



Vancouver Senate

THE THIRD REGULAR MEETING OF THE VANCOUVER SENATE FOR THE 2015/2016 ACADEMIC YEAR

WEDNESDAY, 18 NOVEMBER 2015

6:00 P.M.

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

1. Senate Membership

New Member:

Ms Jolene Loveday, Student Representative for the Faculty of Education, to replace Ms Melanie Chartrand

NB: Ms Loveday attended the October 2015 meeting.

2. Minutes of the Meeting of 21 October 2015 – Dr Martha Piper (approval) (docket pages 4-18)

3. Business Arising from the Minutes – Dr Martha Piper

4. Remarks from the Chair & Related Questions – Dr Martha Piper (information)

5. From the Board of Governors – Dr Martha Piper (information)

Confirmation of approval of materials forwarded to the Board from the April, May, and September 2015 Meetings of Senate:

April 2015

Curriculum: Proposals from the faculties of Applied Science, Arts, Forestry, Graduate and Postdoctoral Studies (Land and Food Systems and Science), Land and Food Systems, and Science, and UBC Vantage College.

New Program Option: Master of Architecture (M.Arch.) / Master of Landscape Architecture (M.L.A.) dual degree program option.

Establishment of Chair: Reichwald Family UBC Southern Medical Program Chair in Preventative Medicine.

New and Revised Awards

May 2015

Curriculum: Proposals from the faculties of Applied Science, Arts, Commerce and Business Administration, Forestry, Graduate and Postdoctoral Studies (Applied Science, Arts, and Education), Land and Food Systems, Law, and Pharmaceutical Sciences.

New and Revised Awards

September 2015

Affiliation: UBC-Langara Aboriginal Transfer Partnership Agreement

New and Revised Awards

Change of Name of Chair: Cheriton Family Chair in Computer Science”.

New Programs: Doctor of Education in Literacies Education and Master of Geomatics for Environmental Management

Curriculum: Proposals from faculties of Applied Science, Commerce and Business Administration, Graduate and Postdoctoral Studies (Applied Science, Arts, Commerce and Business Administration and Medicine), Medicine and Pharmaceutical Sciences.

6. Candidates for Degrees – Dr Martha Piper (approval)

The list as approved by the faculties 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 and diplomas, as recommended by the faculties, be granted the degrees for which they were recommended, effective November 2015, and that a committee comprised of the Registrar, the dean of the relevant faculty, and the Chair of Senate be empowered to make any necessary adjustments.

(2/3 majority required).

7. Academic Policy Committee – Dr Paul Harrison

- a. Revised Policy V-302.2: *Graduate Student Leaves of Absence* (approval) (docket pages 19, 21-29)
- b. Revisions to Regulations for Graduate-level Examinations, Master's Theses, and Doctoral Dissertations (approval) (docket pages 19-20, 30-32)

8. Admissions Committee – Mrs Carol Jaeger

- a. Vantage College – Changes in Transition Requirements (approval) (docket pages 33, 35)
- b. Graduate and Postdoctoral Studies – Changes in Admission Requirements (approval)(docket pages 33, 36-42)
- c. Land and Food Systems – Suspension of Admission (approval) (docket pages 34, 43)
- d. Land and Food Systems – Admission Requirements (approval) (docket pages 34, 44-45)

9. Awards Committee – Dr Lawrence Burr

New and Revised Awards (approval) (docket pages 46-51)

10. Joint Report of the Admissions & Curriculum Committees – Mrs Carol Jaeger

- a. New Program: Master of Data Science (approval) (docket pages 52-85)
- b. New Program: Master of High Performance Coaching & Technical Leadership (approval) (docket pages 86-102)

11. Curriculum Committee – Mrs Carol Jaeger

November Curriculum Proposals for the faculties Commerce & Business Administration and Land & Food Systems (approval) (docket pages 103-109)

12. Nominating Committee – Dr Richard Tees

- a. Appointments to President's Advisory Committees for Extensions of Appointments for the Vice-President Students and the Associate Vice-President Research & International (approval) (docket page 110)
- b. Adjustments to Committee Assignments (approval) (docket page 110)

13. Topics of Broad Academic Interest

UBC Opportunities with the EdX Consortium and Flexible Learning – with Dr Hugh Brock (discussion)

14. IN CAMERA – Tributes Committee – Dr Sally Thorne

Honorary Degree Nominations (approval) (to be circulated)

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

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

VANCOUVER SENATE

MINUTES OF 21 OCTOBER 2015

DRAFT

Attendance

Present: Dr M. Piper (Chair), Mr J. Abaki, Dr P. Adebar, Mr T. Ahmed, Dr R. Anstee, Dean G. Averill, Dr S. Avramidis, Dr K. Baimbridge, Mr A. Bailey, Ms E. Biddlecombe, Dr L. Burr, Dr A. Collier, Dean C. Dauvergne, Mr N. Dawson, Mr K. D'Souza, Dr A. Dulay, Dr S. Forwell, Dean B. Frank, Dr C. Godwin, Prof B. Goold, Mr S. Gurm, Mr S. Haffey, Dr P. Harrison, Ms M. Hatai, Dean R. Helsley, Dr A. Ivanov, Mrs C. Jaeger, Dr P. Keown, Mr H. Leong, Dr P. Loewen, Ms J. Loveday, Mr K. Madill, Dr B. MacDougall, Dr C. Marshall, Dr W. McKee, Mr W. McNulty, Ms K. Melton, Mr D. Munro, Ms J. Omassi, Dr N. Perry, Dr G. Peterson, Dr J. Plessis, Dean S. Porter, Dr A. Redish, Mr A. Rezaiaen-Asel, Dr A. Riseman, Dr L. Rucker, Dr C. Ruitenberg, Mr G. Sangha, Dr B. Sawatzky, Dr T. Schneider, Ms S. Simon, Dr S. Singh, Dr R. Sparks, Ms S. Sterling, Mr T. Tanaka, Mr J. Tang, Dr R. Tees, Dr S. Thorne, Dr L. Walker, Ms S. Vohra, Dr D. Witt, Dean R. Yada, Mr E. Zhao.

Regrets: Dr P. Choi, Dean M. Coughtrie, Dr W. Dunford, Dr J. Gilbert, Dr D. Gillen, Chancellor L. Gordon, Dr F. Granot, Dean J. Innes, Dean D. Kelleher, Dr S. Knight, Dr B. Lalli, Dr P. Marshall, Dr P. Meehan, Dr C. Naus, Dr C. Nislow, Dr I. Parent, Dean M. Parlange, Dean S. Peacock, Dean C. Shuler, Dr R. Topping, Dr R. Wilson,

Recording Secretary: Mr C. Eaton.

Call to Order

The Chair of Senate, Dr Martha Cook Piper, called the second regular meeting of the Vancouver Senate for the 2015/2016 academic year to order at 6:05 pm.

Senate Membership

The President welcomed Professor Bruce MacDougall to Senate as a representative of the Faculty of Law, replacing Professor Isabel Grant.

Amendment to Agenda

By general consent the agenda was amended to move the discussion item on Student Mental Health and Wellbeing to after the President's remarks.

Minutes of the Previous Meeting

Richard Tees	}	<i>That the Minutes of the Meeting of 16 September 2015 be adopted as corrected:</i>
Lawrence Burr		

Correction: Spelling of Musqueam on page 11.

Approved

Business Arising from the Minutes

As Dr Parent could not be present, the Associate Registrar, Mr Eaton, read out a statement on her behalf.

In response to the questions raised by senators at the previous meeting, I have reviewed the status of data within cIRcle and the AMS examination database. There seems to be some level of confusion regarding this issue, and in particular, there was an assumption made that some data in cIRcle was lost or missing. I can advise you that this is not the case: rather, the old AMS examination database was never transferred to cIRcle. The AMS data (roughly 1400 records) was retained by the AMS. The Library's own collection of examinations (from 1915 through 2003) was never digitized, and is still available in either microfilm or print format. The AMS and the Library did experiment with loading 183 licenced examinations (171 from Mathematics and 12 from Physics); however, the requirements for access control and regular record deletion required a different database than cIRcle which is based on an Open Access model. The AMS and the Library mutually agreed to withdraw the records from public access in 2013 to avoid confusion with departmental databases and because so few permissions could be obtained from faculty members. Although removed, these files and their associated metadata were backed up and can be restored if needed.

The Library continues to provide advice on copyright and usability for the newly developed AMS exam database and looks forward to continuing to work with the students on this and other endeavours. Regretfully I cannot attend the October meeting of Senate due to travel on University business; however, I would be happy to address any further questions or concerns senators may have at the next opportunity

Remarks from the Chair

The President advised that few hours prior, she had the privilege to welcome Mohamed Fahmy to UBC's School of Journalism. The President drew a parallel between journalist freedom of expression and academic freedom; she noted that at least 66 journalists had been killed last year during the course of their work, and opined that this showed how dear freedom of expression could be. President Piper stated that neither freedom of expression nor academic freedom can ever be taken for granted and we must be constantly vigilant to ensure that both are protected.

Dr Piper reminded Senate that on October 15, UBC received the full report from the Hon. Lynn Smith QC regarding allegations that Dr Jennifer Berdahl's rights under the collective agreement, and UBC policies, or her academic freedom, were infringed or interfered with in response to a blog posting. The administration has accepted Ms Smith's findings and she would suggest that all senators read the summary of the report. The President reminded the Senate of the terms of reference agreed to by UBC and the Faculty Association for this report:

Whether John S. Montalbano, Chair of the Board of Governors, and/or individuals in the Sauder School of Business identified by the Faculty Association, conducted themselves in the events following Professor Jennifer Berdahl's publication of her blog on August 8, 2015 in a manner that violated any provision of the Collective Agreement, the UBC Statement on Respectful Environment, or any applicable university policies including whether her academic freedom is or was interfered with in any way.

The President went on to advise that Ms Smith's conclusions were as follows:

- UBC failed in its obligation to protect and support Dr Berdahl's academic freedom. The Collective Agreement Preamble creates a positive obligation to support and protect academic freedom. Through the combined acts and omissions of Mr. Montalbano, the named individuals in the Sauder School, and others, UBC as an institution failed to meet that obligation with respect to Dr Berdahl's academic freedom.
- Montalbano, on his own, did not infringe any provision of the Collective Agreement, the UBC Statement on Respectful Environment, or any of the applicable university policies.
- No individuals in the Sauder School of Business identified by the Faculty Association, on his or her own, infringed any provision of the Collective Agreement, the UBC Statement on Respectful Environment, or any of the applicable university policies.

The President opined that no individual infringed on Dr Berdahl's academic freedom but the University failed in its obligation to protect and support her academic freedom. She stated that the Collective Agreement, to paraphrase, includes an obligation to protect and support the academic freedom of others, that is to say, all members of the University had a positive obligation to be constantly vigilant and supportive, and we as an institution failed to stand up and advise Dr Berdahl that she had the right to say what she was saying. The President advised that no one told her she did not have the right, but collectively we did not say that she did.

Dr Piper noted that this was only the second issue of academic freedom in her time; we did not defend the collective agreement after 9-11, and we did not defend it now.

The President then went on to state that her administration would take the following steps in response to the Smith Report:

- Hire a specialist who will proactively work with faculty, staff, and governors to ensure that academic freedom is safeguarded and preserved at UBC. This person will provide advice, education, and counsel regarding all issues involving academic freedom, including the obligation of all members of the university to protect and support this central freedom.
- Create an education program that would be aimed at all new faculty members, heads, directors, administrators and deans, regarding how to fulfill their obligation to protect academic freedom.
- Develop an online tool to allow people to access information on what academic freedom is, how to manage academic freedom issues, and answers to frequently asked questions.

- Develop a more formalized module on academic freedom as part of the orientation/onboarding process for all new governors and senators.

Senator Singh said that this was a less than perfect summer for UBC. Academic freedom, transparency all took a hit. Individually no one failed, but collectively our omission was a failure. We need to target where this problem originated.

The President advised that she herself should have called Professor Berdahl. Some did call her but that wasn't enough. UBC as an institution should have been more public in its support.

Senator Singh asked what we would do for six months while we implemented these recommendations.

The President replied that she would do everything she could to put this into place prior to the end of her interim term.

Senator Loewen said that the failure was a team effort, and we had a fairly good idea who that team was.

The President replied that no individual failed; she suggested that we did not understand our positive obligation.

Senator Rucker suggested that the discussions and tools should also provide guidelines for faculty and students as to what constitutes academic freedom and how not to abuse academic freedom.

The President advised that we have one definition of it in our collective agreement, and one in our calendar. We need help here, especially in the Canadian context as it is different vs in the US or Europe.

Senator Thorne advised that in the respectful environment statement there was a grey area and no capacity to predict individual interpretations. She hoped that we did not have a legalistic definition and accepted that spirit of ambiguity and potentially unanswerable questions.

The President replied that we did not want to be legalistic, we wanted wise counsel who understood the messiness of universities and the boundaries of academic freedom.

Senator Baimbridge asked if we should distinguish between academic freedom and freedom of speech. We need to know if an opinion is from academic expertise or a personal one. With the new technology of blogs, etc, versus traditional media such as journals, we need to keep up with technology.

The President replied that this was an important question. You can say whatever you want so long as it isn't illegal; if a professor falsifies research, even if that could be covered by freedom of speech it would still be wrong in the academic environment. She

noted the case of a physics professor at the University of Alberta who had a paper published in a physics journal that had nothing to do with physics but rather with the position that the children of women who work were more likely to cheat at school.

Senator Baimbridge clarified that he wanted to know when the university should take positive action. It would be easy if it was a matter where someone was expert at talking academically.

The President replied that as a citizen you can write whatever you want; the difference exists if you sign it as a professor of UBC.

Dean Averill replied that in grappling this issue it gives us an opportunity to face a problem that many universities have had difficulty with or had chosen to ignore because of its complexity.

The President further replied that this was similar to where we were with equity 25 years ago; we all thought it was important to address but didn't know how to move forward.

Senator Munro noticed that students were asking how the proposed increase in international tuition would affect academic matters.

The President replied that the financial decision was at the Board table and the Board has passed a resolution to move us to our peers for international tuition. Consultation is taking place. The impact will come through the Senate Budget Committee.

Senator Abaki stated that he respected the need under the University Act to maintain our separation of powers but there was a clear impact on academic affairs. One of the key goals in our strategic plan was to increase diversity and these increases would challenge that.

After consultation with the Secretary, the President advised that academic matters relating to the proposed increases should be considered by the Senate Academic Policy and Admissions Committees in addition to the Budget Committee

From the Secretary

Dr Ross confirmed that the items circulated via email on 21 September 2015 were approved:

- The Dr. Chew Wei MBBS [HK] FRCOG [Eng] Memorial Chair in Gynecologic Oncology
- The Peter P. Dhillon Centre for Business Ethics

Discussion Item

STUDENT MENTAL HEALTH AND WELLBEING

With consent of Senate, Dr Louise Nasmith and Dr Richard Keeling presented.

Dr Louise Nasmith introduced the topic, noting that last year, Senate struck a committee and then approved a framework on student mental health and wellbeing. The Board of Governors also approved additional funding, some of which was used to hire new staff, and a portion was set aside to investigate the situation further.

Dr Richard Keeling spoke, outlining how mental health issues were related to learning. He stated that there have been many conversations with students, faculty administrators and others to try to understand some of the factors affecting students and causing the observed problems. From those discussions, there have been two important sets of findings: access to services were not adequate and services themselves had not been explored. Related to the second set of findings was the context of services: firstly, that UBC was a competitive, intense place where students found challenges as they went through a thicket of demands, and secondly that members of faculty and staff live and work in that same context.

Dr Keeling suggested that from the above findings comes an opportunity to think differently and decide what a concerned community does to promote a greater level of support for health and wellbeing. We all have a role here both as participants and as part of this process. We have a role in how we teach, set policies, and in the signals we send to students for what matters and what doesn't. The challenge is simple and difficult. Two competing ideas are rigor and empathy; excellence and caring.

Senator Singh said that he hadn't considered the issue except in recent years when his students started to bring up these issues and he felt it important as a faculty member to get involved. A few years ago, early alert was introduced and he was wondering what worked and what didn't work for things we have already tried.

Dr Nasmith replied that data was starting to come forward.

The incoming Education student senator, Jolene Loveday, asked what UBC was doing around stigma around mental health issues.

Dr Nasmith agreed that this was a huge issue and a big barrier.

Senator Omassi said that an important point was academic policies. Students have identified specific policies that while not designed to compromise wellbeing, have done so over time. Changes were needed so that the purpose of policies were upheld but that wellbeing issues were addressed.

Senator Thorne said that the ad hoc committee spent a lot of hours listening to all of UBC and she was profoundly moved by how much talent and enthusiasm there was on this campus to address these issues.

Senator Ruitenberg said that as a graduate advisor we have remarkable faculty and staff who will go out of their way to make things possible. Our culture however is a problem, as is our privatizing of mental health issues. Just as we have a collective responsibility for academic freedom we have the same for mental health issues.

Senator Harrison said that academic policy is trying to grapple with some of these issues, but the practice was more important than the policy. We all have a responsibility to put policies into practice supportively and responsibly. We're inconsistent there. Secondly, there are many wonderful initiatives going on under the radar or even in parallel. We need a general overview of what is going on and of coordinated efforts. This was an academic responsibility and he asked how the Provost could support it.

Senator Abaki asked about the issue of balance between rigour and empathy. He asked where the point was between the two. Secondly the need to maintain confidentiality while being able to talk openly about mental health was an ongoing issue. Finally, he asked if UBC would hire counsellors who could be tailored towards the needs of specific groups of students.

To the last point, Dr Nasmith replied that hiring was done with that in mind.

The President thanked Dr Nasmith and Dr Keeling for their presentation.

Academic Policy Committee

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

REVISED ACADEMIC PROGRESS POLICY FOR MASTER'S STUDENTS – FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

Paul Harrison	}	<i>That the revised Academic Progress policy for master's students and the corresponding change to the Grading Practices section of the Academic Calendar be approved.</i>
Philip Loewen		

Senator Harrison advised that the changes made were to provide clarity for graduate students.

Approved

Admissions Committee

The Vice-Chair of the Senate Admissions Committee, Mrs Carol Jaeger, presented.

CHANGE TO ADMISSION REQUIREMENTS FOR THE DOCTOR OF PHARMACY FLEXIBLE PROGRAM

Carol Jaeger	}	<i>That Senate approve the changes to the admission requirements for the Doctor of Pharmacy Flexible Program, effective for the 2016 Winter Session and thereafter.</i>
Richard Anstee		

Approved**Awards Committee**

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

NEW AWARDS AND CHANGES TO EXISTING AWARDS

See Appendix A: Awards Report

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

By general consent, the Donald MacDougall Award withdrawn was withdrawn

Approved as amended**Curriculum Committee**

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

See Appendix B: Curriculum Report

OCTOBER CURRICULUM REPORT

Peter Marshall	}	<i>That the new courses, revised courses, and discontinued program brought forward by the faculties of Education, and Graduate and Postdoctoral Studies (Dentistry, and Medicine) be approved.</i>
Nick Dawson		

Senator Marshall briefly outline the nature of each proposal.

Approved**Other Business****CONFIDENTIALITY AGREEMENT BETWEEN UBC AND ARVIND GUPTA**

Dr Richard Anstee gave notice of the following motion to be placed on the next agenda of Senate:

Richard Anstee
Sean Haffey

}

The Senate calls on the President to approach the Board of Governors and Professor Gupta and have them renegotiate the terms of his resignation agreement so that both the University and Professor Gupta are able to speak fully to the reasons for his resignation.

Senator Anstee noted that many research faculty were supportive and hopeful of Professor Gupta's presidency given his openness and support for research and that transparency regarding his departure would go a long ways in calming concerns from faculty and the University community. He suggested that there was much speculation and misinformation in the public realm, and transparency again would go a long ways to resolving these. Dr Anstee further noted that UBC was embarking on a search for the next president and any candidate for that job would want to know what happened; however, the Board of Governors sent a letter to the Faculty Association on 21 September 2015 stating that the privacy act precluded them from releasing any employment details. Dr Anstee finally suggested that such a resolution would put more weight behind the request to Professor Gupta and the Board for transparency regarding the former's resignation.

Senator Bailey asked whether we were not confident that it was the wishes of the individual rather than the body.

Senator Thorne spoke against the motion; her view that even the Senate's act of passing this motion could cause more turmoil and it is very likely that no information will be made available: This would put UBC, its President and Board in a further difficult situation.

Senator Singh said that the matter was basically one of transparency and openness, suggesting that the cloud over the University has not lifted, and that we could either hope that it dissipates, or we can take an active approach.

Senator Marshall spoke against the motion, and advising that while his instinct was not to press into this matter, his greater concern was that he did not think it was the business of Senate to pry into the private agreement between Professor Gupta and the Board.

Sean Haffey said that Senate had a role in choosing the President, and there were comments at the last meeting regarding the failure of the previous search committee; he suggested that if we don't make an effort to learn if there were mistakes in the past we may repeat them.

Richard Tees spoke against the motion. He expressed his gratitude that President Piper had agreed to return as Interim President and suggested that adding a negotiation between Professor Gupta and the Board to release more information would not be an appropriate use of her limited time given the unlikelihood of success. Secondly, he reminded Senate that Kenneth Hare and George Peterson had also both left after short periods of time and Senate did not demand to know their reasons at the time.

Senator Burr noted that if he was a candidate for President he would want to know why his predecessor had resigned. He asked what answer we would give candidates to that question.

The President replied that she would reply as she has already: that it was a personal decision.

Senator Forwell noted that the confidentiality agreement was a legal document between the Board and Professor Gupta and suggested that we may need legal advice if the Senate chooses to move in this direction.

Senator Anstee replied that if both parties agreed he couldn't see why the agreement couldn't be amended.

Senator MacDougall agreed that there was no legal impediment to the agreement being changed with the consent of both parties.

Senator Bailey asked what had occurred since that agreement was made that made Senator Anstee think the Board or Professor Gupta would be open to changing the agreement.

Senator Anstee replied the turmoil since it was signed may be reason to reconsider.

Senator Burr asked why the contract to hire the former president was public but not the confidentiality agreement for his leaving.

The President replied that the *Privacy Act* made clear what we could disclose, and this was balanced by the Freedom of Information aspects.

Senator Loewen spoke in favour of the motion; stating that to have a president leave after 13 months was a failure at some point, and to properly manage UBC we need to understand what went wrong.

Senator Harrison suggested that a "black cloud" hasn't really been over UBC. He agreed that some aggrieved people would like to know the reasons so that they can move forward, but he suggested that the only cloud would be to re-open these discussions in public.

Senator Baimbridge replied that he had serious doubts that this motion would produce any further information, and hoped that the Board had learned a lesson from this situation – any future agreements must have the parties agree to a mutual statement of reasons.

Senator Sparks spoke against the motion as not being in UBC's interests.

Motion Failed

Adjournment

There being no further business, the meeting was adjourned at 7:43 pm.

Appendix A: Awards Report

New Awards:

James E. AXELSON Outstanding Graduate Scholar – A scholarship of \$35,000 per year for two years is offered by Swamy Yeleswaram for a pharmaceutical sciences PhD student entering the Outstanding Graduate Scholar Training Program. This award is established in honour of Professor Emeritus James E. Axelson, who served as Dr. Yeleswaram's mentor while he was a graduate student at UBC in the Faculty of Pharmaceutical Sciences. Recommendations are made by the Faculty of Pharmaceutical Sciences in consultation with the Faculty of Graduate and Postdoctoral Studies. (First Award Available in the 2015/2016 Winter Session)

KIN's Excellence Award in Food Science – A \$1,650 award has been made available through an endowment established by Kin's Farm Market to a graduate student pursuing their M.Sc. or Ph.D. in Food Science with a focus on food safety, extended shelf life of produce, or produce and human health, in the Faculty of Land and Food Systems. The successful recipient will be selected based on academic excellence, as well as demonstrated excellence in a range of non-academic fields such as community service, student leadership, and volunteerism. The award 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 in the 2015/2016 Winter Session)

Anna Ruth LEITH Memorial SLAIS Scholarship – A \$1,000 scholarship is offered annually to the student who achieves the top average grade across the core courses of the MLIS or MAS program in the preceding year. The award has been made available by the Estate of Anna Ruth Leith. Anna Ruth Leith had a long and successful career at UBC. She graduated from UBC with a BA in 1945. In 1959 she joined the UBC Library Science Division and became head of the Division in 1961. She was appointed Head of the UBC Woodward Biomedical Library in 1967 and retired from that position in 1988. The award is made on the recommendation of the School of Library, Archival and Information Systems, in consultation with the Faculty of Graduate and Postdoctoral Studies. (First Award Available in the 2015/2016 Winter Session)

PAN Tianshou Scholarship – Five graduate scholarships of \$2,000 each are offered annually to Master's and PhD students who are studying or conducting research in Chinese Studies with the Institute of Asian Research (IAR). Selection is based on academic performance, the quality of the research project proposal, research productivity or excellence. One scholarship will be offered annually to a student in a Master's or PhD program in the Department of Art History, Visual Art and Theory. Two scholarships will be offered annually to students in other Master's or PhD humanities programs. Two scholarships will be offered annually to students in other disciplines. The scholarships are funded by the Pan Tianshou Foundation (PTSF) based in China, and the Vancouver Chinese Culture and Arts Foundation (VCCAF). The awards are made on the recommendation of the Institute of Asian Research in consultation with the Faculty of Graduate and Postdoctoral Studies. (First Award Available in the 2015/2016 Winter Session)

Amanjit PAYER Memorial Scholarship in Women's Volleyball – One or more scholarships, which 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 the family, friends, UBC Athletics and teammates of Amanjit Payer in recognition of her passion and enthusiasm for women in sport, specifically volleyball. While attending UBC, Amanjit was manager of the Thunderbird Women's Volleyball team, where her natural ability to act as the facilitator of the team

enhanced the winning culture of this team. This award will provide scholarships to UBC Thunderbird Women's Volleyball student-athletes who maintain good academic standing and exemplify courage and leadership in all that they do. The award is made on the recommendation of the Athletics Awards Committee. (First Award Available in the 2015/2016 Winter Session)

Christopher SPENCER Memorial Entrance Scholarship in Engineering – Scholarships totalling \$4,200 have been made available through an endowment established by Christopher Spencer. The scholarships are available to students entering the first year of the Engineering program at UBC. Christopher Spencer (1869-1953) had strong ties to both UBC and the history of Vancouver. He served on the Board of Governors of UBC from about 1919 to 1935. In 1952, when Christopher Spencer received his Honorary Doctor of Laws, he was referred to as a “merchant, philanthropist and ‘founding father’ of this University”. The award is made on the recommendation of the Faculty of Applied Sciences. (First Award Available in the 2016/2017 Winter Session)

CENTENNIAL Scholars Entrance Awards – The University of British Columbia offers entrance awards valued up to \$10,000 to outstanding students entering university from secondary schools in Canada, or transfer students from other colleges and universities, or Canadian citizens living abroad. Criteria for these entrance awards include demonstrated academic and leadership achievements in the arts, community, athletics, and school. Recipients are academically qualified students with an interest in joining and contributing to the UBC Vancouver community but who would not be able to attend UBC without significant financial assistance. Candidates must be nominated by a member of their school or community. The awards are made on the recommendation of the Centennial Scholars Entrance Award Committee. (First Award Available in the 2015/2016 Winter Session)

CENTENNIAL Scholars Major Entrance Awards – The University of British Columbia offers renewable entrance awards valued up to \$40,000 over 4 years to outstanding students entering university from secondary schools in Canada, or transfer students from other colleges and universities, or Canadian citizens living abroad. Criteria for these entrance awards include demonstrated academic and leadership achievements in the arts, community, athletics, and school. Recipients are academically qualified students with an interest in joining and contributing to the UBC Vancouver community but who would not be able to attend UBC without significant financial assistance. Subject to continued scholarship standing, the awards will be renewed for a further three years of study or until the first undergraduate degree is obtained (whichever is the shorter period). Candidates must be nominated by a member of their school or community. The awards are made on the recommendation of the Centennial Scholars Entrance Award Committee. (First Award Available in the 2015/2016 Winter Session)

VAN LEEST Family Southern Medical Program Award – Two \$2,000 awards are offered annually by the Van Leest Family to support one second year student and one third year student in the UBC Faculty of Medicine Southern Medical Program. Preference is given to students with financial need who have graduated from a high school outside of the Vancouver metropolitan area. The awards are made on the recommendation of the Faculty of Medicine. (First Award Available in the 2015/2016 Winter Session)

recommendation of the Faculty of Applied Sciences. (First Award Available in the 2016/2017 Winter Session)

CENTENNIAL Scholars Entrance Awards – The University of British Columbia offers entrance awards valued up to \$10,000 to outstanding students entering university from secondary schools in Canada, or transfer students from other colleges and universities, or Canadian citizens living abroad. Criteria for these entrance awards include demonstrated academic and leadership achievements in the arts, community, athletics, and school. Recipients are academically qualified students with an interest in joining and contributing to the UBC Vancouver community but who would not be able to attend UBC without significant financial assistance. Candidates must be nominated by a member of their school or community. The awards are made on the recommendation of the Centennial Scholars Entrance Award Committee. (First Award Available in the 2015/2016 Winter Session)

CENTENNIAL Scholars Major Entrance Awards – The University of British Columbia offers renewable entrance awards valued up to \$40,000 over 4 years to outstanding students entering university from secondary schools in Canada, or transfer students from other colleges and universities, or Canadian citizens living abroad. Criteria for these entrance awards include demonstrated academic and leadership achievements in the arts, community, athletics, and school. Recipients are academically qualified students with an interest in joining and contributing to the UBC Vancouver community but who would not be able to attend UBC without significant financial assistance. Subject to continued scholarship standing, the awards will be renewed for a further three years of study or until the first undergraduate degree is obtained (whichever is the shorter period). Candidates must be nominated by a member of their school or community. The awards are made on the recommendation of the Centennial Scholars Entrance Award Committee. (First Award Available in the 2015/2016 Winter Session)

VAN LEEST Family Southern Medical Program Award – Two \$2,000 awards are offered annually by the Van Leest Family to support one second year student and one third year student in the UBC Faculty of Medicine Southern Medical Program. Preference is given to students with financial need who have graduated from a high school outside of the Vancouver metropolitan area. The awards are made on the recommendation of the Faculty of Medicine. (First Award Available in the 2015/2016 Winter Session)

Revised Awards:

#149 R. E. McDermit Memorial Prize – A \$600 prize to recognize the late Robert E. McDermit's commitment to excellence in health administration and his dedicated years of service in government, health care organizations and the private sector is offered annually by his family. The award is made to a graduating student in the M.H.A. program for the best paper examining current issues in the planning, management or administration of health service programs. The award is made on the recommendation of the School of Population and Public Health in consultation with the Faculty of Graduate and Postdoctoral Studies.

Rationale for Proposed Changes – Type of Action: upon request from the Faculty of Medicine Development team, we have changed the calendar description to reflect the name of the new recommending body.

#3131 G. F. Amyot Prize – A \$300 prize has been made available through an endowment established with donations from the Health Officers of British Columbia in honour of G. F. Amyot, who contributed greatly to the development of public health services in British Columbia and

assisted in the establishment of the Department of Health Care and Epidemiology, Faculty of Medicine. The prize is awarded on the recommendation of the School of Population and Public Health to a student or resident who has demonstrated meritorious scholarship, leadership, and academic research ability in public health.

Rationale for Proposed Changes – Type of Action: upon request from the Faculty of Medicine Development team, we have changed the calendar description to reflect the name of the new recommending body.

#7696 Suzanne H. Mullin Bursary – Bursaries totaling \$13,100 have been made available through an endowment established with a bequest from the late Suzanne H. Mullin for students in the field of Public Health (School of Population and Public Health, Faculty of Medicine). The awards are made on the recommendation of the School of Population and Public Health.

Rationale for Proposed Changes – Type of Action: upon request from the Faculty of Medicine Development team, we have changed the calendar description to reflect the name of the new recommending body.

#8071 Urea Formaldehyde Foam Insulation Action Association Bursary – A \$2,250 bursary has been made available through an endowment established by the Urea Formaldehyde Foam Insulation Action Association, a group of concerned home-owners who had UFFI installed in their homes. The award is made on the recommendation of the School of Population and Public Health to a student investigating toxic chemicals and pollutants, with particular emphasis on their effects on human health. Students who have recently completed research or studies in this field should apply in writing by October 1 to the Director of the M.Sc. (Occupational and Environmental Hygiene) in the School of Population and Public Health. A copy of a recent paper on the relevant topics or a description of current studies should be included.

Rationale for Proposed Changes – Type of Action: upon request from the Faculty of Medicine Development team, we have changed the calendar description to reflect the name of the new recommending body.

#4442 James A. Moore Major Entrance Scholarship – A \$10,000 Major Entrance Scholarship is offered annually by The James A. and Donna-Mae Moore Foundation to a student entering the Faculty of Science with the highest academic achievement in Mathematics, having graduated from a High School outside of the Lower Mainland and expressed an interest in pursuing a career in teaching. Mr. Moore was an alumnus of UBC, Double Honours Baccalaureate Degree in Mathematics and Chemistry 1932, Master of Arts, 1939. An enthusiastic teacher and pioneer of the BC Community College System, he dedicated his career to helping students realize their academic potential. The successful candidate will be selected by the Major Entrance Scholarship Selection Committee.

Rationale for Proposed Changes – Type of Action: the donor has requested that we remove the renewable language from the award description; the donor has also requested that the top academic student in Mathematics receives the award each year, and that the recipients must have attended a secondary school outside of the Lower Mainland. The latter change is in particular to recognize that accessibility and cost of attendance to UBC for students outside of the Lower Mainland are substantial.

Appendix B: Curriculum Report

FACULTY OF EDUCATION

New courses

KIN 390 (3) Human Functional Musculoskeletal Anatomy; KIN 425 (3) Aging, Health, and the Body; KIN 456 (3) Field Experiences in Physical Education Settings

FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

New and revised courses; and discontinued program.

Dentistry

DENT 777 (1) Interdisciplinary Graduate Seminars: Interdisciplinary Treatment Planning I;
DENT 778 (1) Interdisciplinary Graduate Seminars: Interdisciplinary Treatment Planning II;
DENT 779 (2) Interdisciplinary Graduate Seminars: Interdisciplinary Treatment Planning III

Medicine

Medicine>Genetics Graduate Program; Graduate and Postdoctoral Studies>Degree Programs>Genetics.

18 November 2015

To: Vancouver Senate

From: Senate Academic Policy Committee

Re: **a. Revised Policy V-302.2: *Graduate Student Leaves of Absence***
b. Revisions to Regulations for Doctoral Dissertations

a. Revised Policy V-302.2: *Graduate Student Leaves of Absence*

The Senate Academic Policy Committee has reviewed the revised policy on graduate student leaves of absence forwarded to it by the Faculty of Graduate and Postdoctoral Studies and deems the revisions as ready for approval.

The revisions clarify the denial of access to University facilities and resources while a graduate student is on a leave of absence and brings the policy in line with current practice and intent. Notation was added to indicate that appropriate supporting documentation may be required for all types of leave. In addition, the definition of a professional leave was expanded and clarified.

The attached Calendar statement, which follows the updated policy, outlines the specific changes.

The following is recommended to Senate:

Motion: *“That the revised policy and Calendar language for Policy V-302.2: Graduate Student Leaves of Absence be approved.”*

b. Revisions to Regulations for Doctoral Dissertations

The Senate Academic Policy Committee has reviewed the revised regulations on final oral examinations and dissertation defenses for doctoral students forwarded to it by the Faculty of Graduate and Postdoctoral Studies and deems the revisions as ready for approval.

The revisions to the timelines reflect current practice. A provision has been added to allow students to request an exemption from the routine announcement of doctoral

defenses on the Graduate and Postdoctoral Studies website due to safety-related concerns. In such a case, the defense would still be open for the public to attend.

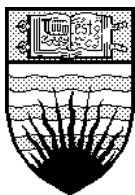
The following is recommended to Senate:

Motion: *“That the revised regulations on final oral examinations and dissertation defenses for doctoral students be approved.”*

Respectfully submitted,

Dr. Paul Harrison, Chair
Senate Academic Policy Committee

THE UNIVERSITY OF BRITISH COLUMBIA

SENATE POLICY:
V-302.2

VANCOUVER SENATE
c/o Enrolment Services
2016 - 1874 East Mall
Vancouver, B.C. Canada V6T 1Z1

Number & Title

V-302.2: *Graduate Student Leaves of Absence*

Effective Date:

2 January 2013

Approval Date:

October 2012

Amended November 2015

Review Date:

This policy shall be reviewed two (2) years after approval and thereafter as deemed necessary by the *responsible committee*.

Responsible Committee:

Vancouver Senate Academic Policy Committee

Authority:

University Act, S. 37(1)

“The academic governance of the university is vested in the senate and it has the following powers:

...(p) to deal with all matters reported by the faculties, affecting their respective departments or divisions;...”
and,

S. 40

“A faculty has the following powers and duties:

...(g) to deal with and, subject to an appeal to the senate, to decide on all applications and memorials by students and others in connection with their respective faculties;

(h) generally, to deal with all matters assigned to it by the board or the senate...”

Purpose and Goals:

This policy provides a mechanism for graduate students to temporarily interrupt their *course of study* and remain registered in the program for reasons including: parental responsibilities; health reasons; professional and employment reasons; personal reasons; or, to pursue a second *course of study*. The goal is to support students as they balance their academic pursuits and the other demands of life, as well as to ensure consistency of approach.

Applicability:

This policy applies to students currently registered in graduate programs at the University of British Columbia, including those administered by faculties other than the Faculty of Graduate and Postdoctoral Studies.

Exclusions:

This policy does not apply to:

- 1) Students enrolled in the Pharm.D. program; and,
- 2) Students in undergraduate programs including the M.D., J.D. and D.M.D. programs. N.B. – Students in dual degree programs (e.g., M.D./Ph.D.) may be eligible, through discussion with both programs.

Definitions:

For the purposes of this policy and in all other policies in which they are not otherwise defined:

- *Clinician* shall mean a physician, psychologist, or a registered clinical counselor.
- *Course of study* shall mean the academic program in which the student is registered.
- *Leave of Absence* shall mean a period of time during which a student has received permission to suspend his or her *course of study*.
- *On-leave* shall mean the registration status of students while on an approved *leave of absence*.

Policy:

- 1) A graduate student who finds it necessary for parental, health, personal, professional or academic reasons, as outlined later in this policy, to interrupt his or her studies may apply for a *leave of absence*. Responsibility for approving a *leave of absence* rests with the Dean of the Faculty of Graduate and Postdoctoral Studies; or, in the case of programs not administered by the Faculty of Graduate and Postdoctoral Studies, with their respective Deans.
- 2) A *leave of absence* will normally begin on the first day of September, January, or May.
- 3) *Leaves of absence* will be granted for periods of four (4), eight (8), or twelve (12) months.
- 4) The total duration of all *leaves of absence* granted in a graduate program is normally limited to 24 months for a doctoral student and to 12 months for a master's student, except for Leave to Pursue a Second Program of Study.
- 5) While on a *leave of absence*, graduate students must pay an on-leave fee.
- 6) While on a *leave of absence*, graduate students are expected to not undertake any academic or research work related to the program for which they have taken a *leave of absence*. Access to the University's facilities and resources, including faculty supervision, while on a *leave of absence* may be limited. Consult the Faculty of Graduate and Postdoctoral Studies website for current information in that regard.
- 7) Graduate students must inform their program of their intent to return from a *leave of absence* prior to recommencing their studies.
- 8) Time spent on *leave of absence* is not counted as part of the allowed time to complete a degree.

Awards and Fellowships for Students with On-Leave Status

- 9) A graduate student granted a *leave of absence* retains the full value of any fellowship or other award for which the terms and conditions are established by the Faculty of Graduate and Postdoctoral Studies; award payments will be suspended at the onset of the *leave of absence* and will resume at the termination of

the leave period, provided that the student returns to full-time study at that time.

- 10) Awards for which the terms and conditions are not established by the Faculty of Graduate and Postdoctoral Studies will be paid according to the terms and conditions established by the donor or granting agency.

Categories of Leaves of Absence

11) Parental Leave

- a. A graduate student who is bearing a child or who has primary responsibility for the care of an infant or young child is eligible for parental leave. Appropriate supporting documentation may be required.
- b. Parental leave is normally limited to 12 months per childbirth or adoption (including multiples).
- c. Where possible, a student enrolled in coursework should coordinate his or her *leave of absence* to coincide with the first day of September, January, or May.

12) Leave for Health Reasons

- a. A graduate student who encounters a health problem that significantly interferes with the ability to pursue his or her *course of study* is eligible for a leave for health reasons.
- b. Requests for a leave for health reasons must be accompanied by appropriate supporting documentation from the *clinician* providing primary care for the health problem.
- c. A leave for health reasons is normally limited to 12 months.
- d. Prior to being allowed to return to his or her studies, a student returning to study after a leave for health reasons may be required to produce specific documentation from his or her *clinician* confirming that he or she has recovered sufficiently to return from leave and resume his or her *course of study*.

13) Professional Leave

- a. A graduate student who wishes to suspend his or her *course of study* in order to take a relevant work or professional development experience may be eligible for professional leave. Appropriate

supporting documentation may be required.

- b. Professional leave is normally limited to 12 months.

14) *Personal Leave*

- a. A graduate student who encounters personal circumstances that significantly interfere with the ability to pursue his or her *course of study* may be eligible for personal leave.
- b. Requests for a leave for personal reasons must be accompanied by appropriate supporting documentation.
- c. Personal leave is normally limited to 12 months.

15) *Leave to Pursue a Second Program of Study*

- a. Following consultation with his or her program advisor and graduate supervisor, a graduate student may apply for a *leave of absence* from one program to pursue a second *course of study*.
- b. While on a leave to pursue a second *course of study*, the graduate student is responsible for the on-leave fees as well as any tuition or other fees associated with the second program.
- c. Leave to pursue a second *course of study* may exceed 12 months.

Calendar Statement:

As per the Applicability, Exclusions and Policy Sections above.

Consultations

The following groups have been consulted during the development of this policy:

Access & Diversity, Counseling Services, Enrolment Services, Faculties, Legal Counsel, Office of the Ombudsperson for Students, Office of the Vice-President, Academic

History:

The policy on graduate student On-Leave Status has been subject to amendments from time to time as exhibited in the archive of Academic Calendars. At the 11 September 1991 meeting of the Vancouver Senate parental leave was added as a special leave category for graduate students and regular leave for doctoral students

was reduced from two years to one. The policy was again revised in 2012 to clarify the types of leave available and add information about the total duration of leaves granted in a graduate program. At this point, it was also renamed “Graduate Student Leaves of Absence.” In 2015, the policy was revised in order to clarify the denial of access to University facilities and resources while on a leave of absence in order to be in line with current practice and intent. Notation was added to indicate that appropriate supporting documentation may be required for all types of leave. The definition of a professional leave was expanded and clarified.

Related Policies:

Academic Concession

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,48,0,0>

Academic Leave

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,289,0,0>

Letter of Permission to Study at another Institution

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,47,0,0>

Graduate Student Parental Accommodation Policy

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,342,1510>

Senate Appeals on Academic Standing

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,53,0,0>

Appendix:

There is no appendix to this policy.

UBC Curriculum Proposal Form Change to Course or Program

Category: (1 or 2)

Faculty: G+PS Department: Faculty Approval Date: 2015/10/08 Effective Session (W or S): Effective Academic Year:	Date: 2015-10-21 Contact Person: Dr. Porter Phone: Email:
Proposed Calendar Entry: <i>On-Leave Status</i> [20201] Graduate Student Leaves of Absence [20189] This policy, <u>V-302: Graduate Student Leaves of Absence</u> , applies to students currently registered in graduate programs at the University of British Columbia, including those administered by faculties other than the Faculty of Graduate and Postdoctoral Studies. [20190] This policy does not apply to students enrolled in the Pharm.D. program or students in undergraduate programs including the M.D., J.D., and D.M.D. programs. [20191] Students in dual degree programs (e.g., M.D./Ph.D.) may be eligible, through discussion with both programs. [20192] A graduate student who finds it necessary for parental, health, personal, professional, or academic reasons, as outlined below, to interrupt his or her studies may apply for a leave of absence. Responsibility for approving a leave of absence rests with the Dean of the Faculty	URL: http://www.calendar.ubc.ca/vancouver/prooff/edit/index.cfm?tree=12,204,341,191#20201 Present Calendar Entry: <i>On-Leave Status</i> [20201] Graduate Student Leaves of Absence [20189] This policy, <u>V-302: Graduate Student Leaves of Absence</u> , applies to students currently registered in graduate programs at the University of British Columbia, including those administered by faculties other than the Faculty of Graduate and Postdoctoral Studies. [20190] This policy does not apply to students enrolled in the Pharm.D. program or students in undergraduate programs including the M.D., J.D., and D.M.D. programs. [20191] Students in dual degree programs (e.g., M.D./Ph.D., D.M.D./Ph.D. , J.D./M.A.A.P.P.S.) may be eligible, through discussion with both programs. [20192] A graduate student who finds it necessary for parental, health, personal, professional, or academic reasons, as outlined below, to interrupt his or her studies may apply for a leave of absence. Responsibility for approving a leave of

of Graduate and Postdoctoral Studies; or, in the case of programs not administered by the Faculty of Graduate and Postdoctoral Studies, with their respective Deans.

...

[20197] While on a leave of absence, graduate students **are expected to** not undertake any academic or research work related to the program for which they have taken a leave of absence. **Access to the University's facilities and resources, including faculty supervision, while on a leave of absence may be limited. Consult the Faculty of Graduate and Postdoctoral Studies website for current information in that regard.**

[20198] Graduate students must inform their program of their intent to return from a leave of absence prior to recommencing their studies.

[20199] Time spent on leave of absence is not counted as part of the allowed time to complete a degree.

...

[20204] Categories of Leaves of Absence

[20205] Parental Leave

[20206] A graduate student who is bearing a child or who has primary responsibility for the care of an infant or young child is eligible for parental leave. **Appropriate supporting documentation may be required.**

absence rests with the Dean of the Faculty of Graduate and Postdoctoral Studies; or, in the case of programs not administered by the Faculty of Graduate and Postdoctoral Studies, with their respective Deans.

...

[20197] While on a leave of absence, graduate students ~~shall not use any of the University's facilities or resources, or in any other way~~ undertake any academic or research work related to the program for which they have taken a leave of absence.

[20198] Graduate students must inform their program of their intent to return from a leave of absence prior to recommencing their studies.

[20199] Time spent on leave of absence is not counted as part of the allowed time to complete a degree.

...

[20204] Categories of Leaves of Absence

[20205] Parental Leave

[20206] A graduate student who is bearing a child or who has primary responsibility for the care of an infant or young child is eligible for parental leave.

[20207] Parental leave is normally limited to 12 months per childbirth or adoption (including multiples).

[20246] See also Graduate Student Parental Accommodation Policy.

[20208] Where possible, a student enrolled in coursework should coordinate his or her leave of absence to coincide with the first day of September, January, or May.

[20207] Parental leave is normally limited to 12 months per childbirth or adoption (including multiples).

[20246] See also Graduate Student Parental Accommodation Policy.

[20208] Where possible, a student enrolled in coursework should coordinate his or her leave of absence to coincide with the first day of September, January, or May.

...

[20214] Professional Leave

[20215] A graduate student who wishes to suspend his or her course of study in order to take a relevant work or professional development experience may be eligible for professional leave.

Appropriate supporting documentation may be required.

[20216] Professional leave is normally limited to 12 months.

[20217] Personal Leave

[20218] A graduate student who encounters personal circumstances that significantly interfere with the ability to pursue his or her course of study may be eligible for personal leave.

Request for a leave for personal reasons must be accompanied by appropriate supporting documentation.

[20219] Personal leave is normally limited to 12 months.

...

...

[20214] Professional Leave

[20215] A graduate student who wishes to suspend his or her course of study in order to undertake professional work relevant to his or her program may be eligible for professional leave.

[20216] Professional leave is normally limited to 12 months.

[20217] Personal Leave

[20218] A graduate student who encounters personal circumstances that significantly interfere with the ability to pursue his or her course of study may be eligible for personal leave.

[20219] Personal leave is normally limited to 12 months.

...



UBC Policy Proposal Form

Change to Calendar

<p>Faculty: Faculty of Graduate and Postdoctoral Studies</p> <p>Department: N/A</p> <p>Faculty Approval Date: 8 October 2015</p> <p>Effective Session (W or S): Winter</p> <p>Effective Academic Year: 2015</p>	<p>Date: 8 October 2015</p> <p>Contact Person: Dr. Larry Walker (Associate Dean, Policy and Program Review)</p> <p>Phone: 604-827-5546</p> <p>Email: lawrence.walker@ubc.ca</p>
<p>Examinations, Master's Theses, and Doctoral Dissertations</p> <p>Doctoral Students</p> <p>The doctoral student will take the following examinations:</p> <ol style="list-style-type: none"> 1. Course examinations where applicable. A minimum of 68% must be obtained unless otherwise specified. 2. Tests of the student's ability to read languages other than English where program regulations require it. 3. A comprehensive examination, normally held after completion of all required coursework. It is intended to test the student's grasp of the chosen field of study as a whole, and the student's ability to communicate his or her understanding of it in English or in French. The student's committee will set and judge this examination in a manner compatible with the policy of the graduate program concerned. Programs should make available to students a written statement of examination policy and procedures. The comprehensive examination is separate and distinct from the evaluation of the doctoral dissertation prospectus. <p>Note: A graduate program may require a formal</p>	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,342,617</p> <p>Examinations, Master's Theses, and Doctoral Dissertations</p> <p>Doctoral Students</p> <p>The doctoral student will take the following examinations:</p> <ol style="list-style-type: none"> 1. Course examinations where applicable. A minimum of 68% must be obtained unless otherwise specified. 2. Tests of the student's ability to read languages other than English where program regulations require it. 3. A comprehensive examination, normally held after completion of all required coursework. It is intended to test the student's grasp of the chosen field of study as a whole, and the student's ability to communicate his or her understanding of it in English or in French. The student's committee will set and judge this examination in a manner compatible with the policy of the graduate program concerned. Programs should make available to students a written statement of examination policy and procedures. The comprehensive examination is separate and distinct from the evaluation of the doctoral dissertation prospectus. <p>Note: A graduate program may require a formal</p>



<p>examination of the doctoral dissertation before it is transmitted to the Faculty of Graduate and Postdoctoral Studies for final oral examination.</p> <p>Students should consult their respective graduate program advisors for information about program requirements.</p> <p>All doctoral candidates are required to complete a doctoral dissertation which must be presented according to procedures described at Master's Thesis and Doctoral Dissertation Preparation and Submission. Students should consult the Faculty of Graduate and Postdoctoral Studies for information regarding deadlines for submission of doctoral dissertations.</p> <p>All doctoral students will take a final oral examination or doctoral dissertation defence:</p> <ol style="list-style-type: none"> 1. All doctoral dissertations must be assessed by an examiner external to the University, as well as by internal examiners. The external examiner is chosen by the Dean of the Faculty of Graduate and Postdoctoral Studies in consultation with the graduate program concerned. Procedures for choosing a suitable external examiner must be initiated at least two months before completion of the doctoral dissertation. The external examiner's written report must be received before the final examination can take place. 2. Final oral examinations can be scheduled no sooner than six weeks after submission of the approved doctoral dissertation to the Faculty of Graduate and Postdoctoral Studies. All other degree requirements must also have been completed. 3. The final oral examination is open to all members of the University and to the public. Once an examination has been booked by Graduate and Postdoctoral Studies, the following details will be made available on the Graduate and 	<p>examination of the doctoral dissertation before it is transmitted to the Faculty of Graduate and Postdoctoral Studies for final oral examination.</p> <p>Students should consult their respective graduate program advisors for information about program requirements.</p> <p>All doctoral candidates are required to complete a doctoral dissertation which must be presented according to procedures described at Master's Thesis and Doctoral Dissertation Preparation and Submission. Students should consult the Faculty of Graduate and Postdoctoral Studies for information regarding deadlines for submission of doctoral dissertations.</p> <p>All doctoral students will take a final oral examination or doctoral dissertation defence:</p> <ol style="list-style-type: none"> 1. All doctoral dissertations must be assessed by an examiner external to the University, as well as by internal examiners. The external examiner is chosen by the Dean of the Faculty of Graduate and Postdoctoral Studies in consultation with the graduate program concerned. Procedures for choosing a suitable external examiner must be initiated at least three months before completion of the doctoral dissertation. The external examiner's written report must be received before the final examination can take place. 2. Final oral examinations can be scheduled no sooner than eight weeks after submission of the approved doctoral dissertation to the Faculty of Graduate and Postdoctoral Studies. All other degree requirements must also have been completed. 3. The final oral examination is open to all members of the University and to the public. Notice of the examination will be available at the Faculty of Graduate and Postdoctoral Studies.
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Postdoctoral Studies webpage:
Candidate's full name, home department, degree program, dissertation title, and the date, time and location of the exam. Students with compelling safety-related concerns about this public announcement can request an exemption from the Dean of Graduate and Postdoctoral Studies.

4. The Dean of the Faculty of Graduate and Postdoctoral Studies must approve the membership of the examining committee. The Dean or the Dean's designate chairs the examination. The examining committee judges the candidate's success and makes a recommendation to the Dean of the Faculty of Graduate and Postdoctoral Studies.

More information on oral examination procedures is available at the [Final Doctoral Examination Guide](#). Students registered in a doctoral program are not permitted supplemental examinations.

4. The Dean of the Faculty of Graduate and Postdoctoral Studies must approve the membership of the examining committee. The Dean or the Dean's designate chairs the examination. The examining committee judges the candidate's success and makes a recommendation to the Dean of the Faculty of Graduate and Postdoctoral Studies.

More information on oral examination procedures is available at the [Final Doctoral Examination Guide](#). Students registered in a doctoral program are not permitted supplemental examinations.

Type of Action:

Revise Senate policy and associated Calendar language regarding the doctoral dissertation defense in the "Examinations, Master's Theses, and Doctoral Dissertations" sub-section of the G+PS section of the Calendar.

Rationale for Proposed Change:

The timeline associated with the doctoral dissertation defense has been updated to accord with current practice.

Although the dissertation defense is a public event, provision is now made for the possibility of an exemption from its routine announcement.



4 November 2015

To: Vancouver Senate

From: Admissions Committee

Re: **a) Vantage College – Changes in Transition Requirements**
b) Graduate and Postdoctoral Studies – Changes in Admission Requirements
c) Land and Food Systems – Suspension of Admission
d) Land and Food Systems – Admission Requirements

a) Vantage College – Changes in Transition Requirements

The Committee has reviewed and recommends to Senate for approval the proposed changes to the transition to degree program requirements for UBC Vantage College students in the Arts stream. Effective for the 2016 Winter Session and thereafter, students in the Arts stream must pass all courses with an average of at least 60%. This change is to bring the Arts stream in line with all other Vantage program streams.

***Motion:** That Senate approve the changes to transition to degree program requirements for UBC Vantage College Students in the Arts stream, effective for the 2016 Winter Session and thereafter.*

b) Graduate and Postdoctoral Studies – Changes in Admission Requirements

The Committee has reviewed and recommends to Senate for approval the proposed changes to the admission requirements for applicants to Master's and Doctoral Degree Programs. Effective for entry to the 2016 Winter Session and thereafter, applicants may submit unofficial scanned copies of transcripts with their application. These changes benefit applicants by not requiring the submission of official documents until and unless they receive a conditional offer of admission from UBC and wish to accept it. This approach is increasingly common at other Canadian Universities and can allow for faster admission decisions and the creation of administrative efficiencies.

***Motion:** That Senate approve the changes to admission requirements for applicants to Master's and Doctoral Degree Programs, effective for entry to the 2016 Winter Session and thereafter.*



c) Land and Food Systems – Suspension of Admission

The Committee has reviewed and recommends to Senate for approval the proposed suspension of admission requirements to the International Nutrition Major within the Bachelor of Science in Food, Nutrition, and Health. Effective for the 2016 Winter Session and thereafter, the Food, Nutrition and Health program will no longer accept applicants to the International Nutrition Major. The calendar entry will remain for the benefit of the current students in the Major.

Motion: *That Senate approve the suspension of admission to the International Nutrition Major with the B.Sc. in Food, Nutrition, and Health, effective for the 2016 Winter Session and thereafter.*

d) Land and Food Systems – Admission Requirements

The Committee has reviewed and recommends to Senate for approval the admission requirements for applicants to the Faculty of Land and Food Systems through the UBC-Langara Aboriginal Transfer Partnership. Effective for the 2016 Winter Session and thereafter, Aboriginal students who meet the requirements will be eligible to transfer to UBC from Langara.

Motion: *That Senate approve the admission requirements for applicants to the Faculty of Land and Food Systems through the UBC-Langara Aboriginal Transfer Partnership, effective for the 2016 Winter Session and thereafter.*

Respectfully submitted,

Carol Jaeger
Vice-Chair, Senate Admissions Committee



UBC Admissions Proposal Form

Faculty: UBC Vantage College Department: Faculty Approval Date: Sept. 25, 2015 Effective Session (W or S): W Effective Academic Year: 2016	Date: Sept 23 rd , 2015 Contact Person: Joanne Fox Phone: 604-827-0339 Email: joanne.fox@ubc.ca
Proposed Calendar Entry: <i>Transition into UBC Degree Programs</i> [...] Arts Stream UBC Vantage College students in the Arts stream who pass all courses with an average of at least 60% will be eligible for year two of the B.A. degree program. Students who do not successfully complete the full UBC Vantage College program or who achieve an average lower than 60% in the full program will be reviewed on a case-by-case basis, where there is evidence of academic promise for study in Arts. Engineering Stream [...] Management Stream [...] Science Stream [...]	URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12.307.945.0 Present Calendar Entry: Transition into UBC Degree Programs [...] Arts Stream UBC Vantage College students in the Arts stream who have achieved 60% on 27 credits will be eligible for year two of the B.A. degree program. Students who do not successfully complete the full UBC Vantage College program or who achieve an average lower than 60% on 27 credits will be reviewed on a case-by-case basis, where there is evidence of academic promise for study in Arts. Engineering Stream [...] Management Stream [...] Science Stream [...] Type of Action: Update to calendar language. Rationale for Proposed Change: This update makes the 'transition into degree program' language for the Arts stream consistent with all other Vantage One program streams. This language also helps students by reinforcing that successful completion of the Vantage One program includes passing all courses in the program with an average of at least 60%.



UBC Admissions Proposal Form

<p>Faculty: Faculty of Graduate and Postdoctoral Studies</p> <p>Department: N/A</p> <p>Faculty Approval Date: 8 October 2015</p> <p>Effective Session: W</p> <p>Effective Academic Year: 2016</p>	<p>Date: 8 October 2015</p> <p>Contact Person: Dr. Jenny Phelps (Assistant Dean)</p> <p>Phone: (604) 822-2934</p> <p>Email: jenny.phelps@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>Master's Degrees</p> <p>...</p> <p>Required Documentation</p> <p>The following information is required for the application and admission process for the Faculty of Graduate and Postdoctoral Studies:</p> <ul style="list-style-type: none"> • Graduate Studies Application (online system). • Application fee. • Three confidential reference reports. Reports must be uploaded by the referees directly to the online application system, or sent by post (must contain original signature and be received in sealed envelopes endorsed by referees). • Transcripts/Academic Records. Upon initial application, applicants must provide copies of their academic records for all postsecondary institutions they have attended. These required records (and translations if necessary) may initially be provided as electronic copies of official documents which are uploaded by the applicant to the online application system. Some graduate programs may also require official paper documents to be submitted as part of the initial application process. Conditional admission offers may be made based on 	<p>Current Calendar Entry:</p> <p>http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,340,182</p> <p>Master's Degrees</p> <p>...</p> <p>Required Documentation</p> <p>The following information is required in support of an application to the Faculty of Graduate Studies:</p> <ul style="list-style-type: none"> • Graduate Studies Application (online or paper form) • Application fee • Three confidential reference reports. Reports must be uploaded by the referees directly to the online application system, or sent by post (must contain original signature and be received in sealed envelopes endorsed by referees) • Two sets of all official post-secondary academic records in original language and certified translation[‡] • Evidence of adequate English proficiency where applicable (TOEFL, IELTS, or MELAB are all acceptable) • Supplementary information as may be required by admitting graduate program (e.g. GRE, statement of intent, research proposal, etc.) <p>[‡] In the event that original transcripts cannot be attained by the applicant, attested, certified copies of originals are acceptable. To be considered official, academic records must be received in</p>



unofficial documents. However, admission offers will not be finalized and applicants will not be allowed to register in a graduate program until all required official academic records are received and validated by the University. To finalize an admission offer and allow registration, official transcripts must be received by the University for every postsecondary institution an applicant has attended, unless otherwise indicated to an individual applicant by Graduate & Postdoctoral Studies. To be considered official, academic records must either be received in official university envelopes, sealed and endorsed by the issuing institution, or be sent via secure electronic delivery by the issuing institution. If transcripts are not issued in English, official academic records in original language and certified English translation are required (if originals cannot be obtained by applicant, then attested, certified copies of originals are acceptable). If the official transcript does not indicate the degree name and the degree conferral date, an official copy of the degree certificate is required.

- Evidence of adequate English proficiency where applicable (TOEFL, IELTS, or MELAB are all acceptable).
- Supplementary information as may be required by admitting graduate program (e.g. GRE, statement of intent, research proposal, etc.).

Types of Admission Offers

Admission to the master's program will be in one of the following categories:

1. **Unconditional admission.** Granted when the applicant meets all admission requirements and all final official documentation has been received. Applicants who have a bachelor's degree, or its academic equivalent, which does not meet the requirements stated above, but

~~official university envelopes, sealed and endorsed by the issuing institution.~~

Types of Admission Offers

Admission to the master's program will be in one of the following categories:

1. **Unconditional admission.** Granted when the applicant meets all admission requirements and all final official documentation has been received. Applicants who have a bachelor's degree, or its academic equivalent, which does not meet the requirements stated above, but who have had significant formal training and relevant professional experience to offset such deficiencies, may be granted admission on the recommendation of the appropriate graduate program or faculty and approval of the Dean of the Faculty of Graduate Studies.
2. **Conditional admission.** Contains condition(s) that must be met before an offer can be considered final. Such conditions may include final documentation showing degree conferred, ~~submission of academic records from previous institutions,~~ or completion of the terms of the Conditional Admission Program. The Letter of Admission stipulates ~~deadline dates~~ as to when the conditions must be met. Failure to ~~comply with a~~ condition will normally result in a student being required to withdraw from the program.

On the recommendation of the graduate program, a student with a bachelor's degree who lacks prerequisites for a chosen field of study may be allowed to register as a "qualifying" student for a period of no more than one year. Satisfactory completion of a qualifying term or year does not guarantee admission to a graduate program. Qualifying status is granted to students only at the recommendation of the graduate program. Qualifying students are not considered graduate students.



<p>who have had significant formal training and relevant professional experience to offset such deficiencies, may be granted admission on the recommendation of the appropriate graduate program or faculty and approval of the Dean of the Faculty of Graduate and Postdoctoral Studies.</p> <p>2. Conditional admission. Contains condition(s) that must be met before an offer can be considered final. Such conditions may include the provision of official transcripts or other academic records, final documentation showing degree conferred, or completion of the terms of the Conditional Admission Program. Admission offers will not be finalized and an applicant will not be allowed to register in a graduate program until the University receives and validates required official documentation which substantiates scanned documents previously submitted in the online system. The Letter of Admission stipulates deadlines as to when the conditions must be met. Failure to meet an admission condition by stated deadlines will normally result in an admission offer being revoked, or a student being required to withdraw from the program.</p> <p>On the recommendation of the graduate program, a student with a bachelor's degree who lacks prerequisites for a chosen field of study may be allowed to register as a "qualifying" student for a period of no more than one year. Satisfactory completion of a qualifying term or year does not guarantee admission to a graduate program. Qualifying status is granted to students only at the recommendation of the graduate program. Qualifying students are not considered graduate students.</p>	
<p>Proposed Calendar Entry:</p> <p>Doctoral Degrees</p>	<p>Current Calendar Entry:</p> <p>http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,340,181</p> <p>Doctoral Degrees</p>



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Required Documentation

The following information is required **for the** application **and admission process for** the Faculty of Graduate and Postdoctoral Studies:

- Graduate Studies Application (online **system**).
- Application fee.
- Three confidential reference reports. Reports must be uploaded by the referees directly to the online application system, or sent by post (must contain original signature and be received in sealed envelopes endorsed by referees).
- **Transcripts/Academic Records. Upon initial application, applicants must provide copies of their academic records for all postsecondary institutions they have attended. These required records (and translations if necessary) may initially be provided as electronic copies of official documents which are uploaded by the applicant to the online application system. Some graduate programs may also require official paper documents to be submitted as part of the initial application process. Conditional admission offers may be made based on unofficial documents. However, admission offers will not be finalized and applicants will not be allowed to register in a graduate program until all required official academic records are received and validated by the University. To finalize an admission offer and allow registration, official transcripts must be received by the University for every postsecondary institution an applicant has attended, unless otherwise indicated to an individual applicant by Graduate & Postdoctoral Studies. To be considered official, academic records must either be received in official university envelopes, sealed and endorsed by the issuing**

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Required Documentation

The following information is required **in support of** ~~an~~ application ~~to~~ the Faculty of Graduate and Postdoctoral Studies:

- Graduate Studies Application **Form** (online ~~or paper form~~).
- Application fee.
- Three confidential reference reports. Reports must be uploaded by the referees directly to the online application system, or sent by post (must contain original signature and be received in sealed envelopes endorsed by referees).
- ~~Two sets of all official post-secondary academic records in original language and certified translation (if originals cannot be attained by applicant, then attested, certified copies of originals are acceptable). To be considered official, academic records must be received in official university envelopes, sealed and endorsed by the issuing institution.~~
- Evidence of adequate English proficiency where applicable (TOEFL, IELTS, or MELAB are all acceptable).
- Supplementary information as may be required by admitting graduate program (e.g. GRE, statement of intent, research proposal, etc.)

Admission

Admission to the Ph.D., D.M.A. or Ed.D. program will be in one of the following categories:

1. **Unconditional admission.** Granted when the applicant meets all admission requirements and all final official documentation has been received. Applicants who have a bachelor's degree, or its academic equivalent, which does not meet the requirements stated above, but



institution, or be sent via secure electronic delivery by the issuing institution. If transcripts are not issued in English, official academic records in original language and certified English translation are required (if originals cannot be obtained by applicant, then attested, certified copies of originals are acceptable). If the official transcript does not indicate the degree name and the degree conferral date, an official copy of the degree certificate is required.

- Evidence of adequate English proficiency where applicable (TOEFL, IELTS, or MELAB are all acceptable).
- Supplementary information as may be required by admitting graduate program (e.g. GRE, statement of intent, research proposal, etc.).

Types of Admission Offers

Admission to the Ph.D., D.M.A. or Ed.D. program will be in one of the following categories:

1. **Unconditional admission.** Granted when the applicant meets all admission requirements and all final official documentation has been received. Applicants who have a bachelor's degree, or its academic equivalent, which does not meet the requirements stated above, but who have had significant formal training and relevant professional experience to offset such deficiencies, may be granted admission on the recommendation of the appropriate graduate program or faculty and approval of the Dean of the Faculty of Graduate and Postdoctoral Studies.
2. **Conditional admission.** Contains condition(s) that must be met before an offer can be considered final. Such conditions may include the provision of official transcripts or other academic records, final documentation showing degree conferred, or completion of the terms of the [Conditional Admission Program](#). Admission offers will not be

who have had significant formal training and relevant professional experience to offset such deficiencies, may be granted admission on the recommendation of the appropriate graduate program or faculty and approval of the Dean of the Faculty of Graduate and Postdoctoral Studies.

2. **Conditional admission.** Contains condition(s) that must be met before an offer can be considered final. Such conditions may include final documentation showing degree conferred, ~~submission of academic records from previous institutions~~, or completion of the terms of the Conditional Admission Program. The Letter of Admission stipulates ~~deadline dates~~ as to when the conditions must be met. Failure to ~~comply with a~~ condition will normally result in a student being required to withdraw from the program.



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<p>finalized and an applicant will not be allowed to register in a graduate program until the University receives and validates required official documentation which substantiates scanned documents previously submitted in the online system. The Letter of Admission stipulates deadlines as to when the conditions must be met. Failure to meet an admission condition by stated deadlines will normally result in an admission offer being revoked, or a student being required to withdraw from the program.</p>	
	<p>Type of Action:</p> <p>Change to wording of calendar entry regarding documentation required for applications to Graduate Studies and categories of admission.</p> <p>Rationale for Proposed Change:</p> <p>In 2012, the Faculty embarked on a business process review for the purpose of streamlining the graduate application and admission process and enabling the delegation of authority to admit students to individual graduate programs. This “BPR” established the parameters of a new approach to graduate admissions, which includes allowing applicants to provide electronic versions (scans in .pdf form) of required documents (such as transcripts, degree certificates and translations of these) as uploads in a new application system. Conditional offers of admission will be granted based on these scanned documents. Students who wish to take up their offer of admission will be required to submit official paper documents prior to the beginning of their program, and their ability to register in the program will be blocked until all required official paper documentation is received and validated.</p> <p>This approach was validated as increasingly common at comparator universities, including University of Toronto and University of Alberta, among others.</p> <p>This approach benefits applicants by not requiring</p>

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	<p>them to submit official documents (a lengthy and expensive process for some) until and unless they receive a conditional offer of admission from UBC and wish to accept it. Using scanned documents can allow for faster admission decisions to be made, since all necessary materials arrive in digital form and can be evaluated immediately. It likewise can create administrative efficiencies by creating fully digital files for review and eliminating management of paper documents for applicants that are not competitive for entry.</p>
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UBC Curriculum Proposal Form Change to Course or Program

Category: 1

<p>Faculty: Land and Food Systems Department: Food, Nutrition, & Health Faculty Approval Date: Oct 15/15 Effective Session (W or S): W Effective Academic Year: 2016</p>	<p>Date: September 29, 2015 Contact Person: Zhaoming Xu Phone: (604) 822-6253 Email: zxu@ubc.ca</p>
<p>Proposed Calendar Entry: Spring: 2016</p> <p><i>International Nutrition Major</i></p> <p>The Food, Nutrition and Health program is no longer accepting applications for admission to the International Nutrition Major. The information below is for the benefit of students currently in the Major.</p> <p>The International Nutrition Major is focused on human nutrition, with an emphasis on application in international settings. Core and specialized Food, Nutrition and Health courses are complemented by a unique international field studies course, which allows students to integrate theory and practice. Students also benefit from an interdisciplinary education by completing elective coursework in health and human services, political science, economics, anthropology, sociology, geography, or other approved selections. The Major prepares students for employment in a range of fields, including development, health, and education, and also provides the background to pursue graduate or professional studies.</p> <p>...</p>	<p>URL:(http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,261,1512) Present Calendar Entry:</p> <p><i>International Nutrition Major</i></p> <p>The International Nutrition Major is focused on human nutrition, with an emphasis on application in international settings. Core and specialized Food, Nutrition and Health courses are complemented by a unique international field studies course, which allows students to integrate theory and practice. Students also benefit from an interdisciplinary education by completing elective coursework in health and human services, political science, economics, anthropology, sociology, geography, or other approved selections. The Major prepares students for employment in a range of fields, including development, health, and education, and also provides the background to pursue graduate or professional studies.</p> <p>...</p> <p>Type of Action: Inserting a new statement to inform students that there will be no admission to the major.</p> <p>Rationale for Proposed Change: There are four factors related to restricting admission to the International Nutrition major:</p> <ol style="list-style-type: none"> (1) As part of a revision of the Nutrition curriculum in the Food, Nutrition, and Health program that will be implemented in 2016/17, International Nutrition will no longer be offered as a separate major. Instead, the Nutrition major will be restructured to provide all Nutrition students with a strong core of nutrition and related courses, and allow for electives to focus in related areas, such as International nutrition. (2) There is one instructor who specializes in International nutrition, which is inadequate to support a separate major. (3) The International Major has failed to attract an adequate number of students (<10 per year) (4) The Faculty is not able to provide pre-departure training for the field study (a required course for the International Nutrition major) now that the International Service Learning (ISL) Program at Student Services has been terminated.



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UBC Curriculum Proposal Form Change to Course or Program

Category: (2)

<p>Faculty: Land and Food Systems Department: Student Services Faculty Approval Date: Oct 15/15 Effective Session (W or S): W Effective Academic Year: 2016</p>	<p>Date: Oct 7, 2015 Contact Person: Christine Scaman Phone: 2-1804 Email: Christine.scaman@ubc.ca</p>
<p>Proposed Calendar Entry: (40 word limit for course descriptions)</p> <p>Admission [...]</p> <p>UBC Langara Aboriginal Transfer Partnership</p> <p>To be eligible to transfer to UBC into the Faculty of Land and Food Systems through this partnership [Link to http://transfer.aboriginal.ubc.ca/admissions/], Aboriginal students must meet the general requirements for admission as a post-secondary transfer student [Link to http://you.ubc.ca/admissions/post-secondary-studies/] as well as the following specific requirements:</p> <ul style="list-style-type: none"> ② Successful completion of at least 48 (and no more than 60) credits (within the last four years). Students who present at least 54 credits, and have completed all first-year requirements (with the exception of LFS 100), may be eligible for third-year standing ② An academic average of 2.67¹ or greater on the most recent 30 credits of transferable courses attempted, including failed and retaken courses ② Completion of required high school academic pre-requisites. In some cases, university transferable coursework may satisfy these pre-requisites. ② Successful completion of the Transition Plan offered by Langara in collaboration with 	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,194,793,0</p> <p>Present Calendar Entry: Admission Application for admission to the Faculty of Land and Food Systems must be made through Enrolment Services. Procedures, policies, and admission requirements for the University of British Columbia and the Faculty of Land and Food Systems are specified in Admissions. Approved examinable Grade 11 and 12 courses are listed at you.ubc.ca/admissions/. Students may find it to their advantage to present credit for as many of Biology 12, Chemistry 12, and Physics 12 as possible. Students admitted to the Faculty of Land and Food Systems by transfer from other post-secondary institutions must have met the Communication requirement of the Faculty or be eligible to enrol in first-year English at the time of admission.</p> <p>Advising Office The Land and Food Systems Academic Advising Office (Student Services) is located in Room 344, MacMillan Building, 2357 Main Mall. The office can be reached by telephone at 604.822.2620 or by email at students@landfood.ubc.ca. For office hours, please visit us online.</p> <p>Type of Action: Addition of the UBC Langara Aboriginal Transfer Partnership information</p>



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2 Consultation with the LFS Aboriginal Student Coordinator [Link to <http://www.landfood.ubc.ca/academics/undergraduate/prospective-students/?login>] on course selection while at Langara. Applicants who do not meet these requirements may be considered for admission as a transfer student [Link to <http://you.ubc.ca/admissions/post-secondary-studies/>] and can be considered through UBC's Aboriginal Admissions Policy. [Link to <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,14,0,0#14261>]

For more information about the UBC Langara Partnership, please visit the website. [Link to <http://transfer.aboriginal.ubc.ca/admissions/>]

¹ If in a particular year the competitive admission criteria is lower than 2.67, then the applicants in that year will be evaluated against the lower admission criteria.

Advising Office

[...]

Rationale for Proposed Change:

Land and Food Systems is a participant in the agreement between Langara and the UBC to facilitate transfer of Aboriginal students to UBC. As such the information on admission requirements must be added to the Faculty admission page

9 October 2015

From: Senate Awards Committee

To: Senate

Re: New Awards and Changes to Existing Awards (September 2015)

The Awards Committee recommends:

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

AQUILINI Family Aboriginal Awards in Business – Awards totalling \$40,000 are offered annually to students enrolled in the Ch’nook Aboriginal Management Program and Ch’nook Scholars Program at the Sauder School of Business. Consideration will be based on a combination of financial need, academic performance, life experience and extracurricular and community involvement. Preference will be given to First Nations students from Tsawwassen, Tsleil-Waututh, Sumas, Musqueam, and Squamish. The award is made on the recommendation of the Sauder School of Business. (First Award Available in the 2015/2016 Winter Session)

COORDINATED International Experience Award – Awards valued up to \$1,000 each have been made available by the Faculty of Applied Science for students who have been accepted into the Coordinated International Exchange (CIE) program. The awards are available to third or fourth-year students in the Bachelor of Applied Science program to support their travel expenses. The awards are made on the recommendation of the Faculty of Applied Science. (First Award Available in the 2015/2016 Winter Session)

CPABC Bill Johnson DAP Student Achievement Award – A \$1,750 award has been made available through an endowment established by the Chartered Professional Accountants of British Columbia (CPABC) and the Sauder School of Business to honour Bill Johnson, FCPA, FCGA, for his more than 35 years of service in support of accounting education and the accounting profession. The award is offered to a student enrolled in the Diploma in Accounting Program (DAP) who has achieved high academic standing in intermediate financial accounting courses, and has demonstrated both academic excellence throughout the Diploma and leadership through community service – each accomplishment is given equal weighting in selection. The award is made on the recommendation of the Sauder School of Business in consultation with the Diploma in Accounting Program. (First Award Available in the 2016/2017 Winter Session)

John M. S. LECKY Foundation Award in the Peter A. Allard School of Law – A \$2,000 award is offered annually by the John M. S. Lecky Foundation for students in their 2nd year in the JD program who have achieved a minimum percentage of 72% and are the best qualified in

terms of academic merit and financial need. The award is made on the recommendation of the Peter A. Allard School of Law. (First Award Available in the 2015/2016 Winter Session)

John M. S. LECKY Foundation Award in the Sauder School of Business – A \$2,000 award is offered annually by the John M. S. Lecky Foundation for students in their 2nd year in the Sauder School of Business who have achieved a minimum percentage of 72% and are the best qualified in terms of academic merit and financial need. The award is made on the recommendation of the Sauder School of Business. (First Award Available in the 2015/2016 Winter Session)

John M.S. LECKY Foundation Masters of Health Science Award – A \$2,000 award is offered annually by the John M. S. Lecky Foundation for students in the Masters of Health Science program who have achieved a minimum percentage of 72% and are the best qualified in terms of academic merit and financial need. Recommendations are made by the School of Population and Public Health, in consultation with the Faculty of Graduate and Postdoctoral Studies. (First Award Available in the 2015/2016 Winter Session)

MAHARAJ & Co. Award in Accounting – A \$2,000 award is offered annually by Maharaj & Co. and supported by the Chartered Professional Accountants' Education Foundation of BC for a student entering third or fourth year of the Accounting option in the Bachelor of Commerce Program in the Sauder School of Business. Preference is given to a student with demonstrated financial need and demonstrated community involvement who has expressed intention to become a Chartered Professional Accountant and to enter the CPA Western School of Business immediately after graduation. The award is made on the recommendation of the Sauder School of Business. (First Award Available in the 2015/2016 Winter Session)

MAHARAJ & Co. Scholarship in Accounting – A \$2,000 scholarship is offered annually by Maharaj & Co. and supported by the Chartered Professional Accountants' Education Foundation of BC for a student entering third or fourth year of the Accounting option with excellent academic standing in the Bachelor of Commerce Program in the Sauder School of Business. Preference will be given to a student with demonstrated community involvement who has expressed intention to become a Chartered Professional Accountant and to enter the CPA Western School of Business immediately after graduation. The award is made on the recommendation of the Sauder School of Business. (First Award Available in the 2015/2016 Winter Session)

NEW Coast Realty Award in Urban Land Economics and Real Estate – A \$5,000 award is offered annually by New Coast Realty to an outstanding undergraduate student who is enrolled in the Real Estate option in the Bachelor of Commerce Program at the Sauder School of Business and who demonstrates scholarship, leadership and community or student involvement. The award honours New Coast Realty's commitment to Real Estate education in British Columbia.

The award is made on the recommendation of the Sauder School of Business. (First Award Available in the 2015/2016 Winter Session)

NEW Coast Realty Prize in Urban Land Economics and Real Estate – A \$5,000 prize is offered annually by New Coast Realty to a graduating undergraduate student who has received the highest academic standing in the Real Estate option in the Bachelor of Commerce Program at the Sauder School of Business. The award honours New Coast Realty's commitment to Real Estate education in British Columbia. The award is made on the recommendation of the Sauder School of Business. (First Award Available in the 2015/2016 Winter Session)

NEW Coast Realty Scholarship in Urban Land Economics and Real Estate – A \$5,000 scholarship is offered annually by New Coast Realty to an undergraduate student who has received the highest academic achievement in their 3rd year of the Real Estate option in the Bachelor of Commerce Program at the Sauder School of Business. The award honours New Coast Realty's commitment to Real Estate education in British Columbia. The award is made on the recommendation of the Sauder School of Business. (First Award Available in the 2015/2016 Winter Session)

Science Co-op - International Work Term Award – Awards totaling \$15,000 are offered annually by the Faculty of Science for students undertaking work terms outside of Canada. The award is intended to encourage students to participate in international work terms or internship opportunities. The awards provide partial funding for relocation costs for work term students who are not paid relocation assistance by their employer and who earn a monthly salary below a threshold limit. Students must meet the eligibility criteria as determined by the Faculty of Science Co-op Program. Awards are made on the recommendation of the Faculty of Science. (First Award Available in the 2015/2016 Winter Session)

Robert Miles WEBSTER Annual Baseball Award – Awards totalling \$20,000, which range from a minimum value of \$500 each to the maximum allowable under athletic regulations, are offered annually through a bequest by the late Robert Miles Webster to outstanding members of the Thunderbird Baseball team in any year of study. The awards are offered in the name of Robert Miles Webster, a passionate baseball coach, fan and supporter of the Thunderbirds. The awards are made on the recommendation of the Athletic Awards Committee. (First Award Available in the 2015/2016 Winter Session)

Robert Miles WEBSTER Endowed Baseball Award – One or more awards, which 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 the late Robert Miles Webster for outstanding members of the Thunderbird Baseball Team in any year of study. The awards are offered in the name of Robert Miles Webster, a passionate baseball coach, fan and supporter of the Thunderbirds. The awards are made on the recommendation of the Athletic Awards Committee. (First Award Available in the 2015/2016 Winter Session)

Mo Lin YU Memorial Prize in the Faculty of Arts – A \$3,000 prize is offered annually by Simmon Yu, son of Mo Lin Yu, for the top academic student who has completed their second year in the Faculty of Arts at the University of British Columbia. This prize was created to honour the memory of Mo Ling Yu, the matriarch of the Yu family, who came to Canada in the 1980's. Mo Lin did not have the opportunity to study at UBC but always had a passion for learning and felt that young people should be encouraged in their endeavour to achieve academic excellence in higher education. The award is made on the recommendation of the Faculty of Arts. (First Award Available in the 2015/2016 Winter Session)

Previously-Approved Awards with Changes in Terms or Funding Source:

#441

Present Award Title and Description: John Snow Prize – A prize of \$100 ~~has been established~~ to commemorate the pioneering epidemiological research of Dr. John Snow in nineteenth century London, leading to the understanding and control of cholera. This prize is supported by donations from faculty members in the ~~Department of Health Care and Epidemiology~~ and is awarded to the student with the highest standing in the Epidemiology course ~~HCEP 502~~. The award is made on the recommendation of the ~~Department~~.

Proposed Award Title and Description: John Snow Prize – A prize of \$100 **is offered annually** to commemorate the pioneering epidemiological research of Dr. John Snow in nineteenth century London, leading to the understanding and control of cholera. This prize is supported by donations from faculty members in the **School of Population and Public Health**, and is awarded to the student with the highest standing in the Epidemiology course **SPPH502**. The award is made on the recommendation of the **School of Population and Public Health**.

Rationale for Proposed Changes – Type of Action: upon request from the Faculty of Medicine Development team, we have changed the calendar description to reflect the name of the new recommending body and relevant course; we added “offered annually” to comply with standard awards language for annual awards.

#2613

Present Award Title and Description: Graduating Class of Law 1967 Award – Awards totalling \$2200 have been ~~endowed~~ by the Class of Law 1967 for students in the Faculty of Law. Selection is based on academic achievement, athletic achievement, and contributions to the university and community. The awards are made on the recommendation of the Faculty.

Proposed Award Title and Description: Graduating Class of Law 1967 Award - Awards totalling \$2,200 have been **made available through an endowment established** by the Class of Law 1967 for students in the Faculty of Law. Selection is based on academic achievement,

athletic achievement, and contributions to the university and community. **Financial need may be considered.** The awards are made on the recommendation of the Faculty.

Rationale for Proposed Changes – Type of Action: upon donor's request, and in order to comply with the original donor's intention, when this award was set up in 2003, we have changed the award description to add reference to financial need.

#2922

Present Award Title and Description: Harold Naugler Memorial Prize – A \$1750 prize has been ~~endowed~~ by friends and family in memory of Harold Naugler. The award will be given to a student ~~achieving~~ excellence in the study of electronic records. The award is made on the recommendation of the School of Library, Archival and Information Studies, in consultation with the Faculty of Graduate Studies.

Proposed Award Title and Description: Harold Naugler Memorial Prize – A \$1750 prize has been **made available through an endowment established** by friends and family in memory of Harold Naugler. The award will be given to a student **in the Masters of Archival Studies Program in the School of Library, Archival and Information Studies who has achieved** excellence in the study of electronic records **through academic and research work.** The award is made on the recommendation of the School of Library, Archival and Information Studies, in consultation with the Faculty of Graduate and Postdoctoral Studies.

Rationale for Proposed Changes – Type of Action: we have added reference to the Masters of Archival Studies Program in the School of Library, Archival and Information Studies to comply with the terms established by the Endowment Deed; we have specified the means by which students are supposed to show excellence in the study of electronic records – we have done so to meet the donor's request to reward those students who have gone above and beyond by including research in their education and thus have better prepared themselves for the job market.

#3944

Present Award Title and Description: Sidoo Family Thunderbird Athletic Award – One or more awards, which may range from a minimum value of \$500 each to the maximum allowable under athletic association regulations, are offered to outstanding members of a Thunderbird Varsity Team in any year of study. Awards are made on the ~~nomination~~ of the President's Athletic Awards Committee.

Proposed Award Title and Description: Sidoo Family Thunderbird Athletic Award - One or more awards, which may range from a minimum value of \$500 each to the maximum allowable under athletic association regulations, are offered **annually** to outstanding members of a Thunderbird Varsity Team in any year of study. **Preference will be given to members of the**

Varsity Football team. Awards are made on the **recommendation** of the President's Athletic Awards Committee.

Rationale for Proposed Changes – Type of Action: upon request from the Faculty Development Office, we have changed the award description to add the preference language; we have also edited the description to comply with the current award description standard language.



18 November 2015

To: Vancouver Senate

From: Senate Curriculum and Admissions Committees

Re: Master of Data Science (approval)

The Senate Curriculum and Admissions Committees have reviewed the material forwarded to them by the Faculty of Graduate and Postdoctoral Studies (Science) and enclose those proposals they deem ready for approval.

The following is recommended to Senate:

Motion: *“That the new Master of Data Science (M.D.S.) degree program and its associated new course code (DSCI – Data Science) and courses be approved.”*

Respectfully submitted,

Mrs. Carol Jaeger,

Vice-Chair, Senate Curriculum Committee; Vice-Chair, Senate Admissions Committee

**FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES***New program, course code, and courses***Science**

DSCI Data Science Course Code; Graduate and Postdoctoral Studies>Degree Programs>Data Science>Master of Data Science; DSCI 511 (1) Programming for Data Science; DSCI 512 (1) Algorithms and Data Structures; DSCI 513 (1) Databases and Data Retrieval; DSCI 521 (1) Computing Platforms for Data Science; DSCI 522 (1) Data Science Workflows; DSCI 523 (1) Data Wrangling; DSCI 524 (1) Collaborative Software Development; DSCI 525 (1) Web and Cloud Computing; DSCI 531 (1) Data Visualization I; DSCI 532 (1) Data Visualization II; DSCI 541 (1) Privacy, Ethics, and Security; DSCI 542 (1) Communication and Argumentation; DSCI 551 (1) Exploratory Data Analysis for Data Science; DSCI 552 (1) Statistical Inference and Computation I; DSCI 553 (1) Statistical Inference and Computation II; DSCI 554 (1) Experimentation and Causal Inference; DSCI 561 (1) Regression I; DSCI 562 (1) Regression II; DSCI 563 (1) Unsupervised Learning; DSCI 571 (1) Supervised Learning I; DSCI 572 (1) Supervised Learning II; DSCI 573 (1) Feature and Model Selection; DSCI 574 (1) Spatial and Temporal Models; DSCI 575 (1) Advanced Machine Learning; DSCI 591 (6) Capstone Project; Science>Professional Master's Degrees

1. Master of Data Science Executive Summary

1.1 Overview

The University of British Columbia is a comprehensive research-intensive university, consistently ranked among the 40 best universities in the world. Since 1915, it has created an exceptional learning environment that fosters global citizenship, advances a civil and sustainable society, and supports outstanding research. Its entrepreneurial perspective encourages students, staff and faculty to challenge convention, lead discovery and explore new ways of learning. The Department of Computer Science and Department of Statistics at UBC have internationally recognized strengths in data management, data analysis, visualization and software development. These areas are at the core of the emerging discipline known as Data Science, which focuses on the extraction of knowledge from typically large volumes of data. These two departments, both housed in the Faculty of Science, are planning a new course-based Master's degree program, the Master of Data Science (MDS). This program will focus on utilizing descriptive and prescriptive techniques to extract and analyze data from both unstructured and structured forms and to communicate the findings of those analyses to guide prescriptive change in organizations. This program will educate students in the analysis of data for many different disciplines, such as health care, commerce, and utilities, and will help address the demand for skilled data science professionals in these areas.

1.2 Credential

The proposed credential awarded will be a Master of Data Science (M.D.S.).

1.3 Location

The University of British Columbia's Point Grey campus is the location for classroom education and administration.

1.4 Faculty Offering Program

The Department of Computer Science (CS) and the Department of Statistics (STAT), both housed within the Faculty of Science, will jointly offer this program. The program content is balanced equally between CS and STAT. In the spirit of cooperation and sustained engagement of both departments, the program will be co-directed, by one faculty member from each department. The program will be administered by the Faculty of Graduate and Postdoctoral Studies.

1.5 Program Start Date

The program will be first offered in September 2016.

1.6 Program Completion Time

Anticipated time for completion of the program is 10 months of full-time academic study.

1.7 Objectives and Program Learning Outcomes

By the end of the program students will be able to:

- Apply a scientific approach to marshalling and exploring data, generating and testing hypotheses, designing experiments, and testing/validating methods.

- Select an appropriate data analysis approach and apply it to a new problem area in a context-appropriate manner.
- Manipulate messy, ill-formed data to extract meaningful insights.
- Appropriately select and tailor data science methods to deal with diverse data types (numeric, categorical, text, dates, graphs, etc.) across diverse subject-area domains.
- Collaborate with and communicate results of data science experiments to diverse audiences, and recommend subsequent actions to decision-makers.
- Apply fundamental statistical thinking in the data analysis process, with reference to concepts such as overfitting, confounding, bias, variability, validity, and reliability.
- Apply fundamental programming principles in the data analysis process, with particular emphasis on modularity and reproducibility.

1.8 Contribution to UBC's Mandate and Strategic Plan

Graduates from the MSDS program will be equipped to engage in data analysis across a variety of domains and will be strongly positioned to use this knowledge and skills towards a better society. Data is abundant across domains and geographical regions alike, and the capacity to interpret data in a scientifically rigorous way is needed worldwide. Graduates of the program will be equipped to work in many settings and contexts both in Canada and abroad. The program will attract outstanding domestic and international students, further building on the outstanding global community of scholars at UBC. The program draws on and leverages existing capacity within the Faculty of Science and will have a fee structure that enables full cost recovery over the short and medium term.

1.9 Delivery Methods

The program consists of 24 credits of required coursework and a 6-credit capstone project. The courses will be largely face-to-face lectures, with some blended delivery, and required laboratories. The 24 credits of coursework will be in 1-credit courses to enable intensive focus on particular techniques and skills; students will enrol in either two courses simultaneously for two weeks or four courses simultaneously for four weeks. A small number of selected data sets will be consistently used across the courses, providing continuity for the students across courses. The capstone project will provide an opportunity for students to work together in groups and simulate the process of solving a domain problem on real-world data. This includes posing critical questions about data within a particular domain, making a plan, allocating responsibilities among team members, employing the skills they have learned throughout the program, and reflecting on the strengths and weaknesses of the chosen approach.

1.10 Linked Learning Outcomes and Curriculum Design

The proposed curriculum will address the program learning outcomes outlined in Section 1.7 of this document through 25 new courses:

- In courses such as *Supervised Learning I*, *Supervised Learning II*, *Regression I*, *Regression II*, *Unsupervised Learning*, *Spatial and Temporal Models*, and *Advanced Machine Learning*, students will gain competency in a wide range of practical modeling methods that can be applied to a wide range of data types.
- In the *Data Wrangling* course, students will learn how to transform data from its typically messy and often opaque initial form to a more standard, usable format. The *Web and*

Cloud Computing course and the *Databases and Data Retrieval* course will also enhance students' skills in interacting with data.

- The use of multiple diverse data sets through the program, plus the data analyzed in the capstone project, will give students experience with diversified data types and formats.
- Courses such as *Exploratory Data Analysis for Data Science*, *Data Visualization I*, *Data Visualization II*, and *Communication and Argumentation* will equip students to present clear results and to tell a compelling story about the data of interest that may then be acted upon.
- The *Experimentation and Causal Inference* and *Advanced Machine Learning* courses will teach students how to design experiments and how to best acquire new data when needed, while the *Privacy, Ethics and Security* course will help inform the data acquisition process.
- In the *Statistical Inference and Computation I* and *Statistical Inference and Computation II* courses, as well as the *Experimentation and Causal Inference* course, students will understand and learn to apply fundamental statistical thinking.
- In various programming and software engineering courses (*Computing Platforms for Data Science*, *Programming for Data Science*, *Algorithms and Data Structures*, *Collaborative Software Development*) and in the *Data Science Workflows* course, students will learn best practices in developing software.
- The rigorous nature of the program curriculum will equip students with the background to delve into more advanced data science topics with confidence and experience.

1.11 Program Strengths

The Departments of Computer Science and Statistics at UBC are consistently ranked in the top three nationally and are well respected internationally. Data science is a field that bridges these two disciplines, and thus UBC is poised to acquire significant international strength in this emerging field. The curriculum design, as described earlier, emphasizes a balance between advanced data analysis skills and software development skills to produce graduates that are uniquely positioned to apply their previous knowledge to transforming disciplines through data. BC companies, such as BuildDirect and EnerNOC, and health care organizations, such as Providence Health, have indicated a need for graduates of Masters of Data Science programs.

1.12 Related Programs at UBC and other BC Post-Secondary Institutions and Potential areas of Employment

UBC currently offers both undergraduate and graduate level courses in data analysis and software development. None of the current offerings provide the in-depth exposure to these topics, combined with practical experience on real data sets, as does this proposed program. In addition, the graduate program offerings in Computer Science and Statistics are largely research-based, focusing on the creation of new tools and methodologies as opposed to a focus on the responsible and appropriate application of existing Data Science tools students will gain in the MDS. Although both the Computer Science and Statistics departments offer a course-based option for existing Master's program, neither of these existing options provides an opportunity for the depth in both disciplines proposed for the MDS.

Other relevant programs at UBC include:

- The Sauder School of Business' proposed Master's in Business Analytics, which builds on their expertise in Operations Research focusing primarily on prescriptive analytics and on the marketing and operations domains;
- The Faculty of Forestry's proposed Master's of Geomatics for Environment Management, which focuses on geo-spatial data; and
- The Master of Engineering Leadership in Dependable Software Systems, which focuses on maintaining the integrity and reliability of software in a diverse variety of application areas.
- UBC Okanagan is currently pursuing increasing their focus on data science in undergraduate programs but has not proposed any graduate offerings

No other university in BC offers a graduate program in Data Science that focuses on utilizing descriptive and predictive techniques to extract and analyze a wide variety of data and to communicate knowledge gained from those findings to guide change in an organization. Simon Fraser University offers a Masters in Big Data that focuses on the extraction and transformation of data (rather than the analyses). The SFU program focuses on providing in-depth computer science skills to students holding a B.Sc. in Computer Science. In contrast, the proposed program focuses on providing technical and analysis skills to students whose undergraduate degree is from a wide variety of disciplines.

The unique structure of this program with largely 1-credit coordinated courses does not enable the transfer of credits from other programs in B.C. institutions. As part of the preparation for proposing this program, we have been coordinating with the program director of the Simon Fraser University Masters in Big Data program about opportunities for cross-advertising these complementary programs.

As part of developing this program, we consulted with individuals from a variety of B.C. organizations involved in healthcare, human resources, energy, software and e-commerce sectors. The graduates from the proposed program will be well-positioned to fill positions at these organizations.

1.13 Institutional Contacts

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2. Master of Data Science Program Description and Specification

2.1 Need for the Program

The amount of data available to organizations, whether they are in manufacturing, resource, commerce, healthcare or other sectors, is exploding. A 2011 report from the McKinsey Global Institute reports that “15 out of 17 sectors in the United States have more data stored per company than the US Library of Congress”. Increasingly, organizations are looking to gain knowledge and value from this data. However, there is a severe shortage of highly skilled knowledge workers to analyze this data. The McKinsey report cites a 50-60% gap in available highly skilled knowledge workers with deep analytical talent by 2018, numbering 140,000 to 190,000 in the U.S. alone. A 2013 survey by Robert Half Technology of 1,400 U.S. based Chief Information Officers identified the same problem; 53% of the respondents said although their companies were gathering data they lacked the staff knowledgeable about how to extract value from that data. A 2013 report in the Globe and Mail noted that the unemployment rate among Data Scientists was less than 1%, suggesting that the Canadian supply stream is already fully tapped.

The field of Data Science is about obtaining, analyzing and reporting on a variety of different kinds of data, including structured data that may be stored in organizational databases and unstructured data, which is often text-rich and not collected according to a particular data model. For example, in health care, structured data may include the admission records of when a patient was admitted to an emergency room; unstructured data may exist in the form of healthcare practitioner notes about the patient at different times during the visit. Data science involves employing a variety of analytic techniques to extract knowledge from such data. Once a question of interest is posed, such as whether the application of various treatments about admission for particular diseases has a positive or negative outcome, the appropriate data must be extracted from systems where it is stored, and often transformed into forms appropriate for machine processing. Then, appropriate analysis techniques must be applied for the question at hand, and results must be communicated, including the confidence in those results, to decision makers who can consider action. Each step of this process requires specialized techniques, methods and tools. Considering the analysis step, there are many different machine learning and data mining techniques that help extract patterns from data that can be applied to help answer questions but significant knowledge of statistics is required to use these techniques appropriately. Data Scientists, sometimes called Data Analysts, possess knowledge of the concepts underlying the variety of techniques and are able to choose appropriate experiments to run to answer a question of interest. Moreover, Data Scientists have knowledge of software development and computer science skills to build the necessary tooling to run experiments and apply visualization techniques to be able to communicate results to domain specialists.

Universities have typically focused on producing graduates that are specialized either in the statistical methods, or the computational methods, but not both. Organizations need knowledge workers who can span both the statistical and computational perspectives and who have the ability to effectively communicate results of Data Science experiments to many individuals within an organization. The format of this program was designed after consultations with individuals from B.C. organizations involved in healthcare, human resources, energy, software and e-commerce sectors. The multi-disciplinary nature of the program enables individuals with

backgrounds in domains, such as biology or linguistics, to gain the statistical and computational knowledge and skills to fill the Data Science knowledge worker gap.

2.2 Program Objectives and Themes

The proposed program emphasizes the following distinctive learning objectives:

- Apply a scientific approach to marshalling and exploring data, generating and testing hypotheses, designing experiments, and testing/validating methods.
- Select an appropriate data analysis approach and apply it to a new problem area in a context-appropriate manner.
- Manipulate messy, ill-formed data to extract meaningful insights.
- Appropriately select and tailor data science methods to deal with diverse data types (numeric, categorical, text, dates, graphs, etc.) across diverse subject-area domains.
- Collaborate with and communicate results of data science experiments to diverse audiences, and recommend subsequent actions to decision-makers.
- Apply fundamental statistical thinking in the data analysis process, with reference to concepts such as overfitting, confounding, bias, variability, validity, and reliability.
- Apply fundamental programming principles in the data analysis process, with particular emphasis on modularity and reproducibility.

2.3 Relationship to Established Programs

Section 1.12 describes the relationship of the program to existing and known proposed programs at UBC and at other BC postsecondary institutions.

A number of institutions internationally have developed graduate programs in the field of Data Science, many of which have been launched within the past three years. The most similar programs to the proposed program are those offered at UC Berkeley, U. Virginia, NYU and Northwestern. However, there is a market gap in programs that bridge the acquisition of technical and analysis skills with the ability to run data science experiments and communicate the results of those experiments effectively.

Programs proposals are also currently being considered at the University of Toronto and Ryerson University, but there is not yet any public information available on these programs.

Table 1 and Table 2 provide further details on other existing degree and certificate programs at peer institutions. The immersive, on-campus experience provided by the proposed program offers significant value to the student in comparison with MOOCs, certificates, and online programs (e.g., Johns Hopkins offering). Students in the proposed program will have access to a live cohort of peers, teaching fellows, faculty, and TAs, in addition to the experience being physically situated within renowned departments and the UBC campus. We anticipate the

program will draw students from a variety of backgrounds forming a cohort from diverse backgrounds, further enhancing the student experience.

Table 1 Master degrees at peer institutions. When given, first/second tuition values indicate, respectively, in-state versus out-of-state tuition for institutions in the U.S. and domestic versus international otherwise.

MASTER DEGREES	
UC Berkeley – Master of Information and Data Science (100% online with on campus immersive, 177 students, \$60,000 USD)	North Carolina – Master of Science in Analytics (115 students; \$25,000 / \$43,000 USD)
Carnegie Mellon – Master of Information Systems Management in Business Intelligence and Data Analytics (\$67,000 USD, 33 students)	Northwestern University – Master of Science in Analytics (32 students, \$62,000 USD)
University of Cincinnati – Master of Science in Business Analytics (\$21,000 / \$29,000 USD, 86 students)	NYU – Master of Science in Data Science (39 students, \$55,000 USD)
Georgia Tech – Master of Science in Analytics (42 students, \$43,000 - \$59,000 USD)	University of San Francisco – Master of Science in Analytics (45 students, \$36,000 USD)
Louisiana State University – Master of Science in Analytics (\$11,000 / \$33,000 USD)	Simon Fraser University – Professional Master's in Big Data (\$26,520 / \$31,620, 48 students)
University of Maryland – Master of Science in Data Analytics (\$27,000 USD)	University of Southern California – Master's of Business Analytics (\$44,000 USD)
University of Melbourne – Master of Business Analytics (45 students, \$48,000 AUD)	Texas A&M University – Master of Science Analytics (\$50,000 USD, 60 students)
University of Minnesota – Master's of Science in Data Science (\$30,000 / \$46,000 USD)	University of Virginia – Master of Science in Data Science (\$25,000 / \$40,000 USD, 48 students)
UNC Charlotte – PSM in Data Science and Business Analytics (\$20,000 / \$42,000 USD)	York – MSc in Business Analytics (School of Business, \$49,000 / \$60,000)

Table 2 Certificates and other credentials at peer institutions

CERTIFICATES	OTHERS
Ryerson – Certificate in Data Analytics, Big Data, and Predictive Analytics (Continuing Studies, \$4,500)	BCIT – Business Analytics Statement of Completion (School of Business, \$4,200)
Stanford – Graduate Certificates in Data Mining and Applications, Mining Massive Data Sets (SCPD, tuition \$10,000 and \$13,000)	Coursera – 79 free courses on statistics and data analysis (e.g., Data Scientist Toolbox, R programming, Practical Machine Learning)
Toronto – Certificate in Management of Enterprise Data Analysis (Continuing Studies, tuition \$3,400)	edX – 49 free courses in statistics and data analysis (including Big Data and Social Physics, Data Analysis for Genomics)
UC Irvine – Certificates in Data Science, Predictive Analytics, Business Intelligence and Data Warehousing (extension school, tuition \$3,700, \$6,200, and \$2,270)	University of the Fraser Valley – Data Analysis Post-Degree Certificate (Departments of Mathematics and Statistics, tuition \$4,000 / \$15,000)
UC San Diego – Certificate in Data Mining (extension school, 240 students, tuition \$4,000)	Harvard Extension – Data Science Certificate (\$8,800)
Washington – Certificate in Data Science (UWEO, 150 students, tuition \$3,200); Certificates in Data Visualization, Health Informatics & Health Information Management, Digital Marketing Analytics, Machine Learning, Building the Data Warehouse (UWEO, all \$3,000)	Johns Hopkins – Certificate in Data Science (offered through Coursera, free, signature track option \$585)
	MIT – MOOC ‘Tackling the Challenge of Big Data’ (tuition \$495, 3000 students first run so \$1.5m revenue); corporate requests, e.g., Accenture
	Udacity – Data Analyst nanodegree (\$200 per month, 9-12 months)
	NYC Data Science Academy – 12 week bootcamp, \$16,000, must have a Master's or PhD in Science, Technology, Engineering, Mathematics
	Insight Data Science Fellows Program – 7 week post-doc training, full tuition scholarship for all fellows, based in San Fran and NYC with 100% placement rate
	Zipfian Academy – 12 week bootcamp, \$16,000

2.4 Demand for Program

2.4.1 Estimation of Program Demand

A variety of strategies were employed to assess the demand for the proposed MDS program, including:

- consultations with individuals from a variety of B.C. organizations involved in healthcare, human resources, energy, software and e-commerce sectors (e.g., BC Hydro, e-commerce investor, PHEMI, Providence Health, Pulse Energy, Vancouver Coastal Health, Visier, Vision Critical and Hootsuite). Feedback from these consultations was very positive and has helped shape the format of the proposed program, in particular the emphasis on the need for individuals with accessible data skills and data storytelling ability.
- surveys of 4th year undergraduate students (390 respondents, predominantly domestic) and alumni in the Faculty of Science and a number of departments in the Faculty of Arts (115 respondents). From the perspectives of alumni and current 4th year undergraduate students, these surveys confirmed that UBC is a highly credible provider, especially with respect to University reputation in Computer Science. These surveys also indicated demand for further training in Data Science:
 - 82% of alumni believe the industry in which they work need individuals capable of exploring large data sets and meaningfully communicating results and 61% believe there is a clear demand for skilled professionals who can mine and interpret data,

- 26% of alumni are considering applying in a Data Science program with another 34% undecided,
- 12% of 4th year students are already considering applying to a post-graduate Data Science program, another 50% are undecided.
- extensive market research including reviewing the experiences at peer institutions as well as market demand.
- Increasing demand and oversubscription for the UBC Bachelor of Computer Science second undergraduate degree program which shows demand from students with non-computer science degrees for computational programs.

Based on these inputs, we have confidence that there is significant demand both from students and employers for Data Science graduates who have the ability to derive knowledge and communicate the value of that knowledge from data.

2.5 Target Audience/Markets and Enrolment Expectations

The MDS program is expected to attract:

- Recent graduates from a wide range of undergraduate degree specializations, including the life sciences; earth, ocean and atmospheric sciences; linguistics; economics, commerce, or business; and other fields.
- Individuals engaged in a wide variety of careers who want to add data analysis skills to strengthen career prospects within their organization or embark on a new career trajectory.

The program expects to admit 20 students in year 1, building up to 50-60 in subsequent years. It is expected that about 40% of the students will be international once the program reaches steady-state. In the first year of the SFU Master's of Big Data program, the majority of students were international.

2.6 Program Requirements

The MDS is organized into 24 1-credit courses and a 6-credit capstone project course. The 24 1-credit courses are organized into two and four-week courses over 8 months, allowing focused study in particular areas. The 6-credit capstone course is taken in the final 2 months of the 10-month program. The capstone course enables students to work in groups to simulate the process of solving a domain problem on real-world data. The project work will include posing critical questions about real-world data within a particular domain, making a plan, allocating responsibilities among team members, employing the skills they have learned throughout the program, and reflecting on the strengths and weaknesses of the chosen approach. The students will be mentored by a faculty member during the capstone project.

The 25 courses (24 1-credit courses and one 6-credit capstone course) are:

- DSCI 511: Programming for Data Science
- DSCI 512: Algorithms and Data Structures
- DSCI 513: Databases and Data Retrieval
- DSCI 521: Computing Platforms for Data Science
- DSCI 522: Data Science Workflows
- DSCI 523: Data Wrangling

- DSCI 524: Collaborative Software Development
- DSCI 525: Web and Cloud Computing
- DSCI 531: Data Visualization I
- DSCI 532: Data Visualization II
- DSCI 541: Privacy, Ethics, and Security
- DSCI 542: Communication and Argumentation
- DSCI 551: Exploratory Data Analysis for Data Science
- DSCI 552: Statistical Inference and Computation I
- DSCI 553: Statistical Inference and Computation II
- DSCI 554: Experimentation and Causal Inference
- DSCI 561: Regression I
- DSCI 562: Regression II
- DSCI 563: Unsupervised Learning
- DSCI 571: Supervised Learning I
- DSCI 572: Supervised Learning II
- DSCI 573: Feature and Model Selection
- DSCI 574: Spatial and Temporal Models
- DSCI 575: Advanced Machine Learning
- DSCI 591: Capstone Project

Future offerings of the project may allow electives; at present, all courses are required.

Only 6 credits of pass standing (60-67%) may be counted towards the program. For all other courses, a minimum of 68% must be obtained..

If a student receives below 60% for a course, a supplemental exam may be offered at the end of the midterm break week, or at the end of block (IV) or (VII) as described in Section 2.7, whichever comes first. The course is given Deferred Standing in the meantime. If credits need to be made up from a Fail Standing, the student may return the next year, or in exceptional cases, may take alternative courses on equivalent material subject to approval by the MDS academic program director.

2.7 Program Overview

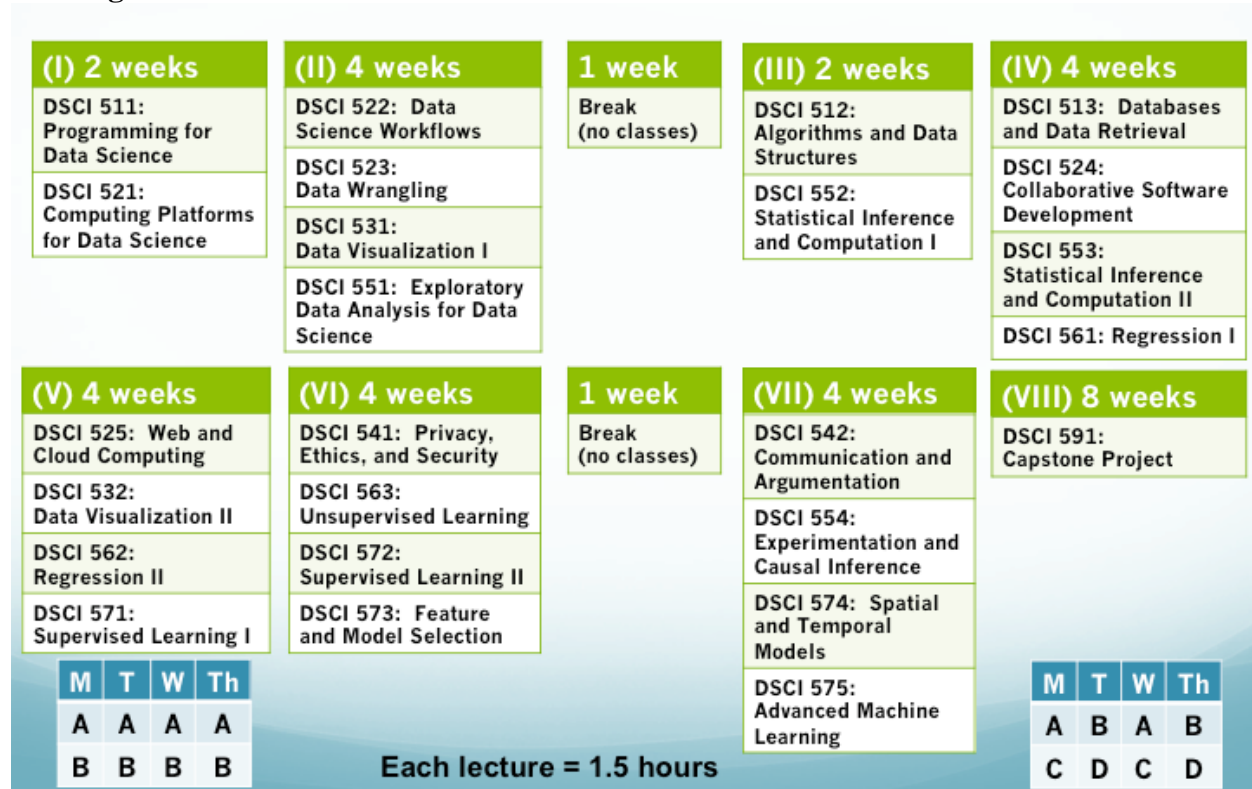


Figure 1: Schedule of courses for the proposed MDS program.

Figure 1 shows the overview of the program schedule. Students take either two courses at a time for two weeks or four courses at a time for four weeks; in either case, the courses consist of 12 lecture hours in total. The box at the lower-left shows the schedule during the two-course blocks (I and III) with A representing the first course and B representing the second course: in these two-course blocks, students will have lectures in both courses on each day with the lecture for one course every morning from Monday through Thursday and the lecture for the second course every afternoon from Monday through Thursday. The box at the lower-right shows the schedule during the four-course blocks (II, IV-VII) with each letter representing one of the four courses: in these four-course blocks, students will have lectures for two different courses on Mondays and Wednesdays (course A in the morning and course C in the afternoon) and lectures for the other two courses on Tuesdays and Thursdays (course B in the morning and course D in the afternoon). All lectures are 1.5 hours and there will be no lectures on Fridays, except possibly in those cases where a holiday falls on one of the other business days.

In order to ensure students possess the technical foundation for this fast-moving program, block (I) is deliberately designed to contain only two courses, each of which has a "boot-camp" element. Particularly for students whose prior programming experience is not in Python and R, DSCI 511 is intended to ensure basic comfort and competence with both languages. Similarly, DSCI 521 will ensure basic comfort and competence with software environments useful in Data Science. Also, block (I) will feature "overdeployment" of TAs and teaching fellows, to quickly troubleshoot obstacles for students. Thus at the end of block (I) the cohort will be primed with technical tools needed for success in subsequent courses.

Labs will be 2 hours in length and will take place in the afternoons, one per day on Mondays, Tuesdays, Wednesdays, and Thursdays. Participation in both lectures and labs is necessary for success in homework and exams as the labs provide hands-on experience with the lecture material to solidify understanding of the material. Exams will be held periodically during the courses themselves, rather than during designated examination periods. There will be a one-week break in the Fall and a one-week break in the Spring (see above), as well as a break for the holidays in December-January (not shown).

During block VIII, students will work on the capstone project. After this 8-week period, students will present their projects and receive feedback. They will then have a short period of time to finalize the report before submitting the final project report.

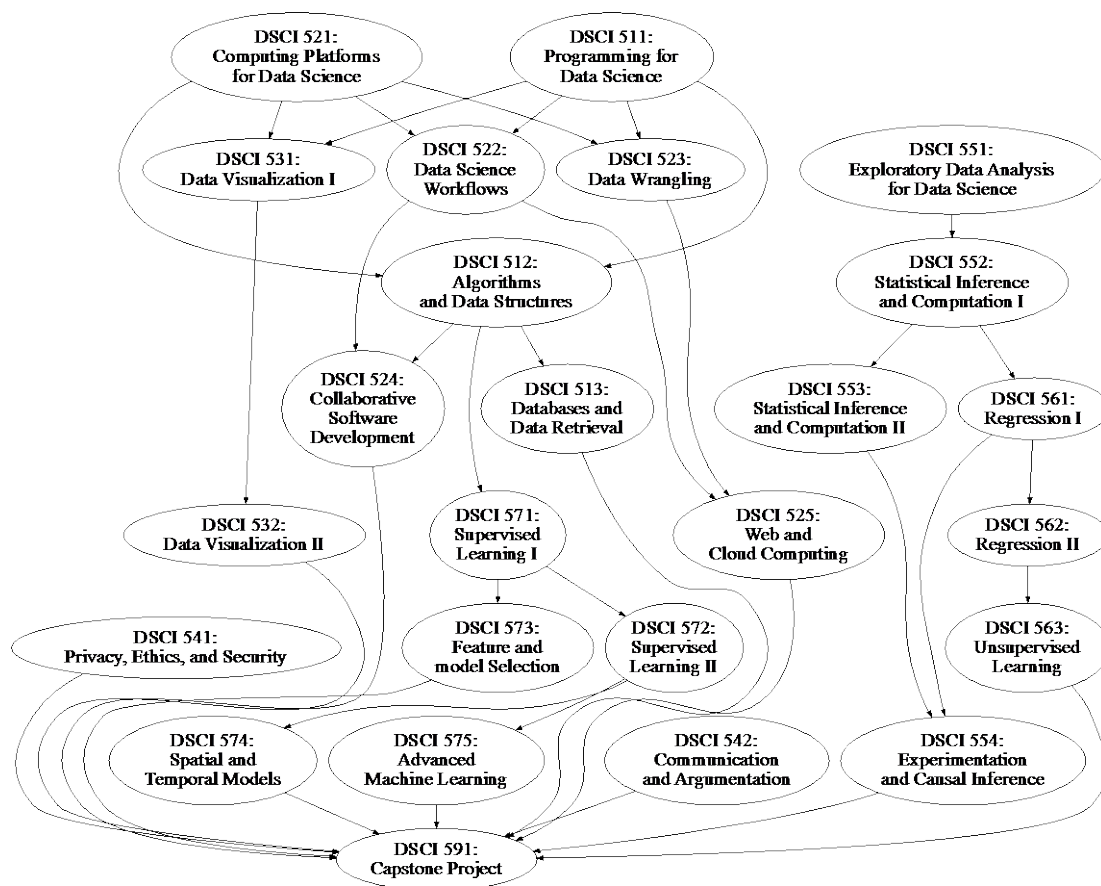


Figure 2: Course prerequisite graph for the MDS program.

Figure 2 shows the prerequisite structure of the courses within the MDS program. Each row of the graph corresponds to a block of courses taken concurrently (see Figure 1).

2.8 Admission Requirements

Applicants must meet the [general admission requirements for master's degrees](#) set by the Faculty of Graduate and Postdoctoral Studies.

Applicants must also provide proof of successful completion of:

- a. one course in programming (e.g., UBC CPSC 110 or APSC 160 or equivalent), and
- b. one course in probability and/or statistics (e.g., UBC STAT 200 or STAT 241/251 or STAT 302 or equivalent), and
- c. one course in calculus (e.g., UBC MATH 100 or equivalent) or one course in linear algebra (e.g., UBC MATH 221 or equivalent). Completion of a course in each of calculus and linear algebra is recommended.

Applicants must provide:

- A statement of interest describing their academic background, future career goals and their interest in data science.
- A resume, including links to any relevant software or data science projects.
- Three reference letters.

Upon admission, applicants will be required to provide a \$1000 (CAD) non-refundable deposit that will be applied to their first tuition instalment.

2.9 Resources

2.9.1 Budget and Tuition Fees

Removed for purposes of Curriculum; may be requested.

2.9.2 Human Resources

The 24 1-credit courses will be taught by existing Faculty of Science faculty members with the support of two Ph.D.-level Teaching Fellows hired specifically to help deliver the MDS.

Teaching in the MDS program will not replace existing teaching duties for faculty members; rather, faculty members will teach these modules above their existing teaching load in exchange for teaching honoraria. These faculty members will be invited to teach in the program by the Program Directors.

The Teaching Fellows will help prepare course material, will present up to 25% of the lectures and will mentor students during laboratories. A project mentor and the teaching fellows will guide students during the 6-credit capstone course. Given the unique nature of the 1-credit courses and their scheduling, the courses will only be open to students enrolled in the MDS program.

This proposed program will require the following demands on human resources:

- **Two Teaching Fellows**
 - New hires

- These positions will include administrative, coordinator, lecturer and mentor duties.
 - The successful candidate will have a Ph.D. in a field relevant to data science.
- **Program Director(s)**
 - This position may be shared by one existing faculty member from Computer Science and one existing faculty member from Statistics.
- **TA assignments for all courses**
- **Program Coordinator**
 - New hire
 - This position will include administrative and coordinator duties.
- **Student Recruitment**
 - New hire
 - This position will aid student recruitment.
- **Career Coordinator**
 - Possibly new hire (TBD)
 - This position will help provide career guidance and professional development support to students.
- **Course Instructors**
 - Courses not taught by the Teaching Fellows will be taught by existing faculty members on a per-course honorarium basis.

2.9.3 Space

Lectures will be held in existing classrooms and seminar rooms, scheduled through Classroom Services. Statistics has identified laboratory space in the Earth Sciences Building that is suitable for use and can be designated to the MDS program.



UBC Curriculum Proposal Form Change to Course or Program

Category: 1

Faculty: Science Department: Computer Science and Statistics Faculty Approval Date: October 8, 2015 Effective Date for Change: 16S	Date: 25 August 2015 Contact Person: Patrice Belleville and Bruce Dunham Phone: 2-9870, 2-4997 Email: patrice@cs.ubc.ca, b.dunham@stat.ubc.ca
Proposed Calendar Entry: DSCI — Data Science	URL: http://www.calendar.ubc.ca/vancouver/courses.cfm?page=code Present Calendar Entry: N/A Action: Create new course code Rationale: The Faculty of Science proposes a new course code to identify required courses within the Professional Master's program in Data Science. A new code is needed to reflect the distinct course content of the Master's program.
Faculty: Science Department: Computer Science & Statistics Faculty Approval Date: October 8, 2015 Effective Date for Change: 2016W	Date: October 6, 2015 Contact Person: Patrice Belleville and Bruce Dunham Phone: 822-4997 or 822-9870 Email: b.dunham@stat.ubc.ca patrice@cs.ubc.ca
Proposed Calendar Entry: Data Science Degrees Offered: M.Sc.D.S. Members Professors Department of Computer Science: G.C. Murphy, T. Munzner, R.Ng Department of Statistics: P. Gustafson, M. Salibián-Barrera Associate Professors	URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,828,0 Create a new entry for Data Science: Faculties, Colleges, and Schools → The Faculty of Graduate and Postdoctoral Studies → Data Science (new entry) → Data Science (new page) Present Calendar Entry: N/A Type of Action: Create new professional graduate degree program. Rationale: Universities have typically focused on producing graduates that are specialized either in statistical methods, or in computational methods, but not both.



Department of Statistics: J. Bryan

Assistant Professors

Department of Computer Science: M. Schmidt

Department of Statistics: A. Boucard-Côté

Program Overview

The Master of Science in Data Science (M.S.D.S.) is a 10-month, non-thesis professional degree program consisting of 30 credits. The program focuses on utilizing descriptive and prescriptive techniques to extract and analyze data from both unstructured and structured forms and to communicate the findings of those analyses to guide prescriptive change in organizations. This program will educate students in the analysis of data for many different disciplines, such as health care, commerce, and utilities, and will help address the demand for skilled data science professionals in these areas.

This program is not intended for students with an undergraduate degree in Computer Science or Statistics; however, these students may be considered upon review by the graduate program.

Admission Requirements

Applicants must meet the [general admission requirements for master's degrees](#) set by the Faculty of Graduate and Postdoctoral Studies.

Applicants must also provide proof of successful completion of:

- a. one course in programming (e.g., UBC CPSC 110 or APSC 160 or equivalent), and

Demand for professionals with combined statistical and computational skills, and who have the ability to effectively communicate the lessons of real world data, is growing at an increasing rate. The Department of Computer Science and Department of Statistics together have internationally recognized strengths in data management, data analysis, software development, and visualization, and are ideally situated to offer a world-class Professional Master's program in Data Science.

Graduates from the MSDS program will possess knowledge of the concepts underlying a variety of statistical techniques and will be able to design appropriate experiments to address a broad range of research and industry concerns. Moreover, they will possess the necessary computing skills to analyze data and apply visualization techniques to be able to communicate results to domain specialists. MSDS students will recognize UBC as a place of global learning and innovation. The program is expected to attract outstanding domestic and international students, thereby enriching the scholarly life of the Faculty and the entire UBC community.

The design of this program has been based on:

- Consultations with individuals from a variety of B.C. organizations involved in health care, human resources, energy, software and e-commerce sectors.
- Surveys of 4th year undergraduate students and recent alumni in the Faculty of Science and a number of departments in the Faculty of Arts.
- Extensive market research reviewing the experiences at peer



<p>b. one course in probability and/or statistics (e.g., UBC STAT 200 or STAT 241/251 or STAT 302 or equivalent), and</p> <p>c. one course in calculus (e.g., UBC MATH 100 or equivalent) or one course in linear algebra (e.g., UBC MATH 221 or equivalent). Completion of a course in each of calculus and linear algebra is recommended.</p> <p>Applicants must provide:</p> <ul style="list-style-type: none"> • A statement of interest describing their academic background, future career goals and their interest in data science. • A resume, including links to any relevant software or data science projects. • Three reference letters. <p>Upon admission, applicants will be required to provide a \$1000 (CAD) non-refundable deposit that will be applied to their first tuition instalment.</p> <p>Program Requirements</p> <p>The MSDS is a 10-month non-thesis degree program consisting of 30 credits:</p> <ul style="list-style-type: none"> • DSCI 511 • DSCI 512 • DSCI 513 • DSCI 521 • DSCI 522 	<p>institutions as well as market demand.</p> <ul style="list-style-type: none"> • Increasing demand and over-subscription for the UBC Bachelor of Computer Science second undergraduate degree program. <p>The program is expected to attract:</p> <ul style="list-style-type: none"> • Recent graduates from a wide range of undergraduate degree specializations, including the life sciences; earth, ocean and atmospheric sciences; linguistics; economics; commerce or business; and other fields. • Individuals engaged in a wide variety of careers who want to add data analysis skills to strengthen career prospects within their organization or embark on a new career trajectory. <p>As the program requires a certain level of maturity with computational, statistical, and mathematical concepts, the prerequisite courses are stated to ensure that students entering the program have some exposure to university-level material in each of these subject areas, demonstrating their ability to learn new concepts in these fields within a fast-paced environment.</p> <p>As part of the application materials, applicants will be asked to provide:</p> <ul style="list-style-type: none"> • A statement of interest describing their academic background, future career goals, and their interest in data science. • A resume, including links to any relevant software or data science projects. • At least two reference letters. <p>Upon admission, applicants will be required to provide a \$1000 Canadian non-</p>
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- DSCI 523
- DSCI 524
- DSCI 525
- DSCI 531
- DSCI 532
- DSCI 541
- DSCI 542
- DSCI 551
- DSCI 552
- DSCI 553
- DSCI 554
- DSCI 561
- DSCI 562
- DSCI 563
- DSCI 571
- DSCI 572
- DSCI 573
- DSCI 574
- DSCI 575
- DSCI 591

refundable deposit that will be applied to their first tuition instalment.

Financial Assistance

Financial assistance based on academic merit and financial need may be available. Students should consult the M.S.D.S. program website [insert link to yet to be created website] for more information.

Contact Information

Graduate Admissions
 Department of Computer Science
 201 - 2366 Main Mall
 Vancouver, BC, Canada V6T 1Z4
 Tel: 604.822.1202
 Fax: 604.822.5485
 Email: grad-info@cs.ubc.ca
 Web: www.cs.ubc.ca/students/grad/prospective

Joyce Poon, Graduate Program
 Administrator



<p>Faculty: Science Department: Computer Science and Statistics Faculty Approval Date: October 8, 2015 Effective Date for Change: 16S</p>	<p>Date: 25 August 2015 Contact Person: Patrice Belleville Phone: 2-9870 Email: patrice@cs.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>DSCI 511 (1) Programming for Data Science</p> <p>Pseudo-code. Program design and structure. Flow control. Iteration. Lists (arrays). Functions. File I/O. Classes, objects, methods, and libraries.</p>	<p>Present Calendar Entry: N/A</p> <p>Action: Create new course</p> <p>Rationale: This course is one of the courses for the new professional Master's program in Data Science.</p> <p>Data scientists must be able to write programs to read files, process data (e.g., perform calculations, implement logic), and write results to files. They need to use appropriate data types, conditionals, iteration, and lists. To simplify, modularize, and expedite programming, user-defined functions will be used. Popular programming languages contain many pre-written libraries of code. Such code is of strategic value to data scientists.</p>
<p>Proposed Calendar Entry:</p> <p>DSCI 512 (1) Algorithms and Data Structures</p> <p>Basic algorithms. Recursion. Data structures including linked lists, queues, stacks, trees, graphs, and hash tables. Searching and sorting. Introduction to complexity including Big-O notation, efficiency, and scalability.</p> <p>Prerequisites: All of DSCI 511, DSCI 521</p>	<p>Present Calendar Entry: N/A</p> <p>Action: Create new course</p> <p>Rationale: This course is one of the courses for the new professional Master's program in Data Science.</p> <p>Data scientists must be able to write programs to solve problems, but it is important that those problems be solved efficiently. As data sets become larger, efficiency and scalability become important. An appropriate choice of data structure is essential. Efficient algorithms utilize these data structures to provide scalability.</p> <p>Searching and sorting are very important concepts in computer science, and many data structures and algorithms exist to accomplish these tasks.</p>



	Data scientists need a good understanding of algorithmic complexity and the accompanying Big-O notation. This will help them to decide which data structure and algorithm should be used to help solve a problem.
Proposed Calendar Entry: DSCI 513 (1) Databases and Data Retrieval Relational schemas. SQL queries. Database programming using embedded SQL. XML and XQuery. Prerequisite: DSCI 512	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. Relational database management systems (RDBMSs) hold much of a typical organization's structured data. Data scientists need to be able to run many kinds of database queries, including aggregations, using the ubiquitous Structured Query Language (SQL).
Proposed Calendar Entry: DSCI 521 (1) Computing Platforms for Data Science Introduction to software, shells, tools, and file systems for use in the Data Science program. Installation, configuration, and use of statistical and programming software including Integrated Development Environments (IDEs). Problem resolution skills.	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. In this course, students will gain knowledge of the necessary computing tools and computing environments used in all other courses. This course also provides students with the skills needed to dynamically customize, configure, and maintain their computing environments in the future.



Faculty: Science Department: Computer Science and Statistics Faculty Approval Date: October 8, 2015 Effective Date for Change: 16S	Date: 27 August 2015 Contact Person: Bruce Dunham Phone: 2-4997 Email: b.dunham@stat.ubc.ca
Proposed Calendar Entry: DSCI 522 (1) Data Science Workflows Interactive and non-interactive data analysis. Scripting. Dynamic reporting. Reproducibility. Project and file management. Version control. Automated workflows. Prerequisites: All of DSCI 511, DSCI 521	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. Data scientists need to organize, manage, and document project workflows using appropriate software tools and processes. These skills built in this course will be used by other courses in the Data Science program.
Proposed Calendar Entry: DSCI 523 (1) Data Wrangling Manipulation of tabular and non-tabular data using software tools. Organizing, filtering, sorting, grouping, reformatting, converting, and cleaning data to prepare it for further analysis. Prerequisites: All of DSCI 511, DSCI 521.	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. Data often comes in many formats, and must be organized, cleaned, reshaped, transformed, etc. for subsequent processing. Data wrangling is the name given to these important and often time-consuming processes. In practice, Data Scientists spend a great deal of time in data wrangling and thus this course is essential to the training of an effective Data Scientist.



Faculty: Science Department: Computer Science and Statistics Faculty Approval Date: October 8, 2015 Effective Date for Change: 16S	Date: 25 August 2015 Contact Person: Patrice Belleville Phone: 2-9870 Email: patrice@cs.ubc.ca
Proposed Calendar Entry: DSCI 524 (1) Collaborative Software Development Software life cycle. Unit testing. Continuous integration. Submission to a relevant repository for distribution. Packaging for installation and use by others. Software licenses. Classes and abstraction. Prerequisite: All of DSCI 512, DSCI 522.	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. Programming and developing software are inescapable parts of Data Science. While earlier courses focus on writing software for one's own use, this course focuses on producing larger software projects in collaborative environments. This course introduces essential topics for working collaboratively, such as abstraction, unit testing, software licenses, and the collaborative aspects of version control. Thus, this course prepares students to write readable, reusable, shareable code.
Proposed Calendar Entry: DSCI 525 (1) Web and Cloud Computing Networks and the Internet, scraping data, APIs, cloud computing, Web services for scalable computing, Web hosting, Web publication platforms, introduction to parallel computing. Prerequisites: All of DSCI 522, DSCI 523	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. Communication between data scientists occurs frequently using the Internet (e.g., via Web sites), especially when dealing with data and results. This course gives students the Internet literacy needed to be an effective data scientist. It introduces students to cloud computing resources, including the ability to perform scalable data processing using Web services.

**Proposed Calendar Entry:****DSCI 531 (1) Data Visualization I**

Descriptive plots using statistical and programming software. Basics, mechanics, and principles of data visualization.

Prerequisites: All of DSCI 511, DSCI 521

Present Calendar Entry: N/A

Action: Create new course

Rationale: This course is one of the courses for the new professional Master's program in Data Science.

Data scientists benefit from harnessing the human visual system to detect patterns and anomalies in datasets. Visualization is a vital complement to numerical summarization, at all phases of analysis: ingest, exploration, cleaning, modelling, inference, and communication. In this course, students are trained in the analysis, design, and implementation of single static figures. This course covers the principles of marks and channels for visually encoding information, and continues with design choices for arranging data spatially, with a principled use of color. The three major data types of tables, networks, and spatial data are covered. Students are trained to choose appropriate visual encodings given the intended analysis task and to transform data to a form better aligned with that task when necessary. Students gain experience in using visualization for both exploration and communication, and gain fluency in implementing their designs using standard libraries and toolkits.

Proposed Calendar Entry:**DSCI 532 (1) Data Visualization II**

Interactive visualization, design choices, dynamic change over time, multiple views, data reduction, dealing with complexity.

Prerequisite: DSCI 531

Present Calendar Entry: N/A

Action: Create new course

Rationale: This course is one of the courses for the new professional Master's program in Data Science.

This course carries on from its prerequisite course, moving from single static figures to the analysis, design, and implementation of interactive visualizations. It covers design choices involving multiple views and the reduction of data shown in each view. Data scientists must be able to present and highlight results involving multiple dimensions and increased complexity.



<p>Proposed Calendar Entry:</p> <p>DSCI 541 (1) Privacy, Ethics, and Security</p> <p>Privacy and data. Ethics boards, legal issues, licensing. Physical and logical data security, social engineering. Encryption, data anonymization, privacy-preserving techniques. Case studies.</p>	<p>Present Calendar Entry: N/A</p> <p>Action: Create new course</p> <p>Rationale: This course is one of the courses for the new professional Master's program in Data Science.</p> <p>Data scientists often work with confidential or sensitive data. Cybersecurity breaches often make headlines, and society is becoming increasingly concerned about what controls are in place to ensure data privacy. This is especially true when complex systems interact and when data needs to be shared.</p> <p>This course deals with legal, ethical, and security issues concerning data, including aggregated data. Data scientists must be proactive in ensuring compliance with rules; and in those cases where there are no well-defined rules, they need to know how to formulate and implement procedures to responsibly manage sensitive data.</p>
<p>Proposed Calendar Entry:</p> <p>DSCI 542 (1) Communication and Argumentation</p> <p>Claims, reasons, and evidence. Strengths and weaknesses of models. Effective oral and written presentation of scientific results, including interpretation of data and recognition of assumptions, bias, validity, and reliability. Citations, references, and peer-review.</p>	<p>Present Calendar Entry: N/A</p> <p>Action: Create new course</p> <p>Rationale: This course is one of the courses for the new professional Master's program in Data Science.</p> <p>It is essential for data scientists to be able to communicate effectively with technical and non-technical people in a given application domain. This course teaches students how to give good oral and written presentations. Based on data and its analysis, students report conclusions and provide recommendations for decision-makers.</p>



Faculty: Science Department: Computer Science and Statistics Faculty Approval Date: October 8, 2015 Effective Date for Change: 16S	Date: 27 August 2015 Contact Person: Bruce Dunham Phone: 2-4997 Email: b.dunham@stat.ubc.ca
Proposed Calendar Entry: DSCI 551 (1) Exploratory Data Analysis for Data Science Descriptive statistics including measures of location and spread. Random variables, distributions, and parameters. Categorical variables. Uncertainty. Missing data.	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. Data scientists need to be literate in fundamental concepts in probability and statistics. This course aims to get students up to speed before moving on to more advanced material in statistical inference.
Proposed Calendar Entry: DSCI 552 (1) Statistical Inference and Computation I Random variables, parameters, observed data, statistics (distinctions and connections). Estimation: point and interval. Two-group comparisons, frequentist version. Simulation-based approaches. Prerequisite: DSCI 551	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. Statistical and probabilistic thinking is the theoretical underpinning of Data Science. In this course, students will be introduced to the basics of statistics and probability, forming the basis for all the remaining Statistics-based courses in the program.
Proposed Calendar Entry: DSCI 553 (1) Statistical Inference and Computation II Multiple hypothesis testing, false discovery rate. Two-group comparisons, Bayesian paradigm. Prerequisite: DSCI 552	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. In DSCI 552 (Statistical Inference and Computation I), students are introduced to frequentist approaches. In this course, students are introduced to the Bayesian paradigm. As future data scientists, students will leverage the material in this course to



	encode their assumptions about the system through a prior distribution.
Proposed Calendar Entry: DSCI 554 (1) Experimentation and Causal Inference Randomization. A/B testing. Blocked designs. Orthogonality. Batch effects, confounding. Causality. Contemporary examples. Simulations. Prerequisite: All of DSCI 553, DSCI 561	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. As part of "story-telling," and as part of sound scientific practice, data scientists need to relate the strength of a data analysis conclusion to the nature of the data collection. Thus a solid grounding in non-randomized ("observational") versus randomized ("experimental") studies is required. Students will learn to advise on how data can best be collected, and to analyze and interpret statistical model outputs in light of how data were actually collected. Given the Data Science audience, experimentation will be motivated and discussed via so-called "A/B testing" in website optimization.
Proposed Calendar Entry: DSCI 561 (1) Regression I Linear models: continuous response; one or more categorical covariates and/or one or more continuous covariates. Prerequisite: DSCI 552	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. Linear regression forms the basis for many statistical analyses used in Data Science. This course provides an introduction to Linear Regression as a simple but powerful tool, and then presents extensions such as using linear models to fit non-linear response surfaces. This forms the basis for the more advanced techniques covered in DSCI 562: Regression II.



<p>Proposed Calendar Entry:</p> <p>DSCI 562 (1) Regression II</p> <p>Non-parametric regression and smoothing. Data-driven parameter selection. Robust regression. Mixed effects.</p> <p>Prerequisite: DSCI 561</p>	<p>Present Calendar Entry: N/A</p> <p>Action: Create new course</p> <p>Rationale: This course is one of the courses for the new professional Master's program in Data Science.</p> <p>This course builds upon DSCI 561 (Regression I) and covers more advanced regression techniques. These more sophisticated techniques allow the Data Scientist to handle a wide array of complicated, real world data situations. For example, robust regression enables proper handling of outliers, a common complication of real-world data.</p>
<p>Proposed Calendar Entry:</p> <p>DSCI 563 (1) Unsupervised Learning</p> <p>Unsupervised learning. K-means/medoids. Model-based clustering. Expectation-maximization algorithm. Hierarchical clustering. Dimension reduction. Matrix decomposition. Heatmaps, contour plots, dendograms.</p> <p>Prerequisite: DSCI 562</p>	<p>Present Calendar Entry: N/A</p> <p>Action: Create new course</p> <p>Rationale: This course is one of the courses for the new professional Master's program in Data Science.</p> <p>While many courses in this Master's program cover supervised learning of various forms, this course covers another important part of machine learning: unsupervised learning. The techniques covered in this course are important for visualization (dimensionality reduction, heatmaps), clustering (k-means, etc.), and feature generation. In addition to their other uses, these techniques enable a data scientist to rapidly explore a data set and gain a sense of which variables may be more or less important.</p>



Faculty: Science Department: Computer Science and Statistics Faculty Approval Date: October 8, 2015 Effective Date for Change: 16S	Date: 25 August 2015 Contact Person: Patrice Belleville Phone: 2-9870 Email: patrice@cs.ubc.ca
Proposed Calendar Entry: DSCI 571 (1) Supervised Learning I Decision trees. k-th nearest neighbour classifiers. Naive Bayes classifiers. Logistic regression. Prerequisites: All of DSCI 512	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. Data scientists often need to build classification models to discriminate between two groups of instances. This course introduces students to supervised learning and how to classify data into groups using several popular machine learning techniques.
Proposed Calendar Entry: DSCI 572 (1) Supervised Learning II Support Vector Machines. Random Forests. Ensemble Classifiers. Graphical models. Prerequisite: DSCI 571	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. This course introduces classification techniques that go beyond the classifiers taught in the prerequisite course. It includes non-parametric, regression-based, tree-based, and graphical models. Ensemble classifiers are used to improve results. These methods are effective and widely used in the data science community.



<p>Proposed Calendar Entry:</p> <p>DSCI 573 (1) Feature and Model Selection</p> <p>Performance of a classification model. Generalization error, overfitting of training data. Shrinkage, feature selection, Akaike Information Criterion, Bayesian Information Criterion. <i>k</i>-fold cross validation. Bootstrapping. Receiver Operating Characteristic curve. Elastic nets, regularization.</p> <p>Prerequisite: DSCI 571</p>	<p>Present Calendar Entry: N/A</p> <p>Action: Create new course</p> <p>Rationale: This course is one of the courses for the new professional Master's program in Data Science.</p> <p>Data scientists need to build models that minimize generalization errors and overfitting. They need to measure and compare the quality and performance of classification models. This course provides important concepts for measuring model performance and introduces techniques for feature selection.</p>
<p>Faculty: Science</p> <p>Department: Computer Science and Statistics</p> <p>Faculty Approval Date: October 8, 2015</p> <p>Effective Date for Change: 16S</p>	<p>Date: 27 August 2015</p> <p>Contact Person: Bruce Dunham</p> <p>Phone: 2-4997</p> <p>Email: b.dunham@stat.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>DSCI 574 (1) Spatial and Temporal Models</p> <p>Time series. State space and change point detection. Hidden Markov Models. Gaussian processes.</p> <p>Prerequisite: DSCI 572</p>	<p>Present Calendar Entry: N/A</p> <p>Action: Create new course</p> <p>Rationale: This course is one of the courses for the new professional Master's program in Data Science.</p> <p>Data scientists must be able to analyze spatial and temporal data coming from a range of sources including sensors, urban statistics, and geo-location devices. This course covers state-of-the-art methods for analyzing data influenced by spatial and temporal associations. The course focuses on model building and interpretation, and relies on probabilistic programming packages to perform the computations.</p>



Faculty: Science Department: Computer Science and Statistics Faculty Approval Date: October 8, 2015 Effective Date for Change: 16S	Date: 25 August 2015 Contact Person: Patrice Belleville Phone: 2-9870 Email: patrice@cs.ubc.ca
Proposed Calendar Entry: DSCI 575 (1) Advanced Machine Learning Neural networks trained with backpropagation. Deep learning. Overfitting and underfitting. Active data acquisition. Hyperparameter optimization. Prerequisite: DSCI 572	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. A data scientist needs to have a series of techniques to provide the best classification results. As the third machine learning course in a series, this course includes neural networks, deep learning, and active learning. Students also learn how to troubleshoot when difficulties (especially over-fitting and under-fitting) are encountered when using the different methods learned throughout the program.
Faculty: Science Department: Computer Science and Statistics Faculty Approval Date: October 8, 2015 Effective Date for Change: 16W	Date: 25 August 2015 Contact Person: Patrice Belleville Phone: 2-9870 Email: patrice@cs.ubc.ca
Proposed Calendar Entry: DSCI 591 (6) Capstone Project A capstone design project designed to give students experience in leading complex multidisciplinary projects relevant to data science. Prerequisites: All of DSCI 513, DSCI 524, DSCI 525, DSCI 532, DSCI 541, DSCI 542, DSCI 554, DSCI 563, DSCI 573, DSCI 574, DSCI 575.	Present Calendar Entry: N/A Action: Create new course Rationale: This course is one of the courses for the new professional Master's program in Data Science. The capstone project is the final course in this program, bringing together many data science concepts and skills taught in earlier courses. It gives students the opportunity to work together and emulate the experience of working on a real data science project "in the field".



Faculty: Science Department: Computer Science Effective Session (W or S): S Effective Academic Year: 16	Date: 8 October 2015 Contact Person: Dr. N. Hutchinson Phone: 604-822-8818 Email: norm@cs.ubc.ca
<p>Proposed Calendar Entry:</p> <p>Faculty of Science</p> <p>...</p> <p>Institutes & Centres</p> <p>Professional Master's Degrees [Add link to: Professional Master's Degrees/Contents]</p> <p>Academic Staff</p>	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,0,0 </p> <p>Present Calendar Entry:</p> <p>Faculty of Science</p> <p>...</p> <p>Institutes & Centres</p> <p>Academic Staff</p> <p>Type of Action: Add Professional Master's Degrees to the list under the Faculty of Science.</p> <p>Rationale for Proposed Change: This will provide a section under the Faculty of Science in the calendar where students will be able to find information on professional master's degrees offered by the Faculty of Science.</p>
<p>Proposed Calendar Entry:</p> <p>Professional Master's Degrees</p> <p>Contents</p> <p>Public Policy and Global Affairs (M.P.P.G.A.)[link to: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,828,1557]</p>	<p>URL: New Section Required</p> <p>Present Calendar Entry: N/A</p> <p>Type of Action: Create a new section in the calendar for Professional Master's Degrees. Add Master of Science in Data Science to the list of professional master's degrees offered. Add link to new Master of Science in Data Science. Add link to the degree in Public Policy and Global Affairs.</p> <p>Rationale for Proposed Change: This will provide a section under the Faculty of</p>



<p>Master of Science in Data Science (M.S.D.S.) [Add link to: Master of Science in Data Science]</p>	<p>Science in the calendar where students will be able to find information on professional master's degrees offered by the Faculty of Science, specifically the Master of Science in Data Science and the degree in Public Policy and Global Affairs. A link is necessary for the degree requirements for the degree in Public Policy and Global Affairs as this degree is a joint degree with Science and Arts and presented in the Arts section. A link is necessary for the degree requirements for the Master of Science in Data Science.</p>
<p>Proposed Calendar Entry:</p> <p>Faculty of Science ...</p> <p>CPSC Computer Science</p> <p>CSPW Coordinated Science Program Workshop</p> <p>DSCI — Data Science</p> <p>ENPH Engineering Physics</p> <p>ENVR Environmental Science</p>	<p>URL: http://www.calendar.ubc.ca/vancouver/courses.cfm?page=code&institution=14</p> <p>Present Calendar Entry:</p> <p>Faculty of Science ...</p> <p>CPSC Computer Science</p> <p>CSPW Coordinated Science Program Workshop</p> <p>ENPH Engineering Physics</p> <p>ENVR Environmental Science</p> <p>Type of Action: Place new course code under the Faculty of Science</p> <p>Rationale for Proposed Change: The Faculty of Science proposes a new course code to identify required courses within the Professional Master's program in Data Science. A new code is needed to reflect the distinct course content of the Master's program.</p>



18 November 2015

To: Vancouver Senate

From: Senate Curriculum and Admissions Committees

Re: Master of High Performance Coaching and Technical Leadership
(approval)

The Senate Curriculum and Admissions Committees have reviewed the material forwarded to them by the Faculty of Graduate and Postdoctoral Studies (Education (Kinesiology)) and enclose those proposals they deem ready for approval.

The following is recommended to Senate:

Motion: *“That the new Master of High Performance Coaching and Technical Leadership (M.H.P.C.T.L.) degree program and its associated new courses be approved.”*

Respectfully submitted,

Mrs. Carol Jaeger,

Vice-Chair, Senate Curriculum Committee; Vice-Chair, Senate Admissions Committee



FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

New program and courses

Education

Graduate and Postdoctoral Studies>Degree Programs>Kinesiology>Master of High Performance Coaching and Technical Leadership; KIN 516 (3) Psychology of Leadership and Group Processes; KIN 517 (3) Business of High Performance Sport in Canada; KIN 572 (3) Research Methods in Sports Coaching; KIN 596 (6) High Performance Sport Inquiry

The University of British Columbia**School of Kinesiology****August 19, 2015****Master of High Performance Coaching and Technical Leadership****Overview**

The University of British Columbia is a comprehensive research-intensive university, consistently ranked among the 40 best universities in the world. It creates an exceptional learning environment that fosters global citizenship, advances a civil and sustainable society, and supports outstanding research to serve the people of British Columbia, Canada and the world. Since 1915, UBC's West Coast spirit has embraced innovation and challenged the status quo. Its entrepreneurial perspective encourages students, staff and faculty to challenge convention, lead discovery and explore new ways of learning.

School of Kinesiology History, Mission and Academic Goals

Our vision is to be a School world-renowned for its research, teaching and community engagement in the field of human movement. Our mission is to be a community of educators and researchers in the field of human movement that is dedicated to creating, advancing and disseminating inter-disciplinary knowledge that fosters a healthy self and society through physical activity. The School offers an exceptional learning environment that supports student success and enriched educational opportunities by engaging lifelong learning with students and the wider community, locally, nationally and globally.

Proposed Credential to be awarded

Master of High Performance Coaching and Technical Leadership (M.H.P.C.T.L.)

Category: Professional Program

Field: Coaching

Location

UBC Vancouver Campus for residential component and distance education (online)

Faculties/Schools offering the proposed new degree program

Faculty of Education/School of Kinesiology

Anticipated start date

Summer 2016

Description of the Program*i) Aims/goals and objectives:*

1. To develop coaches with the competence to contribute to medal performances in international competition at the developmental level.
2. To develop technical leaders with the competence to collaborate in strategic and operational leadership of a high performance sport program.

ii) Anticipated contribution to the mandate and strategic plan of the institution:

This program will contribute to UBC's goal of student learning and professional development by offering educational opportunities in the growing field of coaching sciences and international high performance sport. We will engage the community by promoting sporting excellence in an intercultural, international and world-class environment.

iii) Program learning outcomes and iv) Linkages between the learning outcomes and the curriculum design:

The curriculum is designed around four key themes:

Coaching Effectiveness

Performance Planning

Training and Competition Readiness

Coaching Effectiveness: Examines the relationship between athlete performance and coach intervention with a primary focus on technical and tactical skill intervention. Coaches will analyze changes in athlete performance and examine the coaching practices, interventions and decisions that impact these changes.

Performance Planning: Focuses on the physiological factors associated with athlete performance, the linkages among them and their relationship with performance factors and on gap analysis using objective measures and analytics that assess current and potential performance.

Coaching Leadership: Focuses on the impact of effective leadership practices on all aspects of coaching. Coaches learn how to create and articulate a coaching philosophy, lead change, build effective teams, and lead a program.

Training and Competitive Readiness: Focuses on the factors that optimize an athlete's training and maximize their performance during competition, and ancillary factors that affect an athlete's performance. Coaches identify, design and implement a series of strategies that will optimize an athlete's training and performance.

By the end of the program, the graduate student will be able to:

1. Understand, identify and contextualize the challenges and demands of the high performance sport environment while critically evaluate the systems and processes used to deliver high performance sports;
2. Demonstrate mastery of theoretical knowledge and a critical understanding of how contemporary research may be used to support high performance sport;
3. Understand the interrelationships between planning and integrating performance enhancement components, implementation of policies dealing with athletes, coaches, sports science consultants and other stakeholders
4. Synthesize complex information to generate effective and innovative solutions that provide for sustainable high performance sport organizations and environments;
5. Design and implement interventions based on analysis, synthesis and interpretation of sports performance data for use in an applied setting;
6. Critically evaluate, discuss and integrate exercise science principles behind the latest concepts in athlete preparation, interventions and strategies;
7. Effectively engage and appropriately implement physiological, training or analytical interventions in professional settings and reflect on the practical components of initiating athlete interventions;
8. Develop an awareness of how psychological science can inform intervention, coaching, and knowledge translation initiatives centered on leadership and group processes in sport and exercise settings;
9. Develop an understanding of sport systems and how to align programming to strategic plans and to manage the administrative aspect of programs;
10. Apply strategies to examine basic business aspects of high performance sport, including budgets, funding proposals, recruitment and marketing related to high performance coaching roles; and
11. Identify relevant context-specific knowledge relative to sport and manage its impact on sport performance.

v) Delivery methods:

The program will include two one-week residential periods: one at the start of year 1 and one at the start of year 2. All courses will primarily be delivered asynchronously online with added synchronous online classes scheduled throughout the fall and winter terms.

vi) Program strengths:

The program will:

- Provide a unique link between the National Coaching Certification Program (NCCP) and Post-secondary accreditation. Coaches and Leaders will be able to acquire credit towards their NCCP Advanced Coaching Diploma, as well as complete graduate level courses leading to a Masters degree.
- Provide an opportunity to learn within a multi-sport environment with access to world leading experts in research and practical real world applications.
- Incorporate multidisciplinary and interdisciplinary foci into the curriculum and bring together current and new

knowledge from allied health professions within the industry.

- Address issues of leadership, culture, and communication in the high performance sport setting, and incorporate a foundation of project design and research skills with direct application to high performance sporting contexts.
- Enhance educational opportunities for national-level coaches and technical leaders. Own The Podium and the Coaching Association of Canada have endorsed the need to develop educational opportunities to enhance Canada's High Performance Coaches and Sport Leader's ability to impact the international performance of Canadian athletes.
- Support the profession of coaching in Canada and help legitimize the professionalization of coaching. Formal education is a critical part of becoming a chartered professional coach..
- Access leading experts in High Performance Sport and sport practitioners working with Canada's Olympic athletes and coaches.
- Be available across Canada, and internationally using a blended on-line and residential model.
- Include a three-credit practicum, which can be integrated into a sport's High Performance National Coaching Certification Program requirements.
- Include teaching faculty who are content experts (from the Canadian Sport Institute network).
- Have flexible admission requirements to allow exceptional coaches to be accepted into the program.

vii) Level of support and recognition from other post sec schools, plans for admissions and transfers:

Sport organizations including Own The Podium (OTP), Coaching Association of Canada (CAC), Canadian Sport Institute (CSI) and National Sport Organizations are supporting this program. The only other program like this one will be at Laval University, and will primarily be conducted in French. The Laval program and UBC's program will share a common philosophy and model and will be recognized as equivalent by CAC. Admission and transfers will be based on merit and follow G+PS/UBC policies.

viii) Related programs in BC, indicate rationale for duplication if applicable:

There are no related programs in BC.

Contact info

Dr. Maria Gallo, Sr. Instructor and Master of Kinesiology Advisor

Email – maria.gallo@ubc.ca

Tel – 604.822.5084

The University of British Columbia
School of Kinesiology
August 19, 2015

Master of High Performance Coaching and Technical Leadership Proposal

Background Information

The field of coaching science has seen significant growth in Canada and around the world in national contexts that support high performance sports programs. National-level investment in sports performance has helped to fund a growing research field related to coaching and human performance. To ensure that our most talented athletes are able to perform well at the highest levels of competition, many supports must be in place, including highly-specialized coaching and technical leadership, research and innovation in training methods.

In Canada, national sport organizations and agencies contribute to the evolution of coaching science and its impact on coaching, including the Coaching Association of Canada, Own the Podium (a partnership among the national funding bodies for high performance sport, including the Canadian Olympic and Paralympic Committees), Canadian Sport Centres and Institutes, and Sport Canada. There is a strong desire to have educational programs that will provide the requisite foundation of scientific knowledge and evidence that Canadian coaches need to be among the best in the world. Linking the national coaching certification to higher education is critical in the evolution of coaching as a profession. The increased sophistication of high performance sport has created leadership positions at the national and provincial levels where technical leaders are responsible for developing and overseeing athlete development programs.

No post-secondary institutions in Canada currently offer formal academic training for High Performance Coaches or Technical Leaders. Market research conducted in preparation for this graduate program found a high level of interest in attaining post-graduate qualifications among those currently working at the national and provincial levels in high performance leadership roles as head coaches, technical directors and performance directors. There was particular interest by those currently in the workforce in earning a Master's degree in this field. As previously indicated, the approved graduate certificate has received 26 applications for September 2015. National sports organizations, including the Coaching Association of Canada (CAC) and the Canadian Sport Institute (CSI), have expressed strong support for the proposed program, and have agreed to link the Master's program to National Coaching Certification Program (NCCP) qualifications to facilitate professional coach recognition within national and provincial sport systems.

The Master of High Performance Coaching and Technical leadership will be the culmination of a program that includes the UBC Graduate Certificate in High Performance Coaching and Technical Leadership, which can be earned upon completion of the first year (12 credits) of this program, and the National Coaching Certification Program Advanced Coaching Diploma, which is earned upon completion of an additional three credits (KIN 516) plus an industry-based assessment administered by the Coaching Association of Canada and the Canadian Sport Institute. This unique arrangement provides candidates with the opportunity to earn the highest qualification in the sport sector (the NCCP Advanced Coaching Diploma) while working towards the Master's degree.

Program Rationale

The rationale for developing a Master of High Performance Coaching and Technical Leadership program is to provide outstanding education and professional development to students who will become high performance coaches and technical sport leaders in the Canadian sport system. The approved graduate certificate in High Performance Coaching and Technical Sport Leadership has received 26 applications for the September 2015 cohort. Admitted applicants are potential candidates for the proposed master's program, and have already expressed interest.

A description of the program

The Master's graduate program in High Performance Coaching and Technical Leadership is a two-year, 30 credit specialized program for experienced sport coaches and technical leaders who are looking to advance in their careers and engage in professional development. Through a partnership with the leading national agencies in high performance sport, an exemplary program will be offered using a blended delivery model.

The program will provide a strong foundation for present and future coaches and technical leaders by developing knowledge and skills in the interpretation and use of research, balanced with applied coaching practice. National sport leaders have identified developing skills in analysis and evidence-based decision-making as a critical need, and this program will help develop the next generation of sport leaders for Canada.

A blended model of residential periods and on-line teaching methods will facilitate the participation of candidates from across Canada and around the world. The program will be integrated into the sport federations' National Coaching Certification pathway, providing national certification together with academic credentials. Development of this program is based on the need for Canada to produce technical leaders and coaches who can prepare high performance athletes and teams to win in international competition. There is no other program with this focus in the country.

Sport organizations including Own The Podium (OTP), Coaching Association of Canada (CAC), Canadian Sport Institute (CSI) and National Sport Organizations are supporting this program. The only other program like this one will be at Laval University, and will primarily be conducted in French. The Laval program and UBC's program will share a common philosophy and model and will be recognized as equivalent by CAC. Admission and transfers will be based on merit and follow G+PS/UBC policies.

The Program is being developed to: i) improve the quality of high performance coaching in Canada; ii) contribute to coaching as a profession; and iii) provide better recognition and a qualification that is transferrable and universal to the coaches who commit to this level of study.

The Master's program is based on a problem solving and inquiry based methodology, which combines up to date high performance sport science applied within each student's current coaching context.

Target Learners

The target learners are coaches working with athletes on the "Podium Pathway", that is, those affiliated with provincial and national sport organizations, Provincial/Canada Games, Sport Institutes, elite clubs, and Canadian Interuniversity Sport programs. These coaches are working in full- or part-time coaching positions and are likely to focus on self-directed Professional Development that includes:

- A highly flexible approach to delivery to fit with occupational demands.
- Opportunities to transition to a future technical leadership role.
- Ability to expand on current practice by having access to world leading research and innovation in high performance sport.

Also targeted for the program are technical sport leaders such as high performance directors, current technical leaders, managers, executive directors and coordinators at the national and provincial levels and high performance coaches not currently working with high performance athletes. Other candidates for the program include retiring high performance athletes. The program provides them the opportunity to move into high performance coaching after being a successful athlete.

Career Opportunities

The UBC Master of High Performance Coaching and Technical Leadership program will engage industry partners to address current needs and global trends in high performance sport. Career prospects after completing the Master in High Performance Coaching and Technical Leadership program will be international

and national in scope with a range of placements at all levels in:

- national and provincial sport organizations
- sport institutes, elite clubs and university athletic departments
- government sports departments
- sponsorship
- public relations
- management of sports, recreation and leisure clubs
- advisory roles in the public and private sector

By developing specialized knowledge at the highest level, graduates from this program will be able to choose from a range of employment opportunities.

Study Opportunities

The Master's program will be available online and to international students. It will offer the most relevant learning experience by:

- blending online and work integrated learning
- applying the latest online and flexible study and learning tools
- bringing students into contact with leaders in the field
- employing real world problem based case studies

Student Admission Criteria

Candidates must meet [minimum entry requirements](#) established by Graduate and Post-Doctoral Studies. In addition, candidates will normally have a Bachelor's degree in Human Kinetics, Physical Education, Kinesiology or other related field of study, as well as:

- 5 years of coaching experience, including coaching athletes at the national team or Canada Games level, or 5 years as a carded National Team athlete;
- National Coaching Certification Program qualification at level 3 or "Competition Development";
- recommendation of the National Sport Organization, and
- submission of a portfolio showing an annual training plan the candidate has developed and implemented, other evidence of their practical coaching, and any articles or coaching materials they have produced.

Alternatively, applicants who do not meet the requirements stated above, but who have had significant formal training and relevant professional experience, and/or otherwise possess demonstrable knowledge or expertise that would prepare them adequately for successful study in a specific graduate program, may be granted admission on the recommendation of the appropriate graduate program and approval of the Dean of the Faculty of Graduate and Postdoctoral Studies.

Admissions Committee

An Admissions Committee, including representatives of the national sport community, will screen candidates, and liaise with the National Sport Organizations.

Procedures will follow those specified by the University and by the Faculty of Graduate and Postdoctoral Studies.

Proposed Curriculum topics

A multi-sport model will be applied in keeping with current practices in the National Coaching Certification Program (NCCP), and other graduate programs in coaching.

Specific sport knowledge development will be addressed through course assignments. The practicum placement will be determined on a student-by-student basis in consultation with a program representative.

1. KIN 515 - Gap Analysis

Using analytics to obtain, describe and visualize data to create sport profile. Determine optimal programming decisions for coached athletes based on performance pathway and gold medal profile. Apply research methods

and principles of scientific inquiry, performance analysis, descriptive, prescriptive and predictive analytics to improve athlete development and performance.

2. KIN 585 – Coaching Science I (Performance Planning)

Application of findings from sport profile and gap analysis to the planning and design of high performance training and coaching programs. Focuses on quadrennial, annual, meso and microcycle planning to integrate key factors that impact athlete performance and progression along the athlete development pathway.

3. KIN 586 – Coaching Science II (Coaching Effectiveness)

Analysis of athlete performance and appropriate design and application of coaching intervention and skill acquisition for athlete and coach development.

4. KIN 598 - Directed Field Studies in Sport and Physical Activity Agencies (Practicum) requires a placement in a practical coaching or technical leadership position for a minimum of 40 hours. National Sport Organization and Canadian Sport Institute will provide mentoring opportunities to align this practicum with the sport specific technical requirements under the supervision. A School of Kinesiology faculty member will be involved in the practicum and will provide feedback to the student, and assessment.

5. KIN 572 - Research Methods in Sports Coaching

Interpretation and evaluation of research methods and scientific findings related to coaching sciences.

6. KIN 516 - The Psychology of Leadership and Group Processes in Sport

This course examines contemporary theory, research, and application with regard to leadership and group processes in the context of sport and exercise. The course provides a broad overview of major topics in the area.

7. KIN 517 - Business of High Performance Sport in Canada

Examination of Canada's sport system, its governance and stakeholders; financial management for high performance sport; communications, marketing, and sponsorship of high performance sport.

8. KIN 530 - Directed Study

Topics are selected by the student. Applications for this course must be made by providing a completed Directed Studies Contract to the Program Supervisor. Hand-written contracts will not be accepted. Approval must be granted by the KIN 530 Supervisor (Dr. M. Gallo) and Graduate Advisor before the start of the course (refer to Graduate Forms, <http://kin.educ.ubc.ca/students/graduate/current-students/resources/>)

9. KIN 596 - High Performance Sport Inquiry

This course is designed to strengthen student research knowledge and research skills. A blended learning approach is taken and applied in a problem-based setting, so that students complete tasks to support their own research interests within the high performance sport arena. Topics are selected by the student, and approval must be granted by the Program Supervisor.

Proposed Length/Duration (indicate hours, credits, months)

To accommodate mid-career professionals who are currently working as coaches and technical leaders, the Master of High Performance Coaching and Technical Leadership will be offered on a part-time basis over 24-48 months.

To complete the Master of High Performance Coaching and Technical Leadership program, candidates will complete 30 credits (9 courses) in a combination of short residential periods, and synchronous and asynchronous on-line work. KIN 515, KIN 585, KIN 586 and KIN 598 (39 hours each, 3 credits each) will be offered over the first year. The remaining 18 credits will be ideally completed in the second year of the program: KIN 516, KIN 517, KIN 572, KIN 530 (39 hrs each, 3 credits each) and KIN 596 (6 credits).

The program will commence with a six-day intensive orientation in August at UBC Vancouver, and 4 courses will be offered over two winter terms using online programming. A similar residential course in June/July will be held at the start of year 2 to introduce the remaining 5 courses, which will then run throughout the academic year, offered through online programming.

Marketing/Promotion Strategy

The program will be advertised on the school's website. Canadian Sport Institute Pacific and the Coaching Association of Canada will promote this program to current and emerging High Performance coaches, with the endorsement of Own The Podium. Electronic flyers will be developed and distributed to National Sport Organizations.

Provincial and territorial coaching conferences will be targeted as well. Members of these programs will receive information on the new program.

Marketing of the Master of High Performance Coaching and Technical leadership will build on the work done in 2015 to launch the Graduate Certificate. Approved in March 2015, the Graduate Certificate was marketed through the national and provincial sport networks, and by June 1, 2015 twenty-six applications were received – an excellent response for the first year of a program. Twenty two have been sent letters of offer (response due date is August 10th).

Current Program Advisory Committee Members (list names and affiliations)

Dr. Maria Gallo, UBC – Sr Instructor

Dr. William Sheel, UBC - Professor

Dr. Robert Boushel, UBC - Director

David Hill, CSI Pacific

Gérard Lauzière, CAC

Note: “x” indicate when assignments are due
Filled cells indicate synchronous (online) classes

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UBC Residential Components

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
9:00	UBC Orientation	KIN 515 Gap Analysis	KIN 598 Orientation	KIN 586 Coaching Effectiveness	KIN 586 Performance Planning	KIN 586 Performance Planning
10:00						
11:00						
12:00						
1:00	KIN 515 Gap Analysis	ETS Orientation (lunch)	KIN 586 Coaching Effectiveness	KIN 586 Coaching Effectiveness	KIN 586 Performance Planning	
2:00		KIN 515 Gap Analysis				
3:00						
4:00						
5:00						

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
9:00	UBC Orientation	KIN 572 Research Methods	KIN 572 Research Methods	KIN 596 HP Sport Inquiry	KIN 516 Coaching Leadership	KIN 516 Coaching Leadership
10:00						
11:00						
12:00						
1:00	KIN 572 Research Methods	KIN 572 Research Methods	KIN 596 HP Sport Inquiry	KIN 596 HP Sport Inquiry	KIN 516 Coaching Leadership	
2:00						
3:00						
4:00						
5:00						



UBC Curriculum Proposal Form Change to Course or Program

Category: (1)

<p>Faculty: Education Department: School of Kinesiology Faculty Approval Date: July 23, 2015 Effective Session (W or S): S Effective Academic Year: 2016</p>	<p>Date: July 23, 2015 Contact Person: Dr. Maria Gallo Phone: 604-822-5084 Email: maria.gallo@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>Kinesiology Degrees Offered: Ph.D., M.A., M.Sc., M.Kin., M.H.P.C.T.L. ... Master of Kinesiology ... 3. Alumni who received an M.H.K. degree from UBC can elect to convert their degree to a M.Kin. degree by submitting an HKIN Alumni M.Kin Degree Application form. For further information read the FAQ on the School's website.</p> <p>Master of High Performance Coaching and Technical Leadership</p> <p>The Master of High Performance Coaching and Technical Leadership is a two-year, 30 credit specialized program for experienced sport coaches and technical managers who are looking to advance in their careers. Through a partnership with the leading national agencies in high performance sport, an international quality program is offered using a blended delivery model.</p> <p>The program provides a strong foundation for present and future coaches and technical leaders by developing knowledge and skills in the interpretation and use of research, balanced with applied coaching practice. The development of skills in</p>	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,828,1180#11308</p> <p>Present Calendar Entry:</p> <p>Kinesiology Degrees Offered: Ph.D., M.A., M.Sc., M.Kin. ... Master of Kinesiology ... 3. Alumni who received an M.H.K. degree from UBC can elect to convert their degree to a M.Kin. degree by submitting an HKIN Alumni M.Kin Degree Application form. For further information read the FAQ on the School's website.</p> <p>Contact Information ...</p> <p>Type of Action: Create a new Master's program in High Performance Coaching and Technical Leadership</p> <p>Rationale for Proposed Change: The rationale for developing this new Master of High Performance Coaching and Technical Leadership is to enable an academic credential to strengthen the profession of coaching, and to provide outstanding ongoing education for technical sport leaders in the Canadian Sport System. Linking national coaching qualifications to higher education is an important step in the evolution of coaching as a profession. In addition, the increased sophistication of high performance sport has created</p>



analysis and evidence-based decision making has been identified as a critical need by national sport leaders, and this program helps develop the next generation of sport leaders for Canada.

A blended model of residential periods and on-line teaching methods facilitates the participation of candidates from across Canada and around the world. The program is integrated into the Sport Federations' national coaching qualifications, providing national certification together with academic credentials. The program will include two one-week residential courses: one at the start of year 1 and one at the start of year 2. All courses will primarily be delivered online with added synchronous classes scheduled throughout Winter T1 and T2.

Admissions:

Candidates must meet [minimum entry requirements](#) established by Graduate and Post-Doctoral Studies. In addition, candidates will normally have a Bachelor's degree in Human Kinetics, Physical Education, Kinesiology or other related field of study, as well as:

- 5 years of coaching experience, including coaching athletes at the national team or Canada Games level, or 5 years as a carded National Team athlete;
- National Coaching Certification Program qualification at level 3 or "Competition Development";
- recommendation of the National Sport Organization, and
- submission of a portfolio showing an annual training plan the candidate has developed and implemented, other evidence of their practical coaching, and any

leadership positions at the national and provincial levels. In these positions, leaders are responsible for developing and overseeing technical programs, and no formal post-secondary program currently exists to prepare candidates for these roles. Market research indicates a high level of interest in specific, university-based qualifications among those currently working in high performance leadership roles, as head coaches, technical directors and performance directors at the national and provincial levels.

The demands on coaches and technical leaders to innovate, to base decisions on current sport science and organizational leadership research, and to design systems that are globally competitive, has created the need to offer more sophisticated and comprehensive preparation.



articles or coaching materials they have produced.

Alternatively, applicants who do not meet the requirements stated above, but who have had significant formal training and relevant professional experience, and/or otherwise possess demonstrable knowledge or expertise that would prepare them adequately for successful study in a specific graduate program, may be granted admission on the recommendation of the appropriate graduate program and approval of the Dean of the Faculty of Graduate and Postdoctoral Studies.

Program Requirements:

Students will be required to complete 30 credits of KIN courses which includes a 6 credit sport inquiry course.

1. KIN 515 (3) Gap Analysis
2. KIN 585 (3) Performance Planning
3. KIN 586 (3) Coaching Effectiveness
4. KIN 598 (3) Directed Field Studies – Practicum
5. KIN 516 (3) Psychology of Leadership and Group Processes in Sport
6. KIN 517 (3) The Business of High Performance Sport
7. KIN 572 (3) Research Methods in Sports Coaching
8. KIN 530 (3) Directed Studies
9. KIN 596 (6) High Performance Sport Inquiry

Contact Information

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UBC Curriculum Proposal Form Change to Course or Program

Category: (1)

Faculty: Education Department: Kinesiology Faculty Approval Date: July 23, 2015 Effective Session (W or S): W Effective Academic Year: 2015	Date: May 1, 2015 Contact Person: Dr. Mark R. Beauchamp Phone: 604-822-4864 Email: mark.beauchamp@ubc.ca
Proposed Calendar Entry: KIN 516 (3) Psychology of Leadership and Group Processes Contemporary theory, research and application with regard to leadership and group processes in the context of sport and exercise.	Present Calendar Entry: N/A Type of Action: Create New Course Rationale for Proposed Change: Within the field of sport and exercise psychology a considerable amount of research has focused on examining leadership and group processes. Indeed, whether one is interested in getting individual athletes and sport teams to perform better, or bringing about improved relational processes in such settings, it is essential to understand the psychological science behind effective leadership and group dynamics. At present, there is no course in the School of Kinesiology (or elsewhere at UBC) that focuses on leadership and group dynamics in sport. This course will be available to students in the 'new' Masters in High Performance Coaching (MHPCTL), as well as MA, MSc, MKin, and PhD students.
Faculty: Education Department: School of Kinesiology Faculty Approval Date: July 23, 2015 Effective Session (W or S): W Effective Academic Year: 2015	Date: July 23, 2015 Contact Person: Dr. Maria Gallo Phone: 604-822-5084 Email: maria.gallo@ubc.ca
Proposed Calendar Entry: Kin 517 (3) Business of High Performance Sport in Canada Canada's sport system, its governance and stakeholders; financial management for high performance sport; communications, marketing, and sponsorship of high performance sport.	Present Calendar Entry: N/A Type of Action: Create new course Rationale for Proposed Change: High performance coaches and technical leaders are expected to understand basic financial management, budgeting, and marketing to enhance fundraising and sponsorship for their programs. This new course will give them the opportunity to create effective proposals for grant applications, fund raising and sponsorship procurement while exposing them to government regulations and legislation for taxation and grants related to the operation of high performance sport.
Proposed Calendar Entry: KIN 572 (3) Research Methods in Sports Coaching Interpretation and evaluation of research methods and scientific findings related to coaching sciences.	Present Calendar Entry: N/A Type of Action: Create New Course Rationale for Proposed Change: High performance coaches and technical leaders require a comprehensive understanding of research methods and basic statistics to be able to use scientific



	<p>evidence to develop their leadership practices. Students will be provided with the opportunity to develop their research literacy skills through the evaluation of strengths and limitations of research designs, critical assessment of coaching science research articles, application and interpretation of basic statistics, and the use of data management programs to organize, analyze, and interpret data. The critical evaluation of coaching science research will be emphasized to assist students in establishing best coaching and leadership practices.</p>
<p>Faculty: Education Department: School of Kinesiology Faculty Approval Date: July 23, 2015 Effective Session (W or S): W Effective Academic Year: 2015</p>	<p>Date: June 2015 Contact Person: Dr. Mark R. Beauchamp Phone: 604-822-4864 Email: mark.beauchamp@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>KIN 596 (6) High Performance Sport Inquiry</p> <p>Blended learning approach in a problem-based setting. Students support their own research interests within the high performance sport arena.</p> <p><i>Prerequisite:</i> KIN 572.</p>	<p>Present Calendar Entry: N/A</p> <p>Type of Action: Create New Course</p> <p>Rationale for Proposed Change: The demands on high performance coaches and technical leaders to innovate, to base decisions on current sport science and organizational leadership research, and to design systems that are globally competitive, has created the need to offer more sophisticated and comprehensive preparation. This course will provide a strong foundation by developing knowledge and skills in the interpretation and use of research, balanced with applied coaching practice.</p>



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Office of the Senate
Brock Hall | 2016 - 1874 East Mall
Vancouver BC V6T 1Z1

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

18 November 2015

To: Vancouver Senate
From: Senate Curriculum Committee
Re: November 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 and revised program brought forward by the faculties of Commerce and Business Administration and Land and Food Systems be approved.”*

Respectfully submitted,

Mrs. Carol Jaeger, Vice-Chair

Senate Curriculum Committee



FACULTY OF COMMERCE AND BUSINESS ADMINISTRATION

New course and revised programs

BUSI 352 (3) Case Studies in Residential Valuation; Commerce and Business Administration>Bachelor of Business in Real Estate>Degree Requirements; Commerce and Business Administration>Professional and Diploma Courses>Certificate in Residential Valuation

FACULTY OF LAND AND FOOD SYSTEMS

New course

APBI 412 (3) Belowground Ecosystems



UBC Curriculum Proposal Form Change to Course or Program

Category: 1

<p>Faculty: Commerce and Business Administration Department: n/a Faculty Approval Date: Sept 15, 2015 Effective Session (W or S): S Effective Academic Year: 2016</p>	<p>Date: June 8, 2015 Contact Person: John Bridal Phone: 250.642.2587 Email: john.bridal@sauder.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>BUSI 352 (3) Case Studies in Residential Valuation</p> <p>Examines common issues that affect the practice of residential real estate valuation. Credit will be granted for only one of BUSI 352 or both BUSI 442/452.</p> <p><i>Prerequisite:</i> BUSI 330. Recommend BUSI 121 and/or BUSI 344.</p>	<p>Present Calendar Entry: n/a</p> <p>Type of Action: Create new course</p> <p>Rationale for Proposed Change: Build on the foundations of the BUSI 330 valuation course, advancing both the depth and breadth of technical and professional competencies for real estate practitioners.</p>



UBC Curriculum Proposal Form Change to Course or Program

Category: 1

Faculty: Commerce and Business Administration Department: n/a Faculty Approval Date: Sept 15, 2015 Effective Session (W or S): S Effective Academic Year: 2016	Date: June 8, 2015 Contact Person: John Bridal Phone: 250.642.2587 Email: john.bridal@sauder.ubc.ca																																										
Proposed Calendar Entry: Bachelor of Business in Real Estate ... Degree Requirements Requirements for the B.B.R.E. (120 credits) include the following: Bachelor of Business in Real Estate ... Plus at least 15 credits from the following specialty courses: <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">BUSI 352⁴</td> <td style="width: 20%; text-align: right;">3</td> </tr> <tr><td>BUSI 433²</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 441²</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 442^{2,4}</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 443²</td><td style="text-align: right;">6</td></tr> <tr><td>BUSI 444²</td><td style="text-align: right;">6</td></tr> <tr><td>BUSI 445²</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 446²</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 451²</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 452^{2,4}</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 460²</td><td style="text-align: right;">3</td></tr> </table>	BUSI 352⁴	3	BUSI 433 ²	3	BUSI 441 ²	3	BUSI 442 ^{2,4}	3	BUSI 443 ²	6	BUSI 444 ²	6	BUSI 445 ²	3	BUSI 446 ²	3	BUSI 451 ²	3	BUSI 452 ^{2,4}	3	BUSI 460 ²	3	URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,199,296,0 Present Calendar Entry: Bachelor of Business in Real Estate ... Degree Requirements Requirements for the B.B.R.E. (120 credits) include the following: Bachelor of Business in Real Estate ... Plus at least 15 credits from the following specialty courses: <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">BUSI 433²</td> <td style="width: 20%; text-align: right;">3</td> </tr> <tr><td>BUSI 441²</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 442²</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 443²</td><td style="text-align: right;">6</td></tr> <tr><td>BUSI 444²</td><td style="text-align: right;">6</td></tr> <tr><td>BUSI 445²</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 446²</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 451²</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 452²</td><td style="text-align: right;">3</td></tr> <tr><td>BUSI 460²</td><td style="text-align: right;">3</td></tr> </table>	BUSI 433 ²	3	BUSI 441 ²	3	BUSI 442 ²	3	BUSI 443 ²	6	BUSI 444 ²	6	BUSI 445 ²	3	BUSI 446 ²	3	BUSI 451 ²	3	BUSI 452 ²	3	BUSI 460 ²	3
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One of BUSI 398, BUSI 497, or BUSI 499	4 - 6	One of BUSI 398, BUSI 497, or BUSI 499	4 - 6
GEOG 350 or URST 400	3	GEOG 350 or URST 400	3
Total Credits	15	Total Credits	15
...		...	
⁴ Credit will be granted for only one of BUSI 352 or both BUSI 442/452.		Type of Action: Specify BUSI 352 as a BBRE elective course.	
		Rationale for Proposed Change: Due to overlapping content, students cannot receive BBRE credit for both BUSI 352 and BUSI 442/452.	



UBC Curriculum Proposal Form Change to Course or Program

Category: 1

<p>Faculty: Commerce and Business Administration</p> <p>Department:</p> <p>Faculty Approval Date: Sept 15, 2015</p> <p>Effective Session (W or S): W</p> <p>Effective Academic Year: 2015</p>	<p>Date: June 8, 2015</p> <p>Contact Person: John Bridal</p> <p>Phone: 250.642.2587</p> <p>Email: john.bridal@sauder.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>Professional and Diploma Courses ...</p> <p>Real Estate Courses and Programs ...</p> <p>Certificate in Residential Valuation. A six-course distance education program leading towards the Appraisal Institute of Canada's CRA designation.</p>	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,199,298,0</p> <p>Present Calendar Entry:</p> <p>Professional and Diploma Courses ...</p> <p>Real Estate Courses and Programs ...</p> <p>Certificate in Residential Valuation. A five-course distance education program leading towards the Appraisal Institute of Canada's CRA designation.</p> <p>Type of Action: Change in calendar information to reflect change in external certificate requirement from the Appraisal Institute of Canada. Accompanies Category 1 change to add BUSI 352.</p> <p>Rationale for Proposed Change:</p> <ol style="list-style-type: none"> 1. BUSI 352 "Case Studies in Residential Valuation" has been requested by stakeholders to address knowledge that all CRV graduates must possess. This increases the number of courses required for the CRV from five to six. 2. Graduates of the CRV are prepared for a career in residential valuation. Stakeholders recognize the need for options within industry practice. BUSI 121 course offers more practically applicable competencies than BUSI 344 for many real estate industry practitioners. This change maintains the rigour of the CRV, while improving career flexibility for graduates.



UBC Curriculum Proposal Form Change to Course or Program

Category: 1

Faculty: Land and Food Systems Department: Faculty Approval Date: October 15, 2015 Effective Session (W or S): W Effective Academic Year: 2015	Date: August 20, 2015 Contact Person: Dr Sue Grayston Phone: 604-822-5928 Email: sue.grayston@ubc.ca
Proposed Calendar Entry: APBI 412 (3) Belowground Ecosystems Concepts, methods, and applications of belowground ecology with emphasis on biotic interactions in soil; Roles that aboveground and belowground communities play in regulating the structure and function of terrestrial ecosystems and their responses to global change. Credit will be granted for only one of FRST 512 or APBI 412. [3-0-0]. <i>Prerequisite:</i> Fourth year standing in a Bachelor of Science Program. Permission is required for registration.	Present Calendar Entry: N/A Type of Action: Create new course Rationale for Proposed Change: This course is an adaptation of an existing graduate course (FRST 512). It is proposed as an advanced optional course for students in the Bachelor of Science: Applied Biology Program (LFS), Global Resource Systems Program (LFS); Natural Resources Conservation Program (FRST); Forest Sciences Program (FRST); Bachelor of Urban Forestry Program (FRST); Honours Plant Biology, Ecology, and Conservation Programs (SCI) who wish to deepen their understanding of belowground ecology.



6 November 2015

To: Vancouver Senate

From: Nominating Committee

Re: A) Appointments to President's Advisory Committees
B) Adjustments to Committee Memberships

The Senate Nominating Committee has received a request from the President to appoint two senators (one faculty member, one student) to a President's Advisory Committee for the Extension of the Appointment of the Vice-President Students, and a request from the Vice-President Research & International to appoint one faculty member to a President's Advisory Committee for the Extension of the Appointment of the Associate Vice-President Research & International. The former extension is not currently covered by any policy of the University; the latter extension is pursuant to Policy 24.

The Nominating Committee would recommend that Senate resolve as follows:

That Dr Paul G Harrison and Mr Daniel Munro be appointed to the President's Advisory Committee for the Extension of the Appointment of the Vice-President Students; and

That Dr Kenneth Baimbridge be appointed to the President's Advisory Committee for the Extension of the Appointment of the Associate Vice-President Research & International.

Further, the Committee has received a request from the student senators to adjust their committee assignments. The Nominating Committee would recommend that Senate resolve as follows:

That Senate make the following adjustments to the memberships of committees of Senate and the Council of Senates, effective until 31 March 2016 and thereafter until replaced:

<i>Senate Tributes Committee:</i>	<i>Armin Rezaiean-Asel to replace Melanie Chartrand</i>
<i>Senate Academic Building Needs Committee:</i>	<i>Jolene Loveday to replace Armin Rezaiean-Asel</i>
<i>Senate Library Committee:</i>	<i>Jolene Loveday to replace Melanie Chartrand</i>
<i>Council Elections Committee:</i>	<i>Jolene Loveday to replace Melanie Chartrand</i>

Respectfully submitted,

Dr Richard Tees, Chair
Senate Nominating Committee