these search committees.

The President congratulated the recent UBC-affiliated Order of Canada recipients:

- Professor Emerita and alumna Jo-ann Archibald, promoted to Officer for her leadership in advancing Indigenous educational programs in Canadian elementary and university curricula;
- Charles Edgar Fipke, alumnus and benefactor, appointed as Member for his leadership in heavy mineral exploration and for his philanthropic support for educational and healthcare related initiatives;
- Robert (Bob) Hindmarch, alumnus and professor emeritus, appointed as Member for his contributions to sports as an athlete, coach and educator in his province and beyond;
- Robert Ho, benefactor and honorary degree recipient, for his transformational philanthropy in support of Canadian health care institutions and universities; and
- Kathleen Pearson, alumna and benefactor, appointed as Member her contributions as an author of Canadian literature for children and young adults.

Dr Ono also extended congratulations to his colleague Andrew Petter, president and vicechancellor of Simon Fraser University, on his appointment as Member for his commitment and leadership in advancing university-community engagement and higher education throughout the country.

THE UNIVERSITY OF BRITISH COLUMBIA

## Academic Policy Committee

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

## NEW POLICY: V-130: CONTENT AND DISTRIBUTION OF COURSE SYLLABI

\author{
Paul Harrison \} That Policy V-130: Content and Distribution of <br> Andre Ivanov <br> Course Syllabi be approved as set out in the attached draft, to be effective as of 1 August 2019.

}

Senator Harrison noted that this policy was the result of a long process and two rounds of community consultations; from that, a lot of suggests were made, all of which were appreciated but not all of the suggestions were accepted. Dr Harrison noted that it is common practice for universities to have policies that set out what students should know about courses they are about to take. In developing the proposal there was a lot of debate and revision within committees. The policy does not meet the ideal goals of everyone but we hope that its compromises produced a good document. Dr Harrison referenced the one link required that would draw students to the policies and resources page.

Senator Ivanov added that the Teaching and Learning Committee also debated the matter at length, including the concern that a syllabus could become a catalogue in and of itself. In the end, his Committee considered the student and the learning experience as our primary lenses in supporting this initiative. We acknowledge that some instructors will view this policy as unnecessary but we feel it will contribute to learning at UBC.

Dr Harrison added that if approved, a sample template will be provided.
Dr Kindler Thanked the committees for their work that will bring us to a standard students should expect. She expressed a concern with the length of the statement specified under Section 7 (j) but at the same time expressed a concern with it no covering everything relevant. Secondly, Dr Kindler said that the change method set out in Section 9(b) may lead to instructors teaching too much to the syllabus rather than being responsive in their teaching.

Dr Harrison said that this could be an unending list. The idea behind the website was to allow us to extend that list as required without having to amend the policy.

Dr Kindler advised that compliance may be low.

Dr Harrison replied that with respect to changes in the syllabus. The ideas considered were if, for example, a class did poorly on a midterm an instructor may want to change the weighting, or if a test date had to be changed there should be conversation.

Dr Forwell thanked the committee for its thoughtful and considered approach. She noted that her department had very detailed course syllabi. She noted that the dispute mechanism suggested did not match what was used in her department. She noted that in section $7(\mathrm{~g})$ there was a suggestion that instructors provide an estimated cost for course materials. She noted that her department already did this for their entire program.

## AMENDMENT

Susan Forwell<br>Alexander Starr

\} That Policy V-130: Content and Distribution of Course Syllabi be amended to include "if not otherwise provided" after "materials" in Section 7(g).

Senator Holmes spoke against the amendment and suggested that faculty will use the cost calculator to claim they are in compliance.

Senator Leuprecht asked if we could have it provided by program directors for cohort programs.
Senator Thachuk asked why this was even included as the cost was so variable for books.
Senator Harrison said that it was important to students. There should be a way that faculty are aware of the range of costs they are asking students to pay. We are asking for an estimate so that faculty are aware of what costs they are imposing on students.

Senator Starr said that it was important to leave it in to have professors be aware of the costs they are imposing.

Senator Lo agreed that instructor awareness of learning material costs was important.
Senator Forwell said that amendments purpose wasn't to increase breadth but rather recognize that there are other sources for that information.

Senator Holmes replied that it should be known on a course by course basis.
Senator Forwell said that this had never come up for them. Some books and materials are used in multiple courses.

Senator Isaacson said that this was guidance for students and we could soften this language.
Senator Holmes asked why we couldn't do this for cohorts. He suggested that if books were used across multiple courses, we could list them and note that some materials are used by multiple courses.

## Amendment Not Approved

Senator Singh said that after reviewing courses for the curriculum committee there was a wide range of content in course materials, especially in looking at learning outcomes. He said that directed studies was quite different across departments and these courses needed to provide outcomes and assessment.

Dr Harrison said that if the policy is adopted it will apply to almost all courses including directed studies. Presently, the lack of syllabi in many directed studies courses was an area of concern.

Senator Isaacson congratulated the committees on his work. He suggested that it was an excellent document that is applicable across UBCs range of courses. Secondly, he noted that a syllabus is a balance between being a contractual document and a supportive document for students and faculty. With that in mind, he found section 7(j) was not balanced. He suggested a shorter statement that just referred to the website.

Senator Harrison said that the statement in the policy was from each bullet point on the website.

Senator Fischer said that two of the courses he taught were $4^{\text {th }}$ year independent research courses. He gave guidance on major components but some are more variable and described how he did so. He suggested an amendment to include guidance on the weighting of components rather than including the weighting.

Dr Harrison said that what the Senator described was already in compliance with the policy.

Senator Thachuk said we needed a policy but he didn't like this policy as written as it was overreaching and too prescriptive. He said that he would rather we have a policy on principles for what should be in included, and suggested that too much was mandated in this proposal

Senator Golsteyn asked how we could enforce this policy.
Senator Harrison said the issue of enforcement has come up. Some universities mandate that every instructor submits every course to their heads every term. We hope that students and instructors use this document to collaboratively understand what is required in a course. The Committee did not want to put a firm enforcement method into the policy; rather, we hope it become socialized and normal.

Senator MacDougall expressed her thanks to the policy committee. She noted that she had seen many poor syllabi as a student.

Senator Gilbert said that she hoped faculty could look at this from a student perspective. This isn't meant to be a prescriptive document but as a tool for supporting students.

By general consent, the parenthetical reference to the bookstore and hyperlink was deleted from $7 g$

Approved as
Amended
NB: Senator Thachuk was opposed.

## Awards Committee

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

## AWARDS REPORT

See Appendix A: Awards Report
Lawrence Burr
Philip Loewen
\} $\quad$ That Senate accept the awards as amended and forward them to the Board of Governors for approval; and that letters of thanks be sent to the donors.

## Approved

## Teaching and Learning Committee

The Chair of the Senate Teaching and Learning Committee, Dr Andre Ivanov, presented.

## Principles of Excellent Graduate Supervision

| Andre Ivanov <br> Susan Porter | That Senate endorse the Principles of Excellent <br> Graduate Supervision, as recommended by the |
| :--- | :--- |
|  | Faculty of Graduate and Postdoctoral Studies and <br> the Senate Teaching and Learning Committee, as <br> set out in the attached document." |

Senator Ivanov said that senate endorsement would constitute a firmer institutional commitment to the seven principles.

Senator Rogers said that after the November meeting of Senate a question was raised on the usefulness of these principles. She suggested that three key uses would be a foundation for professional development, a starting point for conversations within units around graduate supervision and a way of articulating graduate supervision in workload.

## Approved

## Reports from the Provost

## ENROLMENT REPORT

## The Provost introduced Andrew Arida, Deputy Registrar.

Mr Arida said that the annual report on enrolment is prepared by the Provost's office with Enrolment services and Planning and Institutional Research. Going over the report highlights, he noted that UBC grew by 2\% this year. This growth is due in part to enrolment growth at the Okanagan, at Vantage, and of international students generally. UBC is at $112 \%$ of funded FTE. $107 \%$ at undergraduate and $140 \%$ at graduate. For domestic students we met our enrolment target at $100 \%$, for international we exceeded it by $5 \%$. That over enrolment is largely due to Vantage College; without vantage, we are at $102 \%$. Okanagan is at $108 \%$ for domestic students for funded FTEs.

Mr Arida went over strategic undergraduate enrolment initiatives.
-Provincial and national diversity
-International diversity
-Students with lived experience in government care
-Need \& merit based awards.
-Aboriginal students
Moving forward, our goal is precise achievement of intake targets. $0 \%$ growth for new international undergraduate students.

In response to a question from Dr Ono, Mr Arida said that we are being more precise by modelling student behavior better and more use of waitlists rather than trying to give quick final decisions.

Senator Singh asked if aboriginal students were also expected to have $0 \%$ growth next year and their numbers have been static for several years now.

Mr Arida said that we are trying to recruit more in 3 ways: better liaison with aboriginal communities, more efforts to have students visit campus, and making sure that all of our admission policies were in support of increasing aboriginal student numbers.

Senator Singh noted that that increases of $10-15 \%$ was a huge resource problem in his department

Senator Frigaard asked why were always operating at above the funded FTE rate

Mr Arida said that this was a deliberate choice, particularly for graduate student enrolment.

Senator Shilling asked if the graduate student over enrolment situation could be used to help support graduate students. Secondly, she asked how enrolment strategies for undergraduate indigenous students could be extended to indigenous graduate students.

Senator Holmes asked what the long term plan is for getting down to $100 \%$ domestic undergraduate FTE.

Mr Arida said we needed to ramp it down slowly so we are not causing a drastic swing.
Dr Szeri said that moving too quickly would drive down acceptance rates.
Senator Leuprecht asked if for youth in care could be expanded to across Canada.
Dr Ross said the plan next was to take the age limit off for those from British Columbia as the current provincial age cap was a limitation. She noted that to extend the program across Canada would be a tremendous amount of work with each province as it's already difficult to verify just within BC.

Senator Kindler asked about what the current success rate was for Vantage College. She asked if we had data on GPAs for admission by faculty or program.

Mr Arida, for the second question, said that we have data but the BBA system complicated that. We advised that the Vantage data could be made available to Senate.

Senator Xiao asked if the comprehensive admission model would be extended to transfer students. Secondly, she asked how our acceptance rate compared with others.

Mr Arida said that if our acceptance rates went down we would have to make a lot of offers to our waitlists and makes enrolment targets harder to hit. He noted that we start with direct entry students because transfer students' profiles are already more comprehensive with college credits.

Senator Gattinger asked about the trend for government funding. He asked if there has been any new seats funded by the government.

The Provost said that there hasn't been funding increases for existing seats in recent memory.

Senator Malone noted that we used aboriginal throughout this report but that we generally use we use indigenous in recent documents at UBC.

Mr Arida said we were moving towards new diction when possible but that aboriginal was a defined term in the Canadian constitution. Our preferred language is "indigenous peoples of Canada".

Senator Leuprecht asked if we had a plan to expand indigenous enrolment beyond BC. Secondly he asked about retention rates at Okanagan.

Mr Arida said that we’ve always had recruitment efforts in schools across Canada with heavy aboriginal student number sand we're making even more effort now, but it will take time. For retention we will report back. Mr Arida added that part of the retention challenge at Okanagan was people wanting to move to Vancouver.

Senator Tanner asked about physical support for graduate students with our over enrolment.

The Provost said that these numbers were set upon by the provost office in consultation with each of the faculties and presented to the senate for approval each spring. We are working to produce more space, for instance in Koerner Library.

## External Reviews

The Provost introduced Vice-Provost and Associate Vice-President Academic Affairs, Dr Eric Eich, who presented.

Dr Eich said that in 2017/2018 there were 19 external reviews on our units and programs. 13/19 were of academic units under senate policy. $6 / 19$ were accreditation reviews. Each summary runs to 3 pages: findings, recommendations, and unit initial response. We follow up 2 years later, and $5 / 10$ years later this informs the next review.

Senator Leuprecht asked if we would be growing the Bachelor of International Economics further; he noted that the review suggests growth be he understood we would be at steady state.

Dr Eich said there were no plans for growth at this time.

## Other Business

The Registrar announced the resignation of Senator Ainsley MacDougall. She also declared Ms MacDougall's seat on the Nominating Committee vacant and asked that any nominees be sent to Mr Eaton by 31 January 2019.

## Adjournment

Seeing no other business, the meeting was adjourned at 7:47 pm.

## Appendix A: Awards Report

## NEW AWARDS - ENDOWED

## Chemistry Graduate Student Society Prize in Science Outreach

Prizes totalling $\$ 1,200$ have been made available through an endowment established by the Chemistry Graduate Student Society (CGSS) for Masters and Ph.D. students in the Department of Chemistry who have made contributions to community engagement and outreach by sharing science with the public with preference given to a new applicant each year. CGSS created this prize to highlight graduate students in the Department of Chemistry who are making science accessible to a broad audience through involvement in outreach activities. The prizes are made on the recommendation of the Department of Chemistry, in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available for the 2019/2020 winter session).

## Geoffrey Mack Bursary in Commerce

Bursaries totalling \$2,400 have been made available through an endowment established in honour of business owner and mentor Geoffrey Mack, with matching funds from the University of British Columbia, to students enrolled in the Bachelor of Commerce program within the UBC Sauder School of Business. Preference will be given to female varsity athletes. The bursaries are adjudicated by Enrolment Services. (First Award Available for the 2019/20 Winter Session.)

## Hawa Patel Memorial Bursary

Bursaries totalling \$8,250 have been made available through an endowment established by an estate gift from Dr. Hawa Patel (1923-2016) for undergraduate and graduate students enrolled in the Faculty of Medicine. Dr. Patel was a neuro-pediatrician. Born in South Africa, she was the first non-white woman to graduate from the Medical School at the University of Cape Town. Dr. Patel worked as a doctor in South Africa, England and Iraq before moving to Vancouver where she was a faculty member in the Department of Pediatrics in the UBC Faculty of Medicine from 1967 to 1983. The bursaries are adjudicated by Enrolment Services. (First award available for the 2019/2020 winter session).

## NEW AWARDS - ANNUAL

## Harrison Family Leadership Award in Science

A \$1,000 award is offered annually by Paul G. Harrison (B.Sc. 1970) and Brenda J. Harrison (Ph.D. 1982) for undergraduate students in the Faculty of Science with outstanding academic achievement who have demonstrated excellent leadership skills in Faculty or student society-run programs that encourage engagement. Such programs include, but are not limited to, wellbeing promotion, career preparation, mentoring, self-regulated learning, orientation and access to volunteer and research opportunities. This academic award is made on the recommendation of the Faculty of Science. (First award available for the 2018/2019 winter session).

## Christina and Alan Eastwood Graduate Scholarship in Land and Food Systems

A \$6,000 scholarship is offered annually by Christina and Alan Eastwood for a graduate student in Land and Food Systems with an interest in sustainable food systems. Christina and Alan are now retired from careers as a medical technologist and an economist respectively, and have decades of experience in growing food organically for themselves and friends. They have long recognized the need for a more organic, less toxic, commercial food system. They hope this scholarship will encourage young people to pursue sustainable alternatives to conventional agriculture. The scholarship is made on the recommendation of the Faculty of Land and Food Systems in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available for the 2019/2020 winter session).

## Landmark Cinemas Scholarship in Theatre \& Film

A \$5,000 scholarship is offered annually by Landmark Cinemas to an outstanding undergraduate student enrolled in the Film Production or Design and Production programs in the Department of Theatre \& Film. Landmark Cinemas, headquartered in Calgary, is Canada’s second largest motion picture theatre exhibition company with over 1,300 employees operating 45 locations with 317 screens throughout BC, Alberta, Saskatchewan, Manitoba, Ontario and the Yukon Territory. The scholarships are made on the recommendation of the Department of Theatre \& Film. (First award available for the 2019/2020 winter session).

## Master of Data Science - Computational Linguistics Bursary

Bursaries are offered annually by the Faculty of Science to graduate students in the Master of Data Science - Computational Linguistics program who demonstrate unmet financial need. Funding is determined annually based on enrolment in the program. The bursaries are adjudicated by Enrolment Services. (First award available for the 2019/2020 winter session).

## Master of Data Science - Computational Linguistics Domestic Scholarship

A $\$ 5,000$ entrance scholarship is offered annually to a student who is a Canadian citizen or permanent resident in the Master of Data Science - Computational Linguistics program. The scholarship recognizes a student who has demonstrated academic and leadership achievements in their undergraduate or graduate program, field or industry. The scholarships are made on the recommendation of the Master of Data Science - Computational Linguistics Admissions Committee, in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available for the 2019/2020 winter session).

Master of Data Science - Computational Linguistics International Scholarship A \$5,000 entrance scholarship is offered annually to an international student in the Master of Data Science - Computational Linguistics program. The scholarship recognizes a student who has demonstrated academic and leadership achievements in their undergraduate or graduate
program, field or industry. The scholarships are made on the recommendation of the Master of Data Science - Computational Linguistics Admissions Committee, in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available for the 2019/2020 winter session).

## PREVIOUSLY APPROVED AWARDS WITH CHANGES IN TERMS OR FUNDING SOURCE

## ENDOWED AWARDS

## 3794 - Pharmaceutical Sciences Rural Communities Placement Award

## Rationale for Proposed Changes

At the request of Pharmaceutical Sciences and with the donor's support we are increasing the number of awards that can be given out to students through this endowment. University Counsel has reviewed and agreed this revision.

## Current Award Description

A \$5,550 award has been made available through an endowment established by generous supporters of the Faculty of Pharmaceutical Sciences to benefit an entry-to-practice student pharmacist in their experiential education rotation in rural BC. To be eligible for the award, the candidate will have demonstrated their need for this funding as required by the Faculty of Pharmaceutical Sciences. The award will be made on the recommendation of the Faculty of Pharmaceutical Sciences.

## Proposed Award Description

Awards totalling \$5,550 hard have been made available through an endowment established by generous supporters of the Faculty of Pharmaceutical Sciences benefit anfor students in the entry-to-practice student pharmacists PharmD program in their experiential education rotations in rural BC. To be eligible for the award, the candidates will have must demonstrated their need for this funding as required by the Faculty of Pharmaceutical Sciences. The awards will be-are made on the recommendation of the Faculty of Pharmaceutical Sciences.

## 4695 - Future Achievers International UBC Entrance Scholarship Endowment Fund

## Rationale for Proposed Changes

A request to revise this endowment was approved at the April 19, 2018 meeting of the Board of Governors. This endowment initially supported an entrance scholarship for international students. At the request of the donor and with the support of the Faculty of Applied Science and the International Student Initiative Office, the purpose of this endowment was updated to support
an entrance scholarship for women in engineering. The donors are currently in the process of winding down their program, Future Achievers, and requested to vary the award title to reflect their names.

## Current Award Description

A scholarship of $\$ 3,500$ is made available through an endowment established by Professors Yves and Cynthia Bled to an international student entering UBC in their first year who demonstrates a combination of exceptional academic achievement and extracurricular involvement. Preference is given to members of Future Achievers International, and recipients are encouraged to act as campus ambassadors for the program. Future Achievers International supports, stimulates, and reinforces young future leaders around the world by supporting scholarships and programming that encourage thinking that changes the world. The award is made on the recommendation of the International Student Initiative Office.

## Proposed Name: Yves and Cynthia Bled Future Achievers Scholarship for Women in Engineering Entrance Scholarship

## Proposed Award Description

Renewable entrance scholarships totaling \$3,500 have been made available through an endowment established by Professors Yves and Cynthia Bled, along with matching funds from the University of British Columbia, for outstanding undergraduate female engineering students entering university from secondary school or transferring from another post-secondary institution. Preference will be given to candidates that have demonstrated leadership through participation in extra-curricular or volunteer activities such as professional, school, social and community organizations or athletics. To be considered, candidates must be Canadian citizens or permanent residents and preference will be given to residents of British Columbia. Cynthia and Yves Bled founded the Canadian Future Achievers Leadership program in 2008, with the goal of empowering minority youth in their pursuit of higher education. Cynthia, a retired economics professor and Chair of Future Achievers International, and Yves, a retired cultural anthropology professor, believe strongly in the importance of celebrating, encouraging and rewarding exceptional female engineering students. The scholarships are made on the recommendation of the Faculty of Applied Science.

## Annual Awards

## 8200 - McQuid Family/Pl Financial Corp Bursary

## Rationale for Proposed Changes

At the request of the donor, we are updating the bursary name to remove the corporate information from title.

## Current Award Description

Bursaries to a total of $\$ 1,000$ are offered by the McQuid family and PI Financial Corp. The award is made to students in the final year of Occupational or Physical Therapy.

## Proposed Name: McQuid Family/Pl Financial Gorp Bursary Proposed Award Description

Bursaries to totalling of $\$ 1,000$ are offered annually by the McQuid family and PI Financial Corp. The award is made-to students in the final year of Occupational or Physical Therapy. The bursaries are adjudicated by Enrolment Services.

## 5005 - Spitz Family Entrance Award for Aboriginal Women

## Rationale for Proposed Changes

Both the UBC Sauder School of Business and the donor would like to open this award up to all female undergraduate Indigenous students rather than limiting it to an entrance award. The amount of awards available has also been increased. The language used to refer to Indigenous students is being updated.

## Current Award Description

A \$10,000 award is offered annually by the Spitz Family to a female Aboriginal student entering the Bachelor of Commerce program, with preference given to candidates coming from remote communities in BC. Community involvement and financial need will be considered. The award may be renewed until graduation from the B.Com. program, provided the recipient remains in good academic standing. The award is made on the recommendation of the Sauder School of Business.

## Proposed Name: Spitz Family Entrance Award for Aboriginal Indigenous Women Proposed Award Description

A.One or more awards of at least $\$ 10,000$ is each are offered annually by the Spitz Family to a female Aboriginal First Nations, Inuit, or Métis students of Canada entering enrolled in any year of study in the Bachelor of Commerce program, with preference given to candidates coming from remote communities in BC. Community involvement and financial need will be considered. The awards may be renewed until graduation from the B.Com. program, provided the recipients remains in good academic standing. The awards are made on the recommendation of the Sauder School of Business.

## 5727 - UBC Faculty of Medicine Clinician-Investigator Scholarship

## Rationale for Proposed Changes

The scholarship was created to support students in either the M.D./Ph.D. program and medical residents in the Clinician Investigator program. The current description's stipulation that recipients hold or be pursuing an M.D. from UBC disqualified the majority of students in the Clinician Investigator program from accessing the scholarship. The proposed description has been revised to ensure the majority of students in the Clinician Investigator program are eligible for the scholarships. Both the Director and the Associate Director of the M.D./Ph.D. program, and the Director of the Clinician Investigator Program have approved the proposed description.

## Current Award Description:

Renewable scholarships totalling up to $\$ 78,000$ are offered annually to graduate students involved in biomedical or biological sciences or bioengineering research in the Faculty of Medicine. Candidates must be Canadian Citizens or Permanent Residents and either hold or be pursuing an MD from UBC. Recommendations are made by the Faculty of Medicine in consultation with the Faculty of Graduate and Postdoctoral Studies. (First Award Available in the 2017/2018 Winter Session.)

## Proposed Award Description:

Renewable scholarships totalling up to $\$ 78,000 \$ 130,000$ are offered annually to graduate M.D./Ph.D. students, or to UBC medical residents who hold an M.D. from a Canadian university and who are participating in the Faculty of Medicine's Clinician-Investigator program. Recipients must be conducting research in the fields of involved in biomedical or biological sciences or bioengineering research in the Faculty of Medicine. Gandidates and must be Canadian citizens or permanent residents-and either hold or be pursuing an MD from UBG. The scholarships Recommendations are made on by the recommendation of the Faculty of Medicine in consultation with the Faculty of Graduate and Postdoctoral Studies.

16 January 2019

To: Vancouver Senate

From: Tributes Committee

Subject: Memorial Minutes

The Tributes Committee has prepared memorial minutes for the following individual:
Dr. Anne P. Autor
Motion: That Senate approve the Memorial Minute for Dr. Anne P. Autor, that it be entered into the Minutes of Senate, and that copies be sent to the family of the deceased.

Respectfully submitted,

Dr. Sally Thorne, Chair

Senate Tributes Committee

## Dr. Dorothy Anne Pomeroy Autor

Born in Prince George January 26, 1935 to Alfred and Mary Pomeroy, Dr. Autor earned both a B.A. Hons and a M.Sc. in Biochemistry at the University of British Columbia. She completed her Ph.D. in Biochemistry at Duke University in 1970 where she was the only woman in her doctoral program. She married Kent Autor in 1957; they had two children together, and were divorced in 1978. Dr. Autor passed away November 13, 2018.

After completing her studies Dr. Autor held multiple faculty positions in the United States. She returned to UBC in 1983 as a tenured professor in the Department of Pathology and Laboratory Medicine and as a clinical researcher at St. Paul's Hospital. She was member of the Senate from 1990 to 1996. In addition to her university and hospital laboratories, she opened the first DNA forensic lab in the Province.

Having travelled the world throughout her academic career, Dr. Autor retired from UBC in 2000 to teach in the United Arab Emirates and Pakistan. Dr. Autor permanently retired in 2004, returning to Vancouver to spend time with family, and to co-manage her family's ancestral farm in Pemberton.

As a pioneering woman in science, Dr. Autor provided mentorship to younger women entering the profession and helped launch the careers of a large number of graduate students. Dr. Autor was also active in many professional organizations, often in leadership positions, and engaged in many volunteer and appointed roles. She served on the Board of Directors of the St. Paul's Hospital Foundation; the Board of Governors of the Law Foundation of BC; and, the Board of Trustees of the Vancouver Art Gallery among many other roles. She was one of the first two women members of the Vancouver Round Table, a civic organization of prominent British Columbians from business, government, and academia.

To her family and friends, the Senate and the University of British Columbia offer their condolences and thanks.

13 February 2019
To: Vancouver Senate
From: Senate Academic Building Needs Committee
Re: Report of the Senate Academic Building Needs Committee

The Senate Academic Building Needs Committee recommends the following:
Motion: $\quad$ That the report of the Senate Academic Building Needs Committee titled "Suitability and Usage of Learning Spaces" be received.

Respectfully submitted,

Dr. Michael Isaacson, Chair
Senate Academic Building Needs Committee

## The University of British Columbia

 Senate Academic Building Needs Committee
## Suitability and Usage of Learning Spaces


[from: learningspaces.ubc.ca]

February 2019

## SUMMARY

This report outlines a study undertaken by the Senate Academic Building Needs Committee on the suitability and usage of learning spaces at UBC. The report provides relevant background information; summarizes feedback obtained through a consultation with the academic community; describes an analysis of classroom usage; considers a range of issues that have been identified; and provides a set of findings and suggestions.

The Committee has found that Facilities Planning and Scheduling Services provide an outstanding level of service in relation to their respective portfolios; that the quality of learning spaces overall is excellent; and that the process for annual improvements to learning spaces is transparent and fair.

One key issue relates to the lack of sufficient large classrooms with respect to higher priority access for some faculties. A second key issue relates to assuring a scheduling system that is effective, efficient and fair, recognizing that some units undergo undue hardship due to the lack of higher priority access to large classrooms, and that a large number of manual interventions are required to accommodate all users, and yet recognizing also that some units desire that local scheduling control is preserved. Scheduling Services is to be commended for embarking on a project intended to improve scheduling taking account of these considerations and new classrooms that are being planned. In the interim, potential short-term improvements to the current scheduling approach intended to address the most severe hardships are proposed. The report also includes a number of other suggestions, directed primarily to Facilities Planning and Scheduling Services.

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## 1. INTRODUCTION

### 1.1 Introduction

During 2017/18, the Senate Academic Building Needs Committee (SABNC) heard that the suitability and usage of learning space remains a significant issue for some segments of the academic community at UBC, and therefore it decided to undertake a study of this topic as part of its work-plan for 2017/18 and 2018/19.

The mandate of the study is to review various aspects of the suitability and usage of learning spaces at UBC, and thereby develop a report to Senate that includes findings and suggestions relating to the quality and adequacy of learning spaces and to the effective, efficient and fair use of these spaces.

It should be noted at the outset that the Scheduling Services unit within Enrolment Services ${ }^{1}$ is undertaking a larger scale, longer-term project focused on classroom scheduling of general teaching space. The current study has a broader mandate and has taken the form of a general review, so that the Scheduling Services project and the current study are considered complementary.

The study has been conducted by the committee-as-a-whole. The Committee has the following membership: Simran Brar (Student Senator, 2017/18), Austin Chen (Student Senator, 2018/19), Danika Coulbourn (Student Senator, 2017/18), Adlai Fisher (Commerce \& Business Administration), Katie Gourlay (Student Senator, 2018/19), Séan Haffey (Convocation Senator), Michael Isaacson (Applied Science, Committee Chair), André Ivanov (Joint Faculties), Philip Loewen (Science), Sarah Ngo (Convocation Senator), Nick Pang (Student Senator, 2018/19), Pam Ratner (Vice-Provost \& Associate Vice-President, Enrolment and Academic Facilities), Kate Ross (Associate Vice-President, Enrolment Services and Registrar - non-voting), Thomas Schneider (Graduate \& Postdoctoral Studies), Mike Stewart (Convocation Senator), and Lisa Wang (Student Senator, 2017/18).

The Committee is grateful for the extensive support, advice and contributions provided by Facilities Planning within Infrastructure Development and Scheduling Services within Enrolment Services. We are especially grateful to Jodi Scott (Facilities Planning), Leanne Feichtinger (Facilities Planning), Annie Yim (Enrolment Services) and Oana Toma (Scheduling Services) for their very helpful support, advice and contributions.

### 1.2 Study Topics

A wide range of considerations relate to the suitability of the University's learning space inventory and to the effective, efficient and fair use of learning spaces at UBC. Specific aspects that the Committee has considered include the following:

- The process, priorities and designations of establishing learning spaces through new capital

[^0]projects, as well as the associated process and priorities with respect to classroom improvement projects.

- The suitability of classroom configurations and facilities, including AV standards and classrooms with specialized technologies.
- The assignment and reassignment of learning spaces as Restricted Teaching Space and General Teaching Space, with the latter including the designation of Tier 1 and Tier 2 access spaces with respect to specific course codes. (The terminology used is described below.)
- Course scheduling and bookings that are undertaken in an efficient, effective and fair manner, recognizing a multitude of priorities, criteria and constraints.

The Committee decided not to give consideration to other aspects of teaching space usage, including usage during the summer terms, examination scheduling, non-standard and ad hoc room bookings, and the use of non-classroom spaces (e.g. laboratories).

### 1.3 Study Approach

The Committee undertook its work on the basis of the following steps:

- The Committee was provided with, and undertook a review of relevant policies, guidelines, reports and studies - as listed in Appendix I.
- The Committee heard three presentations relevant to its work:
- UBC Vancouver Booking Guidelines for General Teaching Space (Oana Toma, Manager, Scheduling Services; Annie Yim, Associate Registrar, Student Records \& Systems Management), January 23, 2018
- Learning Spaces Overview (Jodi Scott, Senior Learning Space Planner, Facilities Planning), April 24, 2018
- Academic Course Scheduling Guidelines (Oana Toma, Manager, Scheduling Services; Annie Yim, Associate Registrar, Student Records \& Systems Management), September 18, 2018
- The Committee sought data and undertook an analysis relating to classroom usage.
- The Committee obtained input and feedback from representatives of the academic community, both in writing and through an open forum.
- Based on the above steps, the committee developed a draft report, and sought additional feedback from Facilities Planning and Scheduling Services.
- The Committee thereby developed its final report for submission to the Senate.


## 2. BACKGROUND INFORMATION

At the outset, it is appropriate to identify the various categories of spaces, and the current approaches to assigning spaces and to scheduling spaces.

### 2.1 Categories of Space

Through UBC Policy 107, Booking and Rental of UBC Space, the University defines types of bookable spaces to include those listed below.

## Teaching Space

- Restricted Teaching Space: " ... to be used for that faculty's or department's teaching needs, with ancillary use in periods of low academic utilization for UBC-hosted academic functions (conferences, symposia, etc.) only."
- General Teaching Space: "... to be used for the teaching needs of faculties or departments, in addition to the faculty or department in whose facility the space is located."


## Non-Teaching Space

The policy also defines non-teaching spaces to include "Designated Facility and Designated Administrator" spaces ("... there must be a faculty, department or unit responsible for administering bookings ..."), and "Research, Administrative and Ancillary Space" ("... may be used for the academic, research, ... needs of UBC and/or the faculty or department in whose facility the space is located ...").

## Tiered Access

General Teaching Spaces are further categorized with respect to specific course codes as follows:

- Tier 1 access space refers to general teaching spaces that designated course codes have priority to book during a prescribed time interval.
- Tier 2 access space refers to general teaching space that may be booked for any course code, once the assigned period for Tier 1 bookings has passed.


## Teaching Space Types

Teaching Spaces are further categorized in UBC's space inventory, conforming to the British Columbia University Space Manual, as classrooms and teaching labs:

- Classroom Space includes lecture theatres, classrooms, seminar rooms, and associated support spaces.
- Teaching Lab Space includes wet and dry labs, studios, and computer rooms used for teaching purposes, and associated support spaces.

All Teaching Lab Spaces correspond to Restricted Spaces, whereas Classroom Spaces correspond to either General Teaching Spaces or Restricted Spaces. This report gives consideration to Restricted Classroom Teaching Spaces and General Teaching Spaces, including

Tier 1 and Tier 2 access designations. It does not give consideration to Teaching Lab Spaces (restricted) or to non-teaching spaces as identified above.

### 2.2 Space Assignments, Reassignments and Agreements

The following summarizes responsibilities for policies, procedures and their implementation with respect to the assignment and reassignment of learning spaces. These are set out in three documents:

- UBC Policy 107, Booking and Rental of UBC Space, see:
https://universitycounsel.ubc.ca/files/2015/02/policy107.pdf
This is a Board of Governors Policy, last updated in February 2015.
- UBC Vancouver, Booking Guidelines for General Teaching Space, see:
https://facultystaff.students.ubc.ca/sites/facultystaff.students.ubc.ca/files/Booking\ Guidelines\ for\ Ge neral\%20Teaching\%20Space\%20w\%20Rental\%20Rates.pdf
This statement has been developed by Enrolment Services, under the authority provided to it through UBC Policy 107. An initial version was developed in July 2017 and a finalized version took effect in January 2019.
- Academic Course Scheduling Guidelines, see:
https://facultystaff.students.ubc.ca/enrolment-services/student-records-systems-management/scheduling-services/course-scheduling/guidelines

These provide guidelines with respect to the detailed scheduling arrangements for General Teaching Spaces. The Academic Course Scheduling Guidelines have been in place for many years and are updated from time to time by Scheduling Services.

## Initial Space Assignments

At the time of the development of a new building, the initial assignment of teaching spaces emerges through the development of the building's functional program (designations and sizes of all spaces in the building). The default is that all classrooms are designated as General Teaching Spaces; except that, as may be identified through the functional program or on the basis of a rationale provided by the primary occupant(s), some classrooms may be assigned as Restricted Teaching Spaces (e.g. 100\% funding provided by CFI). Furthermore, all General Teaching Spaces are assigned as Tier 1 access to the primary occupant(s) only, and to other related programs, as identified by Facilities Planning or the Provost's office. Once a building project has been confirmed and construction is underway, Facilities Planning enters the space assignments, including tier access designations, into the database of the classroom booking software system (Scientia's Enterprise Timetabler, referred to here as "Scientia").

All capital projects have steering committees chaired by the Managing Director of Infrastructure Development, with representation from the Provost's Office, Treasury, Campus and Community Planning, Building Operations, Facilities Planning and all proposed occupants. Any changes to the default space designations indicated above are made through committee discussion and consensus.

## Subsequent Space Reassignments

Reassignments to the space inventory, between Restricted Spaces and General Teaching Spaces or between teaching and non-teaching spaces, are made upon request through the Director of Facilities Planning, with guidance from the Office of the Provost following consultation with affected parties. Changes to tiered access to General Teaching Spaces are made through Scheduling Services. (The latter changes are not captured in the inventory database but are in Scientia.) The following indicates the roles and responsibilities of the relevant authorities with respect to such matters:

Board of Governors. The Board is responsible for the development of, and amendments to, Policy 107, Booking and Rental of UBC Space.

Office of the Provost: The Provost's Office provides stewardship for all instructional space and is responsible for ensuring University space supports the academic mission of the University. In this context, the Provost's designate may, from time to time, require the reassignment of the designation of Restricted Spaces, General Teaching Spaces and Non-Teaching Spaces, along with any associated conditions, which if done would involve a consultation with the primary users, Facilities Planning and Enrolment Services.

Enrolment Services: Under the authority provided through Policy 107, Enrolment Services establishes and administers rules, booking priorities and procedures for General Teaching Spaces. These rules must "ensure priority for unbooked space for Core Academic / Educational Activities," as defined in the Policy. In this context, Enrolment Services may, from time to time, modify arrangements relating to the tiered scheduling approach, require reassignments between Tier 1 and Tier 2 access of General Teaching Spaces for particular course codes, and may authorize or seek a modification to "room agreements", whereby a General Teaching Space is designated for some specified use for specified times, or holders of Restricted Space agree to having the space used for general teaching at agreed upon times of the day or week.

Facilities Planning: Facilities Planning maintains and updates the space inventory, including the designations of specific spaces under different space categories, and takes responsibility for the short-term assignment of Tier 1 access for some spaces (e.g. West Mall Swing Space), typically associated with the removal of some teaching space inventory through major renovations or demolitions.

### 2.3 Scheduling General Teaching Spaces

The process for scheduling General Teaching Spaces is complex, and is outlined in the Academic Course Scheduling Guidelines. Additional details and requirements of the course scheduling process, including timelines, are provided at: https://facultystaff.students.ubc.ca/enrolment-services/student-records-systems-management/scheduling-services/course-scheduling
[An associated set of guidelines, UBC Vancouver Guidelines for General Teaching Space, provides that courses for academic credit are given the highest priority for bookings into General Teaching Spaces, but otherwise focuses on booking priorities other than for credit courses. Aspects of the latter guidelines are considered in Section 5.7.]

The procedures for academic course scheduling may be summarized as follows (the dates shown refer to 2017/18):

Oct 16-20, Rollover of Prior Year Course Schedule. The bookings for the preceding year are rolled-over to the upcoming year, with only Tier 1 bookings retained. This forms a new database that is used as a starting point for the following year's bookings.

Nov 28 - Feb 2, Tier 1 Access Open. Scientia is open for Tier 1 bookings. During this period, Department and School representatives with Tier 1 access may add, edit and delete Tier 1 bookings based on their intended schedule of classes. In so doing, they are requested to adhere to certain guidelines including:

- Standard times - sections are scheduled in accordance with the established scheduling pattern
- Seat fill occupancy rate - at least $70 \%$ of classroom capacity must be occupied for any one booking

Approximately $75 \%$ of the overall bookings take place though Tier 1 bookings.
Feb 2, Classrooms with Specialized Technologies. Scheduling Services has announced the availability of select Classrooms with Specialized Technologies, with a February 2 application deadline for access to such classrooms. Such requests are considered by Scheduling Services on a case-by-case basis. These bookings are made immediately after the Tier 1 booking period, and therefore are tantamount to a lower priority than Tier 1 but a higher priority than Tier 2 bookings, and serve to ensure that instructors who intend to use the specialized technology have access to these classrooms so as to support collaborative and active learning approaches.

Feb 5 - Mar 9, Optimization Period. Over this period, classroom bookings are not available, while Scheduling Services undertakes an optimization or quality control, with checks on occupancy rates, corrections of errors and the accommodation of new courses.

Mar 14, Tier 2 Access Opens. From March 14 onwards, the scheduling software system is opened to Tier 2 bookings. Department representatives with unmet needs then review available spaces and make bookings directly as necessary. In the event that Department or School representatives are unable to confirm required bookings, there is a procedure in place for approaching Scheduling Services with requests for manual interventions. Scheduling Services seeks to accommodate such needs by negotiating individual rooms, with approaches such as

- room swapping
- room bumping
- modifying course times

April 13. Publication. The forthcoming Winter schedule of bookings is published online (even though some bookings may remain unresolved until the opening of student registrations in June and in a few cases after student registrations have occurred).

End of July, Other (AdHoc) Bookings. Once course registration is underway, typically after the third week of July for Term 1 bookings (and after the third week of September for Term 2 bookings), requests for non-credit-course bookings, referred to as ad hoc bookings, are accepted
over a one-week period. Ad hoc booking requests are handled in accordance with the priority rankings provided in the UBC Vancouver Booking Guidelines for General Teaching Space. Beyond that week, additional ad hoc bookings, may be made throughout the year on a first-come first-served basis.

## 3. CONSULTATIONS

The Committee consulted the academic community by inviting written submissions and by inviting participation in a Learning Spaces Forum on October 9, 2018. Appendix I provides the announcement that solicited feedback from the community. Some 100 individuals provided feedback through written submissions and through participation in the forum. A large number of issues were identified and suggestions made. The key inputs provided to the committee are listed below.

## Establishing Learning Spaces

- Large Classrooms. Probably the most widespread feedback was the dire need for an increased number of large classrooms. ("Large classrooms" are not specifically defined in this report, but corresponding campus-wide needs would presumably be analysed by Facilities Planning in the development of new capital projects.)
- Capital Planning. Beyond the needs of the proponent of a capital project, campus-wide classroom needs should be given a higher priority in the capital planning process.


## Quality of Learning Spaces and Facilities

The suggestions given below are provided in the context of excellent standards overall of UBC classrooms and facilities. Furthermore, feedback that has been obtained does not convey a sense of relative priorities, or an indication of how widespread are the various needs that have been identified. In this context, the following suggestions were made.

- $A V$ and Technology. There is a high level of satisfaction with AV and technology standards. Even so, many suggestions for further improvements were made (additional power outlets, ceiling microphones, increased ability to record and post lectures; additional document cameras, ...)
- Seating / Flexibility. There were many requests for an increased number of flexible learning spaces, with movable chairs / tables, long-bench seating, ...
- Instructor Support. There were suggestions for larger workspaces / tables, podia, an increased number of whiteboards; more uniformity of board type across classrooms, ...
- Communication. There was discussion about the communication of classroom features and classroom usage. In fact, comprehensive information on classroom features is available at: https://learningspaces.ubc.ca. And the availability of classrooms may be reviewed at: https://sws.students.ubc.ca/van_2018/default.aspx
- Other. There is a need for improved heating controls for classrooms, since overheating is common for some times of the year. There needs to be improved accessibility for some classrooms (e.g. to accommodate participants with wheelchairs).


## Assignment / Reassignment of Learning Spaces

- Comments were made to the effect that Research seminars are a core academic activity and therefore should have equal priority as credit courses with respect to classroom bookings.


## Course Scheduling

- Scheduling Control. There were multiple submissions from one of the larger departments, including report of a Department motion, regarding the need to retain control of bookings at the department level. This sentiment was also conveyed by Sauder School of Business representatives, based in part on the statement that student funds and faculty-level investments have been made with respect to Tier 1 access classrooms.
- Tier 1 Access. The lack of Tier 1 access to large classrooms is a major obstacle for some faculties. At the same time, some faculties whose needs are met through Tier 1 access would not want this access undermined. Other issues identified include the early dates by which Tier 1 booking commitments are needed versus the late dates by which Tier 2 bookings may be made; the misuse of Tier 1 access through double bookings, unpublished bookings and low-enrolment (under-utilization) bookings; the conflicting requirements of multiple Tier 1 users for certain spaces, and the shortage of available rooms for Tier 2 bookings, especially for courses with rigid constraints (e.g. courses that are core requirements for multiple programs or that need to fit into standard timetables).
- Scheduling Pattern ${ }^{1}$. The current scheduling pattern leads to the loss of holiday Mondays for some courses. The $1-1 / 2$ hour time slots are invaluable and should not be dispensed with. It will be challenging to promote blended learning that needs to rely on non-weekly or more sporadic room bookings.
- Other issues. Enrolment-related incentive schemes within some faculties may detract from classroom scheduling at less popular times. The Senate requirement that the 12:30-2:00 pm time on Thursdays should not be used for regularly scheduled classes is not adhered to.


## 4. ANALYSIS OF CLASSROOM USAGE

The Committee sought data on the nature and extent of the usage of classroom teaching spaces. In doing so, it relied on data available through past presentations and studies, and as well it has undertaken an analysis of General Teaching Space bookings in the 2017/18 Winter terms. [The Committee is grateful to Facilities Planning and Scheduling Services for their support in acquiring this data and the associated analysis.]

[^1]In the following, all results that are reported refer to the normal teaching day ( $8 \mathrm{am}-5 \mathrm{pm}$, Monday - Friday) and refer to the two Winter terms only (i.e. excluding summer terms, examination periods, and pre-term start dates and post-term end dates). There are other assumptions and caveats in undertaking such an analysis. For example, the Faculty of Graduate \& Postdoctoral Studies and some schools have not been included in the analysis. The specific assumptions and caveats are not reported herein, but are available upon request.

The analysis is presented below with respect to the following items in turn:

- Restricted classrooms - number and utilization
- General classrooms - number, utilization and seat occupancy
- Tier 1 access to general classrooms


### 4.1 Restricted Classrooms

[The following information is extracted from the August 2014 Restricted Space Audit and the April 2018 Learning Spaces presentation to the Committee.]

Restricted teaching spaces are categorized as Classroom Space (including lecture theatres, classrooms, seminar rooms, and associated support spaces) and Teaching Laboratory Space (including wet and dry labs, and studios). Currently, there are some 160 restricted classrooms and 417 restricted teaching labs (the latter are not considered in this report).

Fig. 1 shows the number of restricted classrooms broken down by faculty.


Fig. 1. Number of restricted classrooms for different faculties.
Fig. 2 shows the number of restricted classrooms broken down by classroom capacity. As indicated, the majority of these classrooms correspond to capacities of 20 or less, whereas there are only 5 restricted classrooms with capacities greater than 100 (held by the Sauder School of Business and the Faculty of Medicine).


Fig. 2. Number of Restricted Classrooms broken down by classroom size.
Fig. 3 shows the percentage usage of restricted classrooms, distinguishing between total usage (self-reported, blue columns) and usage attributed to teaching via the Scientia scheduling system (red columns).


Fig. 3. Percentage usage per week of restricted classrooms for different faculties.
It is emphasized that restricted classrooms are often not scheduled through the Scientia scheduling system, and they are often used for ad hoc teaching and non-teaching bookings, for ancillary activities, and other non-reported usage (e.g. research seminars, department meetings, PhD exams, ...). In particular, the Restricted Teaching Space Audit states: "... Many rooms are primarily used as departmental meeting rooms or for other non-teaching activities."

The audit indicates that teaching is scheduled in restricted classrooms for about 13 hours per week, in comparison to about 24 hours per week for General Use Classrooms. Also (not shown here), the number of teaching hours appears to be higher in larger restricted rooms, at about 20 hours per week for rooms with capacities of over 60.

### 4.2 General Classrooms

Currently, there are about 345 General Use classrooms on the campus. The breakdown of these by capacity is shown in Fig. 4.


Fig. 4. Number of General Space Classrooms broken down by classroom size.
It is of interest to compare the above distribution of classroom sizes with the corresponding distribution of the number of equivalent 3 -credit sections taught in rooms of different sizes. Thus, Fig. 5 compares the percentage distribution of the number of available rooms with different capacities with the distribution of the number of sections taught in these rooms. (For example, the figure shows that $25 \%$ of all sections are scheduled in rooms with capacity $51-100$, whereas $19 \%$ of all rooms on campus correspond to this capacity range.)


Fig. 5. Percentage distributions of available classrooms and of section usage for various classroom sizes.
Overall, the figure shows that a lower percentage of sections are taught in smaller rooms ( $1-20$ ) relative to the percentage of rooms with this capacity range, whereas a relatively large percentage of sections are taught in room with capacities greater than 50. This is consistent with the greater demand for larger classrooms, identified elsewhere in this report.

## Utilization Rates

Utilization rate is the percentage of time that a room is booked during the normal teaching day (regardless of the extent of seat occupancy), and is one indicator of the effectiveness of space usage. Based on an analysis of room bookings for 2017/18 (Winter Terms 1 and 2), utilization rates have been obtained and are reported below.

Overall, the utilization rate of General Teaching Spaces is found to be about 56\%. However, the utilization rate is expected to vary primarily with room capacity and time of the week. In order to explore these, utilization rates for General Space classrooms broken down by classroom sizes and by times of the week are given in Figs. 6 and 7 below.

Fig. 6 shows utilization rates for different classroom capacities. As expected, utilization rates increase notably with room capacity, reflecting the greater demand for larger classrooms.


Fig. 6. Utilization Rates for General Space Classrooms for different room capacities.
Fig. 7 shows the utilization rates for different times of the standard day, for three categories of classroom size.


Fig. 7. Utilization Rates for General Space Classrooms for different times of the day.

Again as expected, utilization rates are lowest at the start of the day, and second lowest at the end of the day; and once more show an increase with classroom size.

Corresponding results have been obtained for the different days of the week and are shown in Fig. 8.


Fig. 8. Utilization Rates for General Space Classrooms for different days of the week.
This does not show a strong dependence on the day of the week, but does indicate that the least usage occurs on Fridays and the greatest usage occurs on Tuesdays, Wednesdays and Thursdays.

The Academic Course Guidelines state: "Non-Restricted classroom space should be utilized at a minimum of $85 \%$ of the total standard teaching hours throughout the normal UBC teaching day (from 8:00 am to 5:00 pm)." This ideal is not adhered to, and is probably an unrealistic target for Scheduling Services to adopt. [It is noted that, while this represents a target with respect to Scheduling Services activities, it is not a "guideline" in the sense of guiding particular actions by the users.]

## Seat Occupancy Rate

Distinct from utilization rate, which refers to the percentage of normal teaching time during which classrooms are used, is the seat occupancy rate, which refers to the percentage of a classroom that is occupied. Seat occupancy rates have been determined for different room sizes and are shown in Fig. 9.


Fig. 9. Occupancy Rates for General Space Classrooms for different room capacities.
The occupancy rate is seen to be reasonably uniform across rooms with different capacities. It is noted that the occupancy rate is based on actual enrolments, which typically differ from enrolment limits that are set at the time a booking is made. Also, the occupancy rate cannot be unduly high because of the discrete capacities and limited choice of available classrooms for accommodating a class of a given size. For example, in order to accommodate a class with an enrolment of 20, the only available option reflecting various constraints may be a classroom of capacity, say, 40 , leading to an occupancy rate of only $50 \%$ in this instance.

The Academic Course Scheduling Guidelines state: "Departments must make every effort to achieve a $70 \%$ seat fill occupancy rate for use of classroom space. ..." While this ideal is not adhered to overall, this appears to represent a suitable target with respect to Scheduling Services' obligations to make adjustments to accommodate alternate users.

### 4.3 Tiered Access

A key aspect of the current scheduling approach is the reliance on tiered access, whereby designated programs (course codes) have priority for booking specified general teaching space classrooms during a prescribed timeline - prior to all other users being able to book these rooms.

In order to examine the key features of the tiered booking approach, an analysis has been undertaken of the extent to which various faculties are accommodated through Tier 1 access. The analysis is expressed in terms of the number of equivalent 3-credit sections that are or are not accommodated via Tier 1 access for each faculty. The analysis is somewhat complicated, recognizing that some 270 course codes are designated as having Tier 1 access to different selections of the over 300 available General Teaching Space classrooms. And there are other assumptions and caveats in undertaking such an analysis (for example an analysis with respect to schools is not shown) - these are not reported herein, but can be provided upon request.

First, Fig. 10 shows the number of equivalent 3-credit sections delivered by each of the faculties (excluding Graduate and Postdoctoral Studies), broken down by those sections that are accommodated via Tier 1 access (blue, "Tier 1") and the number that are not so accommodated (red, "shortfall"). The analysis has been undertaken with three categories of classroom capacity: Figs. 8(a), 8(b) and 8(c) show respectively results for all classrooms ("all"), those with capacities greater than 100 (" >100"), and those with capacities greater than 200 (">200").


Fig. 10. No. of sections taught via Tier I access and in total, broken down by faculty and classroom capacity.

The figure shows that, as expected, Arts and Science teach by far the largest number of sections, followed by Applied Science and the Sauder School of Business. Arts, Science and Applied Science are, to the greatest extent, unable to meet their teaching needs through Tier 1 access especially with respect to large classrooms. The Sauder School of Business, Law and Pharmacy have their needs met or largely met via Tier 1 access; and the remaining faculties exhibit more modest shortfalls with respect to Tier 1 access.

To complement Fig. 10, Fig. 11 highlights the corresponding shortfalls expressed as a percentage of the total number of sections taught. That is, for each faculty, the proportions of equivalent 3credit sections that could not be accommodated through Tier 1 bookings are shown for the three ranges of classroom capacity.


Fig. 11. Percentage shortfall of sections broken down by faculty and classroom capacity.
The figure highlights again how the Sauder School of Business, Law and Pharmacy are largely able to accommodate all their scheduling needs via Tier 1 access. On the other hand, the greatest percentage shortfalls occur with Applied Science and Land and Food Systems. In particular, Applied Science has the greatest percentage shortfall for all classroom sizes, including in particular all 40 of its sections requiring rooms with a capacity above 200 but with no corresponding Tier 1 access at all. This is exacerbated by the rigid constraints on many of these courses (core requirements for multiple programs and the use of standard timetables).

Finally, a distinct analysis (not reported here) has been undertaken to examine the extent to which individual classrooms are utilized through Tier 1 bookings. That is, for each classroom the overall utilization rate has been broken down with respect to Tier 1 and Tier 2 bookings. In this context, classrooms are categorized with respect to capacity and are identified with those faculties having sole Tier 1 access (not all classrooms have Tier 1 access identified with a single faculty). Although there are notable variations as expected, for larger classrooms (above 100) Tier 1 utilization rates are typically $50 \%-70 \%$ (c.f. $78 \%-80 \%$ overall), although for some of these classrooms they are as low as $30 \%-40 \%$.

## 5. CONSIDERATION OF ISSUES

### 5.1 Establishing Learning Spaces

## Large Classrooms

Without a doubt, the development of large classrooms is the highest priority with respect to new learning spaces. Hypothetically, if one were to assume a utilization rate of $80 \%$, the shortfalls in Tier 1 access indicated in Figs. 10 and 11 correspond to 11 new classrooms with a capacity between 100 and 200, and 8 new classrooms with a capacity greater than 200. However, changes to scheduling practice that lead to increased utilization rates, as well as the continued significant reliance on Tier 2 access, implies that the number of new classrooms that are needed would be notably lower than this, perhaps half as many.

Although new large classrooms would ideally be assigned Tier 1 access to those faculties with the greatest shortfalls, there is not necessarily an alignment between the highest priority capital projects and those faculties experiencing the greatest shortfalls in large Tier 1 classrooms.

The greatest benefit would arise from a classroom block (similar to the West Mall Swing Space) that would provide Tier 1 access to those units with the greatest Tier 1 shortfalls, until such time as Tier 1 access may be achieved in other ways.

## Capital Planning Process

The capital planning process at UBC is comprehensive, rigorous, transparent and highly effective. The current process with respect to making initial space assignments was summarized in Section 2.2. There are two enhancements to this process that may be given consideration. First, the development of the functional program addresses primarily the needs of the proponent(s), and it is suggested that the most critical campus-wide classroom shortfalls may be given greater emphasis. For example, a classroom may need to be larger than one that meets the proponent's needs, or again units other than the proponent(s) may be granted Tier 1 access. Second, there have been a few instances where space agreements relating to new space have not been unambiguous, and this has on occasion led to ongoing tensions with certain units. The Steering Committee may consider affirming unambiguously to all stakeholders all space assignments, including tiered access assignments, as well as associated room agreements if any. (See also "Room Agreements" in Section 5.3, below.)

## Classroom Renovation Process

Facilities Planning has established a clear and transparent process for soliciting annual upgrade requests and implementing resulting projects. Over $\$ 6 \mathrm{M}$ was spent on such upgrades in 2017/18. Each May-June, requests for project proposals are distributed to the faculties through the Associate Deans who are members of the Learning Spaces Advisory Committee (LSAC). In addition, the information is sent to all Timetabling Representatives and the Building Operations facility managers. Current practice is to alternate between some 40 small projects one year and $4-5$ large projects the following year, so as to control the workload of a small learning space planning team and to ensure that few classrooms are "out of service" at any given time. The Associate Deans prioritize requests within each faculty; Facilities Planning develops a
preliminary priority list overall based on their input and analysis of resources; and then seeks LSAC endorsement for the approved list of projects. The list of approved projects are announced on the website www.learningspaces.ubc.ca. This process is effective and transparent. The Committee's sole suggestion is that, since Timetabling Representatives are often not well positioned to propose requests, whereas Department Heads and School Directors (or equivalent) are not always made aware through the Associate Deans of these opportunities, the call for project proposals is issued directly to Department Heads and School Directors (or equivalent) in place of Timetabling Representatives.

### 5.2 Quality of Learning Spaces and Facilities

The Committee has found that the quality of UBC classrooms and associated facilities to be excellent overall, and the following commentary is made in this context. As indicated in Section 3 , the feedback that was obtained does not convey a sense of relative priorities, or of how widespread are the various identified needs. In this context, the following comments and suggestions are made.

## Facilities, Technology and AV

The consultation process has identified a range of suggestions relating to classroom facilities and technology, as relating, for example, to accessibility, chair/table configurations, power outlets, whiteboards, ceiling microphones, etc. Some of these are associated with classrooms with specialized technologies as indicated below. UBC's Learning Space Design Guidelines (see: https://learningspaces.ubc.ca/learning-space-design-guidelines) are comprehensive and cover all aspects of learning spaces, including the various items that have been identified. Ultimately, Facilities Planning is aware of the various needs that have been identified, and is taking them into account in its program of annual upgrades. Particular mention is made of the high level of satisfaction with AV standards (there are a set of different standards that apply to different rooms), with the extent of these upgrades that are made each year, and with the level of associated technical support provided to instructors.

## Classrooms with Specialized Technologies

A selected number of classrooms have been designated as those containing specialized technologies. For the 2018 W session, 26 such rooms are listed on the following website: https://learningspaces.ubc.ca/specialized. Of these, 8 have a capacity of between 100 and 200, and 3 have a capacity of over 200; 20 rooms allow for media capture and 6 rooms allow for active learning. Here, "Media Capture" refers to the ability to record and stream content from the classroom, and "Active Learning" describes rooms that include furniture designed for group work with enhanced technology support. The consultation process indicated a significant number of requests that relate to Active Learning Classrooms.

While an increased number of such rooms is welcome, a key issue is that, as fixtures and furnishings of classrooms are modernized (from tablets to long tables to active learning formats), classroom capacity may decrease by up to $30 \%$. Therefore, the expertise of Facilities Planning is needed to assure a suitable balance between the desire to maximize available classroom capacity campus-wide versus the desire for an increased number of such rooms.

## Communications

There have been calls for improved communication with respect to the classroom inventory and associated facilities and the availability of classrooms at any given time. In fact, comprehensive information on classroom features is available at https://learningspaces.ubc.ca. This is a superb, informative, user-friendly resource for the campus community. The availability of classrooms at different times may be reviewed at https://sws.students.ubc.ca/van_2018/default.aspx (this is part of the Scientia system). However, the latter resource is not well known, and it is proposed that a prominent link to it, along with guidelines to its use, be provided on the Learning Spaces website.

## Classroom Heating / Cooling

The Committee's consultation process has revealed that overheating in classrooms at some times of the year represents an ongoing challenge for instructors and students. As background, the Associate Vice-President Facilities has responsibilities for the development of new buildings, building operations, and energy and water services on the Vancouver campus; within this integrated portfolio, Building Operations has responsibilities for the comprehensive operation, maintenance, and renovation services for buildings, in addition to land and streets. In all cases, the development and operation of buildings conform to relevant codes and standards, including UBC's own technical guidelines with respect to the design, construction, renovation and operation of university-owned buildings - and by extension with respect to the installation and operation of heating / cooling systems. In general UBC follows industry standards to maintain rooms between $20^{\circ}$ and $27^{\circ}$, with a target of $21^{\circ}$ when heating and $26^{\circ}$ when cooling.

In this context, there is a range of differences with respect to classroom heating, ventilating and cooling systems in different buildings. As examples, some classrooms but not others include opening windows and/or individual room controls; and a few classrooms are air conditioned whereas most rely on passive cooling. [Passive cooling occurs through the air circulation system, whereby cooler outdoor air enters a building's supply fan, while warmer air is exhausted from a building's exhaust fan; however, when the weather gets warm, this system may lead to some overheating.] Ultimately, the systems and procedures in place represent a trade-off between a more stringent adherence to sustainability principles, minimizing capital expenditures and operating costs, and accepting some short-duration discomfort.

Building Operations is well aware of the general issue and provides useful information through its website "Too Hot? / Too Cold?"; and it offers an outstanding level of support in response to related trouble calls. (These may be made through the Service Centre (604.822.2173) or servicecentre.buildingops@ubc.ca.) Nevertheless, given that classroom overheating appears to be a perennial issue, the University, through the Associate Vice-President Facilities, may wish to consider approaches to addressing it, at least to some degree. This would entail a professional study to examine the extent of the issue and its resolution with respect to different buildings, a consideration of relative priorities, and then a consideration of allocating some capital funding to addressing the issue for certain buildings.

### 5.3 Assignment, Reassignment \& Specified Usage of Learning Spaces

Roles and responsibilities relating to the assignment, reassignment and specified usage of learning spaces have been indicated in Section 2.2. However, the Committee has heard of at least two instances where notable tensions have arisen on account of ambiguities or misunderstandings regarding the initial assignment or reassignment or specified usage of certain classrooms, sometimes based on unclear authority. In one case, the statement was made: "... unilaterally seizing space to fill needs for teaching without considering the other needs on that space." In light of this, it is proposed that all space assignments and space usage arrangements be unambiguous at all times. This relates to initial space assignments arising from capital projects (see suggested enhancement in Section 5.1); to subsequent space reassignments (see the process identified in Section 2.2); and to room agreements as elaborated upon below.

Room Agreements. One aspect of the above relates to the reliance on "room agreements," whereby a designated usage of certain general teaching space rooms at specified times takes precedence over bookings made in accordance with the Booking Guidelines for General Teaching Spaces. Currently there are about 8 such agreements. In some cases, the rationale is entirely understandable (e.g. the use of IBLC 182 for regular Senate meetings; and an agreement associated with a reassignment from a Restricted Classroom to a General Classroom). Even so, some of these were initiated prior to the establishment of the above guidelines and/or have conditions and authorizations that are unclear and have led to potential ambiguities and misunderstandings. Under Policy 107, Enrolment Services has the authority to establish rules and set out booking priorities for General Teaching Spaces, and therefore to establish or seek modifications to these room agreements. Therefore Enrolment Services is appropriately seeking to confirm, clarify and authorize all remaining agreements in such a way as to ensure that all parties' needs are appropriately being met. This does not preclude the possibility of Enrolment Services giving consideration to the establishment of new room agreements, should circumstances warrant this, again taking account of the needs of all parties. In general, given the University's ever-changing environment, all such agreements should not last in perpetuity, but need to be reviewed periodically, e.g. every three years.

### 5.4 Restricted Classrooms

As noted in Section 4.1, reported usage of restricted classrooms is generally low, they generally support a variety of activities, including non-teaching use, and they are often booked though local scheduling systems and not through Scientia. This implies that restricted classroom usage is not always aligned with the stated purpose of these rooms ("to be used for that faculty's or department's teaching needs, with ancillary use in periods of low academic utilization ..."). Their use for activities other than credit course delivery and their low reported usage have prompted two suggestions.

One suggestion is that any restricted classrooms that are not used primarily for teaching are reclassified to reflect their primary use, most often a meeting room. This would give a more accurate reflection of the current space inventory, while the space can continue to support both teaching and non-teaching activities, leading to more effective usage. At the same time, a key benefit of these classrooms is the ability to make ad hoc, short-notice bookings with respect to both teaching and non-teaching; and the use of restricted classrooms for some non-teaching is
preferred to the use of meeting rooms for credit-course teaching. Overall, it is suggested that such reclassifications are only considered after Facilities Planning confirms the primary use of the room with users, possibly at the time that space audits are carried out every few years.

A second suggestion is that all bookings for any teaching spaces, including restricted classrooms be made via Scientia, so that there is a complete dataset with respect to teaching activities, and greater accountability and transparency with respect to room usage. In fact, the Enrolment Services Scheduling Guidelines require that all academic courses, including those delivered in Restricted Classrooms, "must be scheduled in Scientia." However, many units view Scientia as being less user-friendly and convenient than local booking schemes for such rooms, and they prefer local booking schemes in the context of informal bookings for a range of purposes. That is, while all regularly scheduled credit courses indeed need to be scheduled in Scientia, it is recognized that units will want to continue to use local booking schemes in the context of informal and ad hoc bookings for a range of purposes.

### 5.5 Classroom Scheduling

## Introduction

A general outline of academic course scheduling procedures has been provided in Section 2.3. The scheduling system for general teaching space is highly complex and is intended to incorporate multiple priorities, criteria, constraints and procedures. As indications of these: there are different access assignments for some 270 course codes; some classrooms are designated as providing Tier 1 access for up to a dozen course codes, sometimes across multiple faculties; bookings rely on the engagement of over 150 timetabling representatives spread across campus; negotiations between multiple programs having Tier 1 access to a particular classroom are needed; there is some misuse through double bookings, unpublished bookings and lowenrolment bookings; there are varying levels of flexibility, ranging from stand-alone lowenrolment elective courses through to large multiple-program core courses and standard timetable requirements; there are often less than optimum room utilization rates and seat occupancy rates; travel times between consecutive classes may be excessive; some courses require non-standard class times and/or non-standard start/end dates and/or the use of specific facilities (e.g. blackboards); there are uncertainties in enrolment projections; and the system requires extensive manual interventions, both with respect to monitoring and adjusting Tier 1 bookings as well as providing support for Tier 2 bookings. The manual interventions currently require a full-time dedicated staff position and the part-time engagement of a senior staff position. A significant portion of staff time is spent "troubleshooting" and supporting Timetabling Representatives with finding spaces, while the Manager of Scheduling Services becomes involved with any escalated "interventions" that are needed.

## The Predominant Issue

The tiered access approach represents a key tension of the scheduling system. On the one hand, there is a strong desire amongst some academic units to retain the current timetabling approach so as to retain scheduling control at the unit level - generally on the grounds that it is the individual units that know best how to meet the needs of their faculty and students. This desire appears to arise from the apprehension that units will be compelled to deliver courses that
involve increased walking distances, unpopular times of the day or week, and less than ideal classrooms. In some cases, this stance is supported by the sentiment that individual faculties have invested funds, sometimes through student fees, into the physical infrastructure, and therefore have a priority entitlement to the use of that infrastructure.

On the other hand, there are many academic units whose needs are unmet by the current tiered access approach, leading to dissatisfaction over the inability to book suitable classrooms, extraordinary stress placed on some Timetabling Representatives, and undue hardship placed on some units with respect to classroom bookings. Sometimes bookings are concluded very late in the cycle (e.g., in June, after the course schedule has been published), or they involve increased walking distances for students and faculty, unpopular times of the day or week, and less than ideal classrooms. As well, the current approach appears not to sufficiently exploit the available technology through the Scientia system in assuring efficient scheduling, in minimizing the burden on Scheduling Services with respect to manual interventions, and in enabling the development of comprehensive planned and actual teaching data.

## 2016 Scheduling Review

Reflecting the latter position from a different perspective, the February 2016 AACRAO report has presented a detailed review of the course scheduling system. The report referred to a wide range of considerations, and found that the course scheduling system at UBC is in need of major improvements. The review included statements such as: "The course scheduling process at UBC Vancouver is decentralized, labor-intensive, manual, and prone to error. Some consolidation and coordination of this process is necessary"; "Existing technology that would streamline the course scheduling process is not being utilized on the UBC Vancouver campus"; and "The twotiered scheduling protocol is inefficient and unnecessary."

## Enrolment Services Scheduling Project

Clearly, the status quo is unsatisfactory, and modifications to the scheduling system need to be contemplated, ideally in such a way as to preserve the desire of some units for local scheduling control; but at the same time one that addresses the large number of hardship situations, improves utilization rates and seat occupancy rates, relies on technology to a greater extent, and reduces the number of manual interventions. The Scheduling Services unit within Enrolment Services is indeed attempting such an approach through a Scheduling Project as summarized below.

The April 2018 Board of Governors meeting agenda refers to the 2018-19 budget report to the Board of Governors that included the following statement: "Investment in a classroom scheduling project has been committed, which will improve the student experience as more course selection and fewer schedule conflicts can enable better access to required and preferred decision-making by the academic community."

The Enrolment Services Scheduling Project is now underway. The project will leverage previous work and consultations that have taken place, including the recommendations put forward in the 2016 AACRAO report. In alignment with the report recommendations, the project has the objective of evolving the scheduling model so as to rationalize and apply
modified criteria and priorities with respect to course scheduling, relying to a greater extent on technology, so as to reduce the extensive reliance on manual interventions, alleviating current hardships and shortfalls as currently occurs, and increasing overall room utilization rates and seat occupancy rates. The project is being undertaken on the assumptions that Scientia, will continue to be the scheduling software that is used, that the current scheduling pattern will remain in place, and that individual units will continue to specify scheduling requirements, including course dates and times. At the same time, Scientia will need to interface with UBC's new Integrated Renewal Program that relates to Finance, Human Resources and Student administrative processes and system environments. Furthermore, Scientia is itself evolving with new functionalities that will need to be understood and leveraged.

The project will be undertaken through a phased approach. An initial step (currently underway) involves a detailed analysis of usage over the past 5 years. Under the guidance of a steering committee and with extensive consultation of the user community, the academic course scheduling practices and guidelines will be evolved. Based on the changes made, simulations will be performed in order to demonstrate and examine potential impacts; and then redefine the scheduling model. The project has a target completion date of March 2020, in time for implementation for the 2020/21 Winter session.

It is anticipated that the model will be supported by users who are satisfied with the current system, while addressing significantly current challenges including the few abuses of selfbookings, very late bookings for some courses, low utilization rates and/or seat occupancy rates, and excessive manual interventions. In addition, although new classrooms are being planned, given the requirements for design and construction, they will not be available before 2021/22.

The Committee commends Scheduling Services for undertaking this project and is optimistic regarding its outcome.

## Short-Term Scheduling Improvements

Given that any changes contemplated by the Enrolment Services Scheduling Project will require an extended period to examine, develop and implement, it is recommended that Scheduling Services consider potential short-term improvements to scheduling procedures in order to seek to relieve the most significant "pain-points" and reduce the extent of manual interventions.
In order to do so, an initial step will be to establish a set of criteria of those Tier 2 bookings that represent the most severe hardships that could be addressed without manual interventions. These may include giving consideration to those programs (not faculties) that have the most severe shortfalls with respect to large classroom access; those courses that are unduly constrained (e.g. core courses taken by more than one program and with standard timetable constraints); and those courses with standard facility requirements.

Given this, approaches that may be contemplated include the following:

- Rigour. It is proposed that Scheduling Services be more rigorous with respect to removing Tier 1 bookings that have been inadvertently misused through double bookings, unpublished bookings and low-enrolment bookings, since this otherwise exacerbates the challenges facing potential Tier 2 users. This greater rigour should free up classrooms so as to be more readily available to Tier 2 users.
- Low Tier 1 Usage Classrooms. It is proposed that Scheduling Services expand Tier 1 access to certain Tier 2 users for large classrooms for which current Tier 1 usage is unduly low, probably those with Tier 1 utilization rates of $40 \%$ or less. This would enable earlier access and more assured access that meets the needs of certain Tier 2 users that currently face undue hardships.
- Tier 1.5 Access. Currently, users who seek classrooms with specialized technologies but are unable to do so through Tier 1 access have priority over other Tier 2 users, denoted here as "Tier 1.5 access." It is proposed that Scheduling Services expand this level of "advance" access to the most critical Tier 2 users (to all large classrooms) based on the criteria that have been developed above (e.g., for those cases with no flexibility that currently represent the most severe hardships).


## Blended Learning

The consultation process indicated a substantial interest in increased levels of blended learning. This combines educational materials in the form of online digital media with traditional classroom methods, and reduces notably the extent of classroom scheduling that is required, for example by relying on 1 hour per week of classroom instruction rather than 3 hours per week. Blended learning currently occurs, but its scheduling now represents an ineffective use of available time slots (since the standard three hours a week are not used in a coordinated way). The Committee proposes that Scheduling Services incentivize Timetabling Representatives to schedule two or three courses so as to fill the standard times of a single course, which should lead to some efficiency in classroom usage.

## Scheduling Pattern

It has been pointed out that a 3-credit course scheduled on Monday / Wednesday / Friday for 50 minutes, versus one scheduled for 80 minutes on Tuesdays and Thursdays have equivalent contact hours only if both 80 -minute classes include a 5 -minute break. However, the former may encounter the loss of holiday Mondays. Some universities allow for extra days at the end of term to make up for holiday Mondays. The Academic Policy Committee is aware of this issue and may or may not wish to give it particular consideration.

### 5.6 Thursday Break

The chair of the Senate Academic Policy Committee has highlighted the Senate requirement that the 12:30-2:00 pm time on Thursdays should not be used for regularly scheduled classes. [This was approved by Senate in 1997 with respect to $12: 30-2: 30 \mathrm{pm}$, and then modified in 2001 to 12:30-2:00 pm.] The break is intended to provide time for student activities and for academic units to hold meetings, seminars, etc. This Senate requirement has not been enforced and is not recognized in the Academic Course Scheduling Guidelines.

The SABNC has examined this matter and has found that there are significant challenges with a universal adherence to this requirement across the campus. First, UBC's approach to scheduling is highly decentralized, whereby each unit selects its own times for course scheduling, and decides when and to what extent to provide time for a break from course activities. As a consequence, there are now close to 500 sections (over the two Winter session terms) that have scheduled times that encroach on the above Thursday break, and units have made alternative
allowances for providing time for non-course student activities and unit meeting times. That is, given the diversity of teaching needs and practices across the campus and the decentralized approach to scheduling, it would be consistent to adopt a decentralized approach to scheduling a break for non-course activities as well. Indeed, the Committee has not found compelling evidence as to why such a requirement needs a single common time across the campus.

Second, given the enormous constraints on essential scheduling within the normal week, especially during prime time, imposing the Thursday break universally would cause undue hardship for many units with respect to regularly scheduled classes. That is, to re-schedule some 500 sections into alternate times would represent a major challenge. This would be especially so with respect to those faculties / units with limited Tier 1 access to large classrooms that are in high demand throughout the week, and with respect to units that have notable scheduling constraints, such as the need to schedule courses that are core to multiple programs or that fit within standard timetables. As one example, the BASc program entails over 100 interconnected standard timetables (relating to the four years of the program and to 11 program specializations). As another example, the PharmD program requires the 18-credit PHRM 100 that entails blocks of time of over 20 hours a week.

From a different perspective, any requirement whereby some 350 classrooms across campus, including over 50 high-demand large classrooms, would largely be unused for a particular block of time during the week would introduce a significant inefficiency in the use of UBC's learning infrastructure - at a time when enrolments and program diversity have placed great demand on our current learning space inventory.

Even so, the requirement of a common break from courses of related programs is indeed desirable and does suggest some intervention from the Academic Policy Committee. Therefore, that Committee may wish to explore an alternative approach to assuring that sufficient time is set aside for student non-course activities during the normal teaching week, recognizing that this would ideally be undertaken in a decentralized manner so as to be consistent with scheduling, program constraints and program cultures. For example, the Committee may give consideration to setting out its expectations regarding the need for $1-1 / 2$ hours per week (within the normal teaching day of 8 am to 5 pm ) to be set aside for non-course student activities and unit meeting times, and to request Deans to report to the committee regarding their units' practices regarding the provision of such a time each week - with the prospect that related programs, but not the entire campus, may adopt common break times.

Overall, the SABNC suggests that the Academic Policy Committee recommend to Senate that the current requirement be rescinded; and that, in its place, the Academic Policy Committee may explore an alternative approach to assuring that sufficient time is set aside for student non-course activities during the normal teaching week, one that is consistent with the diversity of program delivery and constraints, that is consistent with the decentralized nature of scheduling across the campus, and that seeks a common break from courses of related programs.

### 5.7 Research Seminars

One issue identified through the consultation process relates to the view that research seminars represent an equal academic priority as credit courses and so should be granted equal scheduling priority as credit courses. (With respect to research seminars, a second issue that was identified relates to the nature and authority of room agreements - this is considered in Section 5.3.)

The issue arises because the Booking Guidelines for General Teaching Space do not give equal priority to all component "Core Academic / Educational Activities." Rather, within this category, some component activities are given a higher priority over other component activities. In particular: sub-priority (a) refers to Senate-approved credit course offerings, whereas subpriority (d) refers to "regularly scheduled and/or recurring research activities including research colloquia ...". Recall that, under Policy 107, Enrolment Services has the authority to establish rules and setting out booking priorities for General Teaching Spaces. Therefore it has the authority to assign different sub-priorities to different components of "Core Academic / Educational Activities." Indeed, it has an obligation to do so in order to avoid exercising academic judgment with respect to competing requests for a given space at a given time.

If considered desirable, it would be possible for research seminars to achieve sub-priority (a) access by seeking to become Senate-approved (there are over 200 seminars that are Senateapproved, including a number that are research seminars, and some may have a zero credit value). However, even if this option was pursued, any booking would still be subject to normal scheduling constraints, for example with respect to competing with other units with Tier 1 access, and as well to the need to verify sufficiently high seat occupancy rates. In essence, there can only be one user in a certain room at a certain time.

Finally, it should be pointed out that, despite the specific wording of Policy 107, the establishment of sub-priorities of "Core Academic / Educational Activities" may be viewed as an academic matter, and therefore should ultimately fall under the authority of the Provost or the Senate, rather than Enrollment Services. While the Senate Academic Building Needs Committee was indeed consulted on setting these sub-priorities, it should in principle be possible to appeal to the Provost with respect to any variations to these in specific cases.

## 6. SUMMARY FINDINGS

1. New Learning Spaces. New large classrooms represent the highest infrastructure priority relating to learning spaces. The greatest benefit would arise from a classroom block (similar to West Mall Swing Space) that would provide Tier 1 access to those units with the greatest Tier 1 shortfalls, until such time that such Tier 1 access is achieved in other ways.
2. Capital Planning and Upgrade Processes. The capital planning process at UBC is comprehensive, rigorous, transparent and highly effective. It is leading to the continual development of capital projects that are providing major benefits to UBC's learning environment. Minor enhancements to the process may take account to a greater extent campus-wide teaching needs beyond those of the proponents (e.g. with respect to Tier 1 assignments), and may affirm unambiguously all space assignments. The process for
setting priorities and making annual classroom upgrades is fair, transparent and efficient. These upgrades are providing major benefits to UBC's learning environment.
3. Quality of Spaces and Facilities. The quality of UBC classrooms and associated facilities and the associated level of A/V support provided are excellent. Through its reliance on UBC's Learning Space Design Guidelines, Facilities Planning is well positioned to assuring the most beneficial upgrades to classrooms, and the appropriate development of classrooms with specialized technologies.
4. Assignment / Reassignment of Learning Spaces. There is a need to articulate more carefully the approaches to making initial space assignments through the capital planning process, and space reassignments made through the Office of the Provost. Room agreements relate to the designated use of certain rooms at certain times, as taking precedence over bookings made in accordance with the Booking Guidelines for General Teaching Space. Enrolment Services is appropriately seeking to confirm, clarify and authorize all room agreements that are currently in place.
5. Enrolment Services Scheduling Project. There are significant challenges with the current approach to scheduling, reflecting complex priorities, criteria, constraints and procedures. A primary issue relates to the desire of some units to retain scheduling control at the unit level, whereas other units encounter undue hardship with respect to scheduling, compounded by a large number of manual interventions being required. Scheduling Services is commended for undertaking a Scheduling Project that is seeking to address these and other issues through a careful and consultative approach.
6. Short-Term Scheduling Improvements. Given that changes contemplated by the Enrolment Services Scheduling Project will require an extended period to examine, develop and implement, several suggestions are directed to Scheduling Services with respect to short-term improvements to scheduling procedures in order to reduce the most severe hardships currently encountered and reduce the extent of manual interventions being required.
7. Thursday Break. Given the diversity of teaching needs and practices across the campus and the extensive scheduling constraints in place, the Senate Academic Policy Committee may wish to recommend to Senate that the Thursday Break scheduling requirement be rescinded.

Beyond the key findings given above, this report also contains a series of specific suggestions for improvement, directed primarily to Scheduling Services and Facilities Planning.

Follow-up. The Provost is invited to coordinate any follow-up that is developed by the various units, and to provide an update and overall response to this report to the Senate Academic Building Needs Committee by September 2019.

## APPENDIX I. MATERIALS CONSIDERED BY THE COMMITTEE

## Policies and Guidelines

- UBC Policy 107, Booking and Rental of UBC Space, see:
https://universitycounsel.ubc.ca/files/2015/02/policy107.pdf
- UBC Vancouver, Booking Guidelines for General Teaching Space, see:
https://facultystaff.students.ubc.ca/sites/facultystaff.students.ubc.ca/files/Booking\ Guidelines\ for\ Ge neral\%20Teaching\%20Space\%20w\%20Rental\%20Rates.pdf
- Academic Course Scheduling Guidelines, see:
https://facultystaff.students.ubc.ca/enrolment-services/student-records-systems-management/scheduling-services/course-scheduling/guidelines


## Previous Studies

- UBC Restricted Teaching Space Audit, Facilities Planning, UBC, August 2014
- Scheduling Pattern Review, AACRAO Consulting Report for the University of British Columbia, February 2016
- El Masri, O. and Bigazzi, A., Travel Between Classes at the University of British Columbia, Vancouver: A Study of Walking Distances on a Large Campus. Department of Civil Engineering, UBC. December 2017. [Paper prepared for Campus \& Community Planning, UBC.]


## Presentations to the Committee

- Learning Spaces Overview (Jodi Scott, Senior Planner, Facilities Planning), April 24, 2018
- Scheduling Services Guidelines (Oana Toma, Manager, Scheduling Services; Annie Yim, Associate Registrar, Student Records \& Systems Management), January 23, 2018
- Academic Course Scheduling (Oana Toma, Manager, Scheduling Services; Annie Yim, Associate Registrar, Student Records \& Systems Management), September 23, 2018


## APPENDIX II. CONSULTATION - INVITATION FOR FEEDBACK

The following is the announcement that was issued soliciting feedback from the academic community.

September 4, 2018
To: Deans, Directors and Heads, Student Senate Caucus
cc: Enrolment Services, Facilities Planning, Centre for Teaching, Learning \& Technology, Office of the VP Academic, Office of the VP Students, Selected Senate Committee Chairs

From: The Senate Secretariat on behalf of the Academic Building Needs Committee

## Re: Learning Space Study

The Senate Academic Building Needs Committee is conducting a study of the suitability and usage of learning spaces on the Vancouver campus. The Committee is seeking feedback from the academic community on this matter, specifically from academic units, faculty and students. As may be relevant, we ask that you forward this memorandum to staff within academic units who have relevant responsibilities (e.g. timetabling representatives) and to any faculty and students that you feel should be aware of it.

The Committee is seeking feedback in two ways:

1. Written comments should be submitted via email to Lauren Small at lauren.small@ubc.ca. The Committee will be accepting written feedback and comments until October 12, 2018.
2. Interested persons are invited to a forum to discuss the issues and to provide feedback in person. The forum has been set for Tuesday, October 9 from 2:00-3:30 pm at a location to be announced. Individuals interested in attending are requested to e-mail lauren.small@ubc.ca by October 2 to confirm attendance.

The Committee is particularly interested in the following issues:

- The process, priorities and designations of establishing learning spaces through new capital projects and major renovation projects; as well as the associated process and priorities with respect to classroom improvement projects.
- The suitability of classroom configurations and facilities, including AV standards, and classrooms with specialized technologies.
- The assignment and reassignment of learning spaces as Restricted Teaching Space ${ }^{1}$ and General Teaching Space, the latter including the designation of Tier 1 and Tier 2 access spaces with respect to specified programs.
- Course scheduling and bookings that are undertaken in an efficient, effective and fair manner, recognizing the multitude of priorities, criteria and constraints (e.g. tiered access, scheduling pattern, occupancy rates, utilization rates, walking distances, non-standard schedules, ...)

Please note that the Committee has decided not to give consideration to other aspects of teaching spaces, including re-assignments between teaching and non-teaching spaces (e.g. research spaces), laboratories and other non-classroom restricted spaces, summer term usage, examination scheduling, non-academic use of learning spaces and ad hoc room bookings.

Further information on some of the above topics is available as follows:

- For Learning Spaces, see here
- For Scheduling Services, see here
- For academic course scheduling guidelines, see here

Finally, it should be noted that Enrolment Services is initiating a larger scale, longer term project focused on classroom scheduling, and so is participating as an observer of the current consultation process, with access to all submissions that are made. As it may determine, Enrolment Services may undertake a subsequent consultation process relating to its project.

Respectfully submitted,
Michael Isaacson
Chair, Academic Building Needs Committee

[^2]1 February 2019
To: Vancouver Senate
From: Senate Admissions Committee
Re:
a) Vantage College - Transfer and Advance Credit (approval)
b) Admission Requirements - Undergraduate Program/Master of Management (approval)
c) Undergraduate Enrolment Targets 2019/20 (approval)

The Committee has reviewed the following proposals and is pleased to recommend them to Senate for approval.
a) Vantage College - Transfer and Advance Credit (approval)

The Committee has reviewed and recommends to Senate for approval transfer and advance credits regulations for applicants to Vantage College. No post-secondary transfer credit will be granted towards any Vantage One program. Upon successful completion of Year 1, students may be granted advance credits in accordance with the academic regulations of the Faculty.

Motion: That Senate approve transfer and advance credit for applicants to the Vantage Program, effective for the 2019 Winter Session and thereafter.
b) Admission Requirements - Undergraduate Program/Master of Management Dual Degree Program Option (approval)

The Committee has reviewed and recommends for approval changes in admission requirements for applicants to the Undergraduate Program/Master of Management Dual Degree Program Option. Currently, students may enter in Year 1 or Year 3 of the program. The proposed changes offer an additional entry point in Year 2.

Motion: That Senate approve changes in admission requirements for applicants to the Undergraduate Program/Master of Management Dual Degree Program Option, effective for entry to the 2019 Summer Session and thereafter.
c) Undergraduate Enrolment Targets 2019/20 (approval)

The Committee has reviewed and recommends to Senate for approval enrolment targets for the 20182019 academic year, as outlined by Faculty, program, and year-level.

Motion: That Senate approve and forward to the Board of Governors for approval the 2019/2020 Undergraduate Enrolment Targets, as per section 27(2)(r) of the University Act.

Respectfully submitted,
Prof. Carol Jaeger, Chair
Senate Admissions Committee

# UBC Admission Proposal Form Change to Course or Program 

| Faculty: Vantage College <br> Department: n/a <br> Faculty Approval Date: n/a <br> Effective Session: W <br> Effective Academic Year: 2019 | Date: November 29, 2018 <br> Contact Person: Claudia Ruitenberg <br> Phone: 604-827-2789 <br> Email: claudia.ruitenberg@ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> Admission <br> Applicants apply to UBC Vantage College via an online application form. The fundamental principles governing admission to UBC Vantage College are the mandate to diversify the international student population and the capacity of the student to matriculate into a UBC degree program. <br> Academic Admission requirements are specified in Admissions. <br> Transfer and Advance Credit regulations are specified in Admissions. | URL: <br> http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12 , 307,939,0 <br> Present Calendar Entry: <br> Admission <br> Applicants apply to UBC Vantage College via an online application form. The fundamental principles governing admission to UBC Vantage College are the mandate to diversify the international student population and the capacity of the student to matriculate into a UBC degree program. <br> Academic Admission requirements are specified in Admissions. <br> Type of Action: <br> Add a line to call attention to Transfer and Advance Credit regulations specific to the Vantage One programs. <br> Rationale for Proposed Change: <br> Although a single line currently exists in the Admissions section of the Calendar about "Transfer Credit," we have found that this information is frequently misunderstood in relation to advance credit from International Baccalaureate, Advanced Placement, or A-level courses. After consultation with the Faculties of Arts, Science, Applied Science, and Management, more specific language was developed for advance credit. |
| Proposed Calendar Entry: <br> Applicants to Vantage College <br> Transfer and Advance Credit <br> Transfer credit <br> No post-secondary transfer credit is granted toward any of the Vantage One programs. <br> Advance credit <br> No secondary school advance credit from International Baccalaureate, Advanced Placement, or A-level courses is granted toward the Vantage One Arts, Engineering, or Management programs. | URL: <br> http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2, 309,0,0\#23351 <br> Present Calendar Entry: <br> Applicants to Vantage College <br> Transfer Credit <br> Transfer credit is not applicable towards the Vantage <br> Gollege program. |


| No secondary school advance credit is granted toward |
| :--- |
| courses in Winter session term 1 of the Vantage One |
| Science program. At most, one Faculty of Science course |
| in each of Winter session term 2 and Summer session of |
| the Vantage One Science program may be replaced by |
| advance credit. For detailed information about advance |
| credit for courses taken in the International Baccalaureate, |
| Advanced Placement, or A-level programs, consult |
| https://you.ubc.ca/applying-ubc/applied/first-year-credit/ |

## Type of Action:

Clarify advance credit regulations for Vantage One programs.

## Rationale for Proposed Change:

The Vantage One programs are structured first-year programs. Post-secondary transfer credit is not applicable. Students are admitted to a Vantage program with the express understanding that they will complete the program as designed, in its integrity. The only exceptions can be one course in Winter session term 2 and one course in Summer session in the Vantage Science program, because of the Faculty of Science's familiarity with the close connections between secondary Math and Science curriculum for which advance credit is granted to nonVantage students. No advance credit is granted toward Winter session term 1 courses so that all Vantage students take the full first term with their cohort and can assess their academic performance.

After they successfully progress to year 2, students may be granted advance credit (for example, toward elective or complementary studies requirements), depending on the academic regulations of the Faculty.

## UBC Admission Proposal Form Change to Course or Program

| Faculty: Commerce \& Business Administration <br> Department: <br> Faculty Approval Date: <br> Effective Session (W or S): S <br> Effective Academic Year: 2019 | Date: September 20, 2018 <br> Contact Person: Jessica Hanna/ Kin Lo <br> Phone: 6048271732 / 6048228430 <br> Email: Jessica.hanna@sauder.ubc.ca / <br> kin.lo@sauder.ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> Undergraduate Program-Master of Management Dual Degree Program Option | URL: <br> http://www.calendar.ubc.ca/vancouver/i ndex.cfm?tree=12,199,961,0 <br> Present Calendar Entry: <br> (Cut and paste from the current web Calendar.) <br> Undergraduate Program-Master of Management Dual Degree Program Option |
| This distinctive dual degree program option offers qualified students the opportunity to earn, in one course of study, an undergraduate degree from UBC and a Master of Management Degree from the Faculty of Commerce and Business Administration (UBC Sauder School of Business). This dual degree program option can be completed in four and one half years through intensive study and scheduling including a summer of full time study after completion of the undergraduate degree. The dual degree program option will also include extensive professional development and career preparation throughout the dual degree program of study, provided by the Business Career Centre in the UBC Sauder School of Business. | This distinctive dual degree program option offers qualified students the opportunity to earn, in one course of study, an undergraduate degree from UBC and a Master of Management Degree from the Faculty of Commerce and Business Administration (UBC Sauder School of Business). This dual degree program option can be completed in four and one half years through intensive study and scheduling including a summer of full time study after completion of the undergraduate degree. The dual degree program option will also include extensive professional development and career preparation throughout the dual degree program of study, provided by the Business Career Centre in the UBC Sauder School of Business. |
| For information on the undergraduate programs currently offering the dual degree program option please visit the Undergraduate Program/Master of Management Dual Degree Option website. | For information on the undergraduate programs currently offering the dual degree program option please visit the Undergraduate Program/Master of Management Dual Degree Option website. |

## Admission

Individuals interested in pursuing the Undergraduate Program/Master of Management Dual Degree Option must first apply to the undergraduate program(s) of their choice following normal application procedures and paying the applicable application fees. Second, they must apply to the UG-MM Dual Degree Option by going to the program website and completing the Dual Degree Option application and paying the Master of Management application fee. Students applying to the Dual Degree Option for both their first and second choice undergraduate programs will need to complete only one dual degree application for both programs.

Successful applicants will initially be admitted to an undergraduate degree program, with subsequent admission to the Master of Management degree program, upon completion of the continuation requirements outlined below.

Acceptance into the Master of Management Dual Degree Option is granted to a limited number of the top applicants to the Undergraduate Program each year.

Applicants who are not accepted into the Master of Management Dual Degree Option will be considered for admission to the Undergraduate Program without the Dual Degree Option.

> A limited number of first and second year students at UBC or transfer applicants applying to UBC in year two or three, may be accepted on a competitive basis into the UG-MM Dual Degree Program Option starting in year two or three of their undergraduate program. This is conditional on spaces available in the Program. Interested

## Admission

Individuals interested in pursuing the Undergraduate Program/Master of Management Dual Degree Option must first apply to the undergraduate program(s) of their choice following normal application procedures and paying the applicable application fees. Second, they must apply to the UG-MM Dual Degree Option by going to the program website and completing the Dual Degree Option application and paying the Master of Management application fee. Students applying to the Dual Degree Option for both their first and second choice undergraduate programs will need to complete only one dual degree application for both programs.

Successful applicants will initially be admitted to an undergraduate degree program, with subsequent admission to the Master of Management degree program, upon completion of the continuation requirements outlined below.

Acceptance into the Master of Management Dual Degree Option is granted to a limited number of the top applicants to the Undergraduate Program each year.

Applicants who are not accepted into the Master of Management Dual Degree Option will be considered for admission to the Undergraduate Program without the Dual Degree Option.

If space is available, a limited number of second year students at UBC or at another institution applying to transfer to UBC im year three, may be accepted into the Undergraduate Program/Master of Management Dual Degree Option starting in year three of their Undergraduate
Program on acompetitive basic. Interested students should apply during Term 2 of
students should apply during Term 2 of their second year by going to the website and completing the Dual Degree Option application and paying the Master of Management application fee.

Students in the Undergraduate Program/Master of Management Dual Degree Option are not eligible to complete the Commerce Minor as part of their Undergraduate Program. The Master of Management Dual Degree Option is not open to students in the Bachelor of Commerce Program.

## Continuation Requirements

## Degree Requirements

In order to receive both degrees students must complete the degree requirements for both the undergraduate program and the Master of Management. During their undergraduate program students must complete $\mathbf{1 2}$ credits of Commerce courses. These will count as elective credits toward completion of the undergraduate program. The 300- and 400-level Commerce courses completed during the undergraduate program ( 6 credits in total) will also be applied toward completion of the Master of Management degree requirements.

Students enrolled in the Undergraduate Program/Master of Management Dual Degree Program Option are required to complete the following commerce courses as part of their undergraduate program:

COMM 120 (3) Business Immersion
COMM 220 (3) Business Communications COMM 320 (1.5) Foundations in Accounting I
COMM 321 (1.5) Organizational
Behaviour
COMM 420 (1.5) Marketing
their second year by going to the website and completing the Dual Degree Option application and paying the Master of Management application fee.

Students in the Undergraduate
Program/Master of Management Dual Degree Option are not eligible to complete the Commerce Minor as part of their Undergraduate Program. The Master of Management Dual Degree Option is not open to students in the Bachelor of Commerce Program.

## Continuation Requirements

## Degree Requirements

In order to receive both degrees students must complete the degree requirements for both the undergraduate program and the Master of Management. During their undergraduate program students must complete 3 credits of Commerce courses in each of the four years of their program. These will count as elective credits toward completion of the undergraduate program. The 3 credits of 300- and 400-level Commerce courses completed in each of years three and four of the undergraduate program (6 credits in total) will also be applied toward completion of the Master of Management degree requirements.

Students enrolled in the Undergraduate Program/Master of Management Dual Degree Program Option are required to complete the following commerce courses as part of their undergraduate program:

## Year One

GOMM 120 (3) Business Immersion

Year Two

## COMM 421(1.5) Introductory Finance

The recommended course order for students entering the program in their first year is:
Year 1: COMM 120
Year 2: COMM 220
Year 3: COMM 320 and COMM 321
Year 4: COMM 420 and COMM 421
The recommended course order for students entering the program in their second year is:

Year 2: COMM 120 and COMM 220
Year 3: COMM 320 and COMM 321
Year 4: COMM 420 and COMM 421
The recommended course order for students entering the program in their third year is:
Year 3
COMM 120, COMM 320, COMM 321

## Year 4

COMM 220, COMM 420, COMM 421

## Graduation

Students will graduate from each program when the requirements for that program have been completed. Students may attend the UBC convocation ceremonies to receive their undergraduate program degree while they are completing the Master of Management degree requirements. The Master of Management degree will be awarded at the next convocation ceremony following completion of the degree requirements.

Students enrolled in the Dual Degree Program Option pay a portion of the Master of Management tuition while

GOMM 220(3) Business Communications and Ethics

Year Three
GOMM 320 (1.5) Financial Accounting
COMM 321 (1.5) Organizational
Behaviour

Year Four
GOMM 420 (1.5) Marketing
GOMM 421 (1.5) Corporate Finance
Students entering the Dual Degree Program Option in year three of their undergraduate program would generally complete the required commerce courses as electives in their undergraduate degree program as follows:

## Year Three

GOMM 120, 320, and 321

Year Four
GOMM 220, 420, and 421

## Graduation

Students will graduate from each program when the requirements for that program have been completed. Students may attend the UBC convocation ceremonies to receive their undergraduate program degree while they are completing the Master of Management degree requirements. The Master of Management degree will be awarded at the next convocation ceremony following completion of the degree requirements.

Students enrolled in the Dual Degree Program Option pay a portion of the Master of Management tuition while

| completing their undergraduate degree |
| :--- |
| program. For further information on the |
| Dual Degree Program Option, including |
| detailed information on applying, fees, and |
| course requirements please visit the |
| Undergraduate Program/Master of |
| Management Dual Degree Option website |
| Academic Policies |
| Refer to the Academic Calendar for |
| academic regulations for this program. |
| Contact Information |
| Please see the Master of Management Dual |
| Degree site for further program and contact |
| information. |

completing their undergraduate degree program. For further information on the Dual Degree Program Option, including detailed information on applying, fees, and course requirements please visit the Undergraduate Program/Master of Management Dual Degree Option website

## Academic Policies

Refer to the Academic Calendar for academic regulations for this program.

## Contact Information

Please see the Master of Management Dual Degree site for further program and contact information.
completing their undergraduate degree program. For further information on the Dual Degree Program Option, including detailed information on applying, fees, and course requirements please visit the Undergraduate Program/Master of Management Dual Degree Option website.

## Type of Action:

Add admission stream for students entering in year 2.

## Rationale for Proposed Change:

During the past few admissions cycles, we have seen increased interest from prospective students on a desire for multiple entry points. This addition would provide more options to allow students to make more informed decisions about their readiness for the $\mathrm{B}+\mathrm{MM}$ program. This may result in higher retention and stronger academic performance in the program among 2nd year entry students (relative to 1st year entry), given they have self-assessed their motivation and academic capabilities during their 1st year in the university.

By opening admission to $2^{\text {nd }}$ year entry students we are expecting a shift in enrolment numbers amongst the different entry points and not necessarily an increase in enrolment numbers. Over the last three academic years (2016/2017, 2017/2018, 2018/2019), we have had on average 160 new students enrolled as of mid-September (approximately, Year 1: 100; Year 3: 60). Should we see an increase in applications and quality applicants, the RHL can accommodate an increase of 55 students (annually) within the current scheduled COMM course offerings, totaling 215 students.

Partner faculties have been consulted and they are in agreement with the proposed change.

## MEMORANDUM

January 23, 2019
To: Senate Admissions Committee
From: Pam Ratner, Vice-Provost and Associate Vice-President Enrolment \& Academic Facilities
Re: 2019/20 Academic Year Undergraduate Enrolment Targets for UBC Vancouver

I am pleased to provide the enrolment projections (by fiscal year) and intake targets (by academic year), based on the strategic planning decisions of the Faculties. The intake targets for undergraduate programs are set by the Offices of the Deans of all Faculties, in consultation with the Provost's Office, the Office of Planning and Institutional Research (PAIR), Enrolment Services, and the International Student Initiative. Intake targets take into account: the provincial government's mandate regarding overall domestic student enrolment (measured as FTEs); the University's strategic goals; and both the opportunities and capacities of the Departments and Schools to provide excellent undergraduate education and appropriate levels of support for students.

## Actual FTE Enrolment for Fiscal Year 2018/19

For the 2018/19 fiscal year, UBC Vancouver's total full-time equivalent (FTE) enrolment as of March 31, 2019, is projected to be 49,271. ${ }^{1}$ This includes: 29,643 (60.2\%) domestic undergraduate FTEs, 10,032 (20.4\%) ISI undergraduate FTEs, 1,468 (3.0\%) residents (Medicine, Dentistry, and Pharmacy), and 8,128 (16.5\%) graduate students (see Table 1b). Compared with 2017/18, domestic undergraduate enrolment decreased by 205 FTEs ( $0.7 \%$ ) and international (ISI) undergraduate enrolment increased by 711 FTEs (7.6\%). UBC Vancouver's domestic enrolment is currently above the 2018/19 government-funded targets: 1,343 (4.5\%) FTEs above the domestic undergraduate student and resident target of 29,768 , and 2,316 (39.8\%) above the graduate student target of 5,812 (see Tables 1a and 1b). Table 2 provides details of domestic and ISI undergraduate and resident FTE enrolment by Faculty or School.

## Undergraduate Headcount Intake Targets for Winter 2019/20

The proposed direct-entry undergraduate intake targets (in headcounts) for the forthcoming 2019/20 academic year remain largely unchanged from the 2018/19 targets. It is proposed that we increase direct-entry undergraduate targets by 37 (0.6\%) domestic and 50 (1.5\%) ISI (see Table 3A). Relative to last year's actual enrolment, the proposed

[^3]THE UNIVERSITY OF BRITISH COLUMBIA
direct-entry undergraduate intake targets (in headcounts) will result in $148(2.3 \%)$ more new-to-program domestic students and $95(-2.8 \%)$ fewer new-to-program ISI students.

Intakes for other undergraduate programs, including post-baccalaureate, diploma, certificate, and non-degree programs (e.g., visiting, unclassified, access studies) are detailed in Table 3B.

## Projected Headcount Enrolment Plan for Winter 2019/20

The proposed intake target plan projects that our total undergraduate enrolment for 2019/20 will have 141 ( $0.4 \%$ ) more domestic undergraduate students, and 230 (2.1\%) more ISI undergraduate students. Table 4A provides the projected domestic and ISI undergraduate students' enrolment for 2019/20 through 2023/24, by Faculty and School. Table 4B provides the percentage of projected Faculty and School undergraduate enrolment that is ISI.

## Projected FTE Enrolment Plan for Fiscal Year 2019/20

Including all undergraduate programs and residents, the intake target plan is expected to lead to an increase of 18 domestic ( $0.1 \%$ ) and 47 ( $0.5 \%$ ) ISI FTEs in fiscal year 2019/20, and less than $1 \%$ growth per year thereafter (see Table 2). With the addition of 236 funded FTEs for biomedical engineering, manufacturing engineering, and computer science, the university anticipates being at 104.2\% of undergraduate and resident government target in 2019/20 (see Table 1b).

Table 1a: UBCV Government Targets, by Fiscal Year

|  | Actual |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Projected |  |  |  |  |  |  |
|  | $2017 / 18$ | $2018 / 19$ | $2019 / 20$ | $2020 / 21$ | $2021 / 22$ | $2022 / 23$ | $2023 / 24$ |
| Undergraduate \& Resident | 29,641 | 29,768 | 29,877 | 30,013 | 30,149 | 30,205 | 30,205 |
| Graduate | 5,812 | 5,812 | 5,812 | 5,812 | 5,812 | 5,812 | 5,812 |
| Total Target | 35,453 | 35,580 | 35,689 | 35,825 | 35,961 | 36,017 | 36,017 |

Resident includes Medical, Dental, and Pharmaceutical residencies. Although UBC counts them separately, the Ministry includes
resident FTEs in the undifferentiated undergraduate FTE target.
Table 1b: UBCV Total Domestic Normal Load FTE

|  |  | Actual |  | Projected |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
| Undergraduate | Baccalaureate Degree | 24,618 | 24,608 | 24,654 | 24,650 | 24,744 | 24,854 | 24,944 |
|  | Post-Baccalaureate Degree | 3,335 | 3,389 | 3,359 | 3,329 | 3,326 | 3,325 | 3,326 |
|  | Diploma \& Certificate | 847 | 709 | 711 | 711 | 711 | 711 | 711 |
|  | Non-Degree | 1,047 | 937 | 937 | 937 | 937 | 937 | 937 |
|  | Undergraduate FTE | 29,848 | 29,643 | 29,661 | 29,626 | 29,718 | 29,828 | 29,918 |
| Resident | Resident FTE | 1,462 | 1,468 | 1,468 | 1,468 | 1,468 | 1,468 | 1,468 |
| Undergraduate \& | dent Total | 31,310 | 31,111 | 31,129 | 31,094 | 31,186 | 31,296 | 31,386 |
|  | Unfunded FTE | 1,669 | 1,343 | 1,252 | 1,081 | 1,037 | 1,091 | 1,181 |
|  | \% Unfunded | 5.6\% | 4.5\% | 4.2\% | 3.6\% | 3.4\% | 3.6\% | 3.9\% |
| Graduate | Graduate FTE | 8,150 | 8,128 | 8,330 | 8,330 | 8,330 | 8,330 | 8,330 |
|  | Unfunded FTE | 2,338 | 2,316 | 2,518 | 2,518 | 2,518 | 2,518 | 2,518 |
|  | \% Unfunded | 40.2\% | 39.8\% | 43.3\% | 43.3\% | 43.3\% | 43.3\% | 43.3\% |
| Grand Total | UBC Vancouver FTE | 39,460 | 39,239 | 39,459 | 39,424 | 39,516 | 39,626 | 39,716 |
|  | Unfunded FTE | 4,007 | 3,659 | 3,770 | 3,599 | 3,555 | 3,609 | 3,699 |
|  | \% Unfunded | 11.3\% | 10.3\% | 10.6\% | 10.0\% | 9.9\% | 10.0\% | 10.3\% |

Graduate student projections provided to the Budget Office by the Faculties

Table 2: UBCV Normal Load FTE by Faculty/School and Fiscal Year (All Programs)

| Domestic/ <br> ISI | Category | Faculty/School | Actual |  | Projected |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
| Domestic | Undergraduate | Applied Science | 3,614 | 3,626 | 3,636 | 3,723 | 3,816 | 3,886 | 3,930 |
| Domestic | Undergraduate | Arts | 8,298 | 8,280 | 8,163 | 8,071 | 8,014 | 7,985 | 7,973 |
| Domestic | Undergraduate | Dentistry | 329 | 326 | 332 | 327 | 328 | 329 | 329 |
| Domestic | Undergraduate | Education | 1,590 | 1,667 | 1,628 | 1,602 | 1,601 | 1,601 | 1,601 |
| Domestic | Undergraduate | Forestry | 615 | 599 | 638 | 666 | 696 | 728 | 754 |
| Domestic | Undergraduate | Kinesiology | 987 | 1,008 | 1,016 | 1,019 | 1,021 | 1,021 | 1,021 |
| Domestic | Undergraduate | Land \& Food Systems | 1,068 | 1,038 | 1,039 | 1,039 | 1,052 | 1,062 | 1,075 |
| Domestic | Undergraduate | Law | 545 | 566 | 578 | 582 | 582 | 582 | 582 |
| Domestic | Undergraduate | Medicine | 1,288 | 1,294 | 1,276 | 1,254 | 1,253 | 1,251 | 1,250 |
| Domestic | Undergraduate | Nursing | 295 | 295 | 283 | 289 | 289 | 289 | 289 |
| Domestic | Undergraduate | Pharmaceutical Sciences | 879 | 871 | 893 | 903 | 919 | 929 | 935 |
| Domestic | Undergraduate | Sauder | 2,778 | 2,642 | 2,648 | 2,619 | 2,611 | 2,611 | 2,611 |
| Domestic | Undergraduate | Science | 6,514 | 6,492 | 6,593 | 6,596 | 6,600 | 6,618 | 6,630 |
| Domestic | Undergraduate | Vantage College | 1 | 1 |  |  |  |  |  |
| Domestic | Undergraduate | No Faculty | 1,047 | 937 | 937 | 937 | 937 | 937 | 937 |
| Domestic | Undergraduate | Total | 29,848 | 29,643 | 29,661 | 29,626 | 29,718 | 29,828 | 29,918 |
| Domestic | Resident | Dentistry | 4 | 6 | 6 | 6 | 6 | 6 | 6 |
| Domestic | Resident | Medicine | 1,414 | 1,416 | 1,416 | 1,416 | 1,416 | 1,416 | 1,416 |
| Domestic | Resident | Pharmaceutical Sciences | 44 | 46 | 46 | 46 | 46 | 46 | 46 |
| Domestic | Resident | Total | 1,462 | 1,468 | 1,468 | 1,468 | 1,468 | 1,468 | 1,468 |
| Domestic | Total | Total | 31,310 | 31,111 | 31,129 | 31,094 | 31,186 | 31,296 | 31,386 |
| ISI | Undergraduate | Applied Science | 1,215 | 1,330 | 1,363 | 1,405 | 1,439 | 1,464 | 1,477 |
| ISI | Undergraduate | Arts | 3,670 | 3,904 | 3,956 | 3,975 | 3,959 | 3,940 | 3,932 |
| ISI | Undergraduate | Dentistry | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| ISI | Undergraduate | Education | 32 | 34 | 35 | 34 | 34 | 33 | 33 |
| ISI | Undergraduate | Forestry | 436 | 485 | 470 | 462 | 478 | 477 | 473 |
| ISI | Undergraduate | Kinesiology | 92 | 96 | 91 | 87 | 84 | 84 | 84 |
| ISI | Undergraduate | Land \& Food Systems | 404 | 449 | 475 | 493 | 503 | 507 | 509 |
| ISI | Undergraduate | Law | 15 | 11 | 11 | 11 | 11 | 11 | 11 |
| ISI | Undergraduate | Medicine | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ISI | Undergraduate | Nursing | 3 | 5 | 6 | 6 | 6 | 6 | 6 |
| ISI | Undergraduate | Sauder | 1,405 | 1,400 | 1,412 | 1,384 | 1,383 | 1,382 | 1,382 |
| ISI | Undergraduate | Science | 1,444 | 1,577 | 1,645 | 1,686 | 1,706 | 1,723 | 1,733 |
| ISI | Undergraduate | Vantage College | 474 | 634 | 507 | 530 | 549 | 549 | 549 |
| ISI | Undergraduate | No Faculty | 130 | 106 | 106 | 106 | 106 | 106 | 106 |
| ISI | Undergraduate | Total | 9,321 | 10,032 | 10,079 | 10,182 | 10,259 | 10,284 | 10,296 |
| Grand Total | Total | Total | 40,631 | 41,143 | 41,208 | 41,276 | 41,445 | 41,580 | 41,681 |

[^4]'Non-degree' and 'No Faculty' includes all students who are Unclassified (UNCL), Visiting (VISI), here on Exchange (EXCH), or in Transition (TRAN) or Access Studies (ACES) programs.

Table 3A: UBCV Winter Session Intake Targets for Direct Entry Baccalaureate Programs

| Faculty or School | Degree <br> Program | Year Level | Pathway | Domestic |  |  |  |  | ISI |  |  |  |  | Total |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{gathered} \text { Target } \\ \text { 2018/19 } \end{gathered}$ | Actual | Proposed Targets |  |  | Target | Actual | Proposed Targets |  |  | Target | Actual | Proposed Targets |  |  |
|  |  |  |  |  | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2018/19 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2018/19 | 2018/19 | 2019/20 | 2020/21 | 2021/22 |
| Applied Science | BASC | 1 |  | 626 | 611 | 646 | 655 | 655 | 303 | 273 | 303 | 303 | 303 | 929 | 884 | 949 | 958 | 958 |
| Applied Science | BASC | 2 |  | 140 | 138 | 142 | 143 | 144 | 31 | 30 | 38 | 42 | 36 | 171 | 168 | 180 | 185 | 180 |
| Applied Science | BASC | 2 | Vantage |  |  |  |  |  | 37 | 41 | 30 | 26 | 33 | 37 | 41 | 30 | 26 | 33 |
| Applied Science | BASC | 3 |  | 50 | 41 | 50 | 50 | 50 |  | 11 |  |  |  | 50 | 52 | 50 | 50 | 50 |
| Applied Science | Total |  |  | 816 | 790 | 838 | 848 | 849 | 371 | 355 | 371 | 371 | 372 | 1,187 | 1,145 | 1,209 | 1,219 | 1,221 |
| Arts | BA | 1 |  | 1,590 | 1,578 | 1,590 | 1,590 | 1,590 | 685 | 716 | 673 | 673 | 673 | 2,275 | 2,294 | 2,263 | 2,263 | 2,263 |
| Arts | BA | 2 |  | 360 | 371 | 360 | 360 | 360 | 228 | 194 | 164 | 182 | 182 | 588 | 565 | 524 | 542 | 542 |
| Arts | BA | 2 | Vantage |  |  |  |  |  | 121 | 129 | 185 | 167 | 167 | 121 | 129 | 185 | 167 | 167 |
| Arts | BA | 3 |  | 360 | 379 | 360 | 360 | 360 | 148 | 146 | 148 | 148 | 148 | 508 | 525 | 508 | 508 | 508 |
| Arts | BA | 4 |  |  | 1 |  |  |  |  | 1 |  |  |  | 0 | 2 | 0 | 0 | 0 |
| Arts | BA | Total |  | 2,310 | 2,329 | 2,310 | 2,310 | 2,310 | 1,182 | 1,186 | 1,170 | 1,170 | 1,170 | 3,492 | 3,515 | 3,480 | 3,480 | 3,480 |
| Arts | BFA | 1 |  | 60 | 47 | 48 | 48 | 48 | 16 | 20 | 22 | 22 | 22 | 76 | 67 | 70 | 70 | 70 |
| Arts | BFA | 2 |  | 17 | 10 | 14 | 14 | 14 | 7 | 11 | 8 | 8 | 8 | 24 | 21 | 22 | 22 | 22 |
| Arts | BFA | 3 |  | 32 | 28 | 34 | 34 | 34 | 8 | 13 | 10 | 10 | 10 | 40 | 41 | 44 | 44 | 44 |
| Arts | BFA | 4 |  | 2 | 6 | 4 | 4 | 4 |  | 2 | 2 | 2 | 2 | 2 | 8 | 6 | 6 | 6 |
| Arts | BFA | Total |  | 111 | 91 | 100 | 100 | 100 | 31 | 46 | 42 | 42 | 42 | 142 | 137 | 142 | 142 | 142 |
| Arts | BIE | 1 |  | 50 | 44 | 50 | 50 | 50 | 50 | 53 | 50 | 50 | 50 | 100 | 97 | 100 | 100 | 100 |
| Arts | BIE | 2 |  | 5 | 6 | 10 | 10 | 10 | 5 | 17 | 10 | 10 | 10 | 10 | 23 | 20 | 20 | 20 |
| Arts | BIE | Total |  | 55 | 50 | 60 | 60 | 60 | 55 | 70 | 60 | 60 | 60 | 110 | 120 | 120 | 120 | 120 |
| Arts | BMS | 1 |  | 23 | 22 | 20 | 20 | 20 | 23 | 16 | 20 | 20 | 20 | 46 | 38 | 40 | 40 | 40 |
| Arts | BMS | 2 |  |  | 1 |  |  |  |  |  |  |  |  | 0 | 1 | 0 | 0 | 0 |
| Arts | BMS | Total |  | 23 | 23 | 20 | 20 | 20 | 23 | 16 | 20 | 20 | 20 | 46 | 39 | 40 | 40 | 40 |
| Arts | BMUS | 1 |  | 56 | 55 | 52 | 52 | 52 | 12 | 6 | 8 | 8 | 8 | 68 | 61 | 60 | 60 | 60 |
| Arts | BMUS | 2 |  | 4 | 3 | 2 | 2 | 2 |  | 3 | 2 | 2 | 2 | 4 | 6 | 4 | 4 | 4 |
| Arts | BMUS | 3 |  | 4 | 11 | 10 | 10 | 10 |  | 1 | 2 | 2 | 2 | 4 | 12 | 12 | 12 | 12 |
| Arts | BMUS | Total |  | 64 | 69 | 64 | 64 | 64 | 12 | 10 | 12 | 12 | 12 | 76 | 79 | 76 | 76 | 76 |
| Arts | Total |  |  | 2,563 | 2,562 | 2,554 | 2,554 | 2,554 | 1,303 | 1,328 | 1,304 | 1,304 | 1,304 | 3,866 | 3,890 | 3,858 | 3,858 | 3,858 |
| Dentistry | BDSC | 1 |  | 26 | 24 | 26 | 26 | 26 |  | 1 |  |  |  | 26 | 25 | 26 | 26 | 26 |
| Dentistry | BDSC | 4 |  | 10 | 12 | 10 | 10 | 10 |  |  |  |  |  | 10 | 12 | 10 | 10 | 10 |
| Dentistry | Total |  |  | 36 | 36 | 36 | 36 | 36 |  | 1 |  |  |  | 36 | 37 | 36 | 36 | 36 |


| Faculty or School | Degree <br> Program | Year <br> Level | Pathway | Domestic |  |  |  |  | ISI |  |  |  |  | Total |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{gathered} \text { Target } \\ \text { 2018/19 } \end{gathered}$ | Actual | Proposed Targets |  |  | Target | Actual | Proposed Targets |  |  | Target2018/19 | Actual 2018/19 | Proposed Targets |  |  |
|  |  |  |  |  | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2018/19 | 2018/19 | 2019/20 | 2020/21 | 2021/22 |  |  | 2019/20 | 2020/21 | 2021/22 |
| Forestry | BSCN | 1 |  | 60 | 56 | 55 | 55 | 55 | 30 | 38 | 28 | 27 | 27 | 90 | 94 | 83 | 82 | 82 |
| Forestry | BSCN | 2 |  |  |  |  |  |  | 10 | 2 | 8 | 8 | 8 | 10 | 4 | 8 | 8 | 8 |
| Forestry | BSCN | 3 |  | 2 | 1 | 2 | 2 | 2 |  | 2 |  |  |  | 2 | 3 | 2 | 2 | 2 |
| Forestry | BSCN | Total |  | 62 | 59 | 57 | 57 | 57 | 40 | 42 | 36 | 35 | 35 | 102 | 101 | 93 | 92 | 92 |
| Forestry | BSCW | 1 |  | 18 | 14 | 15 | 15 | 15 | 12 | 11 | 10 | 10 | 10 | 30 | 25 | 25 | 25 | 25 |
| Forestry | BSCW | 2 |  |  | 4 |  |  |  | 20 | 4 | 16 | 13 | 13 | 20 | 8 | 16 | 13 | 13 |
| Forestry | BSCW | 3 |  |  |  |  |  |  | 22 | 22 | 18 | 15 | 15 | 22 | 22 | 18 | 15 | 15 |
| Forestry | BSCW | Total |  | 18 | 18 | 15 | 15 | 15 | 54 | 37 | 44 | 38 | 38 | 72 | 55 | 59 | 53 | 53 |
| Forestry | BSF | 1 |  | 55 | 57 | 52 | 50 | 50 | 20 | 35 | 20 | 13 | 13 | 75 | 92 | 72 | 63 | 63 |
| Forestry | BSF | 2 |  |  | 3 |  |  |  |  |  |  |  |  | 0 | 3 | 0 | 0 | 0 |
| Forestry | BSF | 3 |  | 5 | 3 | 5 | 5 | 5 | 15 | 16 | 14 | 13 | 13 | 20 | 19 | 19 | 18 | 18 |
| Forestry | BSF | Total |  | 60 | 63 | 57 | 55 | 55 | 35 | 51 | 34 | 26 | 26 | 95 | 114 | 91 | 81 | 81 |
| Forestry | BSFS | 1 |  | 30 | 12 | 27 | 25 | 25 | 5 | 4 | 5 | 3 | 3 | 35 | 16 | 32 | 28 | 28 |
| Forestry | BSFS | 2 |  |  |  |  |  |  | 5 |  | 5 | 3 | 3 | 5 | 0 | 5 | 3 | 3 |
| Forestry | BSFS | 3 |  |  |  |  |  |  | 10 | 22 | 10 | 8 | 8 | 10 | 22 | 10 | 8 | 8 |
| Forestry | BSFS | Total |  | 30 | 12 | 27 | 25 | 25 | 20 | 26 | 20 | 14 | 14 | 50 | 38 | 47 | 39 | 39 |
| Forestry | BUF | 1 |  | 45 | 36 | 42 | 42 | 42 | 20 | 22 | 18 | 18 | 18 | 65 | 58 | 60 | 60 | 60 |
| Forestry | BUF | 2 |  | 5 | 1 | 5 | 5 | 5 | 10 | 2 | 10 | 8 | 8 | 15 | 3 | 15 | 13 | 13 |
| Forestry | BUF | 3 |  | 12 | 3 | 12 | 12 | 12 |  | 10 |  |  |  | 12 | 13 | 12 | 12 | 12 |
| Forestry | BUF | Total |  | 62 | 40 | 59 | 59 | 59 | 30 | 34 | 28 | 26 | 26 | 92 | 74 | 87 | 85 | 85 |
| Forestry | BEST | 1 |  |  |  | 22 | 30 | 35 |  |  | 17 | 15 | 15 | 0 | 0 | 39 | 45 | 50 |
| Forestry | BEST | 2 |  |  |  |  |  | 3 |  |  |  | 12 | 12 | 0 | 0 | 0 | 12 | 15 |
| Forestry | BEST | 3 |  |  |  |  | 5 | 5 |  |  |  | 13 | 13 | 0 | 0 | 0 | 18 | 18 |
| Forestry | BEST | Total |  |  |  | 22 | 35 | 43 |  |  | 17 | 40 | 40 | 0 | 0 | 39 | 75 | 83 |
| Forestry | Total |  |  | 232 | 192 | 237 | 246 | 254 | 179 | 190 | 179 | 179 | 179 | 411 | 382 | 416 | 425 | 433 |
| Kinesiology | BKIN | 1 |  | 190 | 204 | 200 | 200 | 200 | 23 | 25 | 24 | 25 | 25 | 213 | 229 | 224 | 225 | 225 |
| Kinesiology | BKIN | 2 |  | 23 | 21 | 24 | 24 | 24 |  | 1 |  |  |  | 23 | 22 | 24 | 24 | 24 |
| Kinesiology | BKIN | 3 |  | 96 | 102 | 103 | 103 | 103 |  | 1 |  |  |  | 96 | 103 | 103 | 103 | 103 |
| Kinesiology | Total |  |  | 309 | 327 | 327 | 327 | 327 | 23 | 27 | 24 | 25 | 25 | 332 | 354 | 351 | 352 | 352 |
| Land \& Food Systems | BSAB | 1 |  | 118 | 116 | 105 | 110 | 116 | 49 | 46 | 45 | 45 | 45 | 167 | 162 | 150 | 155 | 161 |
| Land \& Food Systems | BSAB | 2 |  | 41 | 22 | 36 | 39 | 40 | 8 | 4 | 7 | 7 | 7 | 49 | 26 | 43 | 46 | 47 |
| Land \& Food Systems | BSAB | 3 |  | 10 | 3 | 9 | 9 | 10 | 3 | 1 | 3 | 3 | 3 | 13 | 4 | 12 | 12 | 13 |
| Land \& Food Systems | BSAB | Total |  | 169 | 141 | 150 | 158 | 166 | 60 | 51 | 55 | 55 | 55 | 229 | 192 | 205 | 213 | 221 |

'Residents' includes all those in M edical, Dental, Pharmaceutical, and Psychiatric residencies.
'Non-degree' and 'No Faculty' includes all students who are Unclassified (UNCL), Visiting (VISI), here on Exchange (EXCH),
or in Transition (TRAN) or Access Studies (ACES) programs.

Table 3A: UBCV Winter Session Intake Targets for Direct Entry Baccalaureate Programs

| Faculty or School | Degree <br> Program | Year <br> Level | Pathway | Target | Actual | Domestic Prop | Proposed Targets |  | Target | ISI |  |  | Proposed Targets | Total |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2018/19 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2018/19 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2018/19 | 2018/19 | 2019/20 | 2020/21 | 2021/22 |
| Land \& Food Systems | BSFN | 1 |  | 152 | 132 | 132 | 130 | 128 | 89 | 95 | 96 | 96 | 96 | 241 | 227 | 228 | 226 | 224 |
| Land \& Food Systems | BSFN | 2 |  | 42 | 41 | 36 | 36 | 36 | 12 | 15 | 13 | 13 | 13 | 54 | 56 | 49 | 49 | 49 |
| Land \& Food Systems | BSFN | 3 |  | 14 | 3 | 12 | 12 | 12 |  | 5 | 1 | 1 | 1 | 15 | 8 | 13 | 13 | 13 |
| Land \& Food Systems | BSFN | 4 |  |  | 1 |  |  |  |  |  |  |  |  | 0 | 1 | 0 | 0 | 0 |
| Land \& Food Systems | BSFN | Total |  | 208 | 177 | 180 | 178 | 176 | 102 | 115 | 110 | 110 | 110 | 310 | 292 | 290 | 288 | 286 |
| Land \& Food Systems | Total |  |  | 377 | 318 | 330 | 336 | 342 | 162 | 166 | 165 | 165 | 165 | 539 | 484 | 495 | 501 | 507 |
| Sauder | BCOM | 1 |  | 433 | 445 | 450 | 450 | 450 | 267 | 292 | 290 | 290 | 290 | 700 | 737 | 740 | 740 | 740 |
| Sauder | BCOM | 2 |  | 100 | 100 | 80 | 80 | 80 | 80 | 70 | 60 | 60 | 60 | 180 | 170 | 140 | 140 | 140 |
| Sauder | BCOM | 3 |  | 39 | 46 | 30 | 30 | 30 | 33 | 43 | 20 | 20 | 20 | 72 | 89 | 50 | 50 | 50 |
| Sauder | Total |  |  | 572 | 591 | 560 | 560 | 560 | 380 | 405 | 370 | 370 | 370 | 952 | 996 | 930 | 930 | 930 |
| Science | BSC | 1 |  | 1,350 | 1,352 | 1,380 | 1,380 | 1,380 | 270 | 237 | 270 | 270 | 270 | 1,620 | 1,589 | 1,650 | 1,650 | 1,650 |
| Science | BSC | 2 |  | 250 | 222 | 280 | 280 | 280 | 85 | 108 | 72 | 92 | 88 | 335 | 330 | 352 | 372 | 368 |
| Science | BSC | 2 | Vantage |  |  |  |  |  | 75 | 70 | 123 | 103 | 107 | 75 | 70 | 123 | 103 | 107 |
| Science | BSC | 3 |  | 20 | 24 | 20 | 20 | 20 | 5 | 9 | 5 | 5 | 5 | 25 | 33 | 25 | 25 | 25 |
| Science | Total |  |  | 1,620 | 1,598 | 1,680 | 1,680 | 1,680 | 435 | 424 | 470 | 470 | 470 | 2,055 | 2,022 | 2,150 | 2,150 | 2,150 |
| Vantage College | VC-BA | 1 |  |  |  |  |  |  | 170 | 248 | 225 | 225 | 225 | 170 | 248 | 225 | 225 | 225 |
| Vantage College | VC-BAS | 1 |  |  |  |  |  |  | 85 | 70 | 60 | 75 | 75 | 85 | 70 | 60 | 75 | 75 |
| Vantage College | VC-BMG | 1 |  |  |  |  |  |  | 40 | 24 | 0 | 0 | 0 | 40 | 24 | 0 | 0 | 0 |
| Vantage College | VC-BSC | 1 |  |  |  |  |  |  | 100 | 155 | 130 | 135 | 150 | 100 | 155 | 130 | 135 | 150 |
| Vantage College | Total |  |  |  |  |  |  |  | 395 | 497 | 415 | 435 | 450 | 395 | 497 | 415 | 435 | 450 |
| Direct Entry Total |  |  |  | 6,525 | 6,414 | 6,562 | 6,587 | 6,602 | 3,248 | 3,393 | 3,298 | 3,319 | 3,335 | 9,773 | 9,807 | 9,860 | 9,906 | 9,937 |

Table 3B: UBCV Winter Session Intake Targets for Other Undergraduate Programs

| Faculty or School | Program | Year <br> Level | Domestic |  |  |  |  | ISI |  |  |  |  | Total |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { Target } \\ & \text { 2018/19 } \end{aligned}$ | Actual | Proposed Targets |  |  | Target | Actual | Proposed Targets |  |  | $\begin{aligned} & \text { Target } \\ & \text { 2018/19 } \end{aligned}$ | Actual2018/19 | Proposed Targets |  |  |
|  |  |  |  | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2018/19 | 2018/19 | 2019/20 | 2020/21 | 2021/22 |  |  | 2019/20 | 2020/21 | 2021/22 |
| Applied Science | BEND | 3 | 22 | 24 | 22 | 22 | 22 | 8 | 6 | 8 | 8 | 8 | 30 | 30 | 30 | 30 | 30 |
| Applied Science | Total |  | 22 | 24 | 22 | 22 | 22 | 8 | 6 | 8 | 8 | 8 | 30 | 30 | 30 | 30 | 30 |
| Arts | BSW <br>  | 3 | 60 | 50 | 55 | 55 | 55 |  | 1 |  |  |  | 60 | 51 | 55 | 55 | 55 |
| Arts | Diplomas | 99 | 14 | 14 | 26 | 26 | 26 | 2 | 2 | 2 | 2 | 2 | 16 | 16 | 28 | 28 | 28 |
| Arts | Total |  | 74 | 64 | 81 | 81 | 81 | 2 | 3 | 2 | 2 | 2 | 76 | 67 | 83 | 83 | 83 |
| Dentistry | DMD | 1 | 60 | 56 | 56 | 56 | 56 |  |  | 4 | 4 | 4 | 60 | 56 | 60 | 60 | 60 |
| Dentistry | DRES | 99 | 3 | 3 | 3 | 3 | 3 |  |  |  |  |  | 3 | 3 | 3 | 3 | 3 |
| Dentistry | Total |  | 63 | 59 | 59 | 59 | 59 |  |  | 4 | 4 | 4 | 63 | 59 | 63 | 63 | 63 |
| Education | BEDS | 1 | 366 | 343 | 366 | 366 | 366 | 9 | 9 | 9 | 9 | 9 | 375 | 352 | 375 | 375 | 375 |
| Education | BEDS | Total | 366 | 343 | 366 | 366 | 366 | 9 | 9 | 9 | 9 | 9 | 375 | 352 | 375 | 375 | 375 |
| Education | BEEM | 1 | 382 | 416 | 382 | 382 | 382 | 6 | 4 | 6 | 6 | 6 | 388 | 420 | 388 | 388 | 388 |
| Education | BEEM | 3 | 3 | 3 | 3 | 3 | 3 |  |  |  |  |  | 3 | 3 | 3 | 3 | 3 |
| Education | BEEM | Total | 385 | 419 | 385 | 385 | 385 | 6 | 4 | 6 | 6 | 6 | 391 | 423 | 391 | 391 | 391 |
|  | Certificates \& |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Education | Diplomas | 99 | 250 | 250 | 250 | 250 | 250 | 7 | 7 | 7 | 7 | 7 | 257 | 257 | 257 | 257 | 257 |
| Education | Total |  | 1,001 | 1,012 | 1,001 | 1,001 | 1,001 | 22 | 20 | 22 | 22 | 22 | 1,023 | 1,032 | 1,023 | 1,023 | 1,023 |
|  | Certificates \& |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kinesiology | Diplomas | 99 | 11 | 11 | 11 | 11 | 11 |  |  |  |  |  | 11 | 11 | 11 | 11 | 11 |
| Kinesiology | Total |  | 11 | 11 | 11 | 11 | 11 |  |  |  |  |  | 11 | 11 | 11 | 11 | 11 |
| Law | JD | 1 | 190 | 188 | 190 | 190 | 190 | 3 | 3 | 3 | 3 | 3 | 193 | 191 | 193 | 193 | 193 |
| Law | JD | 2 | 20 | 13 | 20 | 20 | 20 |  |  |  |  |  | 20 | 13 | 20 | 20 | 20 |
| Law | Total |  | 210 | 201 | 210 | 210 | 210 | 3 | 3 | 3 | 3 | 3 | 213 | 204 | 213 | 213 | 213 |
| Medicine | BMLS | 3 | 23 | 23 | 23 | 23 | 23 |  |  |  |  |  | 23 | 23 | 23 | 23 | 23 |
| Medicine | BMLS | Total | 23 | 23 | 23 | 23 | 23 |  |  |  |  |  | 23 | 23 | 23 | 23 | 23 |
| Medicine | BMW | 1 | 20 | 20 | 20 | 20 | 20 |  |  |  |  |  | 20 | 20 | 20 | 20 | 20 |
| Medicine | BMW | Total | 20 | 20 | 20 | 20 | 20 |  |  |  |  |  | 20 | 20 | 20 | 20 | 20 |
| Medicine | MD | 1 | 284 | 284 | 284 | 284 | 284 |  |  |  |  |  | 284 | 284 | 284 | 284 | 284 |
| Medicine | MD | Total | 284 | 284 | 284 | 284 | 284 |  |  |  |  |  | 284 | 284 | 284 | 284 | 284 |

Table 3B: UBCV Winter Session Intake Targets for Other Undergraduate Programs

| Faculty or School | Program | Year <br> Level | $\begin{aligned} & \text { Target } \\ & \text { 2018/19 } \end{aligned}$ | Domestic |  |  |  | ISI |  |  |  |  | Total |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual 2018/19 | Proposed Targets |  |  | Target | Actual | Proposed Targets |  |  | $\begin{aligned} & \text { Target } \\ & \text { 2018/19 } \end{aligned}$ | Actual 2018/19 | Proposed Targets |  |  |
|  |  |  |  |  | 2019/20 | 2020/21 | 2021/22 | 2018/19 | 2018/19 | 2019/20 | 2020/21 | 2021/22 |  |  | 2019/20 | 2020/21 | 2021/22 |
| Medicine | MDPHD | 1 | 4 | 4 | 4 | 4 | 4 |  |  |  |  |  | 4 | 4 | 4 | 4 | 4 |
| Medicine | MDPHD | 2 |  | 1 |  |  |  |  |  |  |  |  | 0 | 1 | 0 | 0 | 0 |
| Medicine | MDPHD | Total | 4 | 5 | 4 | 4 | 4 |  |  |  |  |  | 4 | 5 | 4 | 4 | 4 |
| Medicine | MRES | 99 | 395 | 395 | 395 | 395 | 395 |  |  |  |  |  | 395 | 395 | 395 | 395 | 395 |
| Medicine | MRES | Total | 395 | 395 | 395 | 395 | 395 |  |  |  |  |  | 395 | 395 | 395 | 395 | 395 |
| Medicine | Certificates \& Diplomas | 99 | 15 | 15 | 15 | 15 | 15 |  |  |  |  |  | 15 | 15 | 15 | 15 | 15 |
| Medicine | Total |  | 741 | 742 | 741 | 741 | 741 |  |  |  |  |  | 741 | 742 | 741 | 741 | 741 |
| Nursing | BSN | 3 | 117 | 111 | 117 | 117 | 117 | 3 | 3 | 3 | 3 | 3 | 120 | 114 | 120 | 120 | 120 |
| Nursing | Total |  | 117 | 111 | 117 | 117 | 117 | 3 | 3 | 3 | 3 | 3 | 120 | 114 | 120 | 120 | 120 |
| Pharmaceutical Sciences | PHRMD* | 1 | 284 | 222 | 230 | 230 | 230 |  |  |  |  |  | 284 | 222 | 230 | 230 | 230 |
| Pharmaceutical Sciences | PHRMFX | 5 |  | 17 | 20 | 25 | 30 |  |  |  |  |  | 0 | 17 | 20 | 25 | 30 |
| Pharmaceutical Sciences | PRES | 99 | 46 | 46 | 46 | 46 | 46 |  |  |  |  |  | 46 | 46 | 46 | 46 | 46 |
| Pharmaceutical Sciences | Total |  | 330 | 285 | 296 | 301 | 306 |  |  |  |  |  | 330 | 285 | 296 | 301 | 306 |
| Sauder | BBRE | 2 | 2 |  | 2 | , | 2 |  |  |  |  |  | 2 | 0 | 2 | 2 | 2 |
| Sauder | BBRE | 3 | 1 | 3 | 1 | 1 | 1 |  |  |  |  |  | 1 | 3 | 1 | 1 | 1 |
| Sauder | BBRE | Total | 3 | 3 | 3 |  | 3 |  |  |  |  |  | 3 | 3 | 3 | 3 | 3 |
|  | Certificates \& |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sauder | Diplomas | 99 | 527 | 527 | 527 | 527 | 527 | 80 | 80 | 80 | 80 | 80 | 607 | 607 | 607 | 607 | 607 |
| Sauder | Total |  | 530 | 530 | 530 | 530 | 530 | 80 | 80 | 80 | 80 | 80 | 610 | 610 | 610 | 610 | 610 |
| Science | BCS | 3 | 90 | 84 | 90 | 90 | 90 | 5 | 15 | 5 | 5 | 5 | 95 | 99 | 95 | 95 | 95 |
| Science | Total |  | 90 | 84 | 90 | 90 | 90 | 5 | 15 | 5 | 5 | 5 | 95 | 99 | 95 | 95 | 95 |
| No Faculty | ACES | 99 | 152 | 152 | 152 | 152 | 152 | 25 | 25 | 25 | 25 | 25 | 177 | 177 | 177 | 177 | 177 |
| No Faculty | EXCH | 99 | 1,002 | 1,002 | 1,002 | 1,002 | 1,002 |  |  |  |  |  | 1,002 | 1,002 | 1,002 | 1,002 | 1,002 |
| No Faculty | TRAN | 99 | 40 | 40 | 40 | 40 | 40 |  |  |  |  |  | 40 | 40 | 40 | 40 | 40 |
| No Faculty | UNCL | 99 | 507 | 507 | 507 | 507 | 507 | 35 | 35 | 35 | 35 | 35 | 542 | 542 | 542 | 542 | 542 |
| No Faculty | VISI | 99 | 132 | 132 | 132 | 132 | 132 | 152 | 152 | 152 | 152 | 152 | 284 | 284 | 284 | 284 | 284 |
| No Faculty | Total |  | 1,833 | 1,833 | 1,833 | 1,833 | 1,833 | 212 | 212 | 212 | 212 | 212 | 2,045 | 2,045 | 2,045 | 2,045 | 2,045 |
| Other Programs Total |  |  | 5,022 | 4,956 | 4,991 | 4,996 | 5,001 | 335 | 342 | 339 | 339 | 339 | 5,357 | 5,298 | 5,330 | 5,335 | 5,340 |
| Grand Total | All Programs |  | 11,547 | 11,370 | 11,553 | 11,583 | 11,603 | 3,583 | 3,735 | 3,637 | 3,658 | 3,674 | 15,130 | 15,105 | 15,190 | 15,241 | 15,277 |

[^5]Table 4A: UBCV Winter Session Undergraduate Headcount Forecast, as of November

| Program Type | Domestic /ISI | Faculty | Actual |  | Projected |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|  |  |  | Winter | Winter | Winter | Winter | Winter | Winter | Winter |
| Direct Entry | Domestic | Applied Science | 3,432 | 3,425 | 3,467 | 3,539 | 3,625 | 3,694 | 3,739 |
| Direct Entry | Domestic | Arts | 9,755 | 9,698 | 9,581 | 9,465 | 9,393 | 9,356 | 9,340 |
| Direct Entry | Domestic | Dentistry | 151 | 144 | 137 | 136 | 137 | 137 | 138 |
| Direct Entry | Domestic | Forestry | 667 | 646 | 684 | 711 | 742 | 776 | 804 |
| Direct Entry | Domestic | Kinesiology | 1,136 | 1,149 | 1,172 | 1,178 | 1,179 | 1,180 | 1,180 |
| Direct Entry | Domestic | Land \& Food Systems | 1,136 | 1,107 | 1,095 | 1,089 | 1,096 | 1,102 | 1,113 |
| Direct Entry | Domestic | Sauder | 2,354 | 2,420 | 2,429 | 2,393 | 2,383 | 2,382 | 2,383 |
| Direct Entry | Domestic | Science | 6,554 | 6,519 | 6,630 | 6,629 | 6,630 | 6,647 | 6,660 |
| Direct Entry | Domestic | Vantage College |  | 1 |  |  |  |  |  |
| Direct Entry | Domestic | Total | 25,185 | 25,109 | 25,196 | 25,139 | 25,184 | 25,274 | 25,356 |
| Direct Entry | ISI | Applied Science | 1,233 | 1,328 | 1,392 | 1,435 | 1,469 | 1,494 | 1,509 |
| Direct Entry | ISI | Arts | 4,125 | 4,338 | 4,439 | 4,463 | 4,447 | 4,425 | 4,416 |
| Direct Entry | ISI | Dentistry | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Direct Entry | ISI | Forestry | 458 | 501 | 496 | 488 | 495 | 495 | 490 |
| Direct Entry | ISI | Kinesiology | 106 | 108 | 106 | 101 | 98 | 97 | 97 |
| Direct Entry | \|SI | Land \& Food Systems | 403 | 455 | 487 | 505 | 513 | 516 | 517 |
| Direct Entry | ISI | Sauder | 1,449 | 1,459 | 1,477 | 1,442 | 1,442 | 1,441 | 1,440 |
| Direct Entry | \|SI | Science | 1,503 | 1,618 | 1,725 | 1,772 | 1,796 | 1,816 | 1,828 |
| Direct Entry | \|S| | Vantage College | 392 | 497 | 415 | 435 | 450 | 450 | 450 |
| Direct Entry | ISI | Total | 9,671 | 10,306 | 10,540 | 10,644 | 10,711 | 10,737 | 10,750 |
| Direct Entry | Total |  | 34,856 | 35,415 | 35,737 | 35,784 | 35,895 | 36,011 | 36,106 |
| Other Programs | Domestic | Applied Science | 42 | 47 | 46 | 45 | 45 | 45 | 45 |
| Other Programs | Domestic | Arts | 137 | 147 | 152 | 156 | 157 | 157 | 157 |
| Other Programs | Domestic | Dentistry | 217 | 219 | 228 | 223 | 222 | 223 | 223 |
| Other Programs | Domestic | Education | 1,347 | 1,459 | 1,449 | 1,446 | 1,445 | 1,445 | 1,445 |
| Other Programs | Domestic | Kinesiology | 9 | 12 | 12 | 12 | 12 | 12 | 12 |
| Other Programs | Domestic | Land \& Food Systems | 85 | 84 | 93 | 98 | 106 | 112 | 115 |
| Other Programs | Domestic | Law | 561 | 573 | 595 | 599 | 599 | 599 | 599 |
| Other Programs | Domestic | Medicine | 1,305 | 1,316 | 1,299 | 1,284 | 1,277 | 1,277 | 1,275 |
| Other Programs | Domestic | Nursing | 238 | 229 | 227 | 233 | 233 | 233 | 233 |
| Other Programs | Domestic | Pharmaceutical Sciences | 880 | 885 | 916 | 938 | 966 | 988 | 1,006 |
| Other Programs | Domestic | Sauder | 1,698 | 1,553 | 1,548 | 1,547 | 1,546 | 1,546 | 1,546 |
| Other Programs | Domestic | Science | 259 | 259 | 271 | 275 | 277 | 278 | 279 |
| Other Programs | Domestic | No Faculty | 2,299 | 2,224 | 2,224 | 2,224 | 2,224 | 2,224 | 2,224 |
| Other Programs | Domestic | Total | 9,077 | 9,007 | 9,061 | 9,079 | 9,110 | 9,139 | 9,160 |
| Other Programs | ISI | Applied Science | 15 | 14 | 14 | 14 | 14 | 14 | 14 |
| Other Programs | ISI | Arts | 4 | 5 | 5 | 5 | 5 | 5 | 5 |
| Other Programs | ISI | Education | 29 | 30 | 30 | 29 | 29 | 29 | 29 |
| Other Programs | ISI | Kinesiology | 2 |  |  |  |  |  |  |
| Other Programs | ISI | Land \& Food Systems | 40 | 36 | 36 | 40 | 45 | 46 | 47 |
| Other Programs | ISI | Law | 15 | 11 | 11 | 11 | 11 | 11 | 11 |
| Other Programs | ISI | Medicine | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Other Programs | ISI | Nursing | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Other Programs | ISI | Sauder | 148 | 145 | 145 | 145 | 145 | 145 | 145 |
| Other Programs | ISI | Science | 26 | 30 | 26 | 22 | 19 | 18 | 17 |
| Other Programs | ISI | No Faculty | 227 | 221 | 221 | 221 | 221 | 221 | 221 |
| Other Programs | ISI | Total | 510 | 498 | 494 | 493 | 495 | 495 | 495 |
| Other Programs | Total |  | 9,587 | 9,505 | 9,555 | 9,572 | 9,606 | 9,634 | 9,654 |
| Grand Total |  |  | 44,443 | 44,920 | 45,291 | 45,356 | 45,500 | 45,645 | 45,760 |

[^6]'Non-degree' and 'No Faculty' includes all students who are Unclassified (UNCL), Visiting (VISI), here on Exchange (EXCH), or in Transition (TRAN) or Access Studies (ACES) programs.

Table 4B: UBCV Winter Session Undergaduate Headcount, ISI as a Percent of Faculty or School

| Program Type | Faculty | Actual |  | Projected |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $2017 / 18$ <br> Winter | 2018/19 <br> Winter | 2019/20 <br> Winter | 2020/21 <br> Winter | 2021/22 | $2022 / 23$ <br> Winter | 2023/24 <br> Winter |
| Direct Entry | Applied Science | 26\% | 28\% | 29\% | 29\% | 29\% | 29\% | 29\% |
| Direct Entry | Arts | 30\% | 31\% | 32\% | 32\% | 32\% | 32\% | 32\% |
| Direct Entry | Dentistry | 1\% | 1\% | 1\% | 1\% | 1\% | 1\% | 1\% |
| Direct Entry | Forestry | 41\% | 44\% | 42\% | 41\% | 40\% | 39\% | 38\% |
| Direct Entry | Kinesiology | 9\% | 9\% | 8\% | 8\% | 8\% | 8\% | 8\% |
| Direct Entry | Land \& Food Systems | 26\% | 29\% | 31\% | 32\% | 32\% | 32\% | 32\% |
| Direct Entry | Sauder | 38\% | 38\% | 38\% | 38\% | 38\% | 38\% | 38\% |
| Direct Entry | Science | 19\% | 20\% | 21\% | 21\% | 21\% | 21\% | 22\% |
| Direct Entry | Vantage College | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% |
| Direct Entry | Total | 28\% | 29\% | 29\% | 30\% | 30\% | 30\% | 30\% |
| Other Programs | Applied Science | 26\% | 23\% | 23\% | 24\% | 24\% | 24\% | 24\% |
| Other Programs | Arts | 3\% | 3\% | 3\% | 3\% | 3\% | 3\% | 3\% |
| Other Programs | Dentistry | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Other Programs | Education | 2\% | 2\% | 2\% | 2\% | 2\% | 2\% | 2\% |
| Other Programs | Kinesiology | 18\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Other Programs | Land \& Food Systems | 32\% | 30\% | 28\% | 29\% | 30\% | 29\% | 29\% |
| Other Programs | Law | 3\% | 2\% | 2\% | 2\% | 2\% | 2\% | 2\% |
| Other Programs | Medicine | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Other Programs | Nursing | 1\% | 2\% | 2\% | 2\% | 2\% | 2\% | 2\% |
| Other Programs | Pharmaceutical Sciences | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Other Programs | Sauder | 8\% | 9\% | 9\% | 9\% | 9\% | 9\% | 9\% |
| Other Programs | Science | 9\% | 10\% | 9\% | 7\% | 6\% | 6\% | 6\% |
| Other Programs | No Faculty | 9\% | 9\% | 9\% | 9\% | 9\% | 9\% | 9\% |
| Other Programs | Total | 5\% | 5\% | 5\% | 5\% | 5\% | 5\% | 5\% |
| Grand Total | ISI | 23\% | 24\% | 24\% | 25\% | 25\% | 25\% | 25\% |

[^7]'Non-degree' and 'No Faculty' includes all students who are Unclassified (UNCL), Visiting (VISI), here on Exchange (EXCH),

## 2019/2020 Senate Meeting Schedule

| Date | 4 February 2019 |
| :--- | :--- |
| To | Senate |
| From | Agenda Committee |

Please be advised that pursuant to Rule 17 (a) of the Rules and Procedures of Senate, the Senate meeting schedule for 2019-2020 will be as follows:

- Wednesday September 18, 2019
- Wednesday October 16, 2019
- Wednesday November 20, 2019
- Wednesday December 18, 2019
- Wednesday January 15, 2020
- Wednesday February 12, 2020
- Wednesday March 18, 2020
- Wednesday April 15, 2020
- Wednesday May 13, 2020

All meetings will be from 6:00pm to 8:30pm at the Victoria Theatre (IKBLC 182), unless another location is determined by the Senate Agenda committee.

13 February 2019

From: Senate Awards Committee

To: Senate

Re: New Awards and Changes to Existing Awards

The Senate Awards Committee recommends:
"That Senate accept the awards as listed and forward them to the Board of Governors for approval, and that letter of thanks be sent to the donors."

NEW AWARDS - ENDOWED

Robert and Barbara Atkinson Thunderbird Men's Basketball Award
One or more awards, which may range from a minimum value of $\$ 500$ each to the maximum allowable value under athletic association regulations, have been made available through an endowment established by Robert and Barbara Atkinson along with matching funds from the University British Columbia. These awards are offered to outstanding members of the Thunderbird Men's Basketball team in any year of study who are in good academic standing and have demonstrated excellent leadership skills. Awards are made on the recommendation of the Athletics Awards Committee. (First Award Available in the 2019/2020 Winter Session.)

## Louise Cowin Thunderbird Women's Rugby 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 Peter Bull, along with matching funds from the University of British Columbia, in recognition of Louise Cowin. During her time as the Vice-President, Students Louise displayed tremendous dedication and support for Thunderbirds Athletics. Awards are offered to current or incoming members of the Thunderbirds Women’s Rugby Team that display exemplary leadership, strong character, and dedication. The awards are made on the recommendation of the Women's Head Coach with review and approval by the Athletics Awards Committee. (First award available in the 2019/2020 winter session.)

## Doctors of BC Presidential Scholars Award in Medicine

Renewable entrance awards totalling \$80,000 have been made available through an endowment established by Doctors of BC, with a portion of the funds being matched from the University of British Columbia, for outstanding students entering the M.D. undergraduate program. Criteria for
these entrance awards include demonstrated academic and leadership achievements in the arts, community, athletics, or school. Preference will be given to students whose community involvement or volunteerism emphasizes healthcare. Subject to continued scholarship standing, the awards will be renewed for a further three years of study or until the M.D. degree is obtained (whichever is shorter). Representing over 14,000 physicians, residents and medical students, Doctors of BC works to promote the highest standard of healthcare by providing its members with the services and support they need to enhance their professional experience. The award is made on the recommendation of the Faculty of Medicine. (First award available in the 2019/2020 winter session.)

## Doctors of BC Bursary in Medicine

Bursaries totalling \$4,000 have been made available through an endowment established by Doctors of BC , along with matching funds from the University of British Columbia, for M.D. students. Representing over 14,000 physicians, residents and medical students, Doctors of BC works to promote the highest standard of healthcare by providing its members with the services and support they need to enhance their professional experience. The bursaries are adjudicated by Enrolment Services. (First award available in the 2019/2020 winter session.)

## Milena and Kvetoslav Janda Memorial Award in Opera

Awards totalling \$4,000 have been made available through an endowment established by family and friends in memory of Milena and Kvetoslav Janda for undergraduate and graduate students in the UBC School of Music who are talented singers pursuing a degree in Opera. Financial need may be considered. Milena Janda (B.A. 1956) displayed her passion for the arts through her various endeavours, including writing children's plays, founding a theatre, and coaching generations of opera singers at UBC in Czech. Kvetoslav Janda (B.Com. 1955) was a political activist in Czechoslovakia before becoming a public servant in Canada. The awards are made on the recommendation of the Opera Division in the UBC School of Music, and in the case of graduate students, in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available in the 2019/2020 winter session.)

## Mills Munroe Southern Medical Program Bursary

Bursaries totalling $\$ 2,000$ have been made available through an endowment established by Dorothy Mills and her daughter Karina Munroe, along with matching funds from the University of British Columbia, for M.D. students enrolled in the Faculty of Medicine Southern Medical Program at the University of British Columbia. The bursaries are adjudicated by Enrolment Services. (First award available in the 2019/2020 winter session.)

## Dr. John Nasedkin Award in Dentistry

Awards totalling \$1,640 have been made available through an endowment established by friends and family in memory of Dr. John Nasedkin for outstanding fourth-year Doctor of Dental

Medicine students. The recipient will demonstrate interdisciplinary clinical proficiency and comprehensive patient care, as well as uncompromising ethical standards. They will be a collaborative student, an excellent communicator and an innovative thinker. Dr. John Nasedkin received numerous accolades, awards and certifications throughout his career, including the Canadian Academy of General Dentistry Dentist of the Year award in 2014. This award recognizes Dr. Nasedkin's legacy as an exceptional dentist and remarkable man who loved his profession and sharing his knowledge. This academic award is made on the recommendation of the Faculty of Dentistry. (First award available in the 2019/2020 winter session.)

## NEW AWARDS - ANNUAL

Keith Bennett and Lloyd Doidge Memorial Scholarship in Labour-Management Relations Scholarships totalling \$6,000 are offered annually by FIR Labour Relations Ltd. in memory of Keith Bennett and Lloyd Doidge, for outstanding undergraduate students in the Bachelor of Commerce, Organizational Behaviour and Human Resources option, who intend to enter a career in labour-management relations. Recipients must be Canadian citizens or permanent residents. Forest Industrial Relations Ltd. (FIR Ltd.) is an accredited employers association which has served the BC forest products industry since 1943. Keith Bennett (B.Com. 1956) was President of FIR Ltd. from 1974 until his retirement in 1997. For 25 years, he served as Chief Negotiator for the BC forest industry, bargaining industry-wide collective agreements with the Industrial, Wood and Allied Workers Union. Lloyd Doidge (B.Com. 1962) was a highly respected labour lawyer, with much of his work involving representing forest industry employers in labour arbitration. He served as General Counsel at FIR Ltd., and was also an adjunct professor in the UBC Sauder School of Business. Both men were well-regarded within the BC industrial relations community for their work in labour-management relations. The scholarships are made on the recommendation of the UBC Sauder School of Business. (First award available in the 2019/2020 winter session.)

## George Weston Ltd. Doctoral Fellowship

Three doctoral fellowships of \$20,000 each are offered annually by George Weston Limited to students in Land and Food Systems conducting research relevant to sustainable agriculture. The fellowships are made on the recommendation of the Faculty of Land and Food Systems in consultation with the Faculty of Graduate and Postdoctoral Studies. (First award available in the 2018/2019 winter session.)

## Liu Ruo Xi Vocal Music Arts Center Award in Voice and Opera

A \$4,000 award is offered annually by the Liu Ruo Xi Vocal Music Arts Center for an outstanding undergraduate Voice and Opera student in the UBC School of Music who
demonstrates exceptional vocal talent, community involvement and leadership ability. The Liu Ruo Xi Vocal Music Arts Center is led by award winning soprano Liu Ruo Xi. Ms. Liu and her husband Ye Hongtao have a background in and a deep appreciation for traditional Chinese folk music and hope that this award will inspire UBC Voice and Opera students to explore the richness and diversity of traditional Chinese folk music. This academic award is made on the recommendation of the UBC School of Music. (First award available in the 2018/2019 winter session.)

## PREVIOUSLY APPROVED AWARDS WITH CHANGES IN TERMS OR FUNDING SOURCE

## Annual Awards

## 3792 - PharmaChoice West Award in Pharmaceutical Sciences

## Rationale for Proposed Changes

PharmaChoice has two divisions, PharmaChoice West and PharmaChoice East. This award was previously established under the name of PharmaChoice West. The company has since decided that the award is supported by both divisions resulting in the removal of "West" and the addition of "Canada Inc." to reflect the most accurate name.

## Current Award Description

A \$1,400 award is offered by PharmaChoice West for a student in the third year of the undergraduate program in the Faculty of Pharmaceutical Sciences who demonstrates leadership skills and has an interest in community practice. Preference is given to those students who graduated from a high school in British Columbia but outside of the metro Vancouver area. The award is made on the recommendation of the Faculty of Pharmaceutical Sciences.

## Proposed Name: PharmaChoice Canada Inc. West Award in Pharmaceutical Sciences

## Proposed Award Description

A \$1,400 award is offered annually by PharmaChoice Canada Inc.West for a student in the third year of the undergraduate program in the Faculty of Pharmaceutical Sciences who demonstrates leadership skills and has an interest in community practice. Preference is given to those students who graduated from a high school in British Columbia but outside of the metro Vancouver area. The award is made on the recommendation of the Faculty of Pharmaceutical Sciences.

## 3805 - Canadian Society of Hospital Pharmacists of British Columbia Award

## Rationale for Proposed Changes

The award was historically awarded in the fall to students entering fourth-year of the Entry-toPractice PharmD program. To streamline the award adjudication process, the award will now be adjudicated in the spring to students who have just completed third year of the Entry-to-Practice PharmD program.

## Current Award Description

Two awards of \$500 each are offered annually by the Canadian Society of Hospital Pharmacists (CSHP), BC Branch to students entering the fourth year of the Entry-to-Practice PharmD program with high academic achievement, current CSHP membership, and a demonstrated interest in hospital pharmacy. The award is made on recommendation of the Faculty of Pharmaceutical Sciences.

## Proposed Award Description

Two awards of \$500 each are offered annually by the Canadian Society of Hospital Pharmacists (CSHP), BC Branch to for students who have completed third year entering the fourth year of the Entry-to-Practice PharmD program with high academic achievement, current CSHP membership, and a demonstrated interest in hospital pharmacy. The award is made on recommendation of the Faculty of Pharmaceutical Sciences.

13 February 2019
To: Vancouver Senate
From: Senate Curriculum Committee
Re: February 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 courses, revised courses, deletion of specialization, new Minor, revised minors, revised program requirements, and revised streams brought forward by the faculties of Applied Science, Arts, Commerce and Business Administration, Education, Forestry, Graduate and Postdoctoral Studies (Applied Science, Arts, Commerce and Business Administration, Forestry, Land and Food Systems, Science), Land and Food Systems, and Science be approved."

Respectfully submitted,

Dr. Peter Marshall, Chair
Senate Curriculum Committee

## FACULTY OF APPLIED SCIENCE

New course
CIVL 303 (3) Computational Tools in Civil Engineering

## ARTS

New Minor
Minor in Geography (Environment and Sustainability)
New courses
ARTH 285 (3) Art and the Moving Image; ARTH 331 (3) Greek Art and Architecture; ARTH
332 (3) Roman Art of Architecture; ASIA 206 (3) Modern Islam; ASIA 207 (3) Classical Islam;
ECON 398 (3) Introduction to Applied Economics; GEOG 432 (3) Radical Traditions of Decolonization and Liberation; HIST 352 (3) Modern Middle Eastern History; HIST 353 (3-6) d Special Topics in Middle Eastern History; HIST 354 (3) The Ottoman Empire; HIST 404 (3) The First World War; HIST 406 (3) The Second World War; LING 242 (3) Computational Tools for Linguistic Analysis; LING 342 (3) Computational Models of Language

## COMMERCE AND BUSINESS ADMINISTRATION

New courses
COEC 475 (3) The Economics \& Policy of the Environment, Energy, and Natural Resources; COMM 271 (3) Introduction to Capital Markets; COMM 312 (3) Business Ethics Leadership; COMM 383 (3) Innovation Leadership; COMM 479 (3) Advanced Topics on Corporate Finance

## EDUCATION

Revised course
Kin 110 (3) Human Anatomy
New course
KIN 131 (3) Systems Physiology I
Revised degree requirements
Bachelor of Kinesiology> Degree Requirements
Revised streams
Neuromechanical and Physiological Sciences; Social and Behavioural Sciences;
Multidisciplinary Science

## FORESTRY

New courses
HGSE 360 (3) Ocean People, Culture and Tradition; HGSE 361 (3): Fisheries Co-Management of the North Pacific Coast; HGSE 362 (3): Marine Protected Areas and Marine Spatial Planning; HGSE 363 (3): Applications in Marine Conservation; HGSE 364 (3): Haida Gwaii Marine Conservation Seminar
Deletion of specialization
Forest Resources Management Major (Specialization in International Forestry)

New courses
FRST 422 (3) Mathematical Modelling in Forest Resource; FRST 423 (6) Integrated Resources Management Planning
Revised course
FRST 497 (3) Communications and Professionalism

## FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

## Applied Science

New course
CHBE 587 (3) Interfacial Phenomena
Arts
New course
ASIA 574 (3) From the Chronicle to the Archive: Cultures of History in South Asia
Revised program requirements
Master of Arts in Ancient Culture, Religion and Ethnicity; Master of Arts in Classics; Master of Arts in Classical and Near Eastern Archaeology; Master of Arts in Religious Studies

## Commerce and Business Administration

New course
BA 514 (5) IMBA Residency - People, Culture and Organizations

## Forestry

New course
FRST 500 (1) Teaching and Learning in Forestry

## Land and Food Systems

New course
FRST 500 (1) Teaching and Learning in Forestry

## Science

New course
CHEM 506 (3) Polymer Chemistry; CHEM 528 (3)Nanomaterials Characterization

## LAND AND FOOD SYSTEMS

New courses
APBI 317 (3) Welfare and Ethics of using Animals in Science; APBI 423 (3) Ecological
Restoration; APBI 443 (3) - Field Study of Wine Grape Production; FNH 419 (3) Interfacial Phenomena

## SCIENCE

Revised courses
BIOL 153 (8) Human Biology: Anatomy and Physiology; BIOL 155 (6) Human Biology:
Physiology and Introductory Anatomy; COGS 300 (4) Understanding and Designing Cognitive Systems; CPSC 340 (3) Machine Learning and Data Mining;
New courses

MATH 254 (3) Multivariable and Vector Calculus for Mechanical Engineering; MATH 258 (3)
Differential Equations for Mechanical Engineering; MATH 442 (3) Graphs and Networks Revised minors
Applied Animal Biology; Sustainable Agriculture and Environment; Food and Resource Economics; Food Science; Nutritional Sciences; Sustainable Food Systems

# UBC Curriculum Proposal Form Change to Course or Program 

## Category 1 Changes

| Faculty: Applied Science <br> Department: Civil Engineering <br> Faculty Approval Date: Nov. 8, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019 | Date: September 18, 2018 <br> Contact Person: Michael Isaacson <br> Phone: 604-822-4338 <br> Email: isaacson@apsc.ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> CIVL 303 (3) Computational Tools in Civil Engineering <br> Computational and numerical solutions to civil engineering problems; application to a civil engineering design project that reflects community, economic, environmental and technical considerations. This course is not eligible for Credit/D/Fail grading. [2-0-2]. <br> Prerequisite: All of CIVL 201, 210, 215, 231, and MATH 255 or 256. | URL: <br> http://www.calendar.ubc.ca/vancouver/course s.cfm?page=name\&code=CIVL <br> Present Calendar Entry: <br> N/A <br> Type of Action: <br> New Course <br> Rationale for Proposed Change: <br> The criteria of the Canadian Engineering Accreditation Board have recently shifted so as to emphasize instilling and assessing student performance with respect to 12 Graduate Attributes, and to use suitable measures of student performance to provide continual improvements to the program. <br> In this context, the Civil Engineering program is inadequately conforming to accreditation requirements in two ways: (1) an insufficient exposure of students to Graduate Attribute 5 <br> - Use of Engineering Tools, and specifically to modelling and simulation tools applied to civil engineering projects; and (2) participation in a civil engineering design project reflecting exposure to multiple graduate attributes at an intermediate level. <br> Simultaneously, the Program's Accreditation Units (AU's) in Mathematics are notably in excess of accreditation requirements (265 <br> AU's vs. a required minimum of 195 AU's) - |


| Faculty: Applied Science <br> Department: Civil Engineering <br> Faculty Approval Date: Nov. 8, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019 | Date: September 18, 2018 <br> Contact Person: Michael Isaacson <br> Phone: 604-822-4338 <br> Email: isaacson@apsc.ubc.ca |
| :---: | :---: |
|  | associated in part with two courses directed to differential equations (MATH 255 and MATH 257) versus one course (MATH 256) for some other engineering programs. Therefore, it is proposed that the mathematics content is reduced - a related program change entails MATH 256 replacing MATH 255 and 257. This frees up 3 credits for the program to deliver, via the proposed course, (i) the needed exposure to engineering tools in the solution of civil engineering problems, and (ii) a 3rd year level civil engineering design project. This would complement corresponding design project courses at the 2nd year level (CIVL 201) and the capstone design experience at the 4th year level (CIVL 445,446 ) and will instill multiple graduate attributes at the intermediate level. <br> Category: 1 |

## UBC Curriculum Proposal Form <br> Change to Course or Program

Category: 1

| Faculty: Commerce <br> Faculty Approval Date: Dec 4, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019 | Date: 2018 Nov 20 <br> Contact Person: Kin Lo <br> Phone: 2-8430 <br> Email: kin.lo@sauder.ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> COEC 475 (3) The Economics \& Policy of the Environment, Energy, and Natural Resources <br> Economic analysis of environmental problems, energy systems, and natural resources. Policy options to help resolve these issues. Credit will be granted for only one of COEC 475 or COMM 487. <br> This course is not eligible for Credit/D/Fail grading. <br> Prerequisite: All of ECON 315 and ECON 316, or ECON 308. | URL: <br> Present Calendar Entry: <br> n/a <br> Type of Action: <br> Create new course <br> Rationale for Proposed Change: <br> This course is being added to the Bachelor of International Economics curriculum. It has been developed based on COMM 487, but with more emphasis on economics and research, less emphasis on business strategy, and includes a wider range of topics. Course prepares students for the environmentally-themed section of the ECON 494 capstone course. Course has been developed with input from the Vancouver School of Economics. The VSE plans to create ECON 475 as a cross-listing for instances when the course is delivered by Economics faculty whereas COEC 475 will be delivered by Commerce faculty. <br> X <br> Not available for $\mathbf{C r} / \mathbf{D} / \mathbf{F}$ grading <br> (undergraduate courses only) <br> (Check the box if the course is NOT eligible for $\mathrm{Cr} / \mathrm{D} / \mathrm{F}$ grading and provide the rationale for this below. Note: Not applicable to graduate-level courses.) <br> Rationale for not being available for <br> Cr/D/F: Commerce courses are generally not available for $\mathrm{Cr} / \mathrm{D} / \mathrm{F}$ grading. |

## UBC Curriculum Proposal Form <br> Change to Course or Program

Category: (1)

| Faculty: Sauder School of Business <br> Department: Undergraduate Office <br> Faculty Approval Date: Dec 4, 2018 <br> Effective Session (W or S): Winter <br> Effective Academic Year: 2019 | Date: February 1, 2018 <br> Contact Person: Pam Lim <br> Phone: 604 822-9216 <br> Email: pam.lim@sauder.ubc.ca |
| :--- | :--- |
| Proposed Calendar Entry: | URL: <br> n/a <br> COMM 271 (3) Introduction to Capital <br> Markets |
| Present Calendar Entry: <br> None |  |
| Roles of capital market institutions and <br> participants. Skill development for basic <br> financial principles in the quantitative and <br> qualitative evaluation of bond and stock <br> investments. | Type of Action: <br> New Course |
| Rationale: <br> This course is not eligible for Credit/D/Fail <br> grading. | This course has been offered previously as <br> a pilot course. The course outline is <br> attached. |

## UBC Curriculum Proposal Form <br> Change to Course or Program

Category: (1)

| Faculty: Sauder School of Business <br> Department: Undergraduate Office <br> Faculty Approval Date: Dec 4, 2018 <br> Effective Session (W or S): Winter <br> Effective Academic Year: 2019 | Date: May 8, 2018 <br> Contact Person: Pam Lim <br> Phone: 604 822-9216 <br> Email: pam.lim@sauder.ubc.ca |
| :--- | :--- |
|  | URL: <br> n/a |
| Proposed Calendar Entry: | Present Calendar Entry: <br> None |
| COMM 312 (3) Business Ethics <br> Leadership | Type of Action: <br> New Course |
| Skill Development for leading organizations <br> while better managing for values. <br> Recognizing organizational values, and <br> developing concrete plans for better <br> delivering on these values. | Rationale: <br> This course is not eligible for Credit/D/Fail <br> grading. |
| Unlike existing courses this course <br> specifically links ethical awareness of the <br> effects of business within society with the <br> opportunities that individuals have to lead <br> their organizations to do better from the |  |
| moral point of view. |  |
| This course has been offered previously as |  |
| a pilot course. The course outline is |  |

## UBC Curriculum Proposal Form Change to Course or Program

Category: (1)

| Faculty: Commerce <br> Department: <br> Faculty Approval Date: Dec 4, 2018 <br> Effective Session (W or S): Winter <br> Effective Academic Year: 2019 | Date: February 6, 2018 <br> Contact Person: Pam Lim <br> Phone: 604 822-9216 <br> Email: pam.lim@sauder.ubc.ca |
| :--- | :--- |
|  | URL: <br> n/a <br> Proposed Calendar Entry: <br> Present Calendar Entry: <br> None |
| Social science frameworks useful for <br> understanding organizational innovation <br> processes and application of these <br> frameworks to innovation. Diagnosing and <br> solving a broad range of organizational <br> innovation challenges from the perspective <br> of an innovation leader. | Type of Action: <br> New Course |
| Rationale: |  |
| This course has been offered previously as <br> a pilot course. The course outline is <br> attached. |  |
| grading. |  |$\quad$| The lessons of the course have direct |
| :--- |
| relevance to leading a start-up, leading |
| innovation efforts in more established |
| organizations, and creating innovation |
| ecosystems. |

## UBC Curriculum Proposal Form <br> Change to Course or Program

Category: (1)

| Faculty: Sauder School of Business <br> Department: Undergraduate Office <br> Faculty Approval Date: Dec 4, 2018 <br> Effective Session (W or S): Winter <br> Effective Academic Year: 2019 | Date: February 1, 2018 <br> Contact Person: Pam Lim <br> Phone: 604 822-9216 <br> Email: pam.lim@sauder.ubc.ca |
| :--- | :--- |
|  | URL: |
| Proposed Calendar Entry: | Present Calendar Entry: <br> None |
| COMM 479 (3) Advanced Topics on <br> Corporate Finance | Type of Action: <br> Corporate Finance is the process by which <br> corporations raise money, allocate funds to real <br> assets, and manage the flow of funds back to <br> the investors. Topics will vary according to <br> interests of students, instructors, and <br> developments in the field. |
| Rationale: <br> Corequisites: Comm 370 and 371 | This senior elective provides an opportunity for <br> students to consolidate their understanding and deep <br> appreciation of critical concepts covered in earlier <br> courses. It also allows students to study advanced <br> topics that have not been covered previously. |
| This course is not eligible for Credit/D/Fail <br> grading. | This course has been offered previously as <br> a pilot course. The course outline is |
| attached. |  |
|  | Not available for Cr/D/F grading |

Note: This curriculum package has been revised to reflect suggested changes from consultations with the Faculty of Land and Food Systems, the Institute for the Oceans and Fisheries, the Department of Botany, and the First Nations House of Learning.

## Background on the Haida Gwaii Semesters

The UBC Haida Gwaii Institute, located within the UBC Faculty of Forestry, currently offers three successful "semesters" on Haida Gwaii, each comprised of five 3-credit courses. Prior to 2018, the Haida Gwaii Semesters were operated and managed by the Haida Gwaii Higher Education Society (HGHES) through a partnership with UBC Faculty of Forestry. In partnership with the HGHES, and approval given by the Council of the Haida Nation for the use of the name, the Haida Gwaii Institute, was approved by the Senate and Board of Governors in early 2018.

The Haida Gwaii Semesters are intensive, experiential learning programs that provide undergraduate students with a unique and wide range of field and community opportunities during the course of their studies. The courses offered in the Winter Semester (January through April) focus on the social aspects of natural resource management (HGSE 350, 351, 352, 353, and 354) and have been offered for 9 years. The courses offered in the Fall Semester (September through December) focus on the natural science aspects of natural resource management (HGSE 355, 356, 357, 358, and 359), and reconciliation (HGSE $310,311,312,313$, and 314 ); these semesters have been offered for 7 years and 2 years, respectively. The semesters are designed for cohorts of 22 students, and are generally full. Since 2010, over 300 students have taken these semesters, from UBC Forestry and other UBC Faculties, and from across Canada and abroad. Approximately $70 \%$ of the students who have registered in the courses comprising these semesters have been visiting students from a variety of universities across Canada.

The context within which the Haida Gwaii Semesters are taught, as well as the community in which the students are immersed, is an intercultural resource-dependent community facing economic transition, population decline, increasing local control of natural resources, and new decision-making frameworks. The Haida Gwaii Semesters bridge conventional classroom instruction with field lectures, western science with traditional knowledge, and theoretical learning with hands-on experiences. It engages local youth, Haida elders, weavers, carvers, provincial, federal and Haida government officials, industry workers, academics, scientists, and community members. The Semesters were developed to educate a new intercultural generation of decision-makers and practitioners with innovative and transformative curricula grounded in the people, communities, and environments of Haida Gwaii.

The Haida Gwaii Semesters each provide a full course load. Four courses run in successive 3-week blocks while the final project-based course runs throughout the semester. Classes run from Monday to Friday from 9:00 am to 12:00 pm, with afternoons reserved for discussions with guest speakers, field trips, or time to complete course readings and assignments. Some classes will involve a large field component and will run from 9:00 am to 5:00 pm, Monday to Friday. Evenings are generally free with the exception of public lectures every few weeks and the occasional HGI dinner event. Outside of class time, there are many opportunities for students to participate in activities, engage with the community, and immerse themselves in the Haida Gwaii lifestyle.

## Why a Marine Conservation Semester is Being Proposed

A new Marine Conservation semester is being proposed by the UBC Haida Gwaii Institute, to be offered in the month(s) of January, February, March and early April. Marine conservation and management of the ocean is a subject of growing international, national and local importance. Responsible stewardship requires consideration of diverse human uses and values at multiple scales, and effective management can only be achieved if issues are widely understood and wisely addressed. Over the last two decades, there has been a shift in marine governance and conservation that has given way to a broader approach that recognizes the participation of coastal Indigenous Peoples and other marine resource users in shared decision-making. Through this process, marine conservation is now understood as involving the people closest to the resource in the design, implementation, and monitoring of management measures. Coastal Indigenous Peoples and other marine resource users are empowered to become active members of the management group, with rights and responsibilities, by working in partnership with governments.

Haida Gwaii, the traditional, ancestral and unceded territory of the Haida Nation, is the only place in British Columbia to have true joint decision-making between First Nations and the Crown around lands, ocean, and natural resources. The Haida people have lived within the marine environment since time immemorial, and are a people and culture who are intricately related to their marine environment. Being located in a nutrient rich coastal upwelling area on the continental shelf made Haida Gwaii a central location to fish salmon, halibut, crab, razor clams, and other marine life. Numerous processing plants and canneries were set up in the archipelago in the $19^{\text {th }}$ and $20^{\text {th }}$ century, as well as two whaling stations, that gave way to a strong local fishing industry that drew non-Indigenous people to settle on Haida Gwaii. There is a long-standing tradition among the Haida Nation and islands municipalities of innovation and collaborative leadership resulting in numerous precedent-setting blockades, legal battles, and negotiated agreements. The Haida Nation and islands municipalities understand the need to broaden the scope of intercultural engagement and collaboration to ensure a sustainable, resilient future of the islands and its surrounding marine environment. The Haida Gwaii Semesters can provide the foundation for a unique semester program that shares the story of the ground-breaking work that has been done by the Haida Nation and settler communities of Haida Gwaii in marine conservation. This work includes the Haida Gwaii Marine Plan along with the Marine Plan Partnership for the North Pacific Coast (MaPP), Gwaii Haanas Land-Sea-People Management Plan, Kunst'aa Guu - Kunst'aayah Reconciliation Protocol, and the ongoing Haida Title case.

An advisory meeting was organized November 18th - 20th, 2016 to consult on the proposed Haida Gwaii Semester in Marine Conservation. Invitees included representatives from the Haida Nation, local communities, Coastal First Nations, industry, government, NGOs, practitioners, and post-secondary institutions to discuss a proposed semester in marine conservation. The participants were involved in two days of discussion and activities framed around reconciliation, marine conservation, planning, and coastal management in post-secondary education that would support the Marine Planning Partnership for the North Pacific Coast (MaPP) and the Haida Gwaii Marine Plan. What resulted were the topics for 13 courses that were later shortlisted to five courses by a curriculum development committee that was composed of seven Haida, three of whom were youth, and six non-Indigenous people; all of whom are respected knowledge holders in this subject area. This committee co-developed the syllabi of the five courses presented in this package. The syllabi were then reconciled and linked by HGI staff. As is the case for the three existing Haida Gwaii Semesters, the courses proposed for this semester are intended for university students in their third or fourth year of study in a variety of programs that focus on aspects of marine conservation.

## List of Potential Instructors for the Haida Gwaii Semester in Marine Conservation

The individuals listed below were all involved in the development of the curriculum, and associated syllabi, of the proposed 5-course semester program in Marine Conservation to be based on Haida Gwaii. Each has been listed as a potential instructor, although this has not yet been finalized.

## HGSE 360

Sean Young - Curator of Collections and Lab of Archaeology, Haida Gwaii Museum; current instructor of HGSE Case Studies in Haida Gwaii.
Russ Jones, PhD - Previously, Program Director of Haida Ocean Technical Team (Retired), Council of the Haida Nation; UBC IOF Honorary Research Associate; Aboriginal Fisheries Research Unit.

## HGSE 361

Lais Chaves, PhD - Marine Biologist Planner, Haida Ocean Technical Team, Council of the Haida Nation. Russ Jones, PhD - Previously, Program Director of Haida Ocean Technical Team (Retired), Council of the Haida Nation; UBC IOF Honorary Research Associate; Aboriginal Fisheries Research Unit.

## HGSE 362

Charlie Short, MSc - Executive Director, Strategic Projects, Coast Area: Ministry of Forests, Lands, Natural Resource Operations and Rural Development, Province of British Columbia.
Lynn Lee, PhD - Marine Ecologist, Gwaii Haanas National Park, National Marine Conservation and Haida Heritage Site.

## HGSE 363

Norm Sloan, PhD - Previously, Marine Ecologist, Gwaii Haanas National Park, National Marine Conservation and Haida Heritage Site (Retired).
Emily Rubidge, PhD - Marine Scientist, Institute for Ocean Sciences, Fisheries and Oceans Canada; Research Associate, UBC Faculty of Forestry.

## HGSE 364

Cathy Rigg, PhD (ABD) - Currently, working with Gwaii Haanas-Parks Canada; previously worked as Marine Technical Planner, Haida Ocean Technical Team, Council of the Haida Nation. Judson Brown - Program Director of Haida Ocean Technical Team, Council of the Haida Nation.

## Category: 1

## UBC Curriculum Proposal Form Change to Course or Program

| Faculty: Forestry <br> Department: Forest Resources <br> Management <br> Faculty Approval Date: November ?, 2018 Effective Session (W or S): W <br> Effective Academic Year: 2019 | Date: October 23, 2018 <br> Contact Persons: Robert Kozak / Carlos Ormond Phone: 604-822-2402 / 1-250-559-7885 ext. 232 <br> Email: rob.kozak@ubc.ca / carlos.ormond@ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: HGSE 360 (3) Ocean People, Culture and Tradition <br> The relationship between the culture of the Haida people and their marine environment; and traditional and modern approaches to management of marine resources. <br> Co-requisites: HGSE 361, 362, 363, and 364 . <br> (See Attachment FRST-2018-1 for the proposed syllabus.) | URL: N/A <br> Present Calendar Entry: N/A Type of Action: New course <br> Rationale: <br> See the preamble material for a general rationale for this package of five courses. <br> The first four courses [HGSE 360 (Ocean People, Culture and Tradition); HGSE 361 (Fisheries Co-Management of the North Pacific Coast); HGSE 362 (Marine Protected Areas and Marine Spatial Planning); and HGSE 363 (Applications in Marine Conservation)] are designed to be offered as sequential 3-week modules, with each course building on the learning objectives of the previous course. The fifth course [HGSE 364 (Haida Gwaii Marine Conservation Seminar)] extends throughout the term and provides a platform for community-based activities to support the learning activities of the other four courses. <br> HGSE 360 and 361 are intended to provide the Haida historical and cultural background, as well as historical and current marine management structures respectively, for an exploration of marine protected areas and marine spatial planning that have emerged in Canada (HGSE 362). HGSE 363 allows students an opportunity to put their learning into practice; and HGSE 364, the culmination of the sequential module courses, then focuses on how these notions are shaping marine conservation. <br> Not available for $\mathrm{Cr} / \mathrm{D} / \mathrm{F}$ grading |
| Proposed Calendar Entry: HGSE 361 (3): Fisheries CoManagement of the North Pacific Coast. <br> Concepts of fisheries co-management with a focus on the North Pacific Coast; examples of other comanagement structures regionally and internationally. | URL: N/A <br> Present Calendar Entry: N/A <br> Type of Action: New course |


| Co-requisites: HGSE 360, 362, 363, and 364 . <br> (See Attachment FRST-2018-2 for the proposed syllabus.) | Rationale: See the rationale for HGSE 360. <br> Not available for $\mathrm{Cr} / \mathrm{D} / \mathrm{F}$ grading |
| :---: | :---: |
| Proposed Calendar Entry: HGSE 362 (3): Marine Protected Areas and Marine Spatial Planning Key concepts in MSP and key elements inherent in MPA and MPA network design, governance, implementation, management, compliance and monitoring. Co-requisites: HGSE 360, 361, 363, and 364 . <br> (See Attachment FRST-2018-3 for the proposed syllabus.) | URL: N/A <br> Present Calendar Entry: N/A <br> Type of Action: New course Rationale: See the rationale for HGSE 360 <br> Not available for $\mathrm{Cr} / \mathrm{D} / \mathrm{F}$ grading |
| Proposed Calendar Entry: <br> HGSE 363 (3): Applications in Marine <br> Conservation <br> Exposure to field settings and research techniques in local marine environments. <br> Co-requisites: HGSE 360, 361, 362, and 364 . <br> (See Attachment FRST-2018-4 for the proposed syllabus.) | URL: N/A <br> Present Calendar Entry: N/A <br> Type of Action: New course <br> Rationale: <br> See the rationale for HGSE 360. <br> Not available for $\mathrm{Cr} / \mathrm{D} / \mathrm{F}$ grading |
| Proposed Calendar Entry: HGSE 364 (3): Haida Gwaii Marine Conservation Seminar. <br> Key marine conservation issues, pairing broad topics with examples on Haida Gwaii to bring theory into practice. <br> Co-requisites: HGSE 360, 361, 362, and 363 . <br> (See Attachment FRST-2018-5 for the proposed syllabus.) | URL: N/A <br> Present Calendar Entry: N/A <br> Type of Action: New course <br> Rationale: <br> See the rationale for HGSE 360. <br> Not available for $\mathrm{Cr} / \mathrm{D} / \mathrm{F}$ grading |

## UBC Curriculum Proposal Form Change to Courses

## Category: 1

| Faculty: Forestry <br> Department: Forest Resources Management <br> Faculty Approval Date: <br> Effective Session (W or S): W <br> Effective Academic Year: 2019 | Date: <br> Contact Person: Peter Marshall <br> Phone: 2-4918 <br> Email: peter.marshall@ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> FRST 422 (3) Mathematical Modelling in Forest Resource <br> Analyses: Modeling techniques used in strategic and tactical forest resources analyses. [2-0-3] <br> Prerequisite: FRST 232. And fourth-year standing <br> Attachment:FRM-1 | URL: <br> Present Calendar Entry: None <br> Type of Action: Create new course <br> Rationale for Proposed Change: This new course contains material previously included under the 10-credit capstone course (FRST 424). The material formerly covered in this course is being split into different courses to facilitate scheduling across two terms and to adapt to changing student backgrounds and larger class sizes. |
| Proposed Calendar Entry: <br> FRST 423 (6) Integrated Resources Management Planning <br> Forest management designs to identify and integrate economic, social, and environmental objectives across a forested landscape both strategically and tactically. [4-2-2] <br> Prerequisite: FRST 422 <br> Attachment: FRM-2 | URL: <br> Present Calendar Entry: None <br> Type of Action: Create new course <br> Rationale for Proposed Change: This new course contains material previously included under the 10-credit capstone course (FRST 424). The material formerly covered in this course is being split into different courses to facilitate scheduling across two terms and to adapt to changing student backgrounds and larger class sizes. |
| Proposed Calendar Entry: <br> FRST 497 (3) Communications and Professionalism <br> Preparing professional reports and presentations; professionalism and professional ethics. (2-0-2) Prerequisite: Fourth-year standing <br> Attachment: FRM-3 | URL: http://www.calendar.ubc.ca/vancouver/courses.cfm?page=code\&code=FRST <br> Present Calendar Entry: <br> FRST 497 (2) Graduating Essay or Technical Report <br> A technical description of a study or a detailed literature review of at least 4,000 words, developed under the guidance of a Faculty member. Available only to students in their graduating year. <br> Type of Action: Change course title, description, and credits. <br> Rationale for Proposed Change: The change of focus from a technical essay to professional communications is part of a series of changes to the BSF program. The addition of an additional credit is to include material on professionalism and professional ethics formerly covered as part of the 10 -credit capstone course (FRST 424). The material formerly covered in this course is being split into different courses to facilitate scheduling across two terms and to adapt to changing student backgrounds and larger class sizes. |

## UBC Curriculum Proposal Form Change to Course or Program

Category: (1)
Faculty: Forestry
Department: Wood Science
Faculty Approval Date: November 6, 2018
Effective Session (W or S): S
Effective Academic Year: 2019

Proposed Calendar Entry:
This specialization will not be available after
April 2019.
Forest Resources Management Major
(Specialization in International Forestry)
Management Major (Specialization in International Forestry)

The Specialization in International Forestry program combines aspects of forest resources biology and management with developing a global perspective of forest management issues increasingly required for careers in Forestry both in Canada and abroad. The objective of this program is to produce graduates who have a good science foundation, a second language, cultural sensitivity, and both academic and first-hand knowledge of forestry abroad.

The program includes core courses in forest ecology, stand management, silvicultural systems, forest protection, fisheries, hydrology and integrated resource management that are common to the other specializations in this major. In addition, to fulfill the International Forestry component, students must select a regional specialization. Students choose from Asia Pacific, Europe, the Americas, or other region with the approval of a program advisor.

Forest Resources Management/ International Forestry
First Year

ENGL 100-level or FRST 150

Date: September 20, 2018
Contact Person: Dr. Simon Ellis
Phone: 604-822-3551
Email: simon.ellis@ubc.ca

URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,203,328,170
Present Calendar Entry:

Forest Resources Management Major (Specialization in International Forestry)

Management Major (Specialization in International Forestry)

The Specialization in International Forestry program combines aspects of forest resources biology and management with developing a global perspective of forest management issues increasingly required for careers in Forestry both in Canada and abroad. The objective of this program is to produce graduates who have a good science foundation, a second language, cultural sensitivity, and both academic and first-hand knowledge of forestry abroad.

The program includes core courses in forest ecology, stand management, silvicultural systems, forest protection, fisheries, hydrology and integrated resource management that are common to the other specializations in this major. In addition, to fulfill the International Forestry component, students must select a regional specialization. Students choose from Asia Pacific, Europe, the Americas, or other region with the approval of a program advisor.

## Forest Resources Management/ International

 ForestryENGL 100-level or FRST 150

| Language ${ }^{5}$ | 6 | BIOL $111{ }^{1}$ and 121 | 6 |
| :---: | :---: | :---: | :---: |
| BIOL $111{ }^{1}$ and 121 | 6 | CHEM 111 or 121 or PHYS 100 or $101^{2}$ | 3/ |
|  |  |  | 4 |
| CHEM 111 or 121 or PHYS 100 or $101^{2}$ | 3/ |  |  |
|  | 4 | ECON 101 or FRST 101 | 3 |
| ECON 101 or FRST 101 | 3 | MATH 100 or 102 or 104 or $190^{3}$ | 3 |
| MATH 100 or 102 or 104 or $190^{3}$ | 3 | FRST 100 | 3 |
| FRST 100 | 3 | FRST $232{ }^{4}$ | 3 |
| FRST $232{ }^{4}$ | 3 | APBI 200 | 3 |
| APBI 200 | 3 | Total Credits | 33 |
|  |  |  | /3 |
| Total Credits | 33 |  | 4 |
|  | /3 |  |  |
|  | 4 | Second Year |  |
| Second Year |  | Language ${ }^{5}$ | 6 |
| Language ${ }^{5}$ | 6 | CONS 200 | 3 |
| CONS 200 | 3 | FRST 200 | 3 |
| FRST 200 | 3 | FRST 201 | 3 |
| FRST 201 | 3 | FRST 210 | 3 |
| FRST 210 | 3 | FRST 211 | 3 |
| FRST 211 | 3 | FRST 231 | 3 |
| FRST 231 | 3 | FRST 239 | 3 |
| FRST 239 | 3 | FOPR 264 | 4 |
| FOPR 264 | 4 | Regional specialization elective ${ }^{6}$ | 3 |


| Regional specialization elective ${ }^{6}$ | 3 | Total Credits | 34 |
| :---: | :---: | :---: | :---: |
| Total Credits | 34 | FRST 351 immediately p |  |
| FRST 351 immediately preceding third year 2 |  | Third |  |
| Third Year |  | FRST 305 | 3 |
| FRST 305 | 3 | FRST 307 | 3 |
| FRST 307 | 3 | FRST 318 | 3 |
| FRST 318 | 3 | FRST 320 | 3 |
| FRST 320 | 3 | FRST 339 | 3 |
| FRST 339 | 3 | FRST 385 | 3 |
| FRST 385 | 3 | FRST 386 | 3 |
| FRST 386 | 3 | FRST 395 | 3 |
| FRST 395 | 3 | FRST 439 | 3 |
| FRST 439 | 3 | WOOD 461 | 3 |
| WOOD 461 | 3 | Regional Specializaion ${ }^{6}$ | 3 |
| Regional Specializaion ${ }^{6}$ | 3 | Total Credits | 33 |
| Total Credits | 33 | FRST 452 immediately International Experienc | 2 |
| FRST 452 immediately following third year International Experience ${ }^{7}$ | 2 | Fourt |  |
| Fourth Year |  | FRST 415 | 3 |
| FRST 415 | 3 | FRST 424 | 10 |
| FRST 424 | 10 | FRST 497 | 2 |


\(\left.$$
\begin{array}{|l|l|}\hline \text { following: UBC's Education Abroad } \\
\text { Program or a study abroad or work } \\
\text { internship abroad designed by the student } \\
\text { with pre-approval by a program advisor. } \\
\text { The Faculty cannot guarantee the } \\
\text { placement of any student in a study } \\
\text { abroad exchange program or an } \\
\text { international work internship program. } \\
\begin{array}{l}\text { Selection is competitive and based on } \\
\text { academic standing, merit, and availability. }\end{array} & \begin{array}{l}\text { internship abroad designed by the student } \\
\text { with pre-approval by a program advisor. } \\
\text { The Faculty cannot guarantee the } \\
\text { placement of any student in a study } \\
\text { abroad exchange program or an } \\
\text { international work internship program. } \\
\text { Selection is competitive and based on } \\
\text { academic standing, merit, and availability. }\end{array} \\
& \begin{array}{l}\text { Type of Action: } \\
\text { Add language specifying specialization will not } \\
\text { be available after April 2019. Remove } \\
\text { specialization after students have graduated in } \\
\text { Spring. } \\
\text { Rationale for Proposed Change: }\end{array} \\
& \begin{array}{l}\text { Very few students ( } \sim \\
\text { this a year) have selected }\end{array}
$$ <br>
BSF Forest Resources Management major <br>

suggested simplifying the options available by\end{array}\right\}\)| removing at least one of the specializations. |
| :--- |
| Due to the low uptake of this specialization, it |
| appears to be the logical one to remove. |
| Students who wish to specialize in international |
| forestry can be accommodated within the suite |
| of electives available in the Integrated |
| Resources Management specialization. |

## UBC Curriculum Proposal Form Change to Course or Program

Category: (1)
$\left.\begin{array}{|l|l|}\hline \text { Faculty: Land and Food Systems } & \begin{array}{l}\text { Date: September 3, 2018 } \\ \text { Department: Applied Biology } \\ \text { Fontact Person: Cathy Schuppli } \\ \text { Faculty Approval Date: 19 Oct 2018 } \\ \text { Effective Session (W or S): W } \\ \text { Effective Academic Year: 2019 }\end{array} \\ \hline \text { Phone: (604) 827-3848 } \\ \text { Email: cathy.schuppli@ubc.ca } \\ \text { Proposed Calendar Entry: } & \text { URL: N/A } \\ \begin{array}{l}\text { APBI 317 (3) Welfare and Ethics of } \\ \text { using Animals in Science }\end{array} & \begin{array}{l}\text { Present Calendar Entry: } \\ \text { N/A }\end{array} \\ \begin{array}{l}\text { Historical and current debate, ethical } \\ \text { perspectives, governance, and scientific } \\ \text { understanding of experiences of animals } \\ \text { in research. }\end{array} & \begin{array}{l}\text { Type of Action: } \\ \text { New Course }\end{array} \\ \text { Rationale for Proposed Change: } \\ \text { UBC hosts one of Canada's larger university animal } \\ \text { research programs. UBC is also is a leader in public } \\ \text { accountability by being the first Canadian university } \\ \text { to publish how many animals are used every year. } \\ \text { As long as animals have been used in research, there } \\ \text { has been controversy about their use and UBC has } \\ \text { been the target of its own local animal rights } \\ \text { activity. The Applied Animal Biology Program } \\ \text { offers a variety of courses that touch on the ethics of } \\ \text { animals in various roles in society but nothing } \\ \text { specific to animals used in science. In this context, } \\ \text { UBC has a unique opportunity to champion a course } \\ \text { that thoroughly examines this topic: historical and } \\ \text { current debate, ethical perspectives, governance, and } \\ \text { contemporary issues in animal welfare. }\end{array}\right\}$

## UBC Curriculum Proposal Form <br> Change to Course or Program

Category: (1)

| Faculty: Land and Food Systems <br> Department: Applied Biology <br> Faculty Approval Date: 19 Oct 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019 | Date: July 2, 2018 <br> Contact Person: Sue Grayston <br> Phone: 604-822-5928 <br> email: sue.grayston@ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: | URL: N/A <br> Present Calendar Entry: <br> N/A |
| APBI 423 (3) Ecological Restoration Ecological principles relevant to restoration of ecosystems are applied to the restoration of several types of ecosystems. <br> Prerequisite: APBI 200 and one of FRST 201, APBI 260, BIOL 230. <br> Equivalency: UFOR 403 | Type of Action: <br> New course for crosslisting with UFOR 403. <br> Rationale for Proposed Change: A $4^{\text {th }}$ year level APBI course is being created and cross-listed with UFOR 403 as a restricted elective for students in the Sustainable Agriculture and Environment major of Applied Biology. The cross listing will aid in guiding students in the newly created SAGE (Sustainable Agriculture and Environment) major to a relevant restricted elective. In addition, this cross list will attract students from outside of the forestry program to ecological restoration. Not available for $\mathbf{C r} / \mathbf{D} / \mathrm{F}$ grading (undergraduate courses only) <br> Rationale for not being available for <br> $\mathbf{C r} / \mathbf{D} / \mathbf{F}$ : The cross listed course UFOR 403 is a required course for students in the urban greenspace management minor, and students need a percentage grade for required courses. For equivalency, this course will also be listed as Not available for $\mathrm{Cr} / \mathrm{D} / \mathrm{F}$ grading $\square$ Pass/Fail or Honours/Pass/Fail grading |

## UBC Curriculum Proposal Form Change to Course or Program

Category: 1

| Faculty: Land and Food Systems <br> Department: Applied Biology <br> Faculty Approval Date: Oct 19, 2018 <br> Effective Session (W or S): S <br> Effective Academic Year: 2019 | Date: September 03,2018 <br> Contact Person: Simone Castellarin <br> Phone: 604-827-2667 <br> Email: simone.castellarin@ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: | URL: N/A <br> Present Calendar Entry: N/A |
| APBI 443 (3) - Field Study of Wine Grape Production | Type of Action: New Course |
| Lectures, field trips, laboratory sessions focused on major issues related to grape and wine production. Origin of grape varieties and rootstocks, morphological features of the grapevine, training systems, canopy management strategies, berry composition, the impact of terroir on wine quality. <br> Pre-requisites: BIOL 112, BIOL 121, and one 200 level BIOL course. Credit will be granted for only one of | Rationale for Proposed Change: <br> When you have supporting documents for Category 1 proposals please label each document with the course number, or the name of the program, being proposed. <br> In Canada, the grape and wine industry has become a large contributor to the overall Canadian economy, especially in British Columbia and Ontario, with an impact of $\$ 9$ billion in 2015. The sector employs over 37,000 Canadians in various activities related to grape and wine production, tourism, retail, marketing, and laboratory research. |
|  | Despite the relevance of the sector, teaching programs related to grape and wine production are still limited. UBC Vancouver offers four courses related to grape and wine production: FNH 330 Introduction to Wine Science: Part 1, FNH 335 - Introduction to Wine Science: Part 2, FNH 430 - Enology and Wine Biotechnology, APBI 442 Wine Grapes and Berry Biology. APBI 443 Field Study of Wine Grape Production will complement the current offers with a hands-on course that will explore major applied biology and viticulture issues related to wine production. <br> Grapevine and berry crop biology will |



## UBC Curriculum Proposal Form <br> Change to Course or Program

Category: 1

| Faculty: Land \& Food Systems <br> Department: Food, Nutrition \& Health <br> Faculty Approval Date: 19 Oct 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019 | Date: 22 August 2018 <br> Contact Person: John Frostad <br> Phone: 604 827-5192 <br> Email: john.frostad@ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> FNH 419 (3) Interfacial Phenomena Outline of the physics and chemistry of interfaces; discussion of the part played by surface effects in technical processes. Credit will be granted for only one of FNH 419 and FOOD 519. <br> Equivalency: CHBE 487 <br> Pre-requisite: One of FNH 300 (or equivalent). | URL: <br> Present Calendar Entry: <br> None. <br> Type of Action: <br> This is a new course and is cross listed with CHBE 487. <br> Rationale for Proposed Change: <br> The course is recognized as containing material appropriate to Food Science students at both the graduate and undergraduate levels that will be of value as an elective. <br> Homework assignments will be designed for Food Science students to relate the material directly to food applications. Not available for $\mathbf{C r} / \mathbf{D} / \mathbf{F}$ grading (undergraduate courses only) <br> (Check the box if the course is NOT eligible for $\mathrm{Cr} / \mathrm{D} / \mathrm{F}$ grading and provide the rationale for this below. Note: Not applicable to graduate-level courses.) <br> Rationale for not being available for <br> $\mathbf{C r} / \mathbf{D} / \mathbf{F}$ : The default is that undergraduate courses are offered for $\mathrm{Cr} / \mathrm{D} / \mathrm{F}$ unless there is a significant reason as to why it should not be so. 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.) |

## UNDERGRADUATE PROGRAMS

## ARTS CREDIT CERTIFICATES > Technológico de Monterrey-UBC Joint Academic Program Certificate

Proposal coinciding with UBC decision to have all university certificates approved by Senate
UBC Faculty of Arts -
Tec de Monterrey Credit Certificate Proposal

## Proposed Certificate Programs:

1. Certificate in Financial Economics
2. Certificate in International Politics
3. Certificate in International Relations
4. Certificate in General Arts Studies

## Date of Submission:

June 18, 2018

## Sponsoring Faculty:

Faculty of Arts

## Contact Person:

Name: Dr. Rumee Ahmed
Title: Associate Dean, Communications and Innovation, Faculty of Arts
Telephone: 604-822-1286
Email: rumee.ahmed@ubc.ca

## Supporting UBC Partners or External Partners:

Tec de Monterrey

## Description

Since 1996, Tec de Monterrey and UBC have collaborated on a wide variety of initiatives for student mobility, as well as joint teaching and research. Both institutions consider the Tec-UBC Joint Academic Program, founded with the signing of the "Academic Joint Program and Facility Joint Venture Agreement" in July 2001, to be the flagship initiative.

The partnership brings diversity to each campus, allows for the creation of innovative programs, including the piloting of new mobility and experiential learning initiatives, and brings revenue into participating faculties and supporting central program units such as Go Global.

Under this inbound study abroad program, Tec students take UBC undergraduate courses for one or two terms on a fee-paying basis. Since 2001 students have had the option of obtaining a non-credit Certificate of Specialty upon completion of 5 credit courses, or 15 credits.

## Rationale

These certificate programs were created in the summer of 2001 to give additional incentive, recognition, and a competitive edge to Tec de Monterrey students taking UBC courses under the Joint Academic Program. Students finish their semester or year of study with a recognition of an academic specialization, whether in their field of study, or as demonstration of competency in an additional area of study.

Tec Program Directors and professors met with UBC professors in 2001 to map out the certificate programs in order to ensure alignment with the Tec curriculum and determine course equivalencies.

## Length \& Duration

Each certificate requires the completion of 5 existing UBC credit courses, or 15 credits. Certificates are completed within two terms.

## Curriculum Topics by Certificate

## 1. Certificate in Financial Economics

| Course | Description |
| :--- | :--- |
| ECON 302 | Intermediate Macroeconomics Analysis I <br> Note: Credit granted for only one of ECON 302 and ECON 305 |
| ECON 345 | Money and Banking |
| ECON 355 | Introduction to International Trade <br> Note: Credit granted for only one of ECON 355 and ECON 455 |
| ECON 356 | Introduction to International Finance |
| ECON 370 | Benefit-Cost Analysis and the Economics of Project Evaluation |
| ECON 421 | Introduction to Game Theory and Applications |
| ECON 425 | Introduction to Econometrics |
| ECON 447 | Monetary Theory |
| ECON 455 | International Trade |


|  | Note: Credit granted for only one of ECON 355 and ECON 455. |
| :--- | :--- |
| ECON 456 | International Macroeconomics and Finance |
| COMM 370 | Corporate Finance |
| COMM 371 | Investment Theory |
| COMM 374 | Applied Financial Markets |
| COMM 377 | International Financial Markets and Institutions |
| COMM 471 | Mergers and Acquisitions |

## 2. Certificate in International Politics

| Course | Description |
| :--- | :--- |
| ECON 355 | Introduction to International Trade |
| ECON 356 | Introduction to International Finance |
| ECON 441 | The Process of Economic Development |
| POLI 220 | Introduction to Comparative Politics |
| POLI 260 | Introduction to Global Politics |
| POLI 320 | Government and Politics of USA |
| POLI 347 | Law and Political Theory |
| POL 360 | Security Studies |
| POL 364 | International Organizations |
| POLI 366 | International Political Economy |
| POLI 367 | International Relations Theory and the International System |
| POLI 369 | Issues in International Security |
| POLI 370 | Issues in International Conflict Management |
| POLI 374 | International Peacekeeping |
| POLI 375 | Global Environmental Politics |

## 3. Certificate in International Relations

- 15 credits from any of the 3rd and 4th year courses listed as part of the IR major, with the exception of IR seminars.
- A complete course list is available on the Faculty of Arts International Relations

Program website: https://ir.arts.ubc.ca/undergraduates/program requirements/ir major/reverse-course-look-up/

- It is highly recommended that students have already studied introductory Micro- and Macroeconomics, world history, and global politics. For those without a background in global politics, POLI 260 is recommended.


## 4. Certificate in General Arts Studies

- 15 credits from any 2nd, 3rd, or 4th year courses offered in Arts-with the exception of seminars-for which all prerequisites are met.
- A complete list of course offerings can be found here: http://www.calendar.ubc.ca/vancouver/courses.cfm?page=name\&institution=3


## Target learners

These certificates are only open to those who apply and are nominated by their Tec de Monterrey International Programs Office under the Tec-UBC Joint Academic Program.

## Student Admission Criteria

Go Global admits Tec de Monterrey students based on their meeting the minimum academic requirements, as well as their program of study.

Applicants are required to:

- Have a minimum 83\% GPA
- Have a minimum TOEFL score of 580 (ITP) or 90 (IBT)
- Students can apply in their 3rd semester to study at UBC in the 4th semester or later. However, certain certificates and courses have additional pre-requisites. For example, students taking business certificates like Operations \& Logistics or Finance, must have completed their 5th semester at Tec before coming to UBC.
- Students wishing to come for a certificate must meet the pre-requisites for each certificate. Some certificates may require students to be in their 5th, 6th or 7th semester.


## Program Delivery Format

All courses are delivered face to face.

## Marketing / promotion strategy

N/A - these certificates are only available to Tec students in the Joint Academic Program.

## Assessment of impact on departmental and university resources

There is no anticipated impact on departmental or university resources. Certificate courses are regular undergraduate courses with a limited number of spots reserved for Tec de Monterrey students.

## Assessment of financial viability

Presently, financial information is not tracked for individual certificate programs. Existing data includes revenue from students taking courses in both certificate and non-certificate programs. However, the existence of the certificate programs has not imposed any significant costs on the Faculty, and no changes that would increase their cost are proposed or anticipated. Accordingly, the certificate programs are expected to remain financially viable.

|  | Student Participation |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $2011 / 12$ | $2012 / 13$ | $2013 / 14$ | $2014 / 15$ | $2015 / 16$ | $2016 / 17$ | $2017-18$ |
| Financial <br> Economics | 3 | -- | 3 | -- | 2 | 3 | 1 |
| International <br> Politics | 2 | 1 | -- | -- | -- | -- | -- |
| International <br> Relations | 2 | -- | -- | -- | 1 | -- | 1 |
| General Arts <br> Studies* | -- | -- | -- | -- | -- | -- | -- |

* New 2018/19


## Fees

As per the 2015 amendment to the "Academic Joint Program and Facility Joint Venture Agreement", students pay $70 \%$ of the ISI international tuition fees. No additional fees are collected from students undertaking a certificate, nor is there a separate admissions process at UBC.

## Advisory Committee

Currently, the Tec de Monterrey partnership is overseen by a Go Global Advisor, under the direction of the Director of Go Global: International Learning Programs. The Advisor consults with Faculty designates and Tec de Monterrey Program Directors throughout the year to ensure curricula is aligned and courses within each program are still being offered.

The Faculty designates have discussed re-instating the Advisory Committee as originally laid out in the 2001 Joint Academic Program Agreement. This committee would include:

- Director, Go Global: International Learning Programs
- Advisor, Tec de Monterrey Partnership, Go Global: International Learning Programs
- Faculty of Applied Science, Associate Dean
- Faculty of Arts, Associate Dean
- Faculty of Land and Food Systems, Associate Dean
- Sauder School of Business, Senior Associate Dean


## GEOG: Department of Geography

New program > BA Minor in Geography (Environment and Sustainability)

| Category: (1) Faculty: Arts |
| :--- | :--- |
| Department: Geography |
| Faculty Approval Date: Nov. 22, 2018 |
| Effective Session (W or S): W |
| Effective Academic Year: 2019-2020 |$\quad$| Date: September 17, 2018 |
| :--- |
| Contact Person: Jessica Dempsey |
| Phone: 778 987 6480 |
| Email: |
| undergraduate.program@geog.ubc.ca |

## UNDERGRADUATE COURSES

## AHVA: Department of Art History, Visual Art and Theory

ARTH 285 (3) Art and the Moving Image

| Category: (1) Faculty: Arts | Date: September 25, 2018 |
| :--- | :--- |
| Department: AHVA | Contact Person: Greg Gibson |
| Faculty Approval Date: Nov. 22, 2018 | Phone: 604-822-1282 |
| Effective Session (W): W | Email: greg.gibson@ubc.ca |

\(\left.$$
\begin{array}{|l|l|}\hline \text { Effective Academic Year: 2019-2020 } & \\
\hline \text { Proposed Calendar Entry: } & \begin{array}{l}\text { URL: } \\
\text { http://www.calendar.ubc.ca/vancouver/cour } \\
\text { ARTH 285 (3) Art and the Moving Image }\end{array} \\
\begin{array}{l}\text { Intersections between visual art and the } \\
\text { moving image in both a theoretical and } \\
\text { historical context. }\end{array} & \begin{array}{l}\text { Type of Action: } \\
\text { New course. }\end{array}
$$ <br>
\hline Rationale for Proposed Change: <br>
The proposed course establishes a media <br>

histories course at the lower level, helping\end{array}\right\}\)| to prepare students for existing upper-level |
| :--- |
| media courses in the department. The |
| course will contribute to ongoing ARTH |
| curriculum renewal, in particular new |
| courses with a thematic (rather than |
| geographic or temporal) focus. |

ARTH 331 (3) Greek Art and Architecture - Equivalent to CLST 331

| Category: (1) Faculty: Arts |
| :--- | :--- |
| Department: AHVA / CNERS |
| Faculty Approval Date: Nov. 22, 2018 |
| Effective Session (W or S): W |
| Effective Academic Year: 2019-2020 |$\quad$| Date: September 24, 2018 |
| :--- |
| Contact Person: Greg Gibson |
| Phone: 604-822-1282 |
| Email: greg.gibson@ubc.ca |$|$| Proposed Calendar Entry: | URL: <br> http://www.calendar.ubc.ca/vancouver/cours <br> es.cfm?code=ARTH |
| :--- | :--- |
| Visual culture of the ancient Greek world <br> in the second and first millennia BCE, <br> especially from c. 1000 to 30 BCE. <br> Equivalency: CLST 331. | Present Calendar Entry: N/A <br> Type of Action: <br> Add new course, as equivalency with <br> existing CLST 331. |


|  | Rationale for Proposed Change: <br> CLST 331 is art historical in subject matter, <br> and complements both the CNRS and <br> ARTH curricula. <br>  <br>  <br>  <br> In a previous iteration (CLST 330 / ARTH <br> 329-6 credits), the course was cross-listed <br> with ARTH. This restores the equivalence, <br> broken when CLST 330 was retired in <br> favour of CLST 331 and 332. ARTH 329 (6) <br> will be retired in 2019W. <br>  <br>  <br>  <br> Note: This Category 1 proposal is linked to a <br> corresponding Category 2 proposal for CLST <br> 331 to include "Equivalency: ARTH 331." The <br> two should be processed together. |
| :--- | :--- |

ARTH 332 (3) Roman Art and Architecture - Equivalent to CLST 332

| Category: (1) Faculty: Arts <br> Department: AHVA / CNERS <br> Faculty Approval Date: Nov. 22, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019-2020 | Date: September 24, 2018 <br> Contact Person: Greg Gibson <br> Phone: 604-822-1282 <br> Email: greg.gibson@ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> ARTH 332 (3) Roman Art and <br> Architecture <br> Visual culture of the ancient Roman world from the 8th century BCE to the 4th century CE. <br> Equivalency: CLST 332. | URL: <br> http://www.calendar.ubc.ca/vancouver/cours es.cfm?code=ARTH <br> Present Calendar Entry: <br> N/A <br> Type of Action: <br> Add new course, as equivalency with existing CLST 332. <br> Rationale for Proposed Change: CLST 332 is art historical in subject matter, and complements both the CNRS and ARTH curricula. <br> In a previous iteration (CLST 330 / ARTH $329-6$ credits), the course was cross-listed with ARTH. This restores the equivalence, broken when CLST 330 was retired in favour of CLST 331 and 332. ARTH 329 (6) |


|  | will be retired in 2019W. |
| :--- | :--- |
|  | Note: This Category 1 proposal is linked to a <br> corresponding Category 2 proposal for CLST <br> 332 to include "Equivalency: ARTH 332." The <br> two should be processed together. |

ASIA: Department of Asian Studies
ASIA 206 (3) Modern Islam - Equivalent to RELG 208

| Category: (1) Faculty: Arts <br> Department: Asian Studies <br> Faculty Approval Date: Nov. 22, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019-2020 | Date: September 26, 2018 <br> Contact Person: Lyndsay Bocchinfuso <br> Phone: 2-9266 <br> Email: Lyndsay.bocchinfuso@ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> ASIA 206 (3) Modern Islam <br> History and culture, values, and sociopolitical movements of the Islamic world from 1500 to the modern day; interconnections between power, politics, gender, and the arts in modern Islamic societies. This course is highly recommended as a basis for all 300- and 400-level Islamic Studies courses. Equivalency: RELG 208 | URL: <br> http://www.calendar.ubc.ca/vancouver/cour ses.cfm?page=code\&code=ASIA <br> Present Calendar Entry: N/A <br> Type of Action: <br> Add course and equivalency <br> Rationale for Proposed Change: <br> Islamic Studies courses will also be offered under ASIA to enable the Department to offer a wider range of Islamic and Religious Studies courses for Asian Studies majors and minors, while also still allowing for majors in the Religious Studies stream to count the course towards their major. <br> This new ASIA course will have the same title, description and content as the current RELG 208 course. We have confirmed with the Office of the Senate that consultations, syllabus and signed budget form are not required. <br> Note: This Category 1 proposal is linked to a corresponding Category 2 proposal for RELG 208 to include "Equivalency: ASIA 206." The two should be processed together. |

ASIA 207 (3) Classical Islam - Equivalent to RELG 207
Category: (1) Faculty: Arts $\quad$ Date: September 26, 2018
Department: Asian Studies
Faculty Approval Date: Nov. 22, 2018
Effective Session (W or S): W
Effective Academic Year: 2019-2020
Proposed Calendar Entry:
ASIA 207 (3) Classical Islam
History and culture, values, and achievements of Islamic societies from 700-1500; interconnections between power, politics, gender, and the arts in Islamic societies. This course is highly recommended as a basis for all 300- and 400-level Islamic Studies courses. Equivalency: RELG 207

Contact Person: Lyndsay Bocchinfuso
Phone: 2-9266
Email: Lyndsay.bocchinfuso@ubc.ca

## URL:

http://www.calendar.ubc.ca/vancouver/cour ses.cfm?page=code\&code=ASIA

Present Calendar Entry: N/A
Type of Action:
Add course and equivalency

## Rationale for Proposed Change:

Islamic Studies courses will also be offered under ASIA to enable the Department to offer a wider range of Islamic and Religious Studies courses for Asian Studies majors and minors, while also still allowing for majors in the Religious Studies stream to count the course towards their major.

This new ASIA course will have the same title, description and content as the current RELG 207 course. We have confirmed with the Office of the Senate that consultations, syllabus and signed budget form are not required.

Note: This Category 1 proposal is linked to a corresponding Category 2 proposal for RELG 207 to include "Equivalency: ASIA 207." The two should be processed together.

ECON: Vancouver School of Economics
ECON 398 (3) Introduction to Applied Economics

| Category: 1 Faculty: Arts | Date: October 1, 2018 |
| :--- | :--- |
| Department: Economics | Contact Person: Jonathan Lewis Graves |
| Faculty Approval Date: Nov. 22, 2018 | Phone: 1-604-822-2202 |
| Effective Session (W or S): W | Email: jlgraves@mail.ubc.ca |
| Effective Academic Year: 2019-2020 |  |
|  | URL: |
| Proposed Calendar Entry: | http://www.calendar.ubc.ca/vancouver/cour |

ECON 398 (3) Introduction to Applied Economics

Theory and practice of the analytical application of economics. Causality, empirical analysis, and the application of theoretical models through engagement in applied work.

Prerequisites: Either (a) one of ECON 101, ECON 310 and one of ECON 102, ECON 311 and one of STAT 200, STAT 241, STAT 251, COMM 291, FRST 231 or (b) one of ECON 226, ECON 325, ECON 326, ECON 327. Not recommended for students who have completed any of ECON 390, ECON 490, ECON 494, ECON 499.
ses.cfm?code=econ
Present Calendar Entry: N/A

## Type of Action:

New course

## Rationale for Proposed Change:

One of the signature features of the economics experience at UBC is a capstone research course. Unfortunately, many students find the transition from routine coursework to experiential research, to be overwhelming. This mainly occurs due to their program of study: students may complete their third year never having the opportunity to develop the kinds of skills necessary to succeed in research. This course aims to fill that gap. A largeenrollment elective, it focuses on the application of econometric methods to questions in economics using a causal modeling framework. This approach allows students to begin immediately analyzing and assessing problems in a way that is complementary to the technical skills developed in other courses.

The course format provides a mixture of conceptual skills and practical concepts in the process of conducting research in applied economics. It bridges the "research gap" in a way which is easy and nonintimidating for students who would otherwise struggle in this transition. To help create this bridge for students, this course includes 3 classroom hours plus two laboratory hours per week (one more than is typical in similar economics courses). This additional hour will provide students with the benefit of extra time to access and practice with important software, as well as some homework time with assistance from the instructor available. This course will

|  | improve student engagement, achievement, <br> and success in the economic program as a <br> whole. |
| :--- | :--- |

## GEOG: Department of Geography

GEOG 432 (3) Radical Traditions of Decolonization and Liberation

Category: (1) Faculty: Arts
Department: Department of Geography
Faculty Approval Date: Nov. 22, 2018
Effective Session (W or S): W
Effective Academic Year: 2019-2020

## Proposed Calendar Entry:

GEOG 432 (3) Radical Traditions of
Decolonization and Liberation

Decolonial theory and practice through an examination of critical Indigenous and critical race scholarship and activism.

Pre-requisites: Restricted to students with 3rd year standing or higher. GEOG 121, or equivalent, is strongly recommended for students with 3rd year standing.

Date: June 27, 2018
Contact Person: Michelle Daigle
Phone: 604-833-4289
Email: michelle.daigle@geog.ubc.ca

URL: http://www.calendar.ubc.ca/vancouv er/courses.cfm?page=code\&code=GEOG

Present Calendar Entry: N/A

Type of Action:
New course

## Rationale for Proposed Change:

GEOG 432 is an upper level course that examines the interconnected geographies of settler colonialism, racial capitalism and white supremacy as well as those of decolonization, liberation and selfdetermination. The course is intended to contribute to the geography department's curriculum on critical Indigenous and critical race theory and practice. Further, by specifically focusing on geographic scholarship, this course has been developed with the aim of contributing to existing courses on critical Indigenous and critical race theory in other departments across campus, particularly in FNIS and GRSJ.

The course proposal was designed with the aim of developing additional courses in the department of geography on colonial and racial dispossession (at the 200/300 level), hence the title's specific focus on

|  | decolonization and liberation. The long- <br> term objective of this course is to engage <br> students on the distinct spatial and land- <br> based dimensions of decolonial theory, <br> everyday practices and social movements. <br> Furthermore, the course aligns with UBC's <br> Aboriginal strategic plan as it engages with <br> Indigenous geographies, Indigenous <br> relationships to place and land, impacts of <br> settler colonialism, as well as Indigenous <br> resistance and practices of self- <br> determination. <br> Note: this pre-requisite will be checked <br> manually by the department. |
| :--- | :--- |

## HIST: Department of History

HIST 352 (3) Modern Middle Eastern History
$\left.\left.\begin{array}{|l|l|}\hline \begin{array}{l}\text { Category: 1 Faculty: Arts } \\ \text { Department: History } \\ \text { Faculty Approval Date: Nov. 22, } 2018 \\ \text { Effective Session (W or S): W } \\ \text { Effective Academic Year: 2019-2020 }\end{array} & \begin{array}{l}\text { Date: August 30, 2018 } \\ \text { Contact Person: Pheroze Unwalla } \\ \text { Phone: (778) 980 2312 } \\ \text { Email: pheroze@mail.ubc.ca }\end{array} \\ \hline \text { Proposed Calendar Entry: } & \begin{array}{l}\text { URL: } \underline{\text { http://www.calendar.ubc.ca/vancouv }} \\ \text { er/courses.cfm?page=code\&code=HIST }\end{array} \\ \begin{array}{l}\text { HIST 352 (3) Modern Middle Eastern } \\ \text { History }\end{array} & \text { Present Calendar Entry: N/A } \\ \text { Politics, culture, society, war, and } \\ \text { diplomacy; themes include colonialism, } \\ \text { nationalism, and authoritarianism; } \\ \text { emphasis on the 20 } 0^{\text {th }} \text { and } 21^{\text {st }} \text { centuries. }\end{array} \quad \begin{array}{l}\text { Type of Action: } \\ \text { New course. }\end{array}\right\} \begin{array}{l}\text { Rationale for Proposed Change: } \\ \text { The proposed course is a crucial } \\ \text { component in a budding Middle East } \\ \text { history concentration under development in } \\ \text { the Department of History. A course on } \\ \text { Modern Middle Eastern History has also } \\ \text { long been missing from the list of } \\ \text { departmental courses, and will thus fill a } \\ \text { major gap in the departmental offerings on } \\ \text { the region and the modern world in general. } \\ \text { Due to the topicality of the subject matter }\end{array}\right\}$

|  | and the region's historical and present-day <br> relevance to global politics, we anticipate <br> this course to be of great interest to history <br> students as well as students considering <br> history as a major. We also believe the <br> course will appeal to students all over the <br> university looking for a stimulating <br> elective. |
| :--- | :--- |

HIST 353 (3-6) d Special Topics in Middle Eastern History

| Category: 1 Faculty: Arts <br> Department: History <br> Faculty Approval Date: Nov. 22, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019-2020 | Date: July 15, 2018 <br> Contact Person: Pheroze Unwalla <br> Phone: (778) 9802312 <br> Email: pheroze@mail.ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> HIST 353 (3-6) d Special Topics in Middle Eastern History <br> An in-depth study of one major topic in the ancient and/or modern history of the Middle East. Please consult the Department webpage for current offerings. | URL: http://www.calendar.ubc.ca/vancouv er/courses.cfm?page=code\&code=HIST <br> Present Calendar Entry: N/A <br> Type of Action: New Course. <br> Rationale for Proposed Change: <br> The Department of History currently offers Special Topics courses on world history, Canadian History, Sub-Saharan African History, Asian History, International History, US History, Latin-American History, and Indigenous History. There is, however, no designated Special Topics course for Middle Eastern History. This field has been identified by the department as a growth area due to its topicality and appeal for students. <br> Special Topics in Middle Eastern History will allow the department to offer a wide range of courses that span the length of Middle Eastern history from ancient times to the $20^{\text {th }}$ century. Courses, for example, might focus on, at turns: <br> -Topical subjects such as the Israeli- |


|  | Palestinian Conflict (see sample syllabus), <br> Terrorism and/or the War on Terror, etc. <br>  <br> -Country-specific histories of Iran, Iraq, <br> Syria, Saudi Arabia, Turkey, etc. <br>  <br>  <br> -The history of cities like Baghdad, <br> Istanbul, Jerusalem, etc. <br> -Thematic/comparative courses such as <br> Gender and Sexuality in the Middle East, <br> Islamism in the Middle East, Conflict and <br> Coexistence in the Middle East, etc. <br> We believe such courses have the potential <br> to be popular with students in History as <br> well as from programs such as Political <br> Science, Sociology, Anthropology, and <br> other Arts and Social Science disciplines. <br> Moreover, as these courses will often focus <br> on pressing global issues, we might also <br> expect a great number of students from <br> across the university to take Special Topics <br> in Middle Eastern History as an elective. |
| :--- | :--- |

HIST 354 (3) The Ottoman Empire

| Category 1: Faculty: Arts | Date: August 2, 2018 |
| :--- | :--- |
| Department: History | Contact Person: Pheroze Unwalla |
| Faculty Approval Date: Nov. 22, 2018 | Phone: (778) 980 2312 |
| Effective Session (W or S): W | Email: pheroze@mail.ubc.ca |
| Effective Academic Year: 2019-2020 |  |

## Proposed Calendar Entry:

HIST 354 (3) The Ottoman Empire
The rise and fall of the Ottoman empire; themes include Islamic law, politics, art, culture, gender relations, and the influence of religion on statecraft.

URL: http://www.calendar.ubc.ca/vancouv er/courses.cfm?page=code\&code=HIST

Present Calendar Entry: N/A
Type of Action: New Course.

Rationale for Proposed Change: This course on the history of the Ottoman Empire will serve several functions within the Department of History. First, it will complement a growing stable of courses on
$\left.\begin{array}{|l|l|}\hline & \begin{array}{l}\text { the Middle East as part of a new } \\ \text { concentration within the department. For } \\ \text { example, the history of the Ottoman } \\ \text { Empire is essential to understanding the } \\ \text { modern Middle East, which is the focus of } \\ \text { another proposed course. } \\ \text { The course subject matter is also pertinent } \\ \text { to numerous other courses in the } \\ \text { department outside that regional } \\ \text { concentration. The Ottoman Empire } \\ \text { straddled both Europe and Asia, often } \\ \text { serving as a bridge, crossroads, and/or } \\ \text { border between them, and indeed can be } \\ \text { described as both/either a European and/or } \\ \text { Middle Eastern empire. Moreover, the } \\ \text { empire existed for over 400 years, } \\ \text { transitioning between the early modern and } \\ \text { modern periods, thus serving as an } \\ \text { excellent case study for topics such as } \\ \text { comparative empire, the demise of } \\ \text { cosmopolitanism, the impact of }\end{array} \\ \text { nationalism, etc. } \\ \text { Its history then is intimately tied to that of } \\ \text { several early modern and modern European } \\ \text { empires that are the focus of other } \\ \text { departmental offerings as well as Asian } \\ \text { empires and polities like the Mughals to } \\ \text { which the Ottomans had an intriguing } \\ \text { relationship. Ottoman history also easily } \\ \text { ties into other courses on empire and } \\ \text { nationalism. In essence, this course will } \\ \text { allow students to broaden and enhance their } \\ \text { understanding of empire, nationalism, and } \\ \text { the early modern and modern worlds in } \\ \text { general. } \\ \text { Consequently, we believe this course can } \\ \text { appeal to an array of students within the } \\ \text { department with interest in the Middle East } \\ \text { Islamic World, Europe, and/or various } \\ \text { thematic foci. Given the course content, it } \\ \text { would also be of interest to students across } \\ \text { the university and, in particular, to those in } \\ \text { Classical, Near Eastern, and Religious }\end{array}\right\}$

|  | Studies, Modern European Studies, <br> Religion, Literature, and the Arts, and <br> International Relations. |
| :--- | :--- |

HIST 404 (3) The First World War

| Category 1: Faculty: Arts <br> Department: History <br> Faculty Approval Date: Nov. 22, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019-2020 | Date: August 1, 2018 <br> Contact Person: Pheroze Unwalla <br> Phone: 604-822-5163 <br> Email: pheroze@mail.ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> HIST 404 (3) The First World War | URL: http://www.calendar.ubc.ca/vancouv er/courses.cfm?page=code\&code=HIST <br> Present Calendar Entry: N/A |
| WWI as a global war; cultural history and legacy; impact of imperialism on the war; military technology. | Type of Action: <br> New course <br> Rationale for Proposed Change: <br> There is enormous student interest in the history of war. While several History classes touch on WWI, none examine it in depth, particularly its relationship to imperialism, culture, and the technology of warfare. This class fills a significant gap in our offerings and will appeal to students across many different fields and will introduce students to the vast array of primary sources and the increasingly rich secondary literature that has taken the study of the conflict in important new directions. |

HIST 406 (3) The Second World War

| Category 1: Faculty: Arts | Date: August 18, 2018 <br> Department: History <br> Foculty Approval Date: Nov. 22, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019-2020 |
| :--- | :--- |
| Phone: (604) 822-5181 |  |
| Email: heidi.tworek@ubc.ca |  |

Precursors and consequences of the war; military, political, cultural, social, and economic histories of how the war shaped and reflected its global context. Themes include totalitarianism, genocide, and imperialism and decolonization.

Recommended: 3 credits of any HIST course.

Type of Action: New Course.

## Rationale for Proposed Change:

There is enormous student interest in the history of war. Several current History classes discuss facets of WW2, but none examine the huge array of social, cultural, technological, environmental, legal, and political issues in world history that the war shaped. This class will introduce students to the diversity of themes that scholars of WW2 have addressed in recent literature, highlighting how military history is only one aspect of the war's historical significance. It also fills a significant gap in our offerings and will appeal to students across many different fields.

## LING: Department of Linguistics

LING 242 (3) Computational Tools for Linguistic Analysis

| Category: 1 Faculty: Arts <br> Department: Linguistics <br> Faculty Approval Date: Nov. 22, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019-2020 | Date: September 28, 2018 <br> Contact Person: Julian Brooke <br> Phone: 2-0984 <br> Email: julian.brooke@ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> LING 242 (3) Computational Linguistic Analysis | URL: <br> http://www.calendar.ubc.ca/vancouver/cour ses.cfm?page=code\&code=LING <br> Present Calendar Entry: N/A |
| Practical skills for analyzing language using the Python programming language and relevant packages. <br> Prerequisites: <br> Required: At least one of LING 100, LING 101, LING 140, LING 170, LING 200, LING 201, ENGL 330, or ENGL 331 Recommended: LING 201 and CPSC 103 or CPSC 110 (or other programming experience) | Type of Action: <br> Create new course <br> Rationale for Proposed Change: <br> The Linguistics department has growing expertise and teaching capacity in areas related to Computational Linguistics (2 faculty currently, and another is being hired this year). A preliminary offering as a topic class (447G) has shown robust demand among undergraduate students; the current iteration is full. As a lower-level class, |


|  | LING 242 will provide Linguistics students <br> an early option to begin building <br> computational skills relevant to their <br> interests. Its practical focus will also attract <br> those who have interests beyond <br> Linguistics, and adding both 242 and 342 <br> to our schedule is an important step <br> towards a long term goal of being able to <br> offer a minor and/or option in <br> Computational Linguistics |
| :--- | :--- |

LING 342 (3) Computational Models of Language

| Category: 1 Faculty: Arts <br> Department: Linguistics <br> Faculty Approval Date: Nov. 22, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019-2020 | Date: September 28, 2018 <br> Contact Person: Julian Brooke <br> Phone: 2-0984 <br> Email: julian.brooke@ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: <br> LING 342 (3) Computational Models of Language <br> A re-examination of major areas of linguistics from a computational perspective, including popular formalisms and algorithms associated with morphology, syntax, semantics, and discourse. <br> Prerequisites: At least one of LING 201 or ENGL 331; and at least one of STAT 200, STAT 203, STAT 251, STAT 302, MATH 302, or PSYC 218 | URL: <br> http://www.calendar.ubc.ca/vancouver/cour ses.cfm?page=code\&code=LING <br> Present Calendar Entry: N/A <br> Type of Action: <br> Create new course <br> Rationale for Proposed Change: <br> The Linguistics department has growing expertise and teaching capacity in areas related to Computational Linguistics (2 faculty currently, and another is being hired this year). A preliminary offering as a topic class (447G) has shown robust demand among undergraduate students; the current iteration is full. LING 342 will provide Linguistics majors with an overview of the field of Computational Linguistics that is explicitly tied to the knowledge they have acquired from their core Linguistics classes. There is no undergraduate offering at UBC that covers similar ground; a related CS grad class is not accessible to those outside CS. This class would form the centerpiece of any future undergraduate |


|  | option or minor in Computational <br> Linguistics that our department might offer. |
| :--- | :--- |

## UBC Curriculum Proposal Form <br> Change to Course or Program

Category: (1)

| Faculty: Education |
| :--- |
| Department: Kinesiology |
| Faculty Approval Date: June 14, 2018 |
| Effective Session (W or S): W |
| Effective Academic Year: 2019 |
| Proposed Calendar Entry: |
| KIN 110 (3) Human Anatomy |
| Structure of the neural, muscular, and |
| skeletal systems of the human body. |
| Special emphasis on movement analysis |
| and the physiological effects of exercise. |
| Please consult the School of Kinesiology |
| Credit Exclusion Lists: |
| http://www.calendar.ubc.ca/vancouver/inde |
| x.cfm?tree=12,205,352,1477. [3-2] |

Date: October 30, 2018<br>Contact Person: Paul Kennedy<br>Phone: 604-822-9204<br>Email: paul.kennedy@ubc.ca

## URL:

http://www.calendar.ubc.ca/vancouver/courses.cfm?page= name\&code=KIN

## Present Calendar Entry:

KIN 190 (3) Anatomy \& Physiology I
Structure and function of the neuromuscular and-skeletal systems of the human body. Special emphasis on movement analysis and the physiological effects of exercise. Please consult the School of Kinesiology Credit Exclusion Lists:
http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12 ,205,352,1477. [2-2]

Type of Action:
New course

## Rationale for Proposed Change:

KIN 110 and 131 will replace KIN 190. The current
KIN 190 Anatomy and Physiology I course examines the structure and function of the neuromuscular and skeletal systems of the human body. Students find that the course can be overwhelming as the physiological concepts (function) are covered during the class lectures while the laboratory sessions are used to locate the anatomical landmarks (structure). Because there is minimal overlap between content covered in the lectures and labs, it almost appears as if students are taking two different courses.

There is a total of 12 lab sessions; 2 are used for review, and 2 are used for tests, leaving 8 sessions to cover content. There simply isn't enough time to cover all regions of the body and the anatomy of the hand is not currently discussed in KIN 190.
Because of this, KIN 190 does not meet the Department of Physical Therapy's anatomy prerequisite for admission to the Master of Physical Therapy Program. Kinesiology students wanting to apply to that program must therefore take an additional anatomy course.

To address these two issues, the School of Kinesiology would like to create a new standalone

|  | course that focuses solely on human anatomy. In this proposed course, the structure of the neural, muscular, and skeletal systems of the human body will be explored. Concepts will be identified in lecture, along with the applications to human movement and exercise. Then, students can review these concepts and find the important landmarks during their weekly lab sessions. Removing the physiology topics from this course will give instructors more time to cover human anatomy from head to toe. This curriculum change will also ensure that KIN 190 satisfies the anatomy prerequisite for UBC's PT program. <br> Not available for $\mathbf{C r} / \mathbf{D} / \mathbf{F}$ grading <br> Rationale for not being available for <br> $\mathbf{C r} / \mathbf{D} / \mathbf{F}$ : This course is part of the core curriculum, a set of common courses required of all undergraduates registered in the BKIN program. It fulfills the lower-level requirements and is not considered an elective course. Therefore, it should not be used on a credit/D/fail basis. |
| :---: | :---: |
| UBC Curriculum Proposal Form Change to Course or Program |  |
| Faculty: Education <br> Department: Kinesiology <br> Faculty Approval Date: June 14, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019 | Date: October 30, 2018 <br> Contact Person: Paul Kennedy <br> Phone: 604-822-9204 <br> Email: paul.kennedy@ubc.ca |
| Proposed Calendar Entry: | URL: <br> http://www.calendar.ubc.ca/vancouver/courses.cfm?page= name\&code=KIN |
| KIN 131 (3) Systems Physiology I | Present Calendar Entry: <br> N/A |
| Structure and function of the skeletal system, muscular system, integumentary system, neuro-hormonal control, and | Type of Action: <br> New Course |
| endocrinology. Emphasis will be to develop an understanding of the integrative nature of the systems discussed. Please consult the School of Kinesiology Credit Exclusion Lists: http://www.calendar.ubc.ca/vancouver/inde x.cfm?tree=12,205,352,1477. [3-2] | Rationale for Proposed Change: <br> KIN 110 and 131 will replace KIN 190. The current KIN 190 Anatomy and Physiology I course examines the structure and function of the neuromuscular and skeletal systems of the human body. Students find that the course can be overwhelming as the physiological concepts (function) are covered during the class lectures while the laboratory sessions are used to locate the anatomical landmarks (structure). Because there is minimal overlap between content covered in the |

$\left.\left.\begin{array}{|l|l|}\hline & \begin{array}{l}\text { lectures and labs, it almost appears as if students are } \\ \text { taking two different courses. To address this issue, } \\ \text { the School of Kinesiology would like to create a } \\ \text { new standalone course that focuses solely on the } \\ \text { physiological concepts currently discussed in KIN } \\ 190 \text { (moving the anatomy to a new course). This } \\ \text { new proposed Systems Physiology I course will } \\ \text { look at metabolism, the skeletal system, muscular } \\ \text { system, integumentary system, neuro-hormonal } \\ \text { control, and endocrinology. Concepts will be } \\ \text { identified in lecture. Then, students can review } \\ \text { these concepts and discuss important applications } \\ \text { during their weekly lab sessions. }\end{array} \\ \text { Not available for Cr/D/F grading }\end{array}\right\} \begin{array}{l}\text { Rationale for not being available for } \\ \text { Cr/D/F: This course is part of the core curriculum, a } \\ \text { set of common courses required of all undergraduates } \\ \text { registered in the BKIN program. It fulfills the lower-level } \\ \text { requirements and is not considered an elective course. } \\ \text { Therefore, it should not be used on a credit/D/fail basis. }\end{array}\right\}$

## UBC Curriculum Proposal Form <br> Change to Course or Program

Category: (1)

| Faculty: Education |
| :--- |
| Department: Kinesiology |
| Faculty Approval Date: June 14, 2018 |
| Effective Session (W or S): W |
| Effective Academic Year: 2019 |
| Proposed Calendar Entry: |
|  |
| Degree Requirements <br> To qualify for the Bachelor of Kinesiology, students <br> must: |

1. satisfy all the B.Kin. program requirements by completing studies whether at UBC or elsewhere;
2. satisfy at least $50 \%$ of the credits for the B.Kin. program while registered in the program ${ }^{1}$;
3. complete a minimum of 36 upper-level (300/400) credits in KIN;
4. complete 48 upper-level UBC credits ${ }^{1}$; and
5. complete 120 credits.
${ }^{1}$ Courses taken while studying at another institution on a Senate-approved exchange program satisfy this requirement.

Students must also successfully complete the following credits:

- ENGL 112 (3)
- Kinesiology Core: KIN 110 (3), 120 (3), 131 (3), 132 (3), 150 (3), 160 (3), 205 (3), 206 (3), 211 (3), 215 (3), 230 (3), 235 (3), 262 (3)
- Stream courses (see notes 1 to 3 below)
- Electives

At the beginning of the second year of study, students must select one of three streams:

Date: October 15, 2018
Contact Person: Paul Kennedy
Phone: 604-822-9204
Email: paul.kennedy@ubc.ca

## URL:

http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12 ,205,352,316

## Present Calendar Entry:

## Degree Requirements

To qualify for the Bachelor of Kinesiology, students must:

1. satisfy all the B.Kin. program requirements by completing studies whether at UBC or elsewhere;
2. satisfy at least $50 \%$ of the credits for the B.Kin. program while registered in the program ${ }^{1}$;
3. complete a minimum of 30 upper-level (300/400) credits in KIN;
4. complete 48 upper-division UBC credits ${ }^{1}$; and
5. complete 120 credits.
${ }^{1}$ Courses taken while studying at another institution on a Senate-approved exchange program satisfy this requirement.

Students must also successfully complete the following credits:

- ENGL 112 (3)
- Kinesiology Core: KIN 103 (3), 151 (3), 161 (3), 190 (3), 191 (3), 230 (3), 231 (3),
261 (3), 275 (3), 284 (3), 371 (3), 373 (3)
- Stream courses (see notes 1 to 3 below)
- Electives

At the beginning of the second year of study,

## Neuromechanical and Physiological Sciences, Social and Behavioural Sciences, and Multidisciplinary Science. Students may change their stream of study after consulting with the School's Undergraduate Advising Centre. The following notes apply to the three streams of study:

1. All Bachelor of Kinesiology students must take ENGL 112 and 33 credits of Kinesiology core, and must satisfy the course requirements of the stream they select, as follows:
a. Stream Requirements: those courses that are required by the stream of study.
b. KIN Electives: KIN courses that the student may elect to take. See the School's Undergraduate Advising Centre for suggested specific electives.
c. Non-Kinesiology Electives: courses taken outside of Kinesiology that the student may elect to take. See the School's Undergraduate Advising Centre for suggested specific electives.
2. KIN 454, KIN 455 and 456 (Field Experience). Prerequisite information for each KIN 454, 455 and 456 section may be obtained at the School's Undergraduate Advising Centre.
3. Initial and Continuing Education Program. Requirements for the Faculty of Education initial and continuing education programs in Physical Education are listed in The Faculty of Education.

## English Requirement

All Bachelor of Kinesiology students must complete ENGL 112.

## Part-Time Study

As there are only a small number of courses offered in the evenings and during Summer Session, students will experience difficulty in completing a Bachelor of Kinesiology on a part-time basis. Students interested in part-time study should discuss
students must select one of three streams:
Kinesiology and Health Science, Physical and Health Education, and Interdisciplinary Studies. Students may change their stream of study after consulting with the School's Undergraduate Advising Centre. The following notes apply to the three streams of study:

1. All Bachelor of Kinesiology students must take ENGL 112 and 30 credits of Kinesiology core, and must satisfy the course requirements of the stream they select, as follows:
2. Stream Requirements: those courses that are required by the stream of study.
3. KIN Electives: KIN courses that the student may elect to take. See the School's Undergraduate Advising Centre for suggested specific electives.
4. Non-Kinesiology Electives: courses taken outside of Kinesiology that the student may elect to take. See the School's Undergraduate Advising Centre for suggested specific electives.
5. KIN 454/455 (Field Experience). Prerequisite information for each KIN $454 / 455$ section may be obtained at the School's Undergraduate Advising Centre.
6. Initial and Continuing Education Program. Requirements for the Faculty of Education initial and continuing education programs in Physical Education are listed in The Faculty of Education.

## English Requirement

Satisfactory completion of the Language
Proficiency Index (LPP) examination is prerequisite
to all first-year English courses at UBC (see
Language Proficiency Index Requirement for FirstYear English).All Bachelor of Kinesiology students must take-ENGL 112.

## Part-Time Study

As there are only a small number of courses offered in the evenings and during Summer Session, students will experience difficulty in completing a Bachelor of Kinesiology on a part-time basis.
their proposed studies with the School's
Undergraduate Advising Centre.

## Prerequisites

KIN at the 100-level are generally considered prerequisite to 200-level courses, and 200-level courses are generally prerequisite to 300-/400-level courses. 300-/400- level courses may be taken in any sequence unless otherwise specified. Many KIN courses have specific course prerequisites. Students who do not have proper prerequisites for a course may have their registration cancelled automatically. Course prerequisites apply to both part-time and full-time students.

## Non-Kinesiology Electives

Many 300-/400-level courses require 100-/200-level prerequisites; therefore all non-KIN electives should be selected carefully.

## Overloading

A student must apply in writing to the School's Undergraduate Advising Centre for permission to register in more than 33 credits of work in a Winter Session or 12 credits of work in a Summer Session.

## Promotion Requirements

Promotion to Second Year
Successful completion of 24 or more credits, which must include all first-year KIN Core courses.

## Promotion to Third Year

Successful completion of 48 or more credits, which must include ENGL 112 and all second-year KIN Core courses. ${ }^{1}$

## Promotion to Fourth Year

Successful completion of 78 or more appropriate credits, which must include all third-year requirements. ${ }^{2}$
${ }^{1}$ In order to obtain third-year standing in Kinesiology and Health Science, students must complete 12 credits of first-year science in their first two years, in at least three of the following four areas: biology, chemistry, mathematics, and physics.
${ }^{2}$ In order to obtain fourth-year standing in Physical and Health Education, students must complete KIN 140, 6 credits of KIN 170, and 6 credits of KIN 270.

Students interested in part-time study should discuss their proposed studies with the School's Undergraduate Advising Centre.

## Prerequisites

KIN at the 100-level are generally considered prerequisite to 200-level courses, and 200-level courses are generally prerequisite to 300-/400-level courses. 300-/400- level courses may be taken in any sequence unless otherwise specified. Many KIN courses have specific course prerequisites. Students who do not have proper prerequisites for a course may have their registration cancelled automatically. Course prerequisites apply to both part-time and full-time students.

## Non-Kinesiology Electives

Many 300-/400-level courses require 100-/200-level prerequisites; therefore all non-KIN electives should be selected carefully.

## Overloading

A student must apply in writing to the School's Undergraduate Advising Centre for permission to register in more than 33 credits of work in a Winter Session or 12 credits of work in a Summer Session.

## Promotion Requirements

Promotion to Second Year
Successful completion of 24 or more credits, which must include all first-year KIN Core courses.

## Promotion to Third Year

Successful completion of 48 or more credits, which must include ENGL 112 and all second-year KIN Core courses. ${ }^{1}$

## Promotion to Fourth Year

Successful completion of 78 or more appropriate credits, which must include all third-year requirements. ${ }^{2}$
${ }^{3}$ In order to obtain third-year standing in Kinesiology and Health Science, students must complete 12 credits of first-year science in their first two years, in at least three of the following four areas: biology, chemistry, mathematics, and physics.
${ }^{4}$ In order to obtain fourth-year standing in Physical and Health Education, students must complete 6 credits of KIN 115 and 6 credits of KIN 215.

## Type of Action:

Changes to BKIN Degree Requirements. Removal of LPI.

|  |  |
| :--- | :--- |
| Rationale for Proposed Change: <br> Rationale for proposed change can be found on <br> subsequent pages. |  |
| The removal of the LPI was approved at the December <br> Senate meeting. |  |

## Rationale for Changes to BKIN Degree Requirements

## Core Curriculum (Years 1 and 2 Requirements)

Currently, students complete 10 core disciplinary content courses and an English course. The required Kinesiology courses address the Canadian Council of University Physical Education and Kinesiology Administrators minimum core curriculum standard for programs specializing in Kinesiology \& Health Science. As part of a review of the Undergraduate Program, we identified some issues with the core curriculum. First, the course content in year 1 was heavily focused on the natural sciences. Students were not being exposed to the social sciences and humanities courses in kinesiology until year 2. Second, many students found the KIN 190 Anatomy and Physiology course to be overwhelming. Lastly, certain foundational concepts, like nutrition, were missing from the core and not being introduced until much later in the curriculum. So, the School is proposing to make the following changes:

| Current Year 1 Requirements | Proposed Year 1 Requirements |
| :--- | :--- |
| ENGL 112 Strategies for University Writing | ENGL 112 Strategies for University Writing |
| Active Health (103) ${ }^{1}$ | Health \& Exercise Management (revised 103) ${ }^{1}$ |
| Biomechanics I (151) $^{2}$ | Sport and Exercise Psychology (231) |
| Leisure and Sport in Society (161) $^{2}$ | Leisure and Sport in Society (161) |
| Anatomy and Physiology I (190) |  |
| Anatomy and Physiology II (191) |  |
|  | Human Anatomy (revised 190) |

## Reviewing the Proposed Year 1 Changes

${ }^{1}$ The "Active Health" course has been renamed "Health \& Exercise Management" to emphasize the fact that the course deals with exercise assessment and prescription with the aim of improving health-related fitness.
${ }^{2}$ KIN 151 Biomechanics I has been moved from first to second year and KIN 231 Sport and Exercise Psychology has been moved from second year to first year. The reason for this was to balance out the curriculum and ensure that students were exposed to a variety of courses from different subject areas at each level. Currently, the courses in first year are heavily focused on the "natural sciences" (e.g. 103, 151, 190, and 191) with only one course coming from the "social sciences" (161). Exposing students to a blend of courses in year 1 will show them that there are many different areas to explore in kinesiology (and alternatives to physiotherapy/occupational therapy/medicine).
${ }^{3}$ The current KIN 190 Anatomy and Physiology I course examines the structure and function of the neuromuscular and skeletal systems of the human body. Students find the course can be overwhelming as the physiology (function) is covered during the class lectures while the laboratory sessions are used to locate the anatomical landmarks (structure). Therefore, the aim is to create a new standalone course that focuses solely on human anatomy. In this proposed course, the structure of the neural, muscular, and skeletal systems of the human body will be explored. Concepts will be identified in lecture, along with the applications to human movement and exercise. Then, students can review these concepts and find the important landmarks during their weekly lab sessions. Removing the physiology topics from this course will give instructors more time to cover human anatomy from head to toe. Currently, the anatomy of the hand is not covered in KIN 190. Because of this, KIN 190 does not meet the Department of Physical Therapy's anatomy prerequisite for admission to the Master of Physical Therapy Program. KIN students wanting to apply to that program must therefore take an additional anatomy course. This curriculum change will ensure that KIN 190 satisfies the anatomy prerequisite for UBC's PT program.
${ }^{4}$ KIN 191 is a systems physiology course that examines the digestive, endocrine, urinary, circulatory and respiratory systems. The course will largely remain the same, except for the removal of the endocrinology unit. These concepts will be moved to a new systems physiology course, which will also include the physiology material from KIN 190. The two systems physiology courses will cover the structure and function of the systems of the human body. The proposed Systems Physiology I course will look at metabolism, the skeletal system, muscular system, integumentary system, neuro-hormonal control, and endocrinology. The proposed Systems Physiology II course will cover homeostasis and body fluid regulation, the cardiovascular system, respiratory system, urinary system, digestive system, and immune system.

| Current Year 2 Requirements | Proposed Year 2 Requirements |
| :--- | :--- |
| Human Motor Behaviour (230) | Human Motor Behaviour (230) |
|  | Nutrition, Health, \& Physical Activity (new) ${ }^{6}$ |
| Sport and Exercise Psychology (231) | Biomechanics (151) |
| Health Policy and Society (261) | Health Policy and Society (261) |
| Exercise Physiology (275) | Exercise Physiology (275) $^{\text {Lifespan Motor Development (284) }}{ }^{5}$ |
|  | Lifespan Motor Development (284) ${ }^{5}$ |
|  | Statistics in Kinesiology (371) ${ }^{7}$ |
| Electives (15 credits) | Research Methods in Kinesiology (373) 7 |

## Reviewing the Proposed Year 2 Changes

5 KIN 284 Lifespan Motor Development has been changed from a required course to an elective option. This change was made for two reasons. First, with the addition of other courses to the second-year curriculum, we wanted students to still have the option to take 9 credits of electives, giving them some choice in the courses that they take so that the program was not too restrictive. Second, the CCUPEKA accreditation standards list 8 required core courses (human anatomy, human physiology, exercise physiology, biomechanics, motor learning/motor control; psychology of physical activity, and two courses in humanities or social sciences) for kinesiology programs. So, removing Lifespan Motor Development from the core would not affect our CCUPEKA accreditation.

The course code will be changed from 284 to 184 so that students can take it as an elective option in either year 1 or 2 . The revised KIN 184 will be strongly recommended to students interested in pursuing teacher training and will be a prerequisite for upper-level courses like KIN 366 Movement Experiences for Young Children and 415 Conceptual Approaches to Games Education.

6 An Introduction to Nutrition course is part of the kinesiology curriculum at Capilano University, Douglas College, Okanagan College, Simon Fraser University, The University of the Fraser Valley, The University of Victoria, and Thompson Rivers University. All of these courses articulate with one another and are offered as part of the curriculum in years 1 or 2 . Simon Fraser University and the University of Victoria also offer an upper-level Nutrition course. Nutrition should be better integrated into the School's undergraduate curriculum. A lower-level nutrition course will provide a foundation for the upper-level nutrition course (currently numbered KIN 489a) as well as explore concepts covered in other KIN courses.

7 Currently, students take KIN 371 Statistics and KIN 373 Research Methods in either year 3 or 4. However, students need to develop the skills to read research articles earlier in their studies. By moving the Statistics and Research Methods courses into the core curriculum, all students will have a strong understanding of current research practices and how knowledge is attained earlier by the end of year 2. Students interested in pursuing research as a career or conducting their own research studies could explore these concepts in more advanced courses offered at the 300 - or 400-levels.

## Upper-Level Requirements

After completing the core curriculum, students continue on in one of three streams: Kinesiology and Health Science, Physical and Health Education, and Interdisciplinary Studies. Although the specific course requirements vary between the three streams, all students must take a minimum of 30 credits in 300-and/or 400-level Kinesiology courses. Students must also complete 18 credits of non-KIN electives, of which at least 12 credits must be at the 300-/400- level. The remaining 12 credits can be either in KIN or non-KIN courses.

The School of Kinesiology currently offers 37 courses at the 300- and 400-level (with plans to develop new course offerings). With so many options to choose from, Kinesiology students have found the upper-level requirements to be limiting. So, the School is proposing to increase the number of KIN required credits from 30 to 36 credits. Students will also have more choice within each stream to choose from a wider variety of courses. That is, instead of having to take specific courses to meet the stream requirements, students will be able to choose from a list of courses. The specific changes to the stream requirements are included in another curriculum proposal.

| Current Year 3/4 Requirements | Proposed Year 3/4 Requirements |
| :--- | :--- |
| KIN Requirements (30 credits) | KIN Requirements (21 credits) |
| KIN Electives (0 to 12 credits) | KIN Electives (15 credits) |
| Electives (18 to 30 credits) | Electives (24 credits) |

## UBC Curriculum Proposal Form Change to Course or Program

Category: (1)


| KIN Electives $^{5}$ | 15 |
| :--- | :--- |
| Electives $^{1,3,4,5}$ | 24 |
| Total Credits | 60 |


| KIN 371 | 3 |
| :--- | :--- |
| KIN 373 | 3 |
| Electives $^{2,3,4,5}$ | 12 |
| Total Credits | 30 |

Fourth Year
Electives $-3,4,5$

Total Credits
${ }^{1}$ KIN or non-KIN courses that the student may elect to take.
${ }^{2}$ Students interested in KIN 362, 369, or 415 should take KIN 184 as an elective in either year 1 or 2.
${ }^{3}$ Students planning to apply to postgraduate programs are strongly encouraged to determine the necessary undergraduate requirements that are available in other faculties such as Science and Arts.
${ }^{4}$ Students planning to enter the Teacher Education Program in the Faculty of Education need to review the detailed admission requirements. Students planning to apply for the secondary option are advised to prepare a second teaching field.
${ }^{5}$ KIN courses at the 300/400-level that the student may elect to take.

## Neuromechanical and Physiological Sciences

Students in this stream must take a minimum of 36 credits in 300- or 400-level kinesiology courses including at least 21 credits from those listed below:

Neuromechanics: KIN 330, 351, 357, 389, 473
Systems Biology, Exercise \& Health: KIN 303, 361, 375, 390, 461, 462, 469, 471, 475
${ }^{4}$ In order to obtain third year standing in Kinesiology and Health Science, students must complete 12 credits of first-year Science in their first two years in at least three of the following four areas: biology, chemistry, mathematics, and physics.
${ }^{z}$ Students planning to apply to professional health science programs such as Physiotherapy and Medicine are strongly encouraged to determine the necessary undergraduate requirements that are available in other faculties such as Science and Arts.
${ }^{3}$ Students in the Kinesiology and Health Science stream must, as a minimum, complete an additional 18 credits of science in third and fourth years, of which at least 12 credits must be at the $300 / 400$-level. These credits must be recognized in the Faculty of Science as credits that could be used toward a Bachelor of Science degree.
${ }^{4}$ All students must complete 30 credits of KIN courses at the $300-1400$-level.
${ }^{5}$ All students must complete 48 credits at the 300 -t400-level.

## Type of Action:

Change to stream name and course requirements

## Rationale for Proposed Change:

At the start of their third year of study, students in the BKIN program must register in one of three streams: Kinesiology and Health Science, Physical and Health Education, and Interdisciplinary Studies. The streams provide guidance to students when choosing upper-level courses. Each stream has its own set of unique requirements that are tied to an area of study or help students work towards their professional goals. The Kinesiology and Health Science stream, for instance, is for students who are interested in the broad areas of human movement sciences, health, and fitness, and who want future





Category: (1)

| Faculty: Education <br> Department: Kinesiology <br> Faculty Approval Date: June 14, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019 | Date: October 1, 2018 <br> Contact Person: Paul Kennedy <br> Phone: 604-822-9204 <br> Email: paul.kennedy@ubc.ca |
| :---: | :---: |
| Proposed Calendar Entry: | URL: <br> http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12 ,205,352,318 <br> Present Calendar Entry: |
| Social and Behavioural Sciences <br> The courses in this stream will examine psychosocial, historical, and cultural understanding of sport, physical activity and health behaviour and its impact on individuals and within societies. | Physical and Health Education <br> For students who are interested in teaching and instructing sports, physical activity, and active health in public and private agencies. The stream meets admission requirements for the Teacher Education Program in the Faculty of Education (See note 1 below). |
| Social and Behavioural Sciences | Physical and Health Education |
| First Year | First Year |
| ENGL 1123 | ENGL 112 |
| KIN 110 | KIN 103 3 |
| KIN 120 | KIN 115 |
| KIN 131 3 | KIN 151 |
| KIN 132 | KIN 161 |
| KIN 150 3 | KIN 190 |
| KIN 160 | KIN 194 |
| Electives ${ }^{1,2,3,4}$ | Electives ${ }^{1,2}$ |
| Total Credits 30 | Total Credits 30 |
| Second Year | Second Year |
| KIN 205 | KIN 215 |
| KIN 206 | KIN 230 |
| KIN 211 3 | KIN 231 |
| KIN 216 3 | KIN 261 |
| KIN 232 3 | KIN 275 |
| KIN 235 3 | KIN 284 |



Leadership Education for Pedagogy and Physical Activity: KIN 362, 367, 369, 400, 415, 456

Psychology of Sport and Physical Activity: KIN 365, 366, 382

Sociocultural Studies: KIN 360, 381, 383, 425, 464, 465, 481
own set of unique requirements that are tied to an area of study or help students work towards their professional goals. The Kinesiology and Health Science stream, for instance, is for students who are interested in the broad areas of human movement sciences, health, and fitness, and who want future certification as kinesiologists. Those students who are interested in teaching and instructing sports, physical activity, and active health in public and private agencies are encouraged to register in the Physical and Health Education stream (this stream meets admission requirements for the Teacher Education Program in the Faculty of Education). If students are undecided about what they want to do following graduation, the Interdisciplinary Studies stream provides students with a general liberal arts and science foundation in Kinesiology. Ultimately, students like the fact that the streams provide a general path that they can follow, while still allowing them some sort of flexibility. Students can enroll in any stream that they want (there is no cap on the number of students in a stream) and can change streams, so long as they consult with the School's Undergraduate Advising Centre first.

The current streams have been offered since 2004, when the School last conducted a review of the undergraduate curriculum. Initially, the three streams were relatively balanced with a healthy population in each. However, over the past ten years, the majority of students have enrolled in or switched to the Interdisciplinary Studies stream. Currently, there are approximately $76 \%$ of third and fourth year students in the Interdisciplinary Studies stream, with another $20 \%$ in the Kinesiology and Health Science stream and the remaining $4 \%$ are in the Physical and Health Education stream. There are many reasons why students have opted for the Interdisciplinary Studies option. Students like the flexibility of this stream, which allows them to choose from a wider number of upper-level KIN courses. There are also no elective course requirements in the Interdisciplinary Studies option. Many students perceive that the Kinesiology and Health Science stream is for those interested in applying to postgraduate programs such as medicine, physiotherapy, and occupational therapy. Those same students also feel that the Physical and Health Education stream is only for those interested in becoming teachers. So, the Interdisciplinary Studies option is appealing to students who are looking to pursue a different path or are unsure of what they want to do after graduation. Although the School has tried to make changes to the stream requirements and descriptions over time, students have continued to favour the Interdisciplinary



## UBC Curriculum Proposal Form Change to Course or Program

Category: (1)

| Faculty: Education | Date: October 1, 2018 <br> Department: Kinesiology <br> Faculty Approval Date: June 14, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019 |
| :--- | :--- |
|  | Phone: 604-822-9204 Kennedy |
| Email: paul.kennedy@ubc.ca |  |
|  |  |
| Proposed Calendar Entry: | URLp://www.calendar.ubc.ca/vancouver/index.cfm?tree=12 <br>  <br>  |
|  | Present Calendar Entry: |




#### Abstract

or 2. ${ }^{3}$ Students planning to apply to postgraduate programs are strongly encouraged to determine the necessary undergraduate requirements that are available in other faculties such as Science and Arts. ${ }^{4}$ Students planning to enter the Teacher Education Program in the Faculty of Education need to review the detailed admission requirements. Students planning to apply for the secondary option are advised to prepare a second teaching field.


${ }^{5}$ Select 2 courses from 3 of the 5 following lists: Neuromechanics; Leadership Education for Pedagogy and Physical Activity; Psychology of Sport and Physical Activity; Sociocultural Studies; Systems Biology, Exercise \& Health. Then, select 1 course from either of the remaining 2 lists for a total of 7 courses. Courses for each list are mentioned below.
${ }^{6}$ KIN courses at the 300/400-level that the student may elect to take.

## Multidisciplinary Science

Students in this stream must take a minimum of 36 credits in 300- or 400-level kinesiology courses. Students must select at list 6 credits from 3 of the 5 lists below. Then, students must choose 3 credits from either of the remaining 2 lists for a total of 21 credits.

Neuromechanics: KIN 330, 351, 357, 389, 473

Leadership Education for Pedagogy and Physical
Activity: KIN 362, 367, 369, 400, 415, 456
Psychology of Sport and Physical Activity: KIN 365, 366, 382

Sociocultural Studies: KIN 360, 381, 383, 425, 464, 465, 481

Systems Biology, Exercise \& Health: KIN 303, 361, 375, 390, 461, 462, 469, 471, 475
${ }^{z}$ Students in the Physical and Health Education stream must complete a minimum of 18 credits of mon-KIN electives, of which at least 12 credits must be at the $300-1400$-level.
${ }^{3}$ All students must complete 30 credits of KIN at the 300-/400-level.
${ }^{4}$ All students must complete 48 credits at the 300 -t400-level.

## Type of Action:

Change to stream name and course requirements

## Rationale for Proposed Change:

## Rationale for Stream Changes

At the start of their third year of study, students in the BKIN program must register in one of three streams: Kinesiology and Health Science, Physical and Health Education, and Interdisciplinary Studies. The streams provide guidance to students when choosing upper-level courses. Each stream has its own set of unique requirements that are tied to an area of study or help students work towards their professional goals. The Kinesiology and Health Science stream, for instance, is for students who are interested in the broad areas of human movement sciences, health, and fitness, and who want future certification as kinesiologists. Those students who are interested in teaching and instructing sports, physical activity, and active health in public and private agencies are encouraged to register in the Physical and Health Education stream (this stream meets admission requirements for the Teacher Education Program in the Faculty of Education). If students are undecided about what they want to do following graduation, the Interdisciplinary Studies stream provides students with a general liberal arts and science foundation in Kinesiology. Ultimately, students like the fact that the streams provide a general path that they can follow, while still allowing them some sort of flexibility. Students can enroll in any stream that they want (there is no cap on the number of students in a stream) and can change streams, so long as they consult with the School's Undergraduate Advising Centre first.

The current streams have been offered since 2004, when the School last conducted a review of the undergraduate curriculum. Initially, the three streams were relatively balanced with a healthy population in each. However, over the past ten years, the majority of students have enrolled in or



| 5 | direction when choosing courses. Many students <br> spoke about wanting to register in one of the other <br> streams but could not meet the requirements. So, <br> students had to "settle" for the Interdisciplinary <br> option. <br> The proposed solution is to create a stream with <br> similar requirements to the other two. Just like the <br> proposed Neuromechanical and Physiological <br> Sciences and Social and Behavioural Sciences <br> streams, students will take have to 7 KIN courses at <br> the 300- and 400-level. Students will be required to <br> take courses from a variety of different areas, <br> therefore bringing a multidisciplinary focus to this <br> stream. |
| :--- | :--- |

## UBC Curriculum Proposal Form Change to Course or Program

Category: 1

| Faculty: APSC <br> Department: CHBE <br> Faculty Approval Date: <br> Nov. 8, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019 | Date: 2 August 2018 <br> Contact Person: Louise Creagh <br> Phone: 604-822-5787 <br> Email: alcreagh@mail.ubc.ca |
| :---: | :---: |
|  | $\begin{aligned} & \text { URL: } \\ & \text { n/a } \end{aligned}$ |
| Proposed Calendar Entry: | Present Calendar Entry: <br> n/a |
| CHBE 587 (3) Interfacial Phenomena Outline of the physics and chemistry of interfaces; discussion of the part played by surface effects in technical processes. | Type of Action: Create new course. |
| CHBE 357, CHBE 487, CHBE 587. | Rationale for Proposed Change: <br> The course, currently delivered as CHBE 487, is recognized as containing material |
| Pre-requisite: MATH 255 (or equivalent); PHYS 108 (or equivalent); CHEM 154 (or equivalent) | appropriate graduate students in Chemical Engineering at the graduate level. <br> Homework assignments and exams will be modified to contain a more rigorous |
| Equivalency: FOOD 519 | mathematical component for graduate students in chemical engineering. |

## UBC Curriculum Proposal Form <br> Change to Course or Program

Category: (1)
Faculty: Commerce \& Business
$\quad$ Administration
Department:
Faculty Approval Date: December 4,
2018
Effective Session (W or S): W Term 2
Effective Academic Year: $2018 / 2019$
Proposed Calendar Entry:
BA 514 (5) IMBA Residency - People, Culture and Organizations

For IMBA students only.
This course is not eligible for Credit/D/Fail grading.

Date: August 28, 2018
Contact Person: Jessica Hanna/ Kin Lo
Phone: 6048271732 / 6048228430
Email: Jessica.hanna@sauder.ubc.ca
/ kin.lo@sauder.ubc.ca

URL: http://www.calendar.ubc.ca/vanco uver/courses.cfm?page=name\&code=BA

## Present Calendar Entry: N/A

Type of Action:
Create New Course

## Rationale for Proposed Change:

This course was previously offered through the course code BA 501 for International Master of Business Administration students but it does not reflect the course content specific to the IMBA program. BA 501 is designed for the Professional Master of Business Administration program.

This course will be the Vancouver Residency for the International Master of Business Administration Program which works well as a transitioning point from Foundation to Advanced content and provides a punctuation point mid-way through the program. The course will offer curricular content and a variety of career and co-curricular activities which are difficult to deliver in Shanghai. The curricular theme is entirely different than other Residency courses offered within other Robert H. Lee MBA Programs.

## UBC Curriculum Proposal Form Change to Course or Program

Category: 1

| Faculty: Forestry <br> Department: Forest and Conservation Sciences <br> Faculty Approval Date: November 6, 2018 <br> Effective Session (W or S): W <br> Effective Academic Year: 2019 | Date: October 29, 2018 <br> Contact Persons: Patrick Culbert <br> Phone: 604-822-2728 <br> Email: Patrick.culbert@ubc.ca <br> (cc gayle.kosh@ubc.ca) |
| :---: | :---: |
| Proposed Calendar Entry: <br> FRST 500 (1) Teaching and Learning in Forestry An evidence-based examination of teaching and learning in forestry, focusing on instructional design, classroom practices and field instruction. <br> This course is not eligible for Credit/D/Fail grading. | URL: N/A <br> Present Calendar Entry: N/A <br> Type of Action: Create new course <br> Rationale: <br> Many Forestry graduate students will undertake careers involving the teaching of post-secondary students, yet few receive formal instruction on the science of teaching and learning. Some opportunities at UBC exist, but capacity is often limited (e.g., the Graduate Instructional Skills Workshop offered by CTLT currently offers spaces by lottery and typically has waitlists of 80-100 students). Forestry students may benefit from more discipline-specific context, and a one-term seminar format would allow a deeper exploration of the literature of teaching and cognitive science than can be achieved in brief workshops. This course is intended to supplement existing resources outside of the Faculty of Forestry (e.g., those offered by UBC CTLT). |

## UBC Curriculum Proposal Form <br> Change to Course or Program

\(\left.$$
\begin{array}{l}\text { Category: 1 } \\
\begin{array}{|l|l|}\hline \text { Faculty: Land \& Food Systems } \\
\text { Department: Food Science } \\
\text { Faculty Approval Date: October 19, } 2018 \\
\text { Effective Session (W or S): W } \\
\text { Effective Academic Year: } 2019\end{array} \\
\hline \text { Proposed Calendar Entry: }\end{array}
$$ \begin{array}{l}Date: 22 August 2018 <br>
Contact Person: John Frostad <br>
Phone: 7-5192 <br>

Email: john.frostad@ubc.ca\end{array}\right]\)| FOOD 519 (3) Interfacial Phenomena | Present Calendar Entry: <br> None. |
| :--- | :--- |
| Credit will be granted for only one of FNH |  |
| 419 and FOOD 519. | Type of Action: <br> Create new course |
| Equivalency: CHBE 587 | Rationale for Proposed Change: <br> The course is recognized as containing <br> material of value to students in Food |
| Pre-requisite: MATH 101 (or equivalent); |  |
| PHYS 108 (or equivalent); CHEM 154 (or |  |
| equivalent) | Science at the graduate level and will add <br> breadth to the course offerings. <br> Homework assignments will be tailored for <br> Food Science students to relate the material <br> directly to food applications. In addition to <br> the material covered in FNH 419, graduate <br> students will be required to complete a food |
| science related project with a report and |  |
| presentation. |  |

## UBC Curriculum Proposal Form Change to Course or Program

Category: (1)
$\left.\begin{array}{|l|l|}\hline \begin{array}{l}\text { Faculty: Science } \\ \text { Department: Chemistry } \\ \text { Faculty Approval Date: November 6, } \\ \text { 2018 } \\ \text { Effective Session (W or S): S } \\ \text { Effective Academic Year: } 2019\end{array} & \begin{array}{l}\text { Date: November 6, 2018 } \\ \text { Contact Person: Warren Williams } \\ \text { Phone: 604-822-8719 } \\ \text { Email: wwarren@mail.ubc.ca }\end{array} \\ \hline \text { Proposed Calendar Entry: } & \text { Present Calendar Entry: } \\ \text { CHEM 506 (3) Polymer Chemistry } & \begin{array}{l}\text { Action: Create new course. } \\ \text { CHEM 506 or CHEM 406. }\end{array} \\ \begin{array}{ll}\text { Rationale: We live in the "Age of } \\ \text { Plastics": Synthetic materials are } \\ \text { ubiquitous in our lives, and are used for } \\ \text { applications ranging from the humble } \\ \text { plastic bag to fine-tuned materials for } \\ \text { specific high concept applications such as } \\ \text { medical devices. New strides are being } \\ \text { made in controlling their functionality and } \\ \text { mechanical/physical properties. For } \\ \text { example, advances in supramolecular } \\ \text { polymers have led to applications in self- } \\ \text { healing materials, biomimetic behavior, } \\ \text { semiconducting nanostructures and } \\ \text { biomedical applications. }\end{array} \\ \text { Given the considerable impact of modern } \\ \text { polymer science, it is increasingly } \\ \text { important that students at the graduate level } \\ \text { have a thorough understanding of the } \\ \text { fundamentals and the applications of this } \\ \text { field. This course fulfils this need, and will } \\ \text { be the only graduate course at UBC } \\ \text { dedicated to the topic. }\end{array}\right\}$

## UBC Curriculum Proposal Form Change to Course or Program

Category: (1)

| Faculty: Science <br> Department: Chemistry <br> Faculty Approval Date: November 6, <br> 2018 <br> Effective Session (W or S): S <br> Effective Academic Year: 2019 | Date: November 6, 2018 <br> Contact Person: Warren Williams <br> Phone: 604-822-8719 <br> Email: wwarren@mail.ubc.ca |
| :--- | :--- |
| Proposed Calendar Entry: | Present Calendar Entry: |
| CHEM 528 (3) Nanomaterials |  |
| Characterization | Action: Create new course. <br> Rationale: There is tremendous interest <br> and excitement in the discovery, <br> characterization, and application of new <br> nanomaterials. The Department has a <br> graduate course (CHEM 527 <br> Nanomaterials) dedicated to the study of <br> the synthesis and applications of <br> nanomaterials. For several years, a <br> complementary topics course (CHEM 521b <br> - Topics in Inorganic Chemistry) has been <br> piloted at the graduate level that examines <br> the characterization of nanomaterials, <br> including topics like electron microscopy, <br> scanning probe techniques, X-ray methods, <br> interfacial analysis methods and light <br> scattering. This course also provided <br> students the opportunity for hands-on <br> experience with the instruments used for <br> such characterization. Given the strong <br> interest in this topics course, and the <br> importance of nanomaterials <br> characterization in chemistry, it was <br> decided to create a new course dedicated to <br> this topic. |

THE UNIVERSITY OF BRITISH COLUMBIA

Category: 1

| Faculty: Arts |
| :--- |
| Department: Asian Studies |
| Faculty Approval Date: January 10, 2019 |
| Effective Session (W or S): W |
| Effective Academic Year: 2019 |
|  |
|  |
| Proposed Calendar Entry: |

## ASIA 574 (3) From the Chronicle to the Archive: Cultures of History in South Asia

Examines how South Asian pasts have been memorialized in writing, from medieval chronicles to the development of history as a modern academic discipline in the nineteenth century.

Credit will be granted for only one of ASIA 474 or ASIA 574.

Date: September 26, 2018<br>Contact Person: Lyndsay Bocchinfuso and Hasan Siddiqui<br>Phone: 2-9266<br>Email: lyndsay.bocchinfuso@ubc.ca<br>URL: http://www.calendar.ubc.ca/vancou ver/courses.cfm?page=code\&code=ASIA

## Present Calendar Entry:

## Type of Action:

New course

## Rationale for Proposed Change:

This course will be run alongside an undergraduate iteration, ASIA 474, with enhanced expectations for the learning outcomes and assessed components. A separate Category 1 proposal ASIA 474 has been submitted.

This seminar introduces graduate students to the ways that the past has been memorialized in South Asia over the past millennium, a topic that has long inspired major scholarship and public debate. The course will focus in particular on PersoArabic historical writing. In completing this course students will learn: why scholarship on the "history of history" has been so contentious; the substantive issues at play in discussions of medieval chronicles and historical poetry; and the issues posed by the new regimes of writing about the past that emerged under colonialism. For MA and PhD students in Asian Studies, working in any geographic field, this course will offer them the tools with which to critically handle historical materials in their theses and dissertations.

As this is a developing field of study,

|  | "From the Chronicle to the Archive" can be <br> taught and updated regularly by different <br> faculty. Indeed, a course like this was <br> taught as a Special Topic for advanced <br> undergraduates some years ago and the <br> students who took it benefited <br> considerably. At the moment, while the <br> Department of Asian Studies curriculum <br> offers a wide range of courses on the <br> history and literary cultures of South Asia, <br> there are none that focus specifically on <br> historical writing. Aside from Asia 428, <br> "Mughal India," there is furthermore no <br> course that offers advanced study of the <br> Perso-Arabic literary culture of South Asia, <br> which is a major area of focus in "From the <br> Chronicle to the Archive." This course can <br> be fruitfully paired with courses like Asia |
| :--- | :--- |
| 576 which introduce graduate students to |  |
| the range of critical issues in South Asian |  |
| studies. This course will also appeal to |  |
| graduate students in the Department of |  |
| History with interests in South Asia, Islam, |  |
| and historiography. |  |

THE UNIVERSITY OF BRITISH COLUMBIA

Category: 1

| Faculty: Arts <br> Department: Classical, Near Eastern and <br> Religious Studies <br> Faculty Approval Date: January 10, 2019 <br> Effective Session (W or S): Winter <br> Effective Academic Year: 2019 | Date: November 2, 2018 <br> Contact Person: Odessa Cadieux-Rey <br> Phone: 604-822-2515 <br> Email: cners.advising@ubc.ca |
| :---: | :---: |
|  | URL: <br> http://www.calendar.ubc.ca/vancouver/inde x.cfm?tree=12,204,828,1112 |
| Proposed Calendar Entry: <br> Ancient Culture, Religion and Ethnicity [...] | Present Calendar Entry: <br> Ancient Culture, Religion and Ethnicity [...] |
| Master of Arts [...] | Master of Arts [...] |
| Program Requirements <br> The M.A. program requires 24 credits of coursework and the writing of an MA thesis worth 6 credits (CNRS 549). The 24 credits of coursework must include CNRS 500 , and 18 must be numbered 500 or higher. The remaining 6 credits may, at the discretion of the program, be at the 300 - or 400-level. | Program Requirements <br> The M.A. program requires 24 credits of coursework, the writing of an MA thesis worth 6 credits (CNRS 549), and two eomprehensive examinations. The 24 credits of coursework must include CNRS 500 , and 18 must be numbered 500 or higher. The remaining 6 credits may, at the discretion of the program, be at the 300 - or 400-level. <br> Type of Action: <br> Remove one graduation requirement <br> Rationale for Proposed Change: <br> We have found that this requirement is not successful in achieving the breadth of knowledge for which it was intended. Further, it is not typical for Arts graduate programs at UBC or at other comparable departments in Canada to require comprehensive exams at the Masters level. It is especially unusual to require all three of coursework, a thesis, and comprehensive exams, and we have found that requiring all three places excessive pressure on our students and extends time to completion. |


|  | With this change, the focus of our graduate <br> programs will be on acquiring research <br> skills through the thesis and acquiring <br> breadth of knowledge through coursework. <br> This change will bring our program more <br> in-line with other Masters of Arts <br> programs. |
| :--- | :--- |

Faculty: Arts
Department: Classical, Near Eastern and
Religious Studies
Faculty Approval Date: January 10, 2019
Effective Session (W or S): Winter
Effective Academic Year: 2019

## Proposed Calendar Entry:

## Classics

[...]

## Master of Arts

[...]

## Program Requirements

The M.A. program requires 24 credits of coursework and the writing of an MA thesis worth 6 credits (CNRS 549). The 24 credits of coursework must include CNRS 500 , and 18 must be numbered 500 or higher. The remaining 6 credits may, at the discretion of the program, be at the 300- or 400 -level, while the remaining 6 may, at the discretion of the program, be at the 300 - or 400-level.

Date: November 2, 2018
Contact Person: Odessa Cadieux-Rey
Phone: 604-822-2515
Email: cners.advising@ubc.ca

## URL:

http://www.calendar.ubc.ca/vancouver/inde x.cfm?tree=12,204,828,1137

## Present Calendar Entry:

## Classics

[...]

## Master of Arts

[...]

## Program Requirements

The M.A. program requires 24 credits of coursework; the writing of an MA thesis worth 6 credits (CNRS 549), and two comprehensive examinations. The 24 credits of coursework must include CNRS 500 , and 18 must be numbered 500 or higher, while the remaining 6 may, at the discretion of the program, be at the 300 - or 400-level.

## Type of Action:

Remove one graduation requirement

## Rationale for Proposed Change:

We have found that this requirement is not successful in achieving the breadth of knowledge for which it was intended. Further, it is not typical for Arts graduate

|  | programs at UBC or at other comparable departments in Canada to require comprehensive exams at the Masters level. It is especially unusual to require all three of coursework, a thesis, and comprehensive exams, and we have found that requiring all three places excessive pressure on our students and extends time to completion. With this change, the focus of our graduate programs will be on acquiring research skills through the thesis and acquiring breadth of knowledge through coursework. This change will bring our program more in-line with other Masters of Arts programs. |
| :---: | :---: |
| Faculty: Arts <br> Department: Classical, Near Eastern and <br> Religious Studies <br> Faculty Approval Date: January 10, 2019 <br> Effective Session (W or S): Winter <br> Effective Academic Year: 2019 | Date: November 2, 2018 <br> Contact Person: Odessa Cadieux-Rey <br> Phone: 604-822-2515 <br> Email: cners.advising@ubc.ca |
| Proposed Calendar Entry: <br> Classical and Near Eastern Archaeology [...] <br> Master of Arts <br> [...] <br> Program Requirements <br> The M.A. program requires 24 credits of coursework and the writing of an MA thesis worth 6 credits (CNRS 549). The 24 credits of coursework must include CNRS 500 , and 18 must be numbered 500 or higher, while the remaining 6 may, at the discretion of the program, be at the 300- or $400-l e v e l$. Students who come into the program without any archaeological field training are also required to take part in an approved archaeological field project. | URL: <br> http://www.calendar.ubc.ca/vancouver/inde <br> x.cfm?tree=12,204,828,1136 <br> Present Calendar Entry: <br> Classical and Near Eastern Archaeology [...] <br> Master of Arts <br> [...] <br> Program Requirements <br> The M.A. program requires 24 credits of coursework, the writing of an MA thesis worth 6 credits (CNRS 549), and two comprehensive examinations. The 24 credits of coursework must include CNRS 500 , and 18 must be numbered 500 or higher, while the remaining 6 may, at the discretion of the program, be at the 300 - or 400-level. Students who come into the program without any archaeological field |


|  | training are also required to take part in an <br> approved archaeological field project. <br> Type of Action: <br> Remove one graduation requirement <br> Rationale for Proposed Change: <br> We have found that this requirement is not <br> successful in achieving the breadth of <br> knowledge for which it was intended. <br> Further, it is not typical for Arts graduate <br> programs at UBC or at other comparable <br> departments in Canada to require <br> comprehensive exams at the Masters level. <br> It is especially unusual to require all three <br> of coursework, a thesis, and comprehensive <br> exams, and we have found that requiring all <br> three places excessive pressure on our <br> students and extends time to completion. <br> With this change, the focus of our graduate <br> programs will be on acquiring research <br> skills through the thesis and acquiring <br> breadth of knowledge through coursework. <br> This change will bring our program more <br> in-line with other Masters of Arts <br> programs. |
| :--- | :--- |


| Faculty: Arts <br> Department: Classical, Near Eastern and <br> Religious Studies <br> Faculty Approval Date: January 10, 2019 <br> Effective Session (W or S): Winter <br> Effective Academic Year: 2019 | Date: November 2, 2018 <br> Contact Person: Odessa Cadieux-Rey <br> Phone: 604-822-2515 <br> Email: cners.advising@ubc.ca |
| :---: | :---: |
|  | URL: <br> http://www.calendar.ubc.ca/vancouver/inde x.cfm?tree=12,204,828,1223 |
| Proposed Calendar Entry: | Present Calendar Entry: |
| Religious Studies [...] | Religious Studies <br> [...] |
| Master of Arts [...] | Master of Arts <br> [...] |
| Program Requirements <br> The M.A. program requires 24 credits of | Program Requirements |

coursework and the writing of an MA thesis worth 6 credits (CNRS 549). The 24 credits of coursework must include CNRS 500 , and 18 must be numbered 500 or higher. The remaining 6 may, at the discretion of the program, be at the 300 - or 400-level.

The M.A. program requires 24 credits of coursework, the writing of an MA thesis worth 6 credits (CNRS 549), and two eomprehensive examinations. The 24 credits of coursework must include CNRS 500 , and 18 must be numbered 500 or higher. The remaining 6 may, at the discretion of the program, be at the 300 - or 400-level.

## Type of Action:

Remove one graduation requirement
Rationale for Proposed Change:
We have found that this requirement is not successful in achieving the breadth of knowledge for which it was intended. Further, it is not typical for Arts graduate programs at UBC or at other comparable departments in Canada to require comprehensive exams at the Masters level. It is especially unusual to require all three of coursework, a thesis, and comprehensive exams, and we have found that requiring all three places excessive pressure on our students and extends time to completion. With this change, the focus of our graduate programs will be on acquiring research skills through the thesis and acquiring breadth of knowledge through coursework. This change will bring our program more in-line with other Masters of Arts programs.

## BIOLOGY

Category: (1)

| Faculty: Science <br> Department: Biology <br> Faculty Approval Date: November 6, 2018 | Date: November 6, 2018 <br> Contact Person: Warren Williams <br> Phone: 604-822-8719 <br> Email: wwarren@mail.ubc.ca |
| :--- | :--- |
| Effective Date for Change: 2019 S <br> Proposed Calendar Entry: | Present Calendar Entry: |
| BIOL 153 (8) Human Biology: Anatomy and |  |
| Physiology |  |$\quad$ BIOL 153 (7) Human Biology.

## Prerequisite: One of Chemistry 12, CHEM 100, CHEM 111 and one of Biology 11, Biology 12, BIOL 111.

Date. November 6, 2018

Phone: 604-822-8719
Email: wwarren@mail.ubc.ca

## Present Calendar Entry:

BIOL 153 (7) Human Biology

The principles of biology with particular reference to the human body (anatomy and physiology). Laboratories include selected experiments on organ physiology and general anatomy. Please consult the Faculty of Science Credit Exclusion Lists:
www.students.ubc.ca/calendar/index.cfm?tree-1 Z,215,410,414. This course is not eligible for Credit/D/Fail grading. [3-3*-0; 3-3*-0]

## Action:

a) Add prerequisites.
b) Update course title.
c) Correct typographical error in the course vector.
d) Increase credit value from 7 to 8 .
e) Update link to the Faculty of Science Credit Exclusion List.

## Rationale:

a) BIOL 153 (currently 7 credits) and BIOL 155 (6 credits) share the same lectures, delivered at the same time in the same room by the same instructor. The major difference between these two courses is that BIOL 153 also includes a lab component in which students meet every week for hands-on activities that investigate human anatomy and physiology, while Biology 155 has
no lab component. Many of these labs focus on aspects of human anatomy, such as the muscular and skeletal systems, that are not covered in detail in the lecture component of the course. Therefore, BIOL 153 provides comprehensive coverage of both the anatomy and physiology of all major human body systems, while BIOL 155 provides comprehensive coverage of the physiology of all major human body systems but the anatomy of only some of the major human body systems.

In order to succeed in both BIOL 153 and BIOL 155 , students require a solid foundation in both chemistry and biology. Chemistry 12, CHEM 100, and CHEM 111 all provide the necessary chemistry background for this course, so any one of these three courses would be a reasonable prerequisite. Biology 11, Biology 12, and BIOL 111 all provide the necessary biology background for this course, and so any one of these three courses would be a reasonable prerequisite.

BIOL 153 satisfies the human anatomy and physiology admission requirement for both Nursing and Midwifery. BIOL 155 does not satisfy this human anatomy and physiology admission requirement because it lacks a lab component and does not provide comprehensive coverage of the anatomy of all major human body systems. To satisfy this human anatomy and physiology requirement, BIOL 153 must cover both the structure and function of the following systems of the human body: cardiovascular, respiratory, digestive, muscular and skeletal, nervous, endocrine, reproductive, immune, urinary, and integument. It is not possible to cover the necessary background in secondary school chemistry and biology in these lectures while still also covering all of the content required to satisfy the human anatomy and physiology requirement for Nursing and Midwifery.

Up until 2006, enrollment in BIOL 153 was restricted to students in the Bachelor of Science in Nursing (B.S.N.) Program, the Bachelor of Dental Science in Dental Hygiene (B.D.Sc.) Program, and the Bachelor of Midwifery within the Nursing Program). When the restriction on enrollment in BIOL 153 was removed, secondary school courses in biology and chemistry (the former admission requirements for Nursing and the existing admission requirements of Dental Hygiene, and Midwifery) should have been added as official course prerequisites, such that all students entering BIOL 153 would still have the necessary background to succeed in this class, regardless of their current degree program. Unfortunately, this did not happen, such that some students enrolling in this course lacked adequate preparation in biology and chemistry and so struggled with the course material.

Recently, the lack of prerequisites for BIOL 153 and BIOL 155 has become especially problematic because of a large increase in enrollment. In 2017, BIOL 155 was added as a required course for several specializations within Land and Food Systems (Food and Nutritional Sciences Double Major; Food Science Major; Food, Nutrition, and Health Major; Nutritional Sciences Major; Dual Degree Program in Food, Nutrition and Health and Education).
b) The current course title is vague. The proposed new title clearly indicates that the focus of this course is human physiology and anatomy, rather than other aspects of human
biology, such as human ecology, human genetics, or human evolution.
c) The current course vector is $\left[3-3^{*}-0 ; 3-3 *-0\right]$, indicating three hours of lecture per week and three hours of lab every other week. However, students actually attend three hours of lab every week of the term, with the exception of weeks with holiday long weekends. This has been the case since at least as early as 2001, when the current course instructor started teaching BIOL 153. The proposed correction to this error in the course vector will more accurately represent the number of lab hours per week for students.
d) Because students attend lab every week, rather than every other week, the appropriate credit value for this course is 8 . This credit value more accurately recognizes the amount of time and effort required of students in this course.
e) The current link is incorrect. The updated link will direct students to the intended site: the Credit Exclusion List for the Faculty of Science.

Supporting Documents: SCI-18-1-BIOL 153

Category: (1)

| Faculty: Science |
| :--- |
| Department: Biology |
| Faculty Approval Date: Novembe |
| $\begin{array}{l}\text { Effective Date for Change: } 2019 S \\ \text { Proposed Calendar Entry: }\end{array}$ |

BIOL 155 (6) Human Biology: Physiology and
Introductory Anatomy
The principles of biology with particular reference to the human body (physiology and introductory anatomy). Please consult the Faculty of Science Credit Exclusion Lists [Link to:
http://www.calendar.ubc.ca/vancouver/index. cfm? tree $=12,215,410,414]$.
[3-0-0; 3-0-0]
Prerequisite: One of Chemistry 12, CHEM 100, CHEM 111 and one of Biology 11, Biology 12, BIOL 111.

Date: November 6, 2018
Contact Person: Warren Williams
Phone: 604-822-8719
Email: wwarren@mail.ubc.ca

## Present Calendar Entry:

BIOL 155 (6) Human Biology

The principles of biology with particular reference to the human body (anatomy and physiology). [3-0-0; 3-0-0]

## Action:

a) Add prerequisites.
b) Update course title.
c) Update course description. Add a statement advising students to consult the Faculty of Science Credit Exclusion Lists, add a link to the Faculty of Science Credit Exclusion Lists.

## Rationale:

a) BIOL 155 (Human Biology) was first introduced in 2002 to provide an option for students to take the BIOL 153 (Human Biology) lectures without the lab component. BIOL 153 (currently 7 credits) and BIOL 155 (6 credits) share the same lectures, delivered at the same time in the same room by the same instructor. The major difference between these two courses is that BIOL 153 also includes a lab component in which students meet every week for hands-on activities that investigate human anatomy and physiology, while BIOL 155 has no lab component. Many of these labs focus on aspects of human anatomy, such as the muscular and skeletal systems, that are not covered in detail in the lecture component of the course. Therefore, BIOL 153 provides comprehensive coverage of both the anatomy and physiology of all major human body systems, while BIOL 155 provides comprehensive coverage of the physiology of all


\(\left.$$
\begin{array}{|l|l|l|l} & \begin{array}{l}\text { c) The current course description implies that } \\
\text { BIOL 155 provides comprehensive coverage of } \\
\text { both human anatomy and physiology. The } \\
\text { proposed course description more accurately } \\
\text { describes the course content. }\end{array}
$$ <br>
BIOL 155 is credit excluded with BIOL 153, <br>
KIN 190, and KIN 191. This statement and link <br>
will inform students about these credit <br>

exclusions.\end{array}\right\}\)| Supporting Documents: SCI-18-1-BIOL $\mathbf{1 5 5}$ |
| :--- |

## COGNITIVE SYSTEMS

Category: (1)

| Faculty: Science | Date: November 6, 2018 <br> Department: Cognitive Systems <br> Faculty Approval Date: November 6, 2018 |
| :--- | :--- |
|  | Contact Person: Warren Williams <br> Email: wwarren@@mail.ubc.ca |

## Effective Date for Change: 2019S <br> Proposed Calendar Entry:

COGS 300 (4) Understanding and Designing Cognitive Systems

Theory and methods for integrating diverse disciplinary content in cognitive systems.
[3-2-0]
Prerequisite: COGS 200 and 3 credits of CPSC.

## Present Calendar Entry:

COGS 300 (3) Understanding and Designing Cognitive Systems

Theory and methods for integrating diverse disciplinary content in cognitive systems. [2-3-0]

Prerequisite: COGS 200.
Action: Change to course's credit value from 3 to 4. Addition of prerequisite: 3 credits of CPSC. Update vector.

Rationale: This is a change in the credit allocation of the course. It is not a change to the course's content or form. According to the UBC Senate's Credit Value Determination guidelines, "one credit represents one hour of instruction or two to three hours of laboratory time per week one Winter Session term (September to December or January to April)". COGS 300 is (and has always been) taught via three hours of lecture and two hours of lab work per week. It should therefore be listed as a 4-credit course. We are also proposing that students take 3 credits of CPSC as a prerequisite for this course. COGS students are required to take CPSC courses anyway, but have sometimes postponed doing so until after they have taken COGS 300, on account of not being able to get a place in the CPSC courses that are required. These students have typically struggled with the coding parts of the COGS 300 lab. It is better for them to take some CPSC before taking COGS 300, and now that CPSC is successfully meeting the demand for their lower-level courses, there should be no logistical complications incurred by requiring them to do so.

COMPUTER SCIENCE
Category: (1)

| Faculty: Science <br> Department: Computer Science <br> Faculty Approval Date: November 6, 2018 | Date: November 6, 2018 <br> Contact Person: Warren Williams <br> Phone: 604-822-8719 <br> Email: wwarren@mail.ubc.ca |
| :---: | :---: |
| Effective Date for Change: 2019S Proposed Calendar Entry: | Present Calendar Entry: |
| CPSC 340 (3) Machine Learning and Data Mining | CPSC 340 (3) Machine Learning and Data Mining |
| Models of algorithms for dimensionality reduction, nonlinear regression, classification, clustering and unsupervised learning; applications to computer graphics, computer games, bio-informatics, information retrieval, ecommerce, databases, computer vision and artificial intelligence. [3-0-1] | Models of algorithms for dimensionality reduction, nonlinear regression, classification, clustering and unsupervised learning; applications to computer graphics, computer games, bio-informatics, information retrieval, ecommerce, databases, computer vision and artificial intelligence. [3-0-1] |
| Prerequisite: CPSC 221 and one of MATH 152, MATH 221, MATH 223 and one of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263 and one of STAT 241, STAT 251, ECON 325, ECON 327, MATH 302, STAT 302, MATH 318. | Prerequisite: Өne of MATH 152, MATH 221, MATH 223 and one of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263 and one of STAT 200, STAT 203, STAT 241, STAT 251, GOMM 291, ECON 325, ECON 327,PSYG 218, PSYC 278, PSYC 366, MATH 302, STAT 302, MATH 318, BIOL 300; and either (a) GPSC 221 or (b) all of CPSC 260, EECE 320 and one of CPSC 210, EECE 210, EECE 309. |

Action: Remove some of the statistics courses, as well as the option containing CPSC 260. Reposition CPSC221 to the beginning of the prerequisite list.
Remove option b) from the prerequisite list
Rationale: CPSC 340 builds on concepts from probability including conditional probabilities and joint distributions. Understanding these concepts is important for success in CPSC 340. In our experience, a significant fraction of students in the course do not have adequate preparation. Looking into these courses and discussing them with Bruce Dunham from the STAT department, we concluded that STAT 200 (and its credit excluded equivalents) provides very little of this necessary preparation, as it is

|  | mostly a statistics course rather than a <br> probability course. Thus, we propose to remove <br> this path into CPSC 340. |
| :--- | :--- |
| Also, CPSC 260 was last offered in 2013W, and |  |
| there are no plans to offer it again. With the |  |
| removal of CPSC260, option b) is no longer feasible |  |
| and thus CPSC221 becomes only viable CPSC |  |
| prerequisite. |  |
| Supporting Documents: SCI-18-1-CPSC 340 |  |

## MATHEMATICS

Category: (1)


Category: (1)
\(\left.$$
\begin{array}{|l|l|}\hline \begin{array}{l}\text { Faculty: Science } \\
\text { Department: Mathematics } \\
\text { Faculty Approval Date: November 6, 2018 }\end{array} & \begin{array}{l}\text { Date: November 6, 2018 } \\
\text { Contact Person: Warren Williams } \\
\text { Phone: 604-822-8719 } \\
\text { Email: wwarren@mail.ubc.ca }\end{array} \\
\hline \begin{array}{l}\text { Effective Date for Change: 2019S } \\
\text { Proposed Calendar Entry: } \\
\text { MATH 258 (3) Differential Equations for } \\
\text { Mechanical Engineering } \\
\text { First-order equations; linear equations; } \\
\text { linear systems; Laplace transforms; } \\
\text { trajectory analysis of plane nonlinear } \\
\text { systems; translational and rotational } \\
\text { vibrations; applications to RLC circuit } \\
\text { analysis; numerical and graphical methods. } \\
\text { Emphasis on mechanical engineering } \\
\text { applications. [3-0-1*] } \\
\text { Prerequisite: MATH 101, MATH 152. }\end{array} & \text { Present Calendar Entry: } \\
\text { Corequisite: MECH 221, MECH 224. }\end{array}
$$ \quad \begin{array}{l}Action: Create new course. <br>
Rationale: MECH 2 (created in 2004) is the <br>
second-year integrated mechanical engineering <br>
program at UBC and formally consists of nine <br>
courses: MECH 220, 221, 222, 223, 224, 225, <br>
226, MATH 255 and MATH 253. MECH 221 is <br>
a 12-credit course whose content and <br>
organization are currently coordinated with <br>

MATH 255 Section 106 (3 credits) and MECH\end{array}\right\}\)| 224 (1 credit) which includes MATLAB |
| :--- |
| computer labs. |

Category: (1)
Faculty: Science
Department: Mathematics
Faculty Approval Date: November 6, 2018
Date: November 6, 2018
Contact Person: Warren Williams
Phone: 604-822-8719
Email: wwarren@mail.ubc.ca
Effective Date for Change: 2019S
Proposed Calendar Entry:
MATH 442 (3) Graphs and Networks

Graph theory, emphasizing trees, tree growing algorithms, and proof techniques. Other topics chosen from shortest paths, maximum flows, minimum cost flows, matchings and graph colouring. [3-0-0]

Prerequisite: $3^{\text {rd }}$ year standing and one of MATH 220, MATH 223, MATH 226 or CPSC 121.

## Present Calendar Entry:

MATH 442 (3) Optimization in Graphs and Networks

Basic graph theory, emphasizing trees, tree growing algorithms, and proof techniques. Problems chosen from: shortest paths, maximum flows, minimum cost flows, matchings, graph colouring. Linear programming duality will be an important tool. [3-0-0]

Prerequisite: MATH 340.

Action: Update title and description, change prerequisite.

Rationale: Graph theory is a central area of Mathematics that impacts a plethora of different subjects, both in the sciences and the social sciences. For example, in Computer Science, graphs are central to representing networks of communication, or for data storage or retrieval. Hence effective graph algorithms are a major area of research here. Similarly, in Chemistry, graphs can model molecular structures, and hence the question of enumerating isomers can be recapitulated as enumerating non-isomorphic graphs. In the social sciences, graphs can be used in Sociology to model social networks, and in Linguistics the graphs known as trees can be used to describe syntax. Recently in Finance, a new cryptocurrency known as a DAG transaction has been developed, and is wholly reliant on directed acyclic graphs, hence the acronym.

Therefore, the study of graph theory is an important facet of all these areas, as well as providing a common language of communication between them.

UBC currently offers MATH 442 annually,


## BIOLOGY

Category: (1)

| Faculty: Science <br> Department: Biology <br> Faculty Approval Date: November 6, 2018 | Date: November 6, 2018 <br> Contact Person: Warren Williams <br> Phone: 604-822-8719 <br> Email: wwarren@mail.ubc.ca |
| :--- | :--- |
| Effective Date for Change: 2019 S <br> Proposed Calendar Entry: | Present Calendar Entry: |
| BIOL 153 (8) Human Biology: Anatomy and |  |
| Physiology |  |$\quad$ BIOL 153 (7) Human Biology.

## Prerequisite: One of Chemistry 12, CHEM 100, CHEM 111 and one of Biology 11, Biology 12, BIOL 111.

Date. November 6, 2018

Phone: 604-822-8719
Email: wwarren@mail.ubc.ca

## Present Calendar Entry:

BIOL 153 (7) Human Biology

The principles of biology with particular reference to the human body (anatomy and physiology). Laboratories include selected experiments on organ physiology and general anatomy. Please consult the Faculty of Science Credit Exclusion Lists:
www.students.ubc.ca/calendar/index.cfm?tree-1 Z,215,410,414. This course is not eligible for Credit/D/Fail grading. [3-3*-0; 3-3*-0]

## Action:

a) Add prerequisites.
b) Update course title.
c) Correct typographical error in the course vector.
d) Increase credit value from 7 to 8 .
e) Update link to the Faculty of Science Credit Exclusion List.

## Rationale:

a) BIOL 153 (currently 7 credits) and BIOL 155 (6 credits) share the same lectures, delivered at the same time in the same room by the same instructor. The major difference between these two courses is that BIOL 153 also includes a lab component in which students meet every week for hands-on activities that investigate human anatomy and physiology, while Biology 155 has
no lab component. Many of these labs focus on aspects of human anatomy, such as the muscular and skeletal systems, that are not covered in detail in the lecture component of the course. Therefore, BIOL 153 provides comprehensive coverage of both the anatomy and physiology of all major human body systems, while BIOL 155 provides comprehensive coverage of the physiology of all major human body systems but the anatomy of only some of the major human body systems.

In order to succeed in both BIOL 153 and BIOL 155 , students require a solid foundation in both chemistry and biology. Chemistry 12, CHEM 100, and CHEM 111 all provide the necessary chemistry background for this course, so any one of these three courses would be a reasonable prerequisite. Biology 11, Biology 12, and BIOL 111 all provide the necessary biology background for this course, and so any one of these three courses would be a reasonable prerequisite.

BIOL 153 satisfies the human anatomy and physiology admission requirement for both Nursing and Midwifery. BIOL 155 does not satisfy this human anatomy and physiology admission requirement because it lacks a lab component and does not provide comprehensive coverage of the anatomy of all major human body systems. To satisfy this human anatomy and physiology requirement, BIOL 153 must cover both the structure and function of the following systems of the human body: cardiovascular, respiratory, digestive, muscular and skeletal, nervous, endocrine, reproductive, immune, urinary, and integument. It is not possible to cover the necessary background in secondary school chemistry and biology in these lectures while still also covering all of the content required to satisfy the human anatomy and physiology requirement for Nursing and Midwifery.

Up until 2006, enrollment in BIOL 153 was restricted to students in the Bachelor of Science in Nursing (B.S.N.) Program, the Bachelor of Dental Science in Dental Hygiene (B.D.Sc.) Program, and the Bachelor of Midwifery necessary because of the 2006 restructuring of the Nursing Program, such that students needed to take BIOL 153 as an admission requirement for Nursing rather than as a required course within the Nursing Program). When the restriction on enrollment in BIOL 153 was removed, secondary school courses in biology and chemistry (the former admission requirements for Nursing and the existing admission requirements of Dental Hygiene, and Midwifery) should have been added as official course prerequisites, such that all students entering BIOL 153 would still have the necessary background to succeed in this class, regardless of their current degree program. Unfortunately, this did not happen, such that some students enrolling in this course lacked adequate preparation in biology and chemistry and so struggled with the course material.

Recently, the lack of prerequisites for BIOL 153 and BIOL 155 has become especially problematic because of a large increase in enrollment. In 2017, BIOL 155 was added as a required course for several specializations within Land and Food Systems (Food and Nutritional Sciences Double Major; Food Science Major; Food, Nutrition, and Health Major; Nutritional Sciences Major; Dual Degree Program in Food, Nutrition and Health and Education).
b) The current course title is vague. The proposed new title clearly indicates that the focus of this course is human physiology and anatomy, rather than other aspects of human
biology, such as human ecology, human genetics, or human evolution.
c) The current course vector is $\left[3-3^{*}-0 ; 3-3 *-0\right]$, indicating three hours of lecture per week and three hours of lab every other week. However, students actually attend three hours of lab every week of the term, with the exception of weeks with holiday long weekends. This has been the case since at least as early as 2001, when the current course instructor started teaching BIOL 153. The proposed correction to this error in the course vector will more accurately represent the number of lab hours per week for students.
d) Because students attend lab every week, rather than every other week, the appropriate credit value for this course is 8 . This credit value more accurately recognizes the amount of time and effort required of students in this course.
e) The current link is incorrect. The updated link will direct students to the intended site: the Credit Exclusion List for the Faculty of Science.

Supporting Documents: SCI-18-1-BIOL 153

Category: (1)

| Faculty: Science |
| :--- |
| Department: Biology |
| Faculty Approval Date: Novembe |
| $\begin{array}{l}\text { Effective Date for Change: } 2019 S \\ \text { Proposed Calendar Entry: }\end{array}$ |

BIOL 155 (6) Human Biology: Physiology and
Introductory Anatomy
The principles of biology with particular reference to the human body (physiology and introductory anatomy). Please consult the Faculty of Science Credit Exclusion Lists [Link to:
http://www.calendar.ubc.ca/vancouver/index. cfm? tree $=12,215,410,414]$.
[3-0-0; 3-0-0]
Prerequisite: One of Chemistry 12, CHEM 100, CHEM 111 and one of Biology 11, Biology 12, BIOL 111.

Date: November 6, 2018
Contact Person: Warren Williams
Phone: 604-822-8719
Email: wwarren@mail.ubc.ca

## Present Calendar Entry:

BIOL 155 (6) Human Biology

The principles of biology with particular reference to the human body (anatomy and physiology). [3-0-0; 3-0-0]

## Action:

a) Add prerequisites.
b) Update course title.
c) Update course description. Add a statement advising students to consult the Faculty of Science Credit Exclusion Lists, add a link to the Faculty of Science Credit Exclusion Lists.

## Rationale:

a) BIOL 155 (Human Biology) was first introduced in 2002 to provide an option for students to take the BIOL 153 (Human Biology) lectures without the lab component. BIOL 153 (currently 7 credits) and BIOL 155 (6 credits) share the same lectures, delivered at the same time in the same room by the same instructor. The major difference between these two courses is that BIOL 153 also includes a lab component in which students meet every week for hands-on activities that investigate human anatomy and physiology, while BIOL 155 has no lab component. Many of these labs focus on aspects of human anatomy, such as the muscular and skeletal systems, that are not covered in detail in the lecture component of the course. Therefore, BIOL 153 provides comprehensive coverage of both the anatomy and physiology of all major human body systems, while BIOL 155 provides comprehensive coverage of the physiology of all


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\begin{array}{|l|l|l|l} & \begin{array}{l}\text { c) The current course description implies that } \\
\text { BIOL 155 provides comprehensive coverage of } \\
\text { both human anatomy and physiology. The } \\
\text { proposed course description more accurately } \\
\text { describes the course content. }\end{array}
$$ <br>
BIOL 155 is credit excluded with BIOL 153, <br>
KIN 190, and KIN 191. This statement and link <br>
will inform students about these credit <br>

exclusions.\end{array}\right\}\)| Supporting Documents: SCI-18-1-BIOL $\mathbf{1 5 5}$ |
| :--- |

## COGNITIVE SYSTEMS

Category: (1)

| Faculty: Science | Date: November 6, 2018 <br> Department: Cognitive Systems <br> Fontact Person: Warren Williams <br> Phone: 604-822-8719 <br> Email: wwarren@mail.ubc.ca |
| :--- | :--- |

## Effective Date for Change: 2019S <br> Proposed Calendar Entry:

COGS 300 (4) Understanding and Designing Cognitive Systems

Theory and methods for integrating diverse disciplinary content in cognitive systems.
[3-2-0]
Prerequisite: COGS 200 and 3 credits of CPSC.

## Present Calendar Entry:

COGS 300 (3) Understanding and Designing Cognitive Systems

Theory and methods for integrating diverse disciplinary content in cognitive systems. [2-3-0]

Prerequisite: COGS 200.
Action: Change to course's credit value from 3 to 4. Addition of prerequisite: 3 credits of CPSC. Update vector.

Rationale: This is a change in the credit allocation of the course. It is not a change to the course's content or form. According to the UBC Senate's Credit Value Determination guidelines, "one credit represents one hour of instruction or two to three hours of laboratory time per week one Winter Session term (September to December or January to April)". COGS 300 is (and has always been) taught via three hours of lecture and two hours of lab work per week. It should therefore be listed as a 4-credit course. We are also proposing that students take 3 credits of CPSC as a prerequisite for this course. COGS students are required to take CPSC courses anyway, but have sometimes postponed doing so until after they have taken COGS 300, on account of not being able to get a place in the CPSC courses that are required. These students have typically struggled with the coding parts of the COGS 300 lab. It is better for them to take some CPSC before taking COGS 300, and now that CPSC is successfully meeting the demand for their lower-level courses, there should be no logistical complications incurred by requiring them to do so.

## COMPUTER SCIENCE

Category: (1)

| Faculty: Science <br> Department: Computer Science <br> Faculty Approval Date: November 6, 2018 | Date: November 6, 2018 <br> Contact Person: Warren Williams <br> Phone: 604-822-8719 <br> Email: wwarren@mail.ubc.ca |
| :---: | :---: |
| Effective Date for Change: 2019S Proposed Calendar Entry: | Present Calendar Entry: |
| CPSC 340 (3) Machine Learning and Data Mining | CPSC 340 (3) Machine Learning and Data Mining |
| Models of algorithms for dimensionality reduction, nonlinear regression, classification, clustering and unsupervised learning; applications to computer graphics, computer games, bio-informatics, information retrieval, ecommerce, databases, computer vision and artificial intelligence. [3-0-1] | Models of algorithms for dimensionality reduction, nonlinear regression, classification, clustering and unsupervised learning; applications to computer graphics, computer games, bio-informatics, information retrieval, ecommerce, databases, computer vision and artificial intelligence. [3-0-1] |
| Prerequisite: CPSC 221 and one of MATH 152, MATH 221, MATH 223 and one of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263 and one of STAT 241, STAT 251, ECON 325, ECON 327, MATH 302, STAT 302, MATH 318. | Prerequisite: Өne of MATH 152, MATH 221, MATH 223 and one of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263 and one of STAT 200, STAT 203, STAT 241, STAT 251, GOMM 291, ECON 325, ECON 327,PSYG 218, PSYC 278, PSYC 366, MATH 302, STAT 302, MATH 318, BIOL 300; and either (a) GPSC 221 or (b) all of CPSC 260, EECE 320 and one of CPSC 210, EECE 210, EECE 309. |

Action: Remove some of the statistics courses, as well as the option containing CPSC 260. Reposition CPSC221 to the beginning of the prerequisite list.
Remove option b) from the prerequisite list
Rationale: CPSC 340 builds on concepts from probability including conditional probabilities and joint distributions. Understanding these concepts is important for success in CPSC 340. In our experience, a significant fraction of students in the course do not have adequate preparation. Looking into these courses and discussing them with Bruce Dunham from the STAT department, we concluded that STAT 200 (and its credit excluded equivalents) provides very little of this necessary preparation, as it is

| 1 | mostly a statistics course rather than a <br> probability course. Thus, we propose to remove <br> this path into CPSC 340. |
| :--- | :--- |
| Also, CPSC 260 was last offered in 2013W, and <br> there are no plans to offer it again. With the <br> removal of CPSC260, option b) is no longer feasible <br> and thus CPSC221 becomes only viable CPSC <br> prerequisite. <br> Supporting Documents: SCI-18-1-CPSC 340 |  |

## MATHEMATICS

Category: (1)


Category: (1)
\(\left.$$
\begin{array}{|l|l|}\hline \begin{array}{l}\text { Faculty: Science } \\
\text { Department: Mathematics } \\
\text { Faculty Approval Date: November 6, 2018 }\end{array} & \begin{array}{l}\text { Date: November 6, 2018 } \\
\text { Contact Person: Warren Williams } \\
\text { Phone: 604-822-8719 } \\
\text { Email: wwarren@mail.ubc.ca }\end{array} \\
\hline \begin{array}{l}\text { Effective Date for Change: 2019S } \\
\text { Proposed Calendar Entry: } \\
\text { MATH 258 (3) Differential Equations for } \\
\text { Mechanical Engineering } \\
\text { First-order equations; linear equations; } \\
\text { linear systems; Laplace transforms; } \\
\text { trajectory analysis of plane nonlinear } \\
\text { systems; translational and rotational } \\
\text { vibrations; applications to RLC circuit } \\
\text { analysis; numerical and graphical methods. } \\
\text { Emphasis on mechanical engineering } \\
\text { applications. [3-0-1*] } \\
\text { Prerequisite: MATH 101, MATH 152. }\end{array} & \text { Present Calendar Entry: } \\
\text { Corequisite: MECH 221, MECH 224. }\end{array}
$$ \quad \begin{array}{l}Action: Create new course. <br>
Rationale: MECH 2 (created in 2004) is the <br>
second-year integrated mechanical engineering <br>
program at UBC and formally consists of nine <br>
courses: MECH 220, 221, 222, 223, 224, 225, <br>
226, MATH 255 and MATH 253. MECH 221 is <br>
a 12-credit course whose content and <br>
organization are currently coordinated with <br>

MATH 255 Section 106 (3 credits) and MECH\end{array}\right\}\)| 224 (1 credit) which includes MATLAB |
| :--- |
| computer labs. |

Category: (1)
Faculty: Science
Department: Mathematics
Faculty Approval Date: November 6, 2018
Date: November 6, 2018
Contact Person: Warren Williams
Phone: 604-822-8719
Email: wwarren@mail.ubc.ca
Effective Date for Change: 2019S
Proposed Calendar Entry:
MATH 442 (3) Graphs and Networks

Graph theory, emphasizing trees, tree growing algorithms, and proof techniques. Other topics chosen from shortest paths, maximum flows, minimum cost flows, matchings and graph colouring. [3-0-0]

Prerequisite: $3^{\text {rd }}$ year standing and one of MATH 220, MATH 223, MATH 226 or CPSC 121.

## Present Calendar Entry:

MATH 442 (3) Optimization in Graphs and Networks

Basic graph theory, emphasizing trees, tree growing algorithms, and proof techniques. Problems chosen from: shortest paths, maximum flows, minimum cost flows, matchings, graph colouring. Linear programming duality will be an important tool. [3-0-0]

Prerequisite: MATH 340.

Action: Update title and description, change prerequisite.

Rationale: Graph theory is a central area of Mathematics that impacts a plethora of different subjects, both in the sciences and the social sciences. For example, in Computer Science, graphs are central to representing networks of communication, or for data storage or retrieval. Hence effective graph algorithms are a major area of research here. Similarly, in Chemistry, graphs can model molecular structures, and hence the question of enumerating isomers can be recapitulated as enumerating non-isomorphic graphs. In the social sciences, graphs can be used in Sociology to model social networks, and in Linguistics the graphs known as trees can be used to describe syntax. Recently in Finance, a new cryptocurrency known as a DAG transaction has been developed, and is wholly reliant on directed acyclic graphs, hence the acronym.

Therefore, the study of graph theory is an important facet of all these areas, as well as providing a common language of communication between them.

UBC currently offers MATH 442 annually,


13 February 2019
To: Vancouver Senate
From: Senate Curriculum Committee
Re: February Certificate Proposals (information)

Please find attached the following certificate programs for your information:
Certificate in Financial Economics
Certificate in International Politics

Certificate in International Relations
Certificate in General Arts Studies

Respectfully submitted,

Dr. Peter Marshall, Chair
Senate Curriculum Committee

## UNDERGRADUATE PROGRAMS

## ARTS CREDIT CERTIFICATES > Technológico de Monterrey-UBC Joint Academic Program Certificate

Proposal coinciding with UBC decision to have all university certificates approved by Senate
UBC Faculty of Arts -
Tec de Monterrey Credit Certificate Proposal

## Proposed Certificate Programs:

1. Certificate in Financial Economics
2. Certificate in International Politics
3. Certificate in International Relations
4. Certificate in General Arts Studies

## Date of Submission:

June 18, 2018

## Sponsoring Faculty:

Faculty of Arts

## Contact Person:

Name: Dr. Rumee Ahmed
Title: Associate Dean, Communications and Innovation, Faculty of Arts
Telephone: 604-822-1286
Email: rumee.ahmed@ubc.ca

## Supporting UBC Partners or External Partners:

Tec de Monterrey

## Description

Since 1996, Tec de Monterrey and UBC have collaborated on a wide variety of initiatives for student mobility, as well as joint teaching and research. Both institutions consider the Tec-UBC Joint Academic Program, founded with the signing of the "Academic Joint Program and Facility Joint Venture Agreement" in July 2001, to be the flagship initiative.

The partnership brings diversity to each campus, allows for the creation of innovative programs, including the piloting of new mobility and experiential learning initiatives, and brings revenue into participating faculties and supporting central program units such as Go Global.

Under this inbound study abroad program, Tec students take UBC undergraduate courses for one or two terms on a fee-paying basis. Since 2001 students have had the option of obtaining a non-credit Certificate of Specialty upon completion of 5 credit courses, or 15 credits.

## Rationale

These certificate programs were created in the summer of 2001 to give additional incentive, recognition, and a competitive edge to Tec de Monterrey students taking UBC courses under the Joint Academic Program. Students finish their semester or year of study with a recognition of an academic specialization, whether in their field of study, or as demonstration of competency in an additional area of study.

Tec Program Directors and professors met with UBC professors in 2001 to map out the certificate programs in order to ensure alignment with the Tec curriculum and determine course equivalencies.

## Length \& Duration

Each certificate requires the completion of 5 existing UBC credit courses, or 15 credits. Certificates are completed within two terms.

## Curriculum Topics by Certificate

## 1. Certificate in Financial Economics

| Course | Description |
| :--- | :--- |
| ECON 302 | Intermediate Macroeconomics Analysis I <br> Note: Credit granted for only one of ECON 302 and ECON 305 |
| ECON 345 | Money and Banking |
| ECON 355 | Introduction to International Trade <br> Note: Credit granted for only one of ECON 355 and ECON 455 |
| ECON 356 | Introduction to International Finance |
| ECON 370 | Benefit-Cost Analysis and the Economics of Project Evaluation |
| ECON 421 | Introduction to Game Theory and Applications |
| ECON 425 | Introduction to Econometrics |
| ECON 447 | Monetary Theory |
| ECON 455 | International Trade |


|  | Note: Credit granted for only one of ECON 355 and ECON 455. |
| :--- | :--- |
| ECON 456 | International Macroeconomics and Finance |
| COMM 370 | Corporate Finance |
| COMM 371 | Investment Theory |
| COMM 374 | Applied Financial Markets |
| COMM 377 | International Financial Markets and Institutions |
| COMM 471 | Mergers and Acquisitions |

## 2. Certificate in International Politics

| Course | Description |
| :--- | :--- |
| ECON 355 | Introduction to International Trade |
| ECON 356 | Introduction to International Finance |
| ECON 441 | The Process of Economic Development |
| POLI 220 | Introduction to Comparative Politics |
| POLI 260 | Introduction to Global Politics |
| POLI 320 | Government and Politics of USA |
| POLI 347 | Law and Political Theory |
| POL 360 | Security Studies |
| POLI 364 | International Organizations |
| POLI 366 | International Political Economy |
| POLI 367 | International Relations Theory and the International System |
| POLI 369 | Issues in International Security |
| POLI 370 | Issues in International Conflict Management |
| POLI 374 | International Peacekeeping |
| POLI 375 | Global Environmental Politics |

## 3. Certificate in International Relations

- 15 credits from any of the 3rd and 4th year courses listed as part of the IR major, with the exception of IR seminars.
- A complete course list is available on the Faculty of Arts International Relations

Program website: https://ir.arts.ubc.ca/undergraduates/program requirements/ir major/reverse-course-look-up/

- It is highly recommended that students have already studied introductory Micro- and Macroeconomics, world history, and global politics. For those without a background in global politics, POLI 260 is recommended.


## 4. Certificate in General Arts Studies

- 15 credits from any 2nd, 3rd, or 4th year courses offered in Arts-with the exception of seminars-for which all prerequisites are met.
- A complete list of course offerings can be found here: http://www.calendar.ubc.ca/vancouver/courses.cfm?page=name\&institution=3


## Target learners

These certificates are only open to those who apply and are nominated by their Tec de Monterrey International Programs Office under the Tec-UBC Joint Academic Program.

## Student Admission Criteria

Go Global admits Tec de Monterrey students based on their meeting the minimum academic requirements, as well as their program of study.

Applicants are required to:

- Have a minimum $83 \%$ GPA
- Have a minimum TOEFL score of 580 (ITP) or 90 (IBT)
- Students can apply in their 3rd semester to study at UBC in the 4th semester or later. However, certain certificates and courses have additional pre-requisites. For example, students taking business certificates like Operations \& Logistics or Finance, must have completed their 5th semester at Tec before coming to UBC.
- Students wishing to come for a certificate must meet the pre-requisites for each certificate. Some certificates may require students to be in their 5th, 6th or 7th semester.


## Program Delivery Format

All courses are delivered face to face.

## Marketing / promotion strategy

N/A - these certificates are only available to Tec students in the Joint Academic Program.

## Assessment of impact on departmental and university resources

There is no anticipated impact on departmental or university resources. Certificate courses are regular undergraduate courses with a limited number of spots reserved for Tec de Monterrey students.

## Assessment of financial viability

Presently, financial information is not tracked for individual certificate programs. Existing data includes revenue from students taking courses in both certificate and non-certificate programs. However, the existence of the certificate programs has not imposed any significant costs on the Faculty, and no changes that would increase their cost are proposed or anticipated. Accordingly, the certificate programs are expected to remain financially viable.

|  | Student Participation |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $2011 / 12$ | $2012 / 13$ | $2013 / 14$ | $2014 / 15$ | $2015 / 16$ | $2016 / 17$ | $2017-18$ |
|  | 3 | -- | 3 | -- | 2 | 3 | 1 |
| International <br> Politics | 2 | 1 | -- | -- | -- | -- | -- |
| International <br> Relations | 2 | -- | -- | -- | 1 | -- | 1 |
| General Arts <br> Studies* | -- | -- | -- | -- | -- | -- | -- |

* New 2018/19


## Fees

As per the 2015 amendment to the "Academic Joint Program and Facility Joint Venture Agreement", students pay $70 \%$ of the ISI international tuition fees. No additional fees are collected from students undertaking a certificate, nor is there a separate admissions process at UBC.

## Advisory Committee

Currently, the Tec de Monterrey partnership is overseen by a Go Global Advisor, under the direction of the Director of Go Global: International Learning Programs. The Advisor consults with Faculty designates and Tec de Monterrey Program Directors throughout the year to ensure curricula is aligned and courses within each program are still being offered.

The Faculty designates have discussed re-instating the Advisory Committee as originally laid out in the 2001 Joint Academic Program Agreement. This committee would include:

- Director, Go Global: International Learning Programs
- Advisor, Tec de Monterrey Partnership, Go Global: International Learning Programs
- Faculty of Applied Science, Associate Dean
- Faculty of Arts, Associate Dean
- Faculty of Land and Food Systems, Associate Dean
- Sauder School of Business, Senior Associate Dean

4 February 2019
To: Senate
From: Nominating Committee
Re: Committee Adjustments
The Senate Nominating Committee is pleased to recommend the following changes to the membership of Committees of Senate:

That Mr Christian Surniawan be appointed to the Student Appeals on Academic Discipline Committee until 31 March 2019 and thereafter until replaced, to replace Ms. Ainsley MacDougall;

That Mr Matthias Leuprecht be appointed to the Senate Awards Committee until 31 March 2019 and thereafter until replaced, to replace Mr Christian Surniawan.

## 2019/2020 Academic Year

Date 13 February 2019

| To | Senate |
| :--- | :--- |
| From | Kate Ross, Associate Vice-President Enrolment Services \& Registrar |

Key dates for the 2019/20 Winter Session are as follows:
Winter Session Term 1
Term 1 begins
Tuesday, September 3, 2019
Last day of Term 1 classes for most faculties Friday, November 29, 2019
First day of exams for Term 1
Last day of exams for Term 1
Number of Teaching Days
Tuesday, December 3, 2019
Wednesday, December 18, 2019
62
Winter Session Term 2

Term 2 begins
Mid-term break

Monday, January 6, 2020
February 17 - February 21, 2020
Last day of Term 2 classes for most faculties Wednesday, April 8, 2020
First day of exams for Term 2
Last day of exams for Term 2
Number of Teaching Days
Tuesday, April 14, 2020
Wednesday, April 29, 2020
63

Key dates for the 2020 Summer Session are as follows:

## Summer Session Term 1

Term 1 begins
Monday, May 11, 2020
Last day of Term 1 classes for most faculties Thursday, June 18, 2020
First day of exams for Term 1
Monday, June 22, 2020
Last day of exams for Term 1
Friday, June 26, 2020
Number of Teaching Days

## THE UNIVERSITY

OF BRITISH COLUMBIA

| Term 2 begins | Monday, July 6, 2020 |
| :--- | :--- |
| Last day of Term 2 classes for most faculties | Thursday, August 13, 2020 |
| First day of exams for Term 2 | Monday, August 17, 2020 |
| Last day of exams for Term 2 | Friday, August 21, 2020 |
| Number of Teaching Days | 28 |

Draft term and examination dates for academic years up to and including 2023/2024 may be viewed on the Senate website: https://senate.ubc.ca/vancouver/termdates


[^0]:    ${ }^{1}$ In this report, Scheduling Services is referred to with respect to the day-to-day activities of this unit, whereas Enrolment Services is referred to with respect to the higher-level authority relating to Scheduling Services activities.

[^1]:    1 "Scheduling pattern" refers to the pattern of standard class times each week (at UBC, this includes 1-1/2 hour blocks on Tuesdays and Thursdays, and 1 hour blocks on Mondays, Wednesdays and Fridays.)

[^2]:    ${ }^{1}$ In simple terms: Restricted Teaching Spaces refer to teaching spaces that are available to meet a particular unit's teaching needs; General Teaching Spaces refer to teaching spaces that are available to meet campus-wide teaching needs; Tier 1 access refers to a designated program's priority access to specified General Teaching Spaces during a prescribed timeline; Tier 2 access refers to any program's access to General Teaching Spaces once the assigned timeline for Tier 1 access has passed.

[^3]:    ${ }^{1}$ Projected from November 1, 2018 to March 31, 2019.

[^4]:    'Residents' includes all those in M edical, Dental, Pharmaceutical, and Psychiatric residencies.

[^5]:    'Residents' includes all those in M edical, Dental, Pharmaceutical, and Psychiatric residenci
    'Non-degree' and 'No Faculty' includes all students who are Unclassified (UNCL), Visiting (VISI), here on Exchange (EXCH)
    or degree and No Faculty includes alr students who are Unc

[^6]:    'Residents' includes all those in M edical, Dental, Pharmaceutical, and Psychiatric residencies.

[^7]:    'Residents' includes all those in M edical, Dental, Pharmaceutical, and Psychiatric residencies.

