



## SENATE

### NOTICE OF MEETING

December 3, 2021

The Agenda and documents for the Open Session meeting of Senate of Concordia University held on Friday, December 10, 2021, at 2 p.m. are now posted on the website.

Please note that while there is an Open Session, given that the meeting is being held by video conference, only members of Senate and invited guests will be admitted to the meeting.

As usual, the meeting will be recorded, and any member of the community who would have otherwise attended the meeting in the observer's gallery will be able to view the meeting at RMAD, in accordance with the *Guidelines pertaining to the recording and broadcasting of Senate meetings* ([US-2](#)).

Shelina Houssenaly  
Secretary of Senate



**AGENDA OF THE OPEN SESSION  
OF THE MEETING OF SENATE**

Friday, December 10, 2021, at 2 p.m.  
via Zoom video conferencing

<b>Item</b>	<b>Presenter(s)</b>	<b>Action</b>
1. Call to order	G. Carr	
1.1 Approval of the Agenda	G. Carr	Approval
1.2 Adoption of October 8, 2021 Minutes	G. Carr	Approval
1.3 Adoption of November 12, 2021 Minutes	G. Carr	Approval
2. Business arising from the Minutes not included on the Agenda	G. Carr	
3. President's remarks	G. Carr	Information
4. Academic update (Document US-2021-8-D1)	A. Whitelaw	Information
<b>CONSENT AGENDA</b>		
5. Committee appointments (Document US-2021-8-D2)		Approval
6. Academic Programs Committee - Report and recommendations (Document US-2021-8-D3)		Approval
7. Library Committee Report (Document US-2021-8-D4)		Information

**REGULAR AGENDA**

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|---|---|----------|
| <b>8.</b> Undergraduate curriculum proposal - New Minor in Quantitative Finance and Insurance (Document US-2021-8-D5) | P. Sicotte  | Approval |
| <b>9.</b> Progress report of the working group on Pass/DISC (Pass/Fail) (Document US-2021-8-D6)                       | A. Whitelaw/<br>H. Jamet-Lange/<br>E. Malorni     | Approval |
| <b>10.</b> Presentations and motion regarding proposed Bill 2 (Document US-2021-8-D7)                                 | H. Jamet-Lange/<br>Celeste Trianon/<br>Lisa White | Approval |
| <b>11.</b> Question period (maximum 15 minutes)   |   |          |
| <b>12.</b> Other business   |   |          |
| <b>13.</b> Adjournment  | G. Carr   |          |

**MINUTES OF THE OPEN SESSION  
OF THE MEETING OF SENATE**

Friday, October 8, 2021, at 2:00 p.m.  
via Zoom video conferencing

PRESENT

Voting Members: Graham Carr (Chair), Shimon Amir, Leslie Barker, Mathew Barker, Guylaine Beaudry, Elizabeth Bloodgood, Catherine Bolton, Lovina Angela Brown, Queenie Hui Jing Chen, Demetre Christopoulos, Sally Cooke, Anne-Marie Croteau, Alexandra Dawson, Selvadurai Dayanandan, Alex De Visscher, Mourad Debbabi, Larry Deck, Effrosyni Diamantoudi, Riya Dutta, Linda Dyer, Mary Esteve, Ariela Freedman, Annie Gérin, Marina Ghali, Nicolka Gorel, Abdelwahab Hamou-Lhadj, Hannah Jamet-Lange, Eduardo Malorni, Catherine Mulligan, Prady Cassandra Ngouma Wa, Satinder Pal Singh, Gilles Peslherbe, Duraichelvan Raju, Jasmine Ramcharitar-Brown, Lourdu Reddy Allam, Rosemary Reilly, Pascale Sicotte, Reza Soleymani, Robert Soroka, Kelly Thompson, Craig Townsend, Guylaine Vaillancourt, Deeva Wazir, Anne Whitelaw, Shaina Willison, Paula Wood-Adams, Radu Grigore Zmeureanu

Non-voting members: Philippe Beauregard, Stéphanie de Celles, Michael Di Grappa, Isabel Dunnigan, Nadia Hardy, Tom Hughes, Candace Jacobs, Frederica Jacobs, Émilie Martel

Also attending: Sandra Gabriele, Karan Singh

ABSENT

Voting members: Joanna Berzowska, Boutaina Chafi, Mehdi Farashahi, Moshe Lander, Jean-Philippe Warren

Non-voting members: Paul Chesser, Denis Cossette

**1. Call to order**

The meeting was called to order at 2:03 p.m.

### 1.1 Approval of the Agenda

*R-2021-6-1 Upon motion duly moved and seconded, it was unanimously resolved that the Agenda of the Open Session be approved.*

### 1.2 Adoption of September 17, 2021 Minutes

*R-2021-6-2 Upon motion duly moved and seconded, it was unanimously resolved that the Minutes of the Open Session meeting of September 17, 2021, be adopted.*

## 2. Business arising from the Minutes not included on the Agenda

There was no business arising from the Minutes not included on the Agenda.

## 3. President's remarks

The President's remarks are summarized as follows:

- With profound sadness, President Carr reported the passing of Dr. Nadia Chaudhri earlier in the week. Dr. Carr spoke of the amazing courage and optimism, and legacy created by Dr. Chaudhri, who died after a tenacious battle with ovarian cancer. He expressed his condolences to her husband and their son as well as to the entire family, friends and colleagues.
- President Carr underlined the outpouring of recognition for Dr. Chaudhri in the mainstream and social media. He spoke to how people worldwide were moved and inspired by Dr. Chaudhri's heroic fight against disease and death, and by Dr. Chaudhri's determination to make the academic world and society a better place through the creation of the Nadia Chaudri Wingspan Award, an Award which aims to support women scientists from racialized communities. Spearheaded by Dr. Chaudhri before Dr. Chaudhri passed, Dr. Carr reported that the Award saw contributions from over 8,600 individuals who donated \$615,000.00. Dr. Carr explained that he had multiple exchanges over the last few days with Senators and other colleagues on the best way to remember and appreciate Dr. Chaudhri and their work as well as to express the collective emotion of sadness and loss felt by Dr. Chaudhri's passing. He said that he will be working with Dr. Chaudhri's family and colleagues to find a proper way to honor and celebrate Dr. Chaudhri's life as a scientist, teacher, mentor and a citizen of Concordia, and to celebrate the enormous contribution Dr. Chaudhri made to our community.
- President Carr conveyed to Senate that Dr. Chaudhri's fundraising efforts were part of and aligned with this year's Shuffle, where another \$53,000.00 were raised to support students in the form of scholarships and bursaries. He expressed his gratitude to Senate and the entire Concordia community for shuffling and sponsoring others to raise these funds for a worthy cause.

- Dr. Carr informed Senators that pictures from around campus taken on the evening of the National Day for Truth and Reconciliation on September 30 were shared with members of the Board and Senate earlier this week, and he mentioned how wonderful it was to see many buildings bathed in striking orange light. Dr. Carr thanked everyone who participated in the activities to mark this very important day and reaffirmed the university's commitment to decolonization and the continued work towards reconciliation.
- In related staffing news, Dr. Carr invited Senators to welcome Adamina Partridge who recently joined the university's Otsenhákta Student Centre (OSC) as its new Interim Coordinator. Originally from Kuujuaq, Nunavik, Partridge previously worked at the Four Directions Indigenous Centre at Queen's University. Dr. Carr acknowledged the important role that Adamina will be taking on.
- President Carr apprised Senators of a major gift in the amount of \$2 million from the Doggone Foundation to the Faculty of Fine Arts to create the Elspeth McConnell Fine Arts awards which will be used from now until the end of the decade to support and enable 40 paid internships in the Fine Arts Faculty annually. He mentioned that these awards are another example of Concordia's ongoing commitment to experiential learning and providing student with opportunities and engagement with arts and cultural organizations.
- President Carr also reported that a record number of Concordia varsity athletes, 52, were named Academic All-Canadians, which mean they sustained an A- average or better in their courses while participating in a national university sports competition. Dr. Carr congratulated the athletes, their coaches and the Student Success Centre for their collective efforts towards this amazing achievement.
- Dr. Carr was pleased to announce that the university has been able to secure two dates at Place des Arts to hold the first of a series on in-person convocation ceremonies to allow for the recognition of a growing cohort of students who have graduated since the beginning of the pandemic. He mentioned that the recent announcement of relaxation of measures for the operations of arts and cultural organizations has made this possible.
- In relation to health and safety measures, President Carr provided an update on COVID-19: in the past week, 4 cases of COVID-19 were reported by members within the Concordia community who had tested positive within 48 hours of being on campus; in the previous week, 6 cases had been reported; since the return-to-campus this fall, none of the cases were due to contact on campus. Dr. Carr reported from recent discussions with the other university rectors that it was observed that no outbreak had been reported at any Quebec university at this point.
- Dr. Carr provided some context. He explained that, on average, more than 15,000 students are registered for in-person courses Monday to Friday on both campuses, in addition to others accessing the libraries and other spaces, faculty members and staff. Dr. Carr informed that a dashboard was being developed and will be ready in the

coming weeks, which will provide the community with an overview of Concordia's situation in relation to the larger public health context in the city.

- President Carr noted that the university is moving to act more vigorously on mask-wearing. He shared that there are circumstances where individuals do not have to wear masks on campus if, for instance, they are respecting the 2 meters social distancing, and, overwhelmingly, people are respectful of this requirement; however, some cases exist where people may misunderstand the requirements in non-classroom spaces. He informed Senators that following discussions with library staff, security presence has been increased in the Library, and there will be additional signage reminding people of sanitary practices.
- Dr. Carr apprised Senators that Environmental Health and Safety continues to work with *Santé publique de Montréal* in terms of contact tracing.
- Dr. Carr noted that there have been discussions to open some spaces to a reduced number of external guests to attend activities, such as year-end student performances in Fine Arts, and an assessment of spaces for student groups to hold limited attendance events later this semester is being done, keeping health considerations paramount.
- Dr. Carr informed Senate that Dr. Whitelaw will preside over the meeting as of 3:15 p.m.

#### 4. **Academic Update** (Document US-2021-6-D1)

Dr. Whitelaw had no additional information to her written report.

#### CONSENT

#### 5. **Committee appointments** (Document US-2021-6-D2)

*R-2021-6-3 That the committee appointments be approved.*

#### 6. **Registrar's report on spring 2021 graduation statistics** (Document US-2021-6-D3)

This report was submitted for information purposes.

#### REGULAR

#### 7. **Winter semester update**

Dr. Whitelaw provided an update on the winter semester, and her remarks are summarized as follows:

- Dr. Whitelaw provided the broad guidelines that informed the planning process for the winter semester and informed Senators that as reflections on the first month of the

fall semester continue, the university is comfortable moving forward with the gradual return to in-person activities, with a priority to in-person learning and teaching on campus. She provided the rationale to an increase of in-person courses by explaining that campus is a safe space from a health and safety standpoint and from the university's ability to deliver courses in-person; she acknowledged that there had been a period of adjustment, but health and safety considerations have been maintained. She further explained that the second criteria that encouraged this approach was the clarity surrounding international students; the guidelines issued by the Québec government state that the university can continue to deliver courses remotely until the end of semester, which means that starting in January there is an expectation that international students will be in Montréal and thus will be taking their courses in-person.

- Dr. Whitelaw explained the three modalities that have been decided upon in terms of the course delivery going forward: 1) fully in-person; 2) fully online, such as e-Concordia courses; 3) blended. Dr. Whitelaw apprised members that the blended model includes asynchronous activities, such as recorded material and in-person components. She clarified that the course delivery model would be dependent on the nature of the course. Dr. Whitelaw identified that there is an opportunity to further analyze what kind of materials, activities and deliverables can be made available asynchronously.
- Dr. Whitelaw informed Senators that a detailed memo will be issued in a week, which will include guidelines to assist all faculties and departments in their delivery of courses.
- Dr. Whitelaw outlined that the remote model was an emergency measure. She explained that accommodations are still being made for faculty members to deliver courses remotely when they are unable to come in person; however, remote delivery was to be an exception, and in-person, online and blended are the modalities that will be followed going forward.
- Dr. Whitelaw underlined that exams were an important consideration, and the orientation would be that exams for: 1) in-person courses will be in-person; 2) online courses will be online; 3) blended courses will be either online or in-person, depending on the course.
- Further to questions in relation to the timeline for the blended experience to be operationalized, Dr. Whitelaw explained that all this would be planned before the start of the course so that once the students attend the first lecture, they would be able to know the modality of the course. To another question related to increased technological efficiency of online courses offered through e-Concordia, Dr. Whitelaw confirmed that the Center for Teaching and Learning has already developed seminars and tools, and many have developed asynchronous materials to be able to implement this. To a query on whether online learning resembled a course offered by e-Concordia, Dr. Gabriele clarified that all online courses would have to be designed as e-Concordia courses, and the memo that is expected in the coming days will clarify all



these distinctions. To a question about specific directives being given to departments in relation to the types of courses, Dr. Whitelaw responded that these decisions were made at the faculty and department levels. In response to a query on when all the information will become available, Dr. Gabriele confirmed that the updated schedule for all courses will be available by November 15.

- Concerns were raised about the possibility that students might be confused about the new blended modality and it was highlighted that it would be important to be clear that it is not a hybrid option, especially for students who are trying to find online courses; this is a particular concern for students who are still worried about coming to campus for health and safety reasons. Dr. Whitelaw acknowledged that clarity in the Student Information System will be required, and clear communications to students will allow them to make informed decisions about courses. She mentioned that the number of online courses would probably be the same as they were pre-pandemic, so around 11% of the total course offerings.
- To a question about the continued health and safety of students, particularly in lobby areas and elevators, Dr. Whitelaw confirmed that health and safety remains paramount and will continue to be managed in the same manner as being currently done to be able to welcome more students on campus. Dr. Carr also noted that health and safety will continue to be informed by public health standards; and that the university has invested a lot in renovations over the past 18 months, and that there was a lot of capacity at the university to use classrooms and ensure that health and safety was not compromised.

## 8. Future Concordia

Dr. Whitelaw and M. Di Grappa presented the highlights of the initiative, which are summarized as follows:

- Dr. Whitelaw shared that the goal of the Future Concordia initiative is to build a university of the future, to think about what Concordia is now and what it wants to be in the future, and to focus on some of the directions and aspirations moving forward.
- Dr. Whitelaw outlined the fundamental question was to think about the Future of Concordia, in the context of how the community has been living over the past 18 months. She conveyed to the members of Senate that the initiative aims at questioning and planning for the near future: what is Concordia going to look like in 3 to 5 years? She mentioned the initiative will help think about the collective aim of the university, which is to fulfil a research and academic mission and deliver the best kind of administration and operation to our students. She explains that the idea is to understand what needs to be done and adjusted in a bigger context.
- Dr. Whitelaw informed that a steering committee was formed in February 2021, as there were questions about what the next few months would look like. She shared that the fundamental purpose of the project was to analyze what was learned in terms of

teaching, learning and working in a pandemic, how the lessons learned could be applied in practice and how they would shape the university's future.

- Dr. Whitelaw shared the guiding principles for the project, which include the following: the health of the community; the alignment with and renewal of the university's Next-Gen strategic directions; decisions that support equity, diversity, accessibility and decolonization; the continued commitment to sustainability, including financial sustainability; creativity, as well as a healthy tolerance for risk-taking, failure and discomfort; agility, flexibility and responsiveness; a student-centered approach; and continued support for the different needs of the faculty members, students and staff.
- M. Di Grappa explained that to fulfill the project's mandates, six working groups with co-leads have been set up: 1) future of work, the workplace, and workforce; 2) research and impact; 3) campus space; 4) student experience; 5) university outreach and 6) future of teaching and learning. M. Di Grappa shared that the project would take place over two semesters and thanked the community members involved with this initiative for their participation, leadership, and support.
- M. Di Grappa concluded by informing Senate that there will be two deliverables: 1) progress presentation with the scope parameters, research findings, design ideas and test plans in January 2022; and 2) a final presentation with recommended future state vision, a detailed analysis and testing results to be presented in April 2022.
- Following the presentation, a comment was made on how important and timely this initiative was. Further to a query, Dr. Whitelaw explained that an advisory committee on teaching and learning was working on developing guidelines specific to teaching and learning and that consultations with Associate Deans, the School of Graduate Studies, the Center for Teaching and Learning, Knowledge One and the students would be rolled out imminently.

#### 9. **Return to campus – student experience** (Document US-2021-6-D4)

In addition to the written report, H. Jamet-Lange and E. Malorni presented the highlights of the return-to-campus student experience, which are summarized as follows:

- The presenters conveyed to Senators that a recent study was conducted by the Concordia Student Union (CSU) on the student experience after having been back on campus more than a month, and that the CSU felt that it was important to share student experiences with Senate.
- H. Jamet-Lange and E. Malorni pointed out the methodology and sources of information and presented the results of the study. The presenters shared the main reasons some students were not feeling safe and presented what they thought could be modified.

- The presenters explained that the CSU would like the university to consider the return of the pass/fail option as 89% of the respondents would like to have this option because the pandemic is still ongoing and there is a lot of pressure on students who are caring for loved ones, working and facing uncertainly and other barriers, including mental and financial strain.
- Some student Senators spoke about similar experiences. One senator suggested that there were various ways to help students, including making recordings from the previous semester available and that some faculty members were already doing so.
- Dr. Whitelaw explained that the decision to return to campus and in-person academic activities was in line with public health directives and that masks were deemed to be safe, and risk of transmission was extremely low. The university is quite concerned about cases where people were not wearing masks and is doing what it can to ensure that people follow public health protocols. Dr. Whitelaw also explained that the reason Senate is not meeting in-person is because rules were not the same for everyone. Dr. Whitelaw mentioned that the *Commission des normes, de l'équité, de la santé et de la sécurité du travail* (CNESST) has other rules that applied to such meetings, and thus Senate is continuing to meet virtually. In response, a senator highlighted that public health directives were the minimum that the university was required to follow and that the university could do more to ensure that students feel safe on campus.
- Dr. Whitelaw thanked the CSU for the ongoing dialogue between the students and the administration and appreciated their continual feedback on these issues. Dr. Whitelaw also asked that the CSU and other student bodies request their membership to help ensure that all public health protocols are complied with on an ongoing basis.

#### **10. Question period**

There were no questions asked during the question period.

#### **11. Other business**

There was no other business to bring before the Open Session.

#### **12. Adjournment**

The meeting was adjourned at 3:43 p.m.

*Shelina Houssenaly*

Shelina Houssenaly  
Secretary of Senate

**MINUTES OF THE OPEN SESSION  
OF THE MEETING OF SENATE**

Friday, November 12, 2021,  
immediately following the Closed Session,  
via Zoom video conferencing

PRESENT

Voting Members: Graham Carr (Chair), Shimon Amir, Leslie Barker, Guylaine Beaudry, Elizabeth Bloodgood, Catherine Bolton, Lovina Angela Brown, Boutaina Chafi, Queenie Hui Jing Chen, Anne-Marie Croteau, Alexandra Dawson, Selvadurai Dayanandan, Alex De Visscher, Mourad Debbabi, Effrosyni Diamantoudi, Riya Dutta, Linda Dyer, Mary Esteve, Mehdi Farashahi, Ariela Freedman, Annie Gérin, Marina Ghali, Nicolka Gorel, Abdelwahab Hamou-Lhadj, Hannah Jamet-Lange, Moshe Lander, Eduardo Malorni, Peter Morden, Catherine Mulligan, Satinder Pal Singh, Gilles Peslherbe, Duraichelvan Raju, Jasmine Ramcharitar-Brown, Lourdu Reddy Allam, Rosemary Reilly, Pascale Sicotte, Reza Soleymani, Robert Soroka, Kelly Thompson, Craig Townsend, Guylaine Vaillancourt, Deeva Wazir, Anne Whitelaw, Shaina Willison, Paula Wood-Adams, Radu Grigore Zmeureanu

Non-voting members: Philippe Beauregard, Paul Chesser, Ilze Kraulis (in replacement of Stéphanie de Celles, Nadia Hardy, Tom Hughes, Candace Jacobs, Frederica Jacobs, Émilie Martel

Also attending: Amy Fish (for items 7 and 8 only), Sandra Gabriele, Karan Singh, Melodie Sullivan, Aisha Topsakal (for items 7 and 8 only)

ABSENT

Voting members: Mathew Barker, Joanna Berzowska, Demetre Christopoulos, Sally Cooke, Larry Deck, Prady Cassandra Ngouma Wa, Jean-Philippe Warren

Non-voting members: Denis Cossette, Michael Di Grappa, Isabel Dunnigan

**1. Call to order**

The meeting was called to order at 2.45 p.m.

### 1.1 Approval of the Agenda

Some Senators opposed the approval of the agenda, and E. Malorni, H. Jamet-Lange, S. Willison and Q. Chen requested that their opposition be recorded in the Minutes.

*R-2021-7-7 Upon motion duly moved and seconded, it was resolved by a majority that the Agenda of the Open Session be approved.*

### 1.2 Adoption of October 8, 2021 Minutes

Senate did not vote on the adoption of the October 8, 2021 Minutes.

### 2. Business arising from the Minutes not included on the Agenda

There was no business arising from the Minutes not included on the Agenda.

### 3. President's remarks

The President's remarks are summarized as follows:

- President Carr began by giving an update on the COVID situation: there had been 51 cases in 10 weeks since the beginning of the semester, none of which were cases of transmission on campus. He mentioned that many people appreciate the dashboard that had been set up by the university, which has weekly campus updates, but also compares with trends elsewhere in Montréal.
- President Carr informed Senators that *Santé publique* had shared vaccination rates of university communities. Because *Santé publique* is satisfied that vaccination rates had attained an excellent threshold they stopped tracking the vaccination rates in the university sector in late October. Dr. Carr thanked everyone for their efforts in ensuring a safe return to campus. He noted that this will enable the university to open campuses to more extra-curricular activities and assist with the planning of more in-person academic activities in the Winter semester.
- With the world's focus on the COP-26 Summit in Glasgow over the past days, Dr. Carr drew the Senate's attention to the release of the Year-One Progress Report on Concordia's Sustainable Development Action Plan, under M. Di Grappa's leadership, and acknowledged the outstanding efforts by people across the Concordia community. He informed Senate of the measurable actions that the university had taken in the past year and the progress made in five key areas: Sustainable Food Systems; Zero Waste; Climate Action Plan; Sustainability in Research; Sustainability in Curriculum. Dr. Carr expressed pride and felt encouraged by the announcement made earlier about the university accelerating its efforts to reduce on-site greenhouse-gas emissions, with a target of 55% reduction by 2030 against baseline of 2014-15 in contrast to original target of 50% by 2050. He also noted that in line with revised recommendations of climate experts, including Concordia's Damon Matthews (Department of Geography, Planning and Environment and Concordia University

Research Chair in Climate Science and Sustainability), Concordia plans to reach carbon neutrality across all operations by 2040.

- Dr. Carr recognized the contribution of Concordia researchers at COP-26: Concordia's delegation at the 12-day event included: Damon Matthews who attended COP-26 virtually, Matthias Fritsch (Department of Philosophy), Ursula Eicker (Canada Excellence Research Chair in Smart, Sustainable and Resilient Communities and Cities) and Carmela Cucuzzella (Concordia University Research Chair in Integrated Design and Sustainability for the Built Environment).
- Dr. Carr shared with Senate that Concordia was one of the institutions in Montréal that is taking a leadership position in the Montréal Climate Partnership which launched its Great Expectations campaign earlier this week.
- Dr. Carr reported that, on November 11, he had the privilege to be one of two university presidents, along with several political figures in Québec, to participate in a town hall with young environmentalists organized by Oxfam to hear their priorities and share Concordia's efforts.
- Dr. Carr shared that Hawa Keita, the Executive Director of CEED Concordia, had been named one of Canada's Top 30 under 30 Sustainability leaders by Corporate Knights. Hawa, who was born in Senegal and raised in France, had just begun her term as Executive Director when those dual health crises hit but managed not only to adapt and pivot to save the Ugandan projects but also to expand CEED to Ghana, Senegal and Colombia.
- Dr. Carr offered heartiest congratulations to the Women's rugby team who won the RESQ consolation final, to the Men's Rugby team who won the Québec title last Saturday, and kudos to the football team and men's soccer, both of whom made it to semi-finals.
- With the conclusion of the municipal elections last weekend, Dr. Carr congratulated the 50 or so Concordia graduates for taking up municipal offices as mayors (7) and councillors. He also expressed confidence and looked forward to working with the new elected officials, given Concordia's role as an anchor institution in the city.
- Dr. Carr informed Senate that Concordia hosted a virtual Open House for graduate studies and one for undergraduate studies; and that both featured presentations and the opportunity to discuss academics and life at Concordia and to speak with current and future students. For the Graduate Open House, the unique logins were 682 from 67 countries, and for the undergraduate, 1,551 from 107 countries.
- Dr. Carr advised Senate that the preliminary recommendations of the Task Force on Anti-Black Racism were expected next week, which is also when the Scarborough Charter on Anti-Black Racism and Black Inclusion in Higher Education, to which Concordia is a signatory, was going to be launched. He added that on November 17, Concordia will be launching the Indigenous Futures Research Centre in a virtual event.

Dr. Carr shared some notable accomplishments with Senate:

- John Molson executive-in-residence Louise Champoux-Paillé was awarded the Medal of the National Assembly of Québec, in recognition of her 50-year career and more than 40 years dedicated to promoting women in leadership.
  - Prosper Dovonon was elected a Fellow of the Econometric Society in recognition of their research achievements. The international organization is dedicated to the advancement of economic theory in its relation to statistics and mathematics. P. Dovonon is the first in Concordia's Department of Economics to receive this honour.
  - The Royal Society of Canada will formally be inducting Kathleen Vaughan (Art Education) and Thanh Dang-Vu (Health, Kinesiology and Applied Physiology) into its College of New Scholars, Artists and Scientists; and Jason Lewis (Design and Computational Arts) as Fellow of Royal Society.
  - A group from Concordia's SynBioApps program, participating in iGEM, earned \$30,000 and were named semi-finalists in the Deep Space Food Challenge, held by NASA and the Canadian Space Agency. Concordia's project was the AstroYeast Microfarm, which was centered around a yeast strain that is specially adapted to the space environment.
  - Tristan Gosselin-Hane and Alexandre Lavoie, undergraduate students in Concordia's Department of Computer Science and Software Engineering and cybersecurity enthusiasts, topped the leaderboard at the CyberSCI national Capture-The-Flag cybersecurity competition.
  - Shaan Baig, a student in Kinesiology and Clinical Exercise Physiology, won the Forces AVENIR – Personality Avenir 2021 honour at the undergraduate level.
- In some philanthropic news, Dr. Carr appraised Senate of the \$1M gift from RBC Foundation to support Beat the Odds program, which provides paid internships to talented students who are juggling many life responsibilities and challenges, and to support internships at not-for-profit organizations
  - Dr. Carr informed Senate that the Centraide campaign closing event is scheduled for November 16, where the fundraising total from this year's campaign would be announced. The campaign ran from October 12 with the goal for this year to raise \$200,000.
  - Dr. Carr also noted that November 30 is Giving Tuesday, an opportunity to support Student Emergency and Food Funds or other areas of everyone's choice.

**4. Academic Update** (Document US-2021-7-D3)

Dr. Anne Whitelaw had no additional information to the written report.

**CONSENT**

**5. Committee appointments** (Document US-2021-7-D4)

*R-2021-7-8 That the committee appointments be approved.*

**REGULAR**

**6. Academic Programs Committee - Report and recommendations** (Document US-2021-7-D5)

Some Senators requested that item 6 be removed from the Consent Agenda.

*R-2021-7-9 Upon motion duly moved and seconded, it was resolved by a majority that item 6 be removed from the Consent Agenda for separate discussion.*

Some Senators asked questions about Course Elective 435, which is offered in French.

Dr. Whitelaw confirmed that all students in Québec universities were allowed to submit their work in English and French. Dr. Whitelaw further explained that French language institutions offer courses in other languages like English and Spanish. Dr. Carr also clarified that Bill 96 recognized McGill, Concordia and Bishop as English language institutions in Québec, and explained that Concordia already offers inter-institutional programs in collaboration with other francophone universities where the language of instruction is often French.

Dr. Gabriele informed Senate that the Course Elective 435 was not a new course, is not taught at Concordia and has always been offered in French. The curriculum change being made adds a notation to the calendar description to inform students that the course is offered in French. Dr. Gabriele clarified that it remains an elective course.

Dr. Debbabi, further noted that this course was part of a multi-university program on power systems, and the idea was that Concordia students may also have the opportunity to take this course. Dr. Soleymani elaborated that this course was offered in collaboration with Polytechnique and McGill University as well.

*R-2021-7-10 Upon motion duly moved and seconded, it was unanimously resolved that the Academic Programs Committee - Report and recommendations (Document US-2021-7-D5) be approved, with the correction to the undergraduate curriculum revision proposal for the Minor in History program of the HIST-28 dossier, where the second reference to the 200-level courses be modified to 300-level courses ("12 Credits of History courses at the 300 level").*



### **7. Annual Report from the Ombuds Office (US-2021-7-D6)**

Ombudsperson, A. Fish, presented the highlights of the annual report from the Ombuds Office, which included some statistics. A. Fish conveyed to the Senators that with the innumerable complexities facing the students, faculty members and staff in 2020-21, two cases yielded recommendations, which were summarized to the Senators. A. Fish also noted that it was the first time that the Ombuds Office provided recommendations under her leadership.

### **8. Annual Report from the Office of Rights and Responsibilities (US-2021-7-D7)**

Director and Senior Advisor of the Office of Rights and Responsibilities (ORR), A. Topsakal summarized the ORR's mandate and presented the highlights of the annual report, including some key statistics. To illustrate the types of situations that the ORR deals with on a regular basis, A. Topsakal shared some narratives.

A Senator requested clarification on the backlog of incidents dealt with by the Office of the Student Tribunals (OST), and A. Topsakal explained that a very small percentage of the Code of Rights and Responsibilities incidents are referred to the OST. Me Sullivan explained that the cases referred to student tribunals were cases under the Academic Code, and that the backlog was being worked on, but that is it too early to speak of the impact the increased number of Tribunal Chairs and members in the Student Tribunal Pools would have on the backlog.

Further to a question on whether an incident reported to the ORR would be kept on file, even if the complainant withdrew from the process mid-way, Me Sullivan explained that when a complainant chose to withdraw from the process or did not take the complaint all the way through the process, then the complaint was deemed to have been withdrawn.

### **9. Revisions to the Policy on the Establishment of Tribunal Hearing Pools (BD-6) (US-2021-7-D8)**

Me Jacobs introduced this item and explained that since the pandemic, there is backlog of cases that have been accumulated. Me Jacobs informed Senate that following a suggestion from the Concordia Student Union, revisions were made to increase the number of undergraduate and graduate students nominated to the Student Tribunal Pool.

Me Sullivan added that the breakdown of faculty members in the Faculty Tribunal Pool was revised and noted that that in anticipation of the approval of the revisions to the Policy, potential new members of the pools had been trained in advance.

*R-2021-7-11 Upon motion duly moved and seconded, it was unanimously resolved that Senate recommend to the Board of Governors the approval of the revisions to the Policy on the Establishment of Tribunal Hearing Pools (BD-6).*

## 10. Question period

J. Ramcharitar-Brown reported on some of the discussions from the Arts and Science Faculty Academic Committee and offered several suggestions. Dr. Whitelaw spoke of the work being done by the Indigenous Directions Leadership Group to develop a series of professional development courses, webinars and training around decolonization. Dr. Whitelaw also noted that, as part of the Taskforce on Anti-Black Racism, one of the recommendations of the Taskforce will be to develop anti-black racism training, and the Taskforce is reflecting on the best way to deliver such training. Dr. Whitelaw conveyed to the Senators that with the Equity Office, the Office for Indigenous Directions and the Black Perspectives Office, the university is well supported in these efforts.

H. Jamet-Lange queried about the membership of the Steering Committee of Future Concordia, especially with regards to the fact that there was no student representation. Dr. Whitelaw explained that the approach of Future Concordia was to engage with various stakeholders, and that the Steering Committee was not meant to be a representative group but to include people who were in leadership positions who could mobilize the work. Dr. Whitelaw also informed that there is undergraduate and graduate representation on the Student Experience working group, and consultations strategies to obtain students input will be put in place. Dr. Whitelaw also clarified that the Future Concordia working groups mandate is to make recommendations, not to take decisions.

Dr. Whitelaw responded to Dr. Esteve' question regarding the university's operative definition of the word decolonization, and spoke to the Indigenous Directions Action Plan as the university's guiding document for the roadmap of what the university needs. Dr. Esteve asked for examples.

E. Malorni asked a question about the inclusion of multinational corporations as food providers on campus. Dr. Carr advised Senate that the Vice-President, Services and Sustainability, M. Di Grappa will report back to Senate on this item.

Referring to an incident that had taken place involving a presentation by a guest lecturer in a First Peoples Studies course on October 28, E. Malorni asked for the university's position on the matter. Dr. Carr responded that the university had acted swiftly and appropriately to address the matter.

J. Ramcharitar-Brown raised an item in relation to university admission and how grades and similar determinants should not be the only benchmark to determine a prospective student's ability to gain admission to Concordia. Dr. Carr spoke to how historically Concordia has been an accessible university, specifically in relation to recruitment. Dr. Diamantoudi explained the paths for alternative access for graduate studies are available and that there are non-standard admissions options. However, Dr. Diamantoudi also underlined the responsibility of the admission committees to reflect on student success in their studies when analysing student admission dossiers. Dr. Whitelaw added that there were many pathways into undergraduate programs and various support options for students like the Beat the Odds program, which is an internship for students who need support during which they can demonstrate their skills

and potential. Dr. Whitelaw provided other examples for student support, such as the Student Success Center and student advising.

Dr. Dayanandan echoed Dr. Diamantoudi's remarks, and mentioned that as a past Graduate Program Director, was able to attest to the non-standard admission process for graduate studies.

**11. Other business**

There was no other business to bring before the Open Session.

**12. Adjournment**

The meeting was adjourned at 4:19 p.m.

*Shelina Houssenaly*

Shelina Houssenaly  
Secretary of Senate



## Internal Memorandum

To: Members of Senate  
From: Anne Whitelaw, Provost and Vice-President, Academic  
Date: December 2, 2021  
Re: Academic Update

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As this is the last Senate meeting of the year, I would like to take this opportunity to thank you for your efforts in creating an engaging and vibrant campus for all members of our community. Thank you also for your adherence to the safety protocols that have ensured a smooth and healthy [return to campus](#). As we look forward to a mostly in-person term in the winter, I hope you have a safe and restful holiday break.

For the second year in a row, the John Molson School of Business has been ranked as one of the Top 50 Graduate Schools for Entrepreneurship Studies by the Princeton Review. It's the only Canadian business school included in the ranking, and only one of two schools outside of the United States to be included.

JMSB is welcoming Anie Rouleau, founder and CEO of The Unscented Company, as its new entrepreneur-in-residence. The position is part of the National Bank Initiative in Entrepreneurship and Family Business and provides support for John Molson graduate and undergraduate students in this field. As entrepreneur-in-residence, Rouleau will be a resource for students and faculty to share her experiences and best practices and the wisdom gained from starting her own company. The accomplished social innovator previously worked with the National Bank Initiative as part of its Entrepreneurship Video Series, and during her residency hopes to show John Molson students how success and sustainability can coexist.

Cultural and community organizations will soon hire the student interns they need to energize their activities, thanks to a major gift to Concordia University from the Doggone Foundation. Established by the late [Elspeth McConnell](#), the Montreal-based charity is investing in next-generation learning opportunities for [Faculty of Fine Arts](#) students as part of a \$2-million gift to the [Campaign for Concordia: Next-Gen. Now](#). Combined with a [previously announced 2018](#) gift to create the [Elspeth McConnell Fine Arts Awards](#), the Foundation's support to the campaign now totals \$2.5 million. Over nine years, the Doggone Foundation's gift will fund 40 annual Elspeth McConnell Fine Arts Awards valued at \$5,000 each.

The Concordia Council on Student Life (CCSL) makes funds available through the CCSL Special Projects Fund to support projects that enhance or contribute to the quality of student life at Concordia. There were 34 applications received for the fall semester competition. The number of requests remains low compared to pre-Covid numbers, however student life projects continue to engage the Concordia community and students have adapted their projects to fit the current restrictions of the pandemic. A total of 30 student projects were approved, for a total amount of \$76,816, which is slightly more than half of the annual fund. Projects that were funded include peer reviewed publications, workshop series and developing equipment to help launch a rocket into space. The balance will be dispersed to applicants applying in the winter semester. As we can see, notwithstanding the pandemic, our students continue to demonstrate exemplary leadership and strive to engage their peers in meaningful extra-curricular activities.

A group of students including students from the Gina Cody School recently [won \\$30,000 and have been named among the Canadian semi-finalists in the Deep Space Food Challenge](#), held in parallel by NASA and the Canadian Space Agency (CSA). They are creating a yeast-based platform for R&D that functions under microgravity conditions, and can be used to biomanufacture food, fuels, materials and medications in outer space.

[Ronnie Burkett](#), one of the world's most celebrated puppeteers, winner of a regional Emmy Award (Cinderrabbit, 1979) and a [Siminovitch Prize](#) in Theatre for his lifetime work, is an artist-in-residence in the Department of Theatre this term. His ongoing series of [Design for the Theatre](#) workshops at Concordia is his first credited semester-long course teaching experience. On December 5, students will present their works to the public, in class, with their teacher. The event is aptly named [The Post Pandemic Puppet Project](#).

Researchers from the Gina Cody School of Engineering and Computer Science and the Faculty of Arts and Science collaborated with Concordia's Centre for Continuing Education (CCE) to develop a [tailor-made training for hundreds of Ericsson Canada employees](#). The goal is for them to enhance their AI and machine learning technology skills. The story was covered by Le Devoir and Radio-Canada.

The LIVE Centre, in collaboration with CAPS, GradProSkills, FutureBound and Alumni Relations, hosted a Community Career Panel on November 10th. The panelists were all Concordia alumnae who currently work in the community/non-profit sector. Panelists Kim Fuller (BFA '96), Nakuset (BAsc '00), Robyn Dalton (MA '09) and Stacey Dakin (BA '09) shared their experiences on building their careers, which skills are crucial for their work and why they chose to focus their work on supporting others. There were 80 attendees for the webinar which was moderated by HSI master's student Benoît Eclache. A lively Q&A session ended the event and we received very positive feedback from the students, staff and panelists.

JMSB launched its first-ever John Molson School Day on November 18. The celebration provided an opportunity for the John Molson School community to share their pride and reconnect. A live, virtual panel presentation was held and welcomed 6 inspirational speakers representing various John Molson community groups: undergraduate and graduate students, alumni, faculty and community leaders.

- Ajay Gupta, BComm 95, wealth management expert
- Marie-Claude Bourgie, MBA 11, executive director of the Greater Montreal Climate Fund
- Jordan LeBel, professor in the Department of Marketing
- Suchit Ahuja, graduate program director for the new MSc in Business Analytics and Technology Management
- Tanya Singh, PhD candidate and Concordia Public Scholar
- Hannah Arib, undergraduate student and co-president of Enactus Concordia

The event was moderated by recent alumnus Isaiah Joyner, 2021 recipient of the Lieutenant Governor's Youth Medal. "What we do at John Molson, from our teaching to our experiential learning and impactful research, is for the betterment of business and society — that's a big part of what makes this school so special," says Anne-Marie Croteau, dean of the John Molson School of Business. "John Molson School Day is an opportunity for our community to come together to celebrate our success and show the world why we are so proud to be part of the John Molson family." We believe the success of this inaugural event puts the gears in motion for a larger and even more successful event next year.

A large component of John Molson School Day was a very active social media presence, particularly on LinkedIn. Contests were held both in-person, on-campus and via social media and were very well received. Twenty students on campus received \$100 prepaid Visa gift cards, and another 20 winners who participated via social media won the same.

The faculty recently launched its first Instagram account: @johnmolson.cu and is working actively to build followers and its community. To differentiate it from the other social platforms, it will actively seek out and amplify student voices and experiences, to help strengthen the sense of community.

The last Law Meets Engineering lecture of 2021 happened on November 24, 2021. Jurist-in-Residence at Concordia University, Morton S. Minc invited Me Jean-Nicolas Delage to speak on “University Innovation to Technology Product: Creating Value with Intellectual Property”. This lecture series is organized by the Jurist-in-Residence program and the Gina Cody School of Engineering and Computer Science.

Acclaimed director [Jean-Marc Vallée](#) spoke at length about his remarkable film career for Concordia’s fifth annual Wild Talks lecture, presented by the [Faculty of Fine Arts](#) on November 16. Close to 300 audience members took in the live event at Montreal’s Théâtre Symposia, in accordance with COVID-19 public health protocols. The Montreal-born director of *Dallas Buyers Club* and *Big Little Lies* was joined in conversation by his long-time artistic collaborator, the cinematographer Yves Bélanger, BFA 84. President Carr then announced plans to significantly expand the [Film Production program](#) at the [Mel Hoppenheim School of Cinema](#) to help meet the personnel needs of Montreal’s film industry.

For the first time, fellows of the Claudine and Stephen Bronfman Fellowship in Contemporary Art will present artworks together at the Papier Contemporary Art Fair. Concordia fellows Mara Eagle and Nico Williams will exhibit alongside their Université de Québec à Montréal (UQAM) peers, Heidi Barkun and Leila Zelli. A kiosk featuring their work will be part of the 14th edition of the annual art fair, held at the Grand Quai du Port de Montréal from November 26 to 28. Since the renewal of the fellowship program in 2020, the intention had been to partner with Papier to provide greater exposure to new Bronfman fellows at Quebec’s largest commercial art fair. The fair was held in person and virtually.

Concordia’s delegation at COP26 in Glasgow included some of the world’s leading voices at the forefront of global climate and sustainability conversations. They include philosophy professor [Matthias Fritsch](#) from the [Faculty of Arts and Science](#); [Ursula Eicker](#), Canada Excellence Research Chair in Smart, Sustainable and Resilient Communities and Cities; and [Carmela Cucuzzella](#), Concordia University Research Chair in Integrated Design and Sustainability for the Built Environment (Tier 2). [Damon Matthews](#), professor in the [Department of Geography, Planning and Environment](#) and Concordia University Research Chair in Climate Science and Sustainability (Tier 1), attended virtually.

Presentations on the 12-week semester/fall break starting in the 2023-2024 academic year have been given at the School of Graduate Studies and the four Faculty council meetings or executive group committees. Work has begun with the University Registrar and team on planning the academic calendar dates for the 12-week semesters for the 2023-2024 academic year. We are reaching out to other Canadian universities to gather information on the logistics of those who have moved to a 12-week semester. If you have any questions or suggestions, please email [twelveweeksemester-fallbreak@concordia.ca](mailto:twelveweeksemester-fallbreak@concordia.ca).

And finally, the Office of the Provost is excited to launch a historic comprehensive consultation series on the future of teaching and learning at Concordia. Part of the Future Concordia project, the consultations will ask our teaching staff & faculty, students and leadership to share their thoughts about how to

support our ambition to Teach for Tomorrow. Co-designed with the Faculties and students, the consultations will kick off in January and will run throughout the month. The results of the first phase will be validated with student-supporting staff who see the direct effects of teaching in their work to support students. The aim is to build a strategic plan for teaching and learning that captures our ambitions and prioritizes student learning.



**SENATE  
OPEN SESSION  
Meeting of December 10, 2021**

**AGENDA ITEM:** Committee appointments

**ACTION REQUIRED:** For approval

**SUMMARY:** Senate is being asked to approve the following committee appointments:

<u>Committee</u>	<u>Appointee</u>	<u>Term</u>
Academic Programs Committee	Ahmed Soliman (GCS)	2021-24
Academic Programs Committee	Deeva Wazir (CSU)	2021-22

**DRAFT MOTION:**

That the committee appointments be approved.

**PREPARED BY:**

Name: Shelina Houssenaly

Date: November 30, 2021





**ACADEMIC PROGRAMS COMMITTEE  
REPORT TO SENATE (1/2)  
Sandra Gabriele, PhD  
December 10, 2021**

**The Academic Programs Committee requests that Senate consider the following changes for the Undergraduate and Graduate Calendars.**

Following approval of the Faculty Councils, APC members reviewed the undergraduate and graduate curriculum submissions listed below. As a result of discussions, APC resolved that the following curriculum proposals be forwarded to Senate for approval:

**Undergraduate proposals for the Fall 2022-23 Calendar**

**Faculty of Arts and Science and Gina Cody School of Engineering and Computer Science**

Department of Mathematics and Statistics

MATH-39 v2; **APC-2021-7-D1** (For September 2022 Implementation)

*[The proposal involves revisions to the joint BA/BSc Major in Mathematics and Statistics and Computer Science, and the renaming of the program as joint BA/BSc Major in Data Science.]*

- Program Name Change (Joint Major in Data Science)
- Requirements
- Courses

Department of Computer Science and Software Engineering

COMP-364 v1; **APC-2021-7-D2** (For September 2022 Implementation)

*[The proposal involves revisions to the joint BCompSc Major in Mathematics and Statistics and Computer Science, and the renaming of the program as joint BCompSc Major in Data Science.]*

- Program Name Change (Joint Major in Data Science)
- Requirements
- Courses

**Faculty of Arts and Science**

Department of Applied Human Sciences

AHSC-38 v2; **APC-2021-7-D3** (For May 2022 Implementation)

*[The proposal involves changes to the Major in Human Relations and Certificate in Family Life Education, with the deletion of AHSC 435 Fieldwork Practice and its replacement with AHSC 434 Human Relations Capstone Project.]*

- Requirements
- Courses

Département d'Études françaises

FRAN-39 v4; **APC-2021-7-D4** (For May 2022 Implementation)

*[The proposal involves updates to program requirements, title changes to FRAA 413 and FRAA 423, the deletion of FRAA 432 and FRAA 409, the introduction of a new course, FRAN 222, and a prerequisite change to FRAA 403.]*

- Courses

Liberal Arts College

LBCL-7 v2; **APC-2021-7-D5** (For May 2022 Implementation)

*[The proposal involves modifications to course prerequisites, including the removal of the requirement for permission of the College from the following courses: LBCL 390, 392, 394, and 395.]*

- Courses

Loyola College

LOYC-14; **APC-2021-7-D6** (For September 2022 Implementation)

*[The proposal involves changes to the Minor in Diversity and the Contemporary World, and the Minor in Sustainability Studies, including the addition of courses and modifications to existing courses.]*

- Requirements
- Courses

Department of Mathematics and Statistics

MATH-34 v2; **APC-2021-7-D8** (For September 2022 Implementation)

*[The proposal involves the modernization of the curriculum for the BA/BSc Honours and Specialization in Actuarial Mathematics, and BA/BSc Specialization in Actuarial Mathematics and Finance, to provide students with skillsets necessary to have a competitive advantage in the job market upon graduation.]*

- Requirements
- Courses

Department of Mathematics and Statistics

MATH-36 v1; **APC-2021-7-D9** (For September 2022 Implementation)

*[The proposal involves updates to the prerequisites for courses MACF 401 and 402.]*

- Requirements
- Courses

Department of Mathematics and Statistics

MATH-37 v1; **APC-2021-7-D10** (For September 2022 Implementation)

*[The proposal involves the addition of a new course, MAST 336 Insurance Mathematics.]*

- Requirements

Department of Physics

AS-PHYS-341 v5; **APC-2021-7-D11** (For September 2022 Implementation)

*[The proposal involves changes to five courses, including changes to the descriptions, titles, and prerequisites, to present a more accurate picture of the themes being taught and to align with the overall program objectives.]*

- Requirements
- Courses

## **Faculty of Fine Arts**

### Interdisciplinary Studies in Fine Arts

FA-FFAR-41 v5; **APC-2021-7-D12** (For May 2022 Implementation)

*[The proposal involves the creation of new course codes to accommodate the Fine Arts Field Schools.]*

- Courses

### Interdisciplinary Studies in Fine Arts

FA-FFAR-61 v4; **APC-2021-7-D13** (For May 2022 Implementation)

*[The proposal involves course description revisions, as well as the creation of a new permanent course code to accommodate the offering of a special topic course as a new eConcordia course.]*

- Courses

## **Gina Cody School of Engineering and Computer Science**

### Department of Building, Civil, and Environmental Engineering

GCS-BC EE-1221 v1; **APC-2021-7-D14** (For May 2022 Implementation)

*[The proposal involves the deletion of BLDG 432 and CIVI 432 and their replacement with a new course, BCEE 432; updates to the course title and description of BLDG 462; and updates to the prerequisites of CIVI 390 and CIVI 435].*

- Requirements
- Courses

### Department of Computer Science and Software Engineering

COMP-361 v1; **APC-2021-7-D15** (For September 2022 Implementation)

*[The proposal involves a modification to the prerequisite and description of course SOEN 387.]*

- Requirements
- Courses

### Department of Electrical and Computer Engineering

ELEC-122 v1; **APC-2021-7-D16** (For May 2022 Implementation)

*[The proposal involves a reduction to the minimum number of required credits for the work term of non-coop students in Electrical and Computer Engineering programs from 75 to 60, and the addition of a requirement that students finish one Co-op work term or C.Edge work term before registering in ELEC 490 or COEN 490.]*

- Requirements
- Courses

### Department of Mechanical, Industrial and Aerospace Engineering

MECH-135 v0; **APC-2021-7-D17** (For May 2022 Implementation)

*[The proposal involves changes to the prerequisites and descriptions for several courses and the addition of a new course, MECH 451 to the Mechanical Engineering program.]*

- Requirements
- Courses

### **John Molson School of Business**

Department of Finance

JMSB-FINA-161 v3; **APC-2021-7-D18** (For September 2022 Implementation)

*[The proposal involves listing courses FINA 409 or FINA 410 and FINA 412 as prerequisites for FINA 465, instead of requiring permission of the department.]*

- Requirements
- Courses

### **Institute for Co-operative Education**

**ICE-23 v1; APC-2021-7-D19** (For May 2022 Implementation)

*[The proposal involves adding text to the calendar to clarify explicitly that “students are considered to have full-time status at the University during their work terms.”]*

- Requirements

## **2. Graduate Curriculum Proposals (Changes for the Summer 2022-23 Calendar)**

### **Faculty of Arts and Science**

Department of Economics

ECON-37 v6; **APC-2021-7-D20** (For May 2022 Implementation)

*[The proposal involves the addition of a new course, ECON 592, as well as a minor editorial change to the ECON 433 course description.]*

- Requirements
- Courses

Department of Education

EDUC-77 v6; **APC-2021-7-D21** (For May 2022 Implementation)

*[The proposal involves generalized changes to the MA in Educational Technology and the Diploma in Instructional Technology sections of the Graduate Calendar to reflect current offerings and the evolution of the discipline.]*

- Requirements
- Courses

### **Faculty of Fine Arts**

Department of Art History

ARTH-17 v2; **APC-2021-7-D22** (For September 2022 Implementation)

*[The proposal involves the deletion of existing MA seminars, the creation of new seminars, and changes to several course titles and descriptions to more accurately represent current content and to address EDI and decolonizing strategies.]*

- Requirements
- Courses

### **John Molson School of Business**

JMSB-20 v1; **APC-2021-7-D23** (For September 2022 Implementation)

*[The proposal involves the addition of the MSc Management, MSc Marketing and MSc Decision Sciences and Management Information (Business Analytics and Technology Management) option to the list of degree programs eligible for entry into the Institute for Co-operative Education.]*

- Requirements

#### Department of Management

MSCA-21 v2; **APC-2021-7-D24** (For September 2022 Implementation)

*[The proposal involves modifications to the MSc in Management, including the division of MSCA 699 into two courses, MSCA 694 and MSCA 695; the conversion of MSCA 654 from an elective to a required course; and the replacement of three deleted elective courses with MSCA 650, MSCA 653 and MSCA 658.]*

- Requirements
- Courses

#### Department of Marketing

MSCA-22 v2; **APC-2021-7-D25** (For September 2022 Implementation)

*[The proposal involves modifications to the MSc in Marketing, including the division of MSCA 699 into two courses, MSCA 694 and MSCA 695; the addition of two new required courses (MSCA 678 and MSCA 679); updating the course title, description and number of MSCA 615; the addition of descriptions to elective courses; and the addition of a professional development requirement, MSCA 655.]*

- Requirements
- Courses

#### Department of Supply Chain and Business Technology Management

MSCM-2 v3 & MSCM 3 v1; **APC-2021-7-D26** (For May 2022 Implementation)

*[The proposal involves changes to the Master of Supply Chain Management elective course list, including the deletion of MSCA 645, MSCA 647 and MSCA 668 and the addition of courses MSCA 657, 683, 691 and 693.]*

- Requirements
- Courses

### **Gina Cody School of Engineering and Computer Science**

#### Department of Electrical and Computer Engineering

ELEC-121 v5; **APC-2021-7-D27** (For May 2022 Implementation)

*[The proposal involves changes to the degree requirements for the MEng program in Electrical and Computer Engineering, the creation of new courses and updates to existing topic areas.]*

- Requirements
- Courses

#### Gina Cody School of Engineering and Computer Science

ENCS-108 v1; **APC-2021-7-D28** (For May 2022 Implementation)

*[The proposal involves a modification to the note of ENCS 6721 to allow students enrolled in the Graduate Diploma in Chemical Engineering to take the course for credit.]*

- Courses

*S. Gabriele*

Sandra Gabriele, PhD  
Vice-Provost, Innovation in Teaching and Learning November 22, 2021



### INTERNAL MEMORANDUM

**TO:** Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Office of the Provost and Vice-President, Academic Affairs  
Chair, Academic Programs Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** November 1, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Changes  
Mathematics and Statistics (MATH-39)

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The Faculty Curriculum Committee and Steering Committee for Arts and Science Faculty Council have reviewed and approved the following proposal. The resource implications pertaining to this dossier were reviewed and approved prior to presentation at Council. It is anticipated that it will be approved at the Arts and Science Faculty Council meeting of November 19, 2021. We request that this submission be considered at the next meeting the Academic Programs Committee for inclusion in the 2022-23 Undergraduate Calendar.

Thank you for your consideration of this proposal.

## INTERNAL MEMORANDUM

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 29, 2021

**SUBJECT:** 2022-23 Undergraduate Calendar Curriculum Changes  
Department of Mathematics and Statistics  
**MATH-39**  
Program changes and renaming of Joint Major in Mathematics and  
Statistics and Computer Science (Data Science); new courses MAST  
387, MATH 385

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The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

The **Department of Mathematics and Statistics (MATH)** is proposing a substantial revamp of their joint BA/BSc *Major in Mathematics and Statistics and Computer Science*, becoming a joint BA/BSc *Major in Data Science*. This is a collaboration with the **Department of Computer Science and Software Engineering (CSSE)**, with a strong partnership that provides access to MATH courses for engineering students, and to CSSE courses for Arts and Science students. There is an accompanying curricular dossier (COMP-364) being proposed in the **Gina Cody School**. The changes are significant: overall, the degree is changing name, the course listing has been seriously updated (~23 courses removed & 12 courses added), with two new courses (MAST 387 *Data Science Lab* – 3 credits, STAT 385 *Introduction to Neural Networks* – 3 credits) and the thematic alliance has been better integrated, making for a synergistic integration across the degree. The path of the students is well laid out in the program general description section of the proposal, which shows that the graduates of this program will indeed get an integrated view of statistics, data management, and computer programming. Given the general interest in data management in the sectors of business, health, sciences, and engineering, and the rise of such programs in Canadian and Québec universities, the choice of Data Science is both internally sound as well as being externally mindful. As proposed by the Chair of the Department, the adoption of the Data Science label, along with the greater internal program integration, are likely to provide renewed vigor to the enrolments, as this has been the case in other institutions.



Overall, the resource request in course sections is careful, logical, and supported. The initial requirement for positions was discussed and is not necessary in the context of this proposal. The Dean will review requests for faculty positions in the annual unit's hiring plan.

Thank you for your consideration of this proposal.

*Reference documents:*  
*FCC 2021.3-MATH-39*

## Department of Mathematics and Statistics

### MATH-39

#### **Memo from Chair**

#### **Program name change and reorganization**

Joint Major in Data Science

#### **New course**

MAST 387     *Data Science Lab*

STAT 385     *Introduction to Neural Networks*

## INTERNAL MEMORANDUM

**TO:** Richard Courtemanche, Associate Dean, Academic Programs, Faculty of Arts and Science

**FROM:** Cody Hyndman, Chair, Department of Mathematics and Statistics

**DATE:** November 1, 2021 (revised)  
October 7, 2021

**SUBJECT:** Changes to Joint Major in Mathematics and Statistics and Computer Science  
(renamed Joint Major in Data Science)

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Dear Dr. Courtemanche,

The Department of Mathematics and Statistics submits for consideration modifications to the BA or BSc Joint Major in Mathematics and Statistics and Computer Science. These proposed modifications, including renaming of the program to Joint Major in Data Science, were approved by the Curriculum Committee on September 21, 2021, and by Department Council on September 27, 2021.

The Department of Mathematics and Statistics in partnership with the Gina Cody School of Engineering and Computer Science (GCS) first introduced a Joint Major in Mathematics and Statistics and Computer Applications in the 2007-2008 Undergraduate Calendar. The program was a formal recognition of the complementary skillsets of mathematicians and statisticians with those of computer scientists. It provided interested students with structured training in both disciplines. Students in both disciplines therefore can receive similar training in several areas (such as modeling, computation and programming).

In the modern workplace, many industries, businesses, and institutions collect extensive data. The analysis provides insight about various physical and social phenomena, and drives decision making to improve operations and procedures of these institutions and allow them to reach their goals efficiently. A short list of areas where analysis of data is of vital importance includes the business sector, engineering, psychology, environmental sciences, sociology, economics, and political science. The methods used in data analysis in these fields are also becoming increasingly sophisticated and dependent on an understanding of the underlying methods of mathematics, statistics, and computer science for their effective and ethical application. Therefore, data scientists (mathematicians/statisticians with computer science training or computer scientists with additional training in mathematics/statistics) are in extremely high demand throughout the overall economy.

The current joint major program in Mathematics and Statistics and Computer Science, which is now almost 15 years old, is therefore being updated and renamed to include a curriculum that addresses the current emphasis on data science. There are several reasons the current program has become less attractive to students:

- As a joint major, the program content was broad, and students did not receive advanced training in either discipline. Because computer science has always been a rapidly evolving discipline, a broad selection of a Computer Science courses (with no room in the schedule for additional advanced training) was likely less appealing.
- Also, although most courses in the Computer Science part of the program are applied, the mathematics/statistics courses were more conceptual. Graduates had more theoretical knowledge but not enough integrated training in applying this knowledge to problems such as modeling, and developing other essential skills.
- Another problem with the current program that needs to be rectified is the fact that there is little room for electives. The 90-credit program has 75 required credits, three credits of Computer Science electives, and only 12 credits of general electives.

An important motivation for this revision is the name of the existing joint major program. Although data scientists are in extremely high demand throughout the overall economy, the data science terminology did not enter the popular lexicon until recently. The name of the program needs to be modernized to reflect the fact that the skills students will learn will prepare them for a career in data science. Students who are interested in the combination of mathematics/statistics with computer science skills that underlie data science careers will recognize that this revised Joint Major program will provide them with these skillsets.

The purpose of the proposed Joint Major program is to train students in developing a broad array of practical skills associated with data science. The program targets students expected to join the workforce directly after their Bachelor degree. The program will prepare them to hold a technical position related to the production and analysis of data by providing them with a knowledge base in probability and statistics, data management, and computer programming. The students will also be exposed to closely related disciplines such as artificial intelligence and pure mathematics. They will develop skills in communication and acquire an understanding of the social and ethical dimensions of modern technologies. An emphasis on applied, tangible skills is an important distinction from the current Joint Major program. In addition, to be effective data scientists, students must be able to communicate their findings and methods. The required courses ENCS 282 (Technical Writing and Communication) and ENCS 393 (Social and Ethical Dimensions of Information and Communication Technologies) will be essential in acquiring these communication skills.

Because Concordia undergraduate degrees (90 credits) are generally three-year programs, we have redesigned our Joint Degree while paying careful attention to: (1) the foundational courses that are critical for a Data Science degree as evidenced by compulsory courses from other Data Science

programs in Canada; (2) essential courses necessary to maintain accreditation for the BCompSc degree programs while also incorporating more flexibility into the degree, and (3) ensuring that this is truly a Joint program designed in collaboration between our two Departments (Mathematics and Statistics and Computer Science and Software Engineering).

There are similar programs offered elsewhere in Canada (e.g. University of British Columbia, University of Toronto, Waterloo, University of Prince Edward Island); they are, of course, 4-year programs. In Québec, Université Laval offers an undergraduate Data Science program but it is actually a statistics degree program, and is not joint with computer science. McGill University, and Université de Montréal offer joint undergraduate degree programs between Mathematics and Computer Science; however they are more double majors rather than integrated Data Science programs, although the program at Université de Montréal has recently been modified and now has a Data Science stream. Nevertheless, our proposed update of the Joint Major by focusing it on data science will make it the only undergraduate program of this kind in Québec.

### Resource Implications

Two new courses are required for this rebranded and revised program: MAST 387 (3 credits): Data Science Lab, required by students from both departments, and STAT 385 (3 credits): Introduction to Neural Networks required by students in the Mathematics/Statistics stream. These are two of the foundational courses referred to above and are essential to achieve the pedagogical objectives for the Data Science program. Please note that the Department of Computer Science and Software Engineering will also introduce a new course for the double major: COMP 433, which will be reserved for students in the Computer Science Stream (BCompSc).

We consider this curricular proposal to be phase 1 of our Data Science rebuild. As we see progress in enrolments, we will propose phase 2. The context of Data Science is also very research-intensive, and the second phase will include further program development (graduate courses, a Minor and a Certificate, complementing application areas at Concordia), and the Department of Mathematics and Statistics will require two tenure-track positions in the area, positions that will be part of our tenure-track plan as we move forward. In fact, we would like to argue that even in the early stages of this program consolidation, a tenure-track hire would be highly desirable.

Sincerely,



Cody Hyndman  
Associate Professor and Chair  
Department of Mathematics and Statistics

**PROGRAM CHANGE:** Joint Major in Mathematics and Statistics and Computer Science (Data Science)\_CCMS style

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics & Statistics  
**Program:** BA or BSc Joint Major in Mathematics and Statistics and Computer Science  
**Degree:** BA, BSc  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><del>78</del> BA or BSc Joint Major in <del>Mathematics and Statistics and Computer Science</del></p> <p><del>42.5</del> <del>Mathematics and Statistics Component</del></p> <p><del>3.5</del> credits:  <del>-COMP 248 Object-Oriented Programming I (3.50)</del></p> <p><del>3</del> credits chosen from:  <del>MAST 217 Introduction to Mathematical Thinking (3.00)</del>  <del>COMP 232 Mathematics for Computer Science (3.00)</del></p> <p><del>6</del> credits:  MAST 218 Multivariable Calculus I (3.00)  <del>MAST 219 Multivariable Calculus II (3.00)</del></p> <p><del>3</del> credits chosen from:  MAST 221 Applied Probability (3.00)-  <del>COMP 233 Probability and Statistics for Computer Science (3.00)</del></p> <p><del>15</del> credits:  <del>MAST 232 Mathematics with Computer Algebra (3.00)</del>  MAST 234 Linear Algebra and Applications I (3.00)  <del>MAST 235 Linear Algebra and Applications II (3.00)</del>  <del>MAST 324 Introduction to Optimization</del>  <del>MAST 331 Mathematical Modelling (3.00)-</del></p> <p><del>3</del> credits chosen from:</p>	<p><u>72</u> BA or BSc Joint Major in <u>Data Science</u></p> <p><i>Mathematics and Statistics</i> <u>Courses</u></p> <p><u>27</u> credits of required courses:  MAST 218 Multivariable Calculus I (3.00)  MAST 221 Applied Probability (3.00)  MAST 234 Linear Algebra and Applications I (3.00)  MAST 333 Applied Statistics (3.00)  MAST 334 Numerical Analysis (3.00)  <u>MAST 387 Data Science Lab (3.00)</u>  <u>STAT 280 Introduction to Statistical Programming (3.00)</u>  <u>STAT 380 Statistical Learning (3.00)</u>  <u>STAT 385 Introduction to Neural Networks (3.00)</u></p> <p>Note: Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for MAST 333. Students taking a double Major or a Minor in Mathematics and Statistics and whose other program requires statistics courses should consult the Mathematics and Statistics undergraduate program advisor.</p> <p><u>6</u> credits:  <u>Two MAST/MATH/STAT electives (at least 300 level) with prior department approval</u></p> <p><i>Computer Science</i> <u>Courses</u></p> <p><u>33</u> credits:</p>

~~MAST 332 Techniques in Symbolic Computation (3.00)~~  
~~COMP 367 Techniques in Symbolic Computation (3.00)~~

3 credits:

MAST 333 Applied Statistics (3 credits)

Note: Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for MAST 333. Students taking a double Major or a Minor in Mathematics and Statistics and whose other program requires statistics courses should consult the Mathematics and Statistics undergraduate program advisor.

3 credits chosen from:

MAST 334 Numerical Analysis (3 credits)

~~COMP 361 Elementary Numerical Methods (3.00)~~

3 credits:

~~MATH 339 Combinatorics (3 credits)~~

#### 34.5 Computer Science Component:

0 Note: See ~~Section 71.85 Mathematics and Statistics and Computer Applications~~

32.5 credits:

COMP 228 System Hardware (3.00)

COMP 249 Object-Oriented Programming II (3.50)

COMP 335 Introduction to Theoretical Computer Science (3.00)

~~COMP 346 Operating Systems (4.00)~~

~~COMP 348 Principles of Programming Languages (3.00)~~

COMP 352 Data Structures and Algorithms (3.00)

~~COMP 354 Introduction to Software Engineering (4.00)~~

~~COMP 465 Design and Analysis of Algorithms (3.00)~~

ENCS 282 Technical Writing and Communication (3.00)

ENCS 393 Social and Ethical Dimensions of Information and Communication Technologies (3.00)

3 credits chosen from Computer Science courses with numbers 325 or higher, or from the following courses:

~~SOEN 287 Web Programming (3.00)~~

~~SOEN 321 Information Systems Security (3.00)~~

~~SOEN 387 Web-Based Enterprise Application Design (3.00)~~

~~SOEN 422 Embedded Systems and Software (4.00)~~

~~SOEN 423 Distributed Systems (4.00)~~

~~SOEN 487 Web Services and Applications (4.00)~~

COMP 228 System Hardware (3.00)

[COMP 232 Mathematics for Computer Science \(3.00\)](#)

[COMP 248 Object-Oriented Programming I \(3.50\)](#)

COMP 249 Object-Oriented Programming II (3.50)

COMP 335 Introduction to Theoretical Computer Science (3.00)

COMP 352 Data Structures and Algorithms (3.00)

[COMP 353 Databases \(4.00\)](#)

ENCS 282 Technical Writing and Communication (3.00)

ENCS 393 Social and Ethical Dimensions of Information and Communication Technologies (3.00)

[SOEN 471 Big Data Analytics \(4 credits\)](#)

6 [credits minimum of Computer Science electives chosen from 400-level COMP/ SOEN courses with prior departmental approval](#)

*NOTE: The Faculty of Arts and Science and the Gina Cody School of Engineering and Computer Science have created a program of study which combines a comprehensive education in computer science and mathematics. This program resides in both Faculties. In the Gina Cody School of Engineering and Computer Science, it is offered under the aegis of the Bachelor of/Baccalaureate in Computer Science. According to their preferences and aspirations, students may apply either for a Bachelor of/Baccalaureate in Science program, or Bachelor of/Baccalaureate in Arts program or a Bachelor of/ Baccalaureate in Computer Science program. The Computer Science program is described in §71.85.*

*\*NOTE: Students enrolled in a Mathematics and Statistics program who take probability/ statistics courses in other departments may not receive credit for this course. Students taking a double Major or a Minor in Mathematics and Statistics and whose other program requires statistics courses should consult the Mathematics and Statistics undergraduate program advisor.*

**Rationale:**

The Joint Major program is being updated to train students in developing a broad array of practical skills associated with data science. Because of this shift in focus the name of the program needs to be modernized to reflect the fact that the skills students learn will prepare them for a career in data science. Its graduates are expected to join the workforce directly after their Bachelor degree. The program will prepare them to hold a technical position related to the production and analysis of data by providing them with a knowledge base in probability and statistics, data management, and computer programming. Students will also be exposed to closely related disciplines such as artificial intelligence and pure mathematics. They will develop skills in communication and acquire an understanding of the social and ethical dimensions of modern technologies. The revised program places an emphasis on applied, tangible skills and the ability to communicate findings and methods. These are important distinctions from the current Joint Major program, and are requirements for students to become effective data scientists.

**Resource Implications:**

Two new courses are required for this rebranded and revised program: MAST 387 (3 credits): Data Science Lab, required by students from both departments, and STAT 385 (3 credits): Introduction to Neural Networks required by students in the Mathematics/Statistics stream. These are two of the foundational courses and are essential to achieve the pedagogical objectives for the Data Science program.

We consider this curricular proposal to be phase 1 of our Data Science rebuild. As we see progress in enrolments, we will propose phase 2. The context of Data Science is also very research intensive, and the second phase will include further program development (graduate courses, a Minor and a Certificate, complementing application areas at Concordia), and we will require two tenure-track positions in the area, positions that will be part of our tenure-track plan as we move forward. In fact, we would like to argue that even in the early stages of this program consolidation, a tenure-track hire would be highly desirable.



**COURSE CHANGE:** MAST 387      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics and Statistics  
**Program:** Joint Major in Mathematics and Statistics and Computer Science (Data Science)  
**Degree:** BA, BSc  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>MAST 387    <i>Data Science Lab</i></b> (3 credits)</p> <p><i>Prerequisite:</i> The following courses must be completed previously: STAT 280; and MAST 333 or STAT 360.</p> <p><i>Description:</i> This lab course offers hands-on exposure to a broad array of problems and tasks frequently encountered in the data science practice. Examples of topics that are covered may include dataset and table construction, data curation and preparation, data exploration, non-traditional data types and large data sets (big data). Extensive programming duties and data analysis projects are assigned to students.</p> <p><i>Component(s):</i> Laboratory</p>
<p><b>Rationale:</b>                      This is a core course in the Joint Major in Data Science and is fundamental to the training of future Data Scientists regardless of whether they are pursuing the BCompSc from GCS, or the BSc/BA from FAS.</p>	
<p><b>Resource Implications:</b>                      This program will require two new courses (STAT 385, and MAST 387). Each new course will need a section added to the department's current allocation. A TA (marker) will also be needed. Although current faculty members can teach these courses, they are both already teaching many specialized courses in our existing programs. Given the demand for Data Science professionals, we anticipate that this will be a popular program. An additional course section is requested.</p>	
<p><b>Other Programs within which course is listed:</b>                       This course is also required in the proposal COMP-364 submitted by CSSE</p>	

**COURSE CHANGE:** STAT 385      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics and Statistics  
**Program:** Joint Major in Mathematics and Statistics and Computer Science (Data Science)  
**Degree:** BA, BSc  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>STAT 385</b>    <i>Introduction to Neural Networks</i> (3 credits)</p> <p><i>Prerequisite:</i> The following courses must be completed previously: MAST 218 or MATH 264; MAST 234 or MATH 251; MAST 333 or STAT 360.</p> <p><i>Description:</i> This course offers an introduction to the theory of prediction with neural networks, demonstrating their construction, estimation, and use in predictive analysis. Various neural network architectures (feedforward, recurrent, convolutional) are presented. Advanced estimation techniques such as regularization and adaptive learning rates are also considered. Several applications of neural networks to common problems faced in practice are finally explored. Students also learn to apply methods seen in class; programming assignments using programming languages such as Python are included.</p> <p><i>Component(s):</i> Lecture.</p>

**Rationale:**  
 This is a core course in the Statistics stream of the Joint Major in Data Science. It is an advanced course that is critical to the understanding of the statistical underpinning of a common methodological tool (neural networks) of Data Scientists.

**Resource Implications:**  
 This program will require two new courses (STAT 385, and MAST 387). Each new course will need a section added to the department's current allocation. A TA (marker) will also be needed. Although current faculty members can teach these courses, they are both already teaching many specialized courses in our existing programs. Given the demand for Data Science professionals, we anticipate that this will be a popular program. An additional course section is requested.

**Other Programs within which course is listed:**

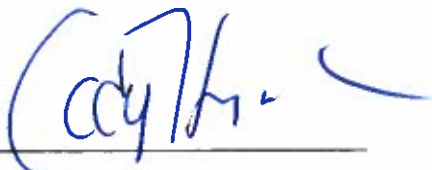
None.

Tuesday, October 12, 2021

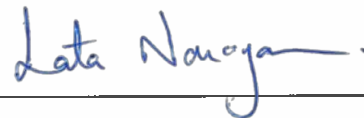
The Departments of Computer Science and Software Engineering (CSEE) and Mathematics and Statistics are presenting revisions to the Joint Major in Mathematics and Statistics and Computer Science, which has suffered from low enrollment since its introduction. A committee composed of members from CSSE and the Department of Mathematics and Statistics has worked over the last year on revising the curriculum, and focusing it on Data Science. The program is renamed as the Joint Major in Data Science; the new name better reflects the changed curriculum, and is expected to attract significantly higher enrollment. The program will be offered in two similar but not identical versions:

- (a) a BCompSci Joint Major in Data Science degree, focused more on computer science and housed in CSSE, and meeting our accreditation requirements,
- (b) a BA/BSc Joint Major in Data Science degree, focused more on statistics, and housed in the Department of Mathematics and Statistics.

We are pleased to propose this joint program and our respective departments will work cooperatively to ensure its success.



Cody Hyndman



Lata Narayanan

## Joint Major in Data Science

### General description:

There is considerable overlap in the skillsets of mathematicians/statisticians with that of computer scientists. Students in both disciplines therefore can receive similar training in several areas (such as modeling, computation, programming). Indeed, in the modern workplace, multiple industries, businesses and institutions collect an extensive amount of data. The analysis of such datasets is meant to obtain insight about various physical social phenomena and drive decision making to improve operations and procedures of institutions and allow them to reach their goals efficiently. A non- exhaustive list of areas where data collection and analysis is of vital importance includes business (e.g. marketing, finance, and accounting), engineering, computer science, psychology, climate and environment science, sociology, economy, political science and arts. Therefore, data analysts (mathematicians/statisticians with programming experience or computer scientists with knowledge of mathematics and statistics) are in extremely high demand throughout the overall economy.

Thus, the Department of Mathematics and Statistics in partnership with the Department of Computer Science and Software Engineering (CSSE) first introduced a Joint Major in Mathematics and Statistics and Computer Applications in the 2007-2008 Undergraduate Calendar. The program was a formal recognition of the necessary foundations in both disciplines, and was useful in providing interested students with structured training in both disciplines.

In the Department of Mathematics and Statistics, the joint major program has admitted approximately 5-13 new undergraduate students each year, comprising approximately 5% of the new undergraduate student registrations. For comparison, the other Major program in the Department of Mathematics and Statistics has approximately 60-100 new registrations each year, comprising approximately one-third of the new undergraduate students.

	2016-17		2017-18		2018-19		2019-20		2020-21	
	N	%	N	%	N	%	N	%	N	%
<b>New undergraduate student registrations</b>										
Actuarial Mathematics (Specialization)	81	42%	63	33%	96	45%	80	37%	69	27%
Mathematical and Computational Finance (Specialization)	15	8%	7	4%	13	6%	5	2%	13	5%
Pure and Applied Mathematics (Specialization)	18	9%	28	14%	23	11%	25	12%	31	12%
Statistics (Specialization)	14	7%	19	10%	13	6%	21	10%	33	13%
Mathematics and Statistics (Major)	59	31%	61	32%	63	29%	72	34%	102	40%
Mathematics and Statistics and Computer Applications(Major)	5	3%	13	7%	7	3%	10	5%	9	3%
<b>Total</b>	<b>192</b>		<b>191</b>		<b>215</b>		<b>213</b>		<b>257</b>	

The corresponding student numbers registered in the Joint Major program in the Department of Computer Science are also a very small percentage of the total enrollment in the BCompSc program as shown below:

	2016-17		2017-18		2018-19		2019-20		2020-21	
	N	%	N	%	N	%	N	%	N	%
<b>New undergraduate student registrations</b>										
Joint Major Mathematics and Statistics	7	2%	7	2%	6	2%	13	4%	8	2%
<b>Total BCompSc</b>	<b>314</b>		<b>363</b>		<b>309</b>		<b>296</b>		<b>372</b>	<b>14</b>

The Joint Major continues to struggle to attract students. We suspect that the Joint Major's comparatively lower enrolments are due to several reasons:

- (1) As a joint Major, program content was broad, and students did not receive advanced training in either discipline. Because computer science has always been a rapidly evolving discipline, broad courses from a Computer Science Major (with no room in the schedule for additional advanced training) may not be very appealing to students.
- (2) Relatedly, since the creation of the Joint Major, the specialty of data analysis has been rebranded as 'Data Science'. Although Data Scientists are in extremely high demand throughout the overall economy, the terminology did not enter our lexicon until recently. Therefore, students who are interested in both the mathematics/statistics alongside the computer/programming skills that underlie Data Science careers will not have sufficient knowledge of the field to recognize the similarities in the Joint Major training with these skillsets.
- (3) Although many courses in the Computer Science component are by their very nature applied courses (emphasizing programming skills), courses in the mathematics/statistics component are conceptual. A lack of applied content in mathematics/statistics is a notable limitation. Graduates from the program are thus knowledgeable in the mathematical theory, and the computer programming, but are not trained in how to apply the mathematical theory through computer programming (such as through modeling).
- (4) The current program includes 75 credits of required courses, and 15 credits of electives (3 credits of computer science electives, 12 credits of general electives). All other credits were required courses, and did not allow students to tailor any content to their specific interests within the field.

For all of these reasons, we feel that the Joint Major in Mathematics and Statistics and Computer Applications in its current form insufficiently addresses the needs of students and may continue to suffer from low enrolments. Thus, we propose to update the curriculum to refocus and redesign it as a Joint Major in Data Science. We believe this will better address the demand for Data Science professionals with skills in Mathematics, Statistics, and Computer Science and will attract significantly more students.

**Pedagogical goals and target audience:**

The purpose of the proposed Joint major program is to train students in developing a broad array of practical skills associated with data science. The program targets students expected to directly join the workforce after completion of the undergraduate degree (BCompSc./BSc/BA). The program will prepare them to hold a technical position related to the production and analysis of data by providing them with a knowledge base in probability and statistics, data management, and computer programming. The students will have an opportunity to be exposed to various sub-disciplines such as artificial intelligence, pure mathematics, and communication. An emphasis on applied, tangible skills is an important distinction from the previous Joint Major program. In addition, to be effective data scientists, students must be able to communicate their findings. This will be accomplished in the core courses ENCS 282 Technical Writing and Communication and ENCS 393 Social and Ethical Dimension of Information and Communication Technologies.

Importantly, because Concordia undergraduate degrees (90 credits) are generally three-year programs, we have redesigned our Joint Degree while paying careful attention to: (1) the foundational

courses that are critical for a Data Science degree as evidenced by compulsory courses from other Data Science programs in Canada, (2) essential courses necessary to maintain accreditation for BCompSc degree programs while also incorporating more flexibility into the degree, and all while (3) ensuring that this is a Joint program designed in collaboration between our two Departments (Mathematics and Statistics, and Computer Science and Software Engineering).

Therefore, several pedagogical goals central to the proposed changes include training students in not only the theory of mathematics/statistics, but in the application of this knowledge in the context of computer science and data science.

- (1) Replacing or updating conceptual courses with applied courses more relevant to data science
  - a. Remove: MAST 219; 232; 235; 324; 331; 332; MATH 339; COMP 465
  - b. Add: STAT 280; 380; 385; MAST 387; SOEN 471
  - c. Update: MAST 334
- (2) Incorporate two streams into the joint major: one focused on Computer Science, to be offered as BCompSc Joint Major in Data Science, and one focused on Statistics, to be offered as BA/BSc Joint Major in Data Science
  - a. The stream in Computer Science will ensure accreditation requirements for BcompSc are met
  - b. The stream in Mathematics and Statistics will incorporate more flexibility into the program (relevant electives) for students.

#### **Similar programs in Quebec/Canada:**

Similar undergraduate degree programs in data science are offered in Canada (Simon Fraser University, University of British Columbia, University of Prince Edward Island, University of Toronto, University of Waterloo, Western University, Wilfred Laurier) and the U.S. With the recent popularity of data science, certification programs (McGill University, Mila, University of Calgary, University of Ottawa, University of Toronto, York University) and graduate degree programs are also available.

In Québec, Université de Laval offers an undergraduate data science program but a review of their coursework suggests that it is a statistics degree program, and is not joint with computer science. Concordia University, McGill University, and Université de Montréal offer joint undergraduate degree programs between Mathematics and Computer Science. McGill's program is a double Major, without a clear Data Science integration. Université de Montréal has recently developed a Data Science stream within its baccalaureate degree program in mathematics and statistics. However, our program will be the first named data science program in Québec that is not just a "stream" within a math/stat or computer science degree. It is our focus on data science as a discipline that brings together mathematics, statistics, and computer science. We also have added unique elements such as a course on neural networks that are not present in other programs.

Maintaining the Joint program with our Departments is a strength and a differentiator from most other programs offered in Canada. The Department therefore proposes to update the curriculum for the Joint Major, making Concordia the only university in Québec to offer a joint program with a focus on data science.

#### **Associated Programs:**

Once the revised Joint Major program is established, the Department of Mathematics and Statistics plans to propose a new Minor in Data Science and a Certificate in Data Science that can be added to

disciplines such as Biology and Environmental Science, and Environmental Geography where Data Science is important. These programs in Data Science complement the recent revision to the BA/BSc Specialization and Honours in Statistics programs offered by the Department. The new data science courses will also enhance our offerings to other programs such as Actuarial Mathematics, Actuarial Mathematics/Finance, Mathematical and Computational Finance, and Pure and Applied Mathematics.

### **Program structure: Joint Major**

The Joint Major is comprised of two streams (Computer Science, or Mathematics and Statistics) with a common core of courses. The BCompSc version of the Major is a 90-credit program, which has been revised to include 73 required credits and 17 elective credits. The BA/BSc is a 90-credit degree, and the Major in Data Science has been revised to include a minimum of 72 required program credits, with 18 out-of-program credits. Core courses require no prerequisites beyond the other core courses and basic CEGEP admission requirements (such as MATH 204). The two streams are designed to allow students more flexibility in personalizing the degree to their particular interests (for students pursuing a BA/BSc from the Department of Mathematics and Statistics), and to meet accreditation requirements (for students pursuing a BCompSc from the Department of Computer Science and Software Engineering).

#### **A. Compulsory courses taken by BCompSc and BA/BSc students (54 credits):**

- **Mathematics/Statistics courses (21 credits)**
  - STAT 280 (3 credits): Introduction to Statistical Programming
  - MAST 218 (3 credits): Multivariable Calculus I
  - MAST 221 (3 credits): Applied Probability
  - MAST 234 (3 credits): Linear Algebra and Applications I
  - MAST 333 (3 credits): Applied Statistics
  - MAST 334 (3 credits): Numerical Analysis
  - MAST 387 (3 credits): Data Science Lab (new course)
  
- **Computer Science courses (33 credits)**
  - COMP 228 (3 credits): System Hardware
  - COMP 232 (3 credits): Mathematics for Computer Science
  - COMP 248 (3.5 credits): Object-Oriented Programming I
  - COMP 249 (3.5 credits): Object-Oriented Programming II
  - COMP 335 (3 credits): Introduction to Theoretical Computer Science
  - COMP 352 (3 credits): Data Structures and Algorithms
  - COMP 353 (4 credits): Databases
  - ENCS 282 (3 credits): Technical Writing and Communication
  - ENCS 393 (3 credits): Social and Ethical Dimensions of Information and Communication Technologies
  - SOEN 471 (4 credits): Big Data Analytics

## **B. Streams:**

- Mathematics and Statistics stream for the BA/BSc version (18 credits minimum):
  - STAT 380 (3 credits): Statistical Learning
  - STAT 385 (3 credits): Introduction to Neural Networks (new course)
  - Four electives from MAST/MATH/STAT/COMP/SOEN (12credits minimum):
    - Two MAST/MATH/STAT electives (at least 300 level) with prior department approval
    - Two COMP/SOEN electives (400 level) with prior department approval
- Computer Science stream for the BCompSc version (19 credits):
  - COMP 346 (4 credits): Operating Systems
  - COMP 348 (3 credits): Principles of Programming Languages
  - COMP 354 (4 credits): Introduction to Software Engineering
  - COMP 432 (4 credits): Machine Learning
  - COMP 433 (4 credits): Introduction to Deep Learning

Another way to view the program is:

For BA/BSc students (90 credits)

### **Data Science Major Program (72) credits:**

- **Mathematics/Statistics courses (33 credits)**
  - STAT 280 (3 credits): Introduction to Statistical Programming
  - STAT 380 (3 credits): Statistical Learning
  - STAT 385 (3 credits): Introduction to Neural Networks (new course)
  - MAST 218 (3 credits): Multivariable Calculus I
  - MAST 221 (3 credits): Applied Probability
  - MAST 234 (3 credits): Linear Algebra and Applications I
  - MAST 333 (3 credits): Applied Statistics
  - MAST 334 (3 credits): Numerical Analysis
  - MAST 387 (3 credits): Data Science Lab (new course)
  - Two MAST/MATH/STAT electives (6 credits) (at least 300 level) with prior department approval
- **Computer Science courses (minimum 39 credits)**
  - COMP 228 (3 credits): System Hardware
  - COMP 232 (3 credits): Mathematics for Computer Science
  - COMP 248 (3.5 credits): Object-Oriented Programming I
  - COMP 249 (3.5 credits): Object-Oriented Programming II
  - COMP 335 (3 credits): Introduction to Theoretical Computer Science
  - COMP 352 (3 credits): Data Structures and Algorithms
  - COMP 353 (4 credits): Databases
  - SOEN 471 (4 credits): Big Data Analytics
  - ENCS 282 (3 credits): Technical Writing and Communication
  - ENCS 393 (3 credits): Social and Ethical Dimensions of Information and Communication Technologies
  - Two COMP/SOEN electives (6 credits minimum) (400 level) with prior department approval
- **General Electives (out-of-program credits): maximum 18 credits**



For BCompSc students (90 credits)

- **Computer Science Core (33 credits)**
  - COMP 228 (3 credits): System Hardware
  - COMP 232 (3 credits): Mathematics for Computer Science
  - COMP 233 (3 credits): Probability and Statistics for Computer Science\*
  - COMP 248 (3.5 credits): Object-Oriented Programming I
  - COMP 249 (3.5 credits): Object-Oriented Programming II
  - COMP 335 (3 credits): Introduction to Theoretical Computer Science
  - COMP 346 (4 credits): Operating Systems
  - COMP 348 (3 credits): Principles of Programming Languages
  - COMP 352 (3 credits): Data Structures and Algorithms
  - COMP 354 (4 credits): Introduction to Software Engineering
- **Complementary Core (6 credits)**
  - ENCS 282 (3 credits): Technical Writing and Communication
  - ENCS 393 (3 credits): Social and Ethical Dimensions of Information and Communication Technology
- **Data Science Courses (16 credits)**
  - COMP 353 (4 credits): Databases<sup>2</sup>
  - COMP 432 (4 credits): Machine Learning<sup>2</sup>
  - COMP 433 (4 credits): Introduction to Deep Learning<sup>2</sup>
  - SOEN 471 (4 credits): Big Data Analytics<sup>2</sup>
- **Mathematics and Statistics Core (18 credits)**
  - STAT 280 (3 credits): Introduction to Statistical Programming
  - MAST 218 (3 credits): Multivariable Calculus I
  - MAST 234 (3 credits): Linear Algebra and Applications I
  - MAST 333 (3 credits): Applied Statistics
  - MAST 334 (3 credits): Numerical Analysis
  - MAST 387 (3 credits): Data Science Lab (new course)
- **Computer Science Electives (6 credits)**
- **General Electives (11 credits)**

\*COMP 233 must be replaced by MAST 221.

**Expected enrollment:**

Comparative Data Science programs (e.g., University of Toronto) have increased new student registrations in their Departments by a factor of 10. As there is no Data Science undergraduate program offered in Québec, an estimate that new student registrations in the Joint Major will probably quadruple (e.g. to 50 students) within the first few years is conservative.

**Course sequences:**

The following gives an example of typical course sequences which can be followed by students of the two streams (taking into account semesters in which courses are offered, and their pre-requisites).

<b>Fall Y1</b>	<b>Winter Y1</b>	<b>Fall Y2</b>	<b>Winter Y2</b>	<b>Fall Y3</b>	<b>Winter Y3</b>
STAT 280	MAST 234	MAST 334	STAT 380	STATS elective	STATS elective
MAST 218	MAST 333	MAST 387			STAT 385
MAST 221		COMP 228			
COMP 232	COMP 249	COMP 352	ENCS 282	COMP 353	ENCS 393
COMP 248	COMP 335		CS elective	CS elective	SOEN 471

**Course sequence: Mathematics and Statistics stream**

<b>Fall Y1</b>	<b>Winter Y1</b>	<b>Fall Y2</b>	<b>Winter Y2</b>	<b>Fall Y3</b>	<b>Winter Y3</b>
STAT 280	MAST 234	MAST 221	MAST 333	MAST 334	
MAST 218	ENCS 393	COMP 228	COMP 346	MAST 387	COMP 433
COMP 232	COMP 249	COMP 348	ENCS 282	COMP 354	SOEN 471
COMP 248	COMP 335	COMP 352	COMP 353	COMP 432	

**Course sequence: Computer Science stream**

**STAT 385**  
Introduction to Neural Networks  
*Winter 20XX*

Instructor: TBD  
Email: TBD

Office Hours: TBD

Class Schedule: TBD

Texts: **Goodfellow, I., Bengio, Y., & Courville, A. (2016). Deep learning. MIT press.**

**Outline:** This class provides an introduction to the theory of prediction with neural networks. The course first motivates the development of such models. Then, the construction of neural networks, their estimation and their use in predictive analytics problems is illustrated. Various neural network architectures (feedforward, recurrent, convolutional) are presented. Advanced estimation techniques such as regularization and adaptive learning rates are also considered. Several applications of neural networks to common problems faced in practice are finally explored. Students will also be exposed to the implementation of methods seen in class; programming assignments using the Python programming language are included.

- Review of predictive analytics and numerical computation concepts
  - Supervised learning, cross-validation, hyperparameters
  - Overflow and underflow
- Feedforward neural networks
  - Motivation
    - Non-linear predictions
    - Universality property
  - Classification versus regression problems
  - Feedforward neural network architecture specification
  - Parameter estimation
    - Objective function
    - Steepest gradient descent
    - Backpropagation, saturation, Hessian computation
    - Parameter initialization strategies
- Review of Python implementations of neural networks
- Advanced estimation topics
  - Adaptive Learning Rates
  - Regularization

- Dataset augmentation and noise injection
- Alternative neural network types
  - Recurrent and Long-short term (LSTM) neural networks
  - Convolutional neural networks
- Applications to real-world problems

**Evaluation:** The total score is determined according to the following rule: assignments (40%), mid-term exam (20%), and final exam (40%).

If the grading scheme for this course includes graded assignments, a reasonable and representative subset of each assignment may be graded. Students will not be told in advance which subset of the assigned problems will be marked and should therefore attempt all assigned problems.

### **Academic Integrity and the Academic Code of Conduct**

This course is governed by Concordia University's policies on Academic Integrity and the Academic Code of Conduct as set forth in the Undergraduate Calendar and the Graduate Calendar. Students are expected to familiarize themselves with these policies and conduct themselves accordingly. "Concordia University has several resources available to students to better understand and uphold academic integrity. Concordia's website on academic integrity can be found at the following address, which also includes links to each Faculty and the School of Graduate Studies: [concordia.ca/students/academic-integrity](http://concordia.ca/students/academic-integrity)." [Undergraduate Calendar, Sec 17.10.2]

### **Behaviour**

All individuals participating in courses are expected to be professional and constructive throughout the course, including in their communications.

Concordia students are subject to the [Code of Rights and Responsibilities](#) which applies both when students are physically and virtually engaged in any University activity, including classes, seminars, meetings, etc. Students engaged in University activities must respect this Code when engaging with any members of the Concordia community, including faculty, staff, and students, whether such interactions are verbal or in writing, face to face or online/virtual. Failing to comply with the Code may result in charges and sanctions, as outlined in the Code.

### **Intellectual Property**

Content belonging to instructors shared in online courses, including, but not limited to, online lectures, course notes, and video recordings of classes remain the intellectual property of the faculty member. It may not be distributed, published or broadcast, in whole or in part, without the express permission of the faculty member. Students are also forbidden to use their own means of recording any elements of an online class or lecture without express permission of the instructor. Any unauthorized sharing of course content may constitute a breach of the [Academic Code of Conduct](#) and/or the [Code of Rights and Responsibilities](#). As specified in the [Policy on Intellectual Property](#), the University does not claim any ownership of or interest in any student IP. All university members retain copyright over their work.

### **Extraordinary circumstances**

In the event of extraordinary circumstances and pursuant to the [Academic Regulations](#) the University may modify the delivery, content, structure, forum, location and/or evaluation scheme. In the event of such extraordinary circumstances, students will be informed of the change.

**MAST 387**  
Data Science Lab  
*Winter 20YY*

**Instructor:** TBD  
Email: TBD

**Office Hours:** TBD

**Class Schedule:** TBD

**Texts:** **No mandatory textbook; the material provided by students in the slides and exercises is self-contained.**

**Outline:** This lab course offers hands-on exposure to a broad array of problems and tasks frequently encountered in the data science practice. Examples of topics that are covered include dataset and table construction, data curation and preparation, data exploration, non-traditional data types and big data. Extensive programming duties and data analysis projects will be assigned to students.

- Relational algebra and dataset construction
  - SQL language and queries
  - Tables merging, aggregation
- Data curation and preparation
  - Data adequacy tests
    - Duplicates, Outlier detection, Winsorization
  - Missing data (removal and imputation)
  - Feature engineering
    - Data encoding: transformations (e.g. log), binning, clustering, factorial data indicators, interaction features
- Data exploration topics
  - Summary statistics
  - Visualization & plot types
    - Boxplots, Kernel Plots, Scatterplots, Countour plots, etc.
  - Correlation and dependence metrics
  - Redundancy and dimension reduction
  - Data segmentation
- Unstructured and non-traditional data types
  - Images, sounds, text, geospatial data, networks

**Evaluation:** The total score is determined according to the following rule: assignments

(70%), final exam (30%).

If the grading scheme for this course includes graded assignments, a reasonable and representative subset of each assignment may be graded. Students will not be told in advance which subset of the assigned problems will be marked and should therefore attempt all assigned problems.

### **Academic Integrity and the Academic Code of Conduct**

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**GINA CODY**  
SCHOOL OF ENGINEERING  
AND COMPUTER SCIENCE

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**INTERNAL MEMORANDUM**

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**TO:** Dr. Sandra Gabriele, Vice- Provost, Innovation in Teaching and Learning

**FROM:** Dr. M. Debbabi, Dean; Chair, GCS Council

**DATE:** November 12, 2021

**RE:** Changes to the undergraduate programs in the CSE Department

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Please find attached the curriculum changes for the undergraduate programs in the Department of Computer Science and Software Engineering. The department proposes to revise the curriculum of Joint Major in Mathematics and Statistics and Computer Science and to rename the program as the Joint Major in Data Science to better reflect the changes made. A new course is also introduced as a required course for the revised program. There is no resource implication required for this proposal.

This proposal passed the GCS Undergraduate Studies Committee on October 12, 2021 as well as the GCS Council on November 5, 2021. I would be grateful if you could put it on the agenda of the next APC meeting.

## INTERNAL MEMORANDUM

TO: Ali Akgunduz, Associate Dean, Academic Programs, GCS

FROM: Lata Narayanan, Chair, Department of Computer Science and Software Engineering

DATE: Monday, October 11, 2021

SUBJECT: BCompSc Joint Major in Data Science

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Please find attached a curriculum package for the undergraduate programs in the Computer Science and Software Engineering (CSSE) Department. An earlier version of this package was approved in principle at the Department Council on 17 September 2021, and the attached package was approved by an electronic vote that concluded on October 10, 2021.

**Summary**

The present package presents revisions to the Joint Major in Mathematics and Statistics and Computer Science, which has suffered from low enrollment since its introduction. A committee composed of members from CSSE and the Department of Mathematics and Statistics has worked over the last year on revising the curriculum, and focusing it more on data science. The program is renamed as the Joint Major in Data Science; the new name better reflects the changed curriculum, and is expected to attract higher enrollment. The program will be offered in two similar but not identical versions:

- (a) a BCompSc Joint Major in Data Science degree, focused more on computer science and housed in CSSE, and meeting our accreditation requirements,
- (b) a BA/BSc Joint Major in Data Science degree, focused more on statistics, and housed in the Department of Mathematics and Statistics.

We are also introducing a new course, which will be a required course in the Joint Major:

COMP 433 Introduction to Deep Learning

**Resource Implications:** For the computer science courses in the joint major, students will be taking a unique mix of courses already taught in the Department. The new course on Deep Learning replaces an existing cross-listed course thereby requiring a new section, but at present can be covered from the current teaching capacity in the Department. If enrollment in the joint major increases greatly, new lecture, tutorial and lab sections would be needed within CSSE.

We would be grateful if you could put this on the agenda of the next GCS Undergraduate Studies Committee meeting.





# Detailed Justification and Description

Joint Major in Data Science

## Joint Major in Data Science

### General description:

There is considerable overlap in the skillsets of mathematicians/statisticians with that of computer scientists. Students in both disciplines therefore can receive similar training in several areas (such as modeling, computation, programming). Indeed, in the modern workplace, multiple industries, businesses and institutions collect an extensive amount of data. The analysis of such datasets is meant to obtain insight about various physical social phenomena and drive decision making to improve operations and procedures of institutions and allow them to reach their goals efficiently. A non- exhaustive list of areas where data collection and analysis is of vital importance includes business (e.g. marketing, finance, and accounting), engineering, computer science, psychology, climate and environment science, sociology, economy, political science and arts. Therefore, data analysts (mathematicians/statisticians with programming experience or computer scientists with knowledge of mathematics and statistics) are in extremely high demand throughout the overall economy.

Thus, the Department of Mathematics and Statistics in partnership with the Department of Computer Science and Software Engineering (CSSE) first introduced a Joint Major in Mathematics and Statistics and Computer Applications in the 2007-2008 Undergraduate Calendar. The program was a formal recognition of the necessary foundations in both disciplines, and was useful in providing interested students with structured training in both disciplines.

In the Department of Mathematics and Statistics, the joint major program has admitted approximately 5-13 new undergraduate students each year, comprising approximately 5% of the new undergraduate student registrations. For comparison, the other Major program in the Department of Mathematics and Statistics has approximately 60-100 new registrations each year, comprising approximately one-third of the new undergraduate students.

	2016-17		2017-18		2018-19		2019-20		2020-21	
	N	%	N	%	N	%	N	%	N	%
<b>New undergraduate student registrations</b>										
Actuarial Mathematics (Specialization)	81	42%	63	33%	96	45%	80	37%	69	27%
Mathematical and Computational Finance (Specialization)	15	8%	7	4%	13	6%	5	2%	13	5%
Pure and Applied Mathematics (Specialization)	18	9%	28	14%	23	11%	25	12%	31	12%
Statistics (Specialization)	14	7%	19	10%	13	6%	21	10%	33	13%
Mathematics and Statistics (Major)	59	31%	61	32%	63	29%	72	34%	102	40%
Mathematics and Statistics and Computer Applications(Major)	5	3%	13	7%	7	3%	10	5%	9	3%
<b>Total</b>	<b>192</b>		<b>191</b>		<b>215</b>		<b>213</b>		<b>257</b>	

The corresponding student numbers registered in the Joint Major program in the Department of Computer Science are also a very small percentage of the total enrollment in the BCompSc program as shown below:

	2016-17		2017-18		2018-19		2019-20		2020-21	
	N	%	N	%	N	%	N	%	N	%
<b>New undergraduate student registrations</b>										
Joint Major Mathematics and Statistics	7	2%	7	2%	6	2%	13	4%	8	2%
<b>Total BCompSc</b>	<b>314</b>		<b>363</b>		<b>309</b>		<b>296</b>		<b>372</b>	<b>14</b>

The Joint Major continues to struggle to attract students. We suspect that the Joint Major's comparatively lower enrolments are due to several reasons:

- (1) As a joint Major, program content was broad, and students did not receive advanced training in either discipline. Because computer science has always been a rapidly evolving discipline, broad courses from a Computer Science Major (with no room in the schedule for additional advanced training) may not be very appealing to students.
- (2) Relatedly, since the creation of the Joint Major, the specialty of data analysis has been rebranded as 'Data Science'. Although Data Scientists are in extremely high demand throughout the overall economy, the terminology did not enter our lexicon until recently. Therefore, students who are interested in both the mathematics/statistics alongside the computer/programming skills that underlie Data Science careers will not have sufficient knowledge of the field to recognize the similarities in the Joint Major training with these skillsets.
- (3) Although many courses in the Computer Science component are by their very nature applied courses (emphasizing programming skills), courses in the mathematics/statistics component are conceptual. A lack of applied content in mathematics/statistics is a notable limitation. Graduates from the program are thus knowledgeable in the mathematical theory, and the computer programming, but are not trained in how to apply the mathematical theory through computer programming (such as through modeling).
- (4) The current program includes 75 credits of required courses, and 15 credits of electives (3 credits of computer science electives, 12 credits of general electives). All other credits were required courses, and did not allow students to tailor any content to their specific interests within the field.

For all of these reasons, we feel that the Joint Major in Mathematics and Statistics and Computer Applications in its current form insufficiently addresses the needs of students and may continue to suffer from low enrolments. Thus, we propose to update the curriculum to refocus and redesign it as a Joint Major in Data Science. We believe this will better address the demand for Data Science professionals with skills in Mathematics, Statistics, and Computer Science and will attract significantly more students.

**Pedagogical goals and target audience:**

The purpose of the proposed Joint major program is to train students in developing a broad array of practical skills associated with data science. The program targets students expected to directly join the workforce after completion of the undergraduate degree (BCompSc./BSc/BA). The program will prepare them to hold a technical position related to the production and analysis of data by providing them with a knowledge base in probability and statistics, data management, and computer programming. The students will have an opportunity to be exposed to various sub-disciplines such as artificial intelligence, pure mathematics, and communication. An emphasis on applied, tangible skills is an important distinction from the previous Joint Major program. In addition, to be effective data scientists, students must be able to communicate their findings. This will be accomplished in the core courses ENCS 282 Technical Writing and Communication and ENCS 393 Social and Ethical Dimension of Information and Communication Technologies.

Importantly, because Concordia undergraduate degrees (90 credits) are generally three-year programs, we have redesigned our Joint Degree while paying careful attention to: (1) the foundational

courses that are critical for a Data Science degree as evidenced by compulsory courses from other Data Science programs in Canada, (2) essential courses necessary to maintain accreditation for BCompSc degree programs while also incorporating more flexibility into the degree, and all while (3) ensuring that this is a Joint program designed in collaboration between our two Departments (Mathematics and Statistics, and Computer Science and Software Engineering).

Therefore, several pedagogical goals central to the proposed changes include training students in not only the theory of mathematics/statistics, but in the application of this knowledge in the context of computer science and data science.

- (1) Replacing or updating conceptual courses with applied courses more relevant to data science
  - a. Remove: MAST 219; 232; 235; 324; 331; 332; MATH 339; COMP 465
  - b. Add: STAT 280; 380; 385; MAST 387; SOEN 471
  - c. Update: MAST 334
- (2) Incorporate two streams into the joint major: one focused on Computer Science, to be offered as BCompSc Joint Major in Data Science, and one focused on Statistics, to be offered as BA/BSc Joint Major in Data Science
  - a. The stream in Computer Science will ensure accreditation requirements for BcompSc are met
  - b. The stream in Mathematics and Statistics will incorporate more flexibility into the program (relevant electives) for students.

#### **Similar programs in Quebec/Canada:**

Similar undergraduate degree programs in data science are offered in Canada (Simon Fraser University, University of British Columbia, University of Prince Edward Island, University of Toronto, University of Waterloo, Western University, Wilfred Laurier) and the U.S. With the recent popularity of data science, certification programs (McGill University, Mila, University of Calgary, University of Ottawa, University of Toronto, York University) and graduate degree programs are also available.

In Québec, Université de Laval offers an undergraduate data science program but a review of their coursework suggests that it is a statistics degree program, and is not joint with computer science. Concordia University, McGill University, and Université de Montréal offer joint undergraduate degree programs between Mathematics and Computer Science. McGill's program is a double Major, without a clear Data Science integration. Université de Montréal has recently developed a Data Science stream within its baccalaureate degree program in mathematics and statistics. However, our program will be the first named data science program in Québec that is not just a "stream" within a math/stat or computer science degree. It is our focus on data science as a discipline that brings together mathematics, statistics, and computer science. We also have added unique elements such as a course on neural networks that are not present in other programs.

Maintaining the Joint program with our Departments is a strength and a differentiator from most other programs offered in Canada. The Department therefore proposes to update the curriculum for the Joint Major, making Concordia the only university in Québec to offer a joint program with a focus on data science.

#### **Associated Programs:**

Once the revised Joint Major program is established, the Department of Mathematics and Statistics plans to propose a new Minor in Data Science and a Certificate in Data Science that can be added to

disciplines such as Biology and Environmental Science, and Environmental Geography where Data Science is important. These programs in Data Science complement the recent revision to the BA/BSc Specialization and Honours in Statistics programs offered by the Department. The new data science courses will also enhance our offerings to other programs such as Actuarial Mathematics, Actuarial Mathematics/Finance, Mathematical and Computational Finance, and Pure and Applied Mathematics.

### **Program structure: Joint Major**

The Joint Major is comprised of two streams (Computer Science, or Mathematics and Statistics) with a common core of courses. The BCompSc version of the Major is a 90-credit program, which has been revised to include 73 required credits and 17 elective credits. The BA/BSc is a 90-credit degree, and the Major in Data Science has been revised to include a minimum of 72 required program credits, with 18 out-of-program credits. Core courses require no prerequisites beyond the other core courses and basic CEGEP admission requirements (such as MATH 204). The two streams are designed to allow students more flexibility in personalizing the degree to their particular interests (for students pursuing a BA/BSc from the Department of Mathematics and Statistics), and to meet accreditation requirements (for students pursuing a BCompSc from the Department of Computer Science and Software Engineering).

#### **A. Compulsory courses taken by BCompSc and BA/BSc students (54 credits):**

- **Mathematics/Statistics courses (21 credits)**
  - STAT 280 (3 credits): Introduction to Statistical Programming
  - MAST 218 (3 credits): Multivariable Calculus I
  - MAST 221 (3 credits): Applied Probability
  - MAST 234 (3 credits): Linear Algebra and Applications I
  - MAST 333 (3 credits): Applied Statistics
  - MAST 334 (3 credits): Numerical Analysis
  - MAST 387 (3 credits): Data Science Lab (new course)
  
- **Computer Science courses (33 credits)**
  - COMP 228 (3 credits): System Hardware
  - COMP 232 (3 credits): Mathematics for Computer Science
  - COMP 248 (3.5 credits): Object-Oriented Programming I
  - COMP 249 (3.5 credits): Object-Oriented Programming II
  - COMP 335 (3 credits): Introduction to Theoretical Computer Science
  - COMP 352 (3 credits): Data Structures and Algorithms
  - COMP 353 (4 credits): Databases
  - ENCS 282 (3 credits): Technical Writing and Communication
  - ENCS 393 (3 credits): Social and Ethical Dimensions of Information and Communication Technologies
  - SOEN 471 (4 credits): Big Data Analytics

## B. Streams:

- Mathematics and Statistics stream for the BA/BSc version (18 credits minimum):
  - STAT 380 (3 credits): Statistical Learning
  - STAT 385 (3 credits): Introduction to Neural Networks (new course)
  - Four electives from MAST/MATH/STAT/COMP/SOEN (12 credits minimum):
    - Two MAST/MATH/STAT electives (at least 300 level) with prior department approval
    - Two COMP/SOEN electives (400 level) with prior department approval
- Computer Science stream for the BCompSc version (19 credits):
  - COMP 346 (4 credits): Operating Systems
  - COMP 348 (3 credits): Principles of Programming Languages
  - COMP 354 (4 credits): Introduction to Software Engineering
  - COMP 432 (4 credits): Machine Learning
  - COMP 433 (4 credits): Introduction to Deep Learning

Another way to view the program is:

For BA/BSc students (90 credits)

### Data Science Major Program (72) credits:

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- **General Electives (out-of-program credits): maximum 18 credits**

For BCompSc students (90 credits)

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- **General Electives (11 credits)**

\*COMP 233 must be replaced by MAST 221.

**Expected enrollment:**

Comparative Data Science programs (e.g., University of Toronto) have increased new student registrations in their Departments by a factor of 10. As there is no Data Science undergraduate program offered in Québec, an estimate that new student registrations in the Joint Major will probably quadruple (e.g. to 50 students) within the first few years is conservative.

**Course sequences:**

The following gives an example of typical course sequences which can be followed by students of the two streams (taking into account semesters in which courses are offered, and their pre-requisites).

<b>Fall Y1</b>	<b>Winter Y1</b>	<b>Fall Y2</b>	<b>Winter Y2</b>	<b>Fall Y3</b>	<b>Winter Y3</b>
STAT 280	MAST 234	MAST 334	STAT 380	STATS elective	STATS elective
MAST 218	MAST 333	MAST 387			STAT 385
MAST 221		COMP 228			
COMP 232	COMP 249	COMP 352	ENCS 282	COMP 353	ENCS 393
COMP 248	COMP 335		CS elective	CS elective	SOEN 471

**Course sequence: Mathematics and Statistics stream**

<b>Fall Y1</b>	<b>Winter Y1</b>	<b>Fall Y2</b>	<b>Winter Y2</b>	<b>Fall Y3</b>	<b>Winter Y3</b>
STAT 280	MAST 234	MAST 221	MAST 333	MAST 334	
MAST 218	ENCS 393	COMP 228	COMP 346	MAST 387	COMP 433
COMP 232	COMP 249	COMP 348	ENCS 282	COMP 354	SOEN 471
COMP 248	COMP 335	COMP 352	COMP 353	COMP 432	

**Course sequence: Computer Science stream**



**PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: GCS-COMP-364**

**PROGRAM CHANGE :** Editorial change – Due to Name change of Joint Major

**Proposed**  Undergraduate or  Graduate Curriculum **Change**

**Calendar for Academic Year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty:** Gina Cody School of Engineering and Computer Science  
**Department:** Computer Science and Software Engineering  
**Program:** Computer Science  
**Degree:** BCompSc  
**Calendar Section:** Section 14.2.3 Gina Cody School of Engineering and Computer Science

**Type of Change:**

Editorial  Requirements  Regulations  New Program  Program Deletion

<b>Present Text</b> (Text from 2021 – 2022 Calendar)	<b>Proposed Text</b>
<p><b>14.2.3 Gina Cody School of Engineering and Computer Science</b></p> <p>b.) BCompSc and BCompSc Joint Major in <del>Mathematics and Statistics and Computer Science:</del>  MATH 203, 204, 205  and six credits chosen from courses in the Humanities or Social Sciences as noted in Section 71.110 and three elective credits may be chosen as follows. ESL courses and courses that focus on the acquisition of a language may not be used to meet this requirement.</p> <ul style="list-style-type: none"> <li>• General Education Electives found in Complementary Studies for Engineering and Computer Science Students.</li> <li>• Basic and Natural Science Courses found in Degree Requirements for the BEng in Software Engineering.</li> <li>• Courses not included in the above lists may be taken with prior approval of the undergraduate program director.</li> </ul>	<p><b>14.2.3 Gina Cody School of Engineering and Computer Science</b></p> <p>b.) BCompSc and BCompSc Joint Major in <a href="#">Data Science</a>:  MATH 203, 204, 205  and six credits chosen from courses in the Humanities or Social Sciences as noted in Section 71.110 and three elective credits may be chosen as follows. ESL courses and courses that focus on the acquisition of a language may not be used to meet this requirement.</p> <ul style="list-style-type: none"> <li>• General Education Electives found in Complementary Studies for Engineering and Computer Science Students.</li> <li>• Basic and Natural Science Courses found in Degree Requirements for the BEng in Software Engineering.</li> <li>• Courses not included in the above lists may be taken with prior approval of the undergraduate program director.</li> </ul>
<p><b>Rationale:</b>  Editorial change – Due to name change of Joint Major</p> <p><b>Resource Implications:</b>  None</p>	

**PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: GCS-COMP-364**

**PROGRAM CHANGE :** Editorial change – Due to Name change of Joint Major

**Proposed**  Undergraduate or  Graduate Curriculum **Change**

**Calendar for Academic Year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty:** Gina Cody School of Engineering and Computer Science  
**Department:** Computer Science and Software Engineering  
**Program:** Computer Science  
**Degree:** BCompSc  
**Calendar Section:** Section 71.10.2 Admission Requirements

**Type of Change:**

Editorial  Requirements  Regulations  New Program  Program Deletion

<b>Present Text</b> (Text from 2021 – 2022 Calendar)	<b>Proposed Text</b>
<p>2. BCompSc                      BCompSc Joint Major in Computation Arts and Computer Science                      BCompSc Joint Major in <del>Mathematics and Statistics and Computer Science</del>                      Minor in Computer Science</p> <p><b>Cegep Profile 10.12</b>                      Mathematics 201 —                      103 or NYA, 105 or NYC, 203 or NYB</p>	<p>2. BCompSc                      BCompSc Joint Major in Computation Arts and Computer Science                      BCompSc Joint Major in <u>Data Science</u>                      Minor in Computer Science</p> <p><b>Cegep Profile 10.12</b>                      Mathematics 201 —                      103 or NYA, 105 or NYC, 203 or NYB</p>
<p><b>Rationale:</b>                      Editorial change – Due to name change of Joint Major</p> <p><b>Resource Implications:</b>                      None</p>	

**PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: GCS-COMP-364**

**PROGRAM CHANGE :** Editorial change – Due to Name change of Joint Major

**Proposed**  Undergraduate or  Graduate Curriculum **Change**

**Calendar for Academic Year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty:** Gina Cody School of Engineering and Computer Science  
**Department:** Computer Science and Software Engineering  
**Program:** Computer Science  
**Degree:** BCompSc  
**Calendar Section:** 71.70.1 Curriculum for the Degree of Bachelor of/Baccalaureate in Computer Science

**Type of Change:**  
 Editorial  Requirements  Regulations  New Program  Program Deletion

<b>Present Text</b> (Text from 2021 – 2022 Calendar)	<b>Proposed Text</b>
<p>The <b>Joint Major in <del>Mathematics and Statistics and Computer Science</del></b> combines a comprehensive education in both computer science and mathematics and statistics (see §71.85).</p>	<p>The <b>Joint Major in <u>Data Science</u></b> combines a comprehensive education in both computer science and mathematics and statistics (see §71.85).</p>
<p><b>Rationale:</b>                      Editorial change – Due to name change of Joint Major</p> <p><b>Resource Implications:</b>                      None</p>	

**PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: GCS-COMP-364**

**PROGRAM CHANGE :** Editorial change – Due to Name change of Joint Major

**Proposed**  Undergraduate or  Graduate Curriculum **Change**

**Calendar for Academic Year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty:** Gina Cody School of Engineering and Computer Science  
**Department:** Computer Science and Software Engineering  
**Program:** Computer Science  
**Degree:** BCompSc  
**Calendar Section:** Section 71.70.2 Degree Requirements (BCompSc)

**Type of Change:**

Editorial  Requirements  Regulations  New Program  Program Deletion

<b>Present Text</b> (Text from 2021 – 2022 Calendar)	<b>Proposed Text</b>
<p><b>Joint Major in Computation Arts and Computer Science</b>                      See §71.80 for details.</p> <p><b>Joint Major in <del>Mathematics and Statistics and Computer Science</del></b>                      See §71.85 for details.</p>	<p><b>Joint Major in Computation Arts and Computer Science</b>                      See §71.80 for details.</p> <p><b>Joint Major in <u>Data Science</u></b>                      See §71.85 for details.</p>
<p><b>Rationale:</b>                      Editorial change – Due to name change of Joint Major</p> <p><b>Resource Implications:</b>                      None</p>	

**PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: GCS-COMP-364**

**PROGRAM CHANGE :** Editorial change – Due to Name change of Joint Major

**Proposed**  Undergraduate or  Graduate Curriculum **Change**

**Calendar for Academic Year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty:** Gina Cody School of Engineering and Computer Science  
**Department:** Computer Science and Software Engineering  
**Program:** Computer Science  
**Degree:** BCompSc  
**Calendar Section:** Section 71.70.3 Extended Credit Program

**Type of Change:**

Editorial  Requirements  Regulations  New Program  Program Deletion

<b>Present Text</b> (Text from 2021 – 2022 Calendar)	<b>Proposed Text</b>
<p>a) <i>BCompSc (other than Joint Majors):</i>                      15 elective credits chosen from outside the Gina Cody School of Engineering and Computer Science (see Note).</p> <p>b) <i>Joint Major in Computation Arts and Computer Science:</i>                      15 elective credits chosen from outside the Gina Cody School of Engineering and Computer Science and the Department of Design and Computation Arts (see Note).</p> <p>c) <i>Joint Major in <del>Mathematics and Statistics and Computer Science:</del></i>                      15 elective credits chosen from outside the Gina Cody School of Engineering and Computer Science and the Department of Mathematics and Statistics (see Note).</p>	<p>a) <i>BCompSc (other than Joint Majors):</i>                      15 elective credits chosen from outside the Gina Cody School of Engineering and Computer Science (see Note).</p> <p>b) <i>Joint Major in Computation Arts and Computer Science:</i>                      15 elective credits chosen from outside the Gina Cody School of Engineering and Computer Science and the Department of Design and Computation Arts (see Note).</p> <p>c) <i>Joint Major in <u>Data Science:</u></i>                      15 elective credits chosen from outside the Gina Cody School of Engineering and Computer Science and the Department of Mathematics and Statistics (see Note).</p>
<p><b>Rationale:</b>                      Editorial change – Due to name change of Joint Major</p> <p><b>Resource Implications:</b>                      None</p>	

**PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: GCS-COMP-364 v1**

**PROGRAM CHANGE :** Editorial change – Due to Name change of Joint Major **Proposed** [X]

Undergraduate or [ ] Graduate Curriculum **Change**

**Calendar for Academic Year: 2022/2023**  
**Implementation Month/Year: Fall 2022**

**Faculty:** Gina Cody School of Engineering and Computer Science  
**Department:** Computer Science and Software Engineering  
**Program:** Computer Science  
**Degree:** BCompSc  
**Calendar Section:** Section 71.70.6 Programs Related to Computer Science

**Type of Change:**

[X] Editorial [ ] Requirements [ ] Regulations [ ] New Program [ ] Program Deletion

<b>Present Text</b> (Text from 2021 – 2022 Calendar)	<b>Proposed Text</b>
<p><b>71.70.6 Programs Related to Computer Science</b></p> <p>The Faculty of Fine Arts and the Department of Computer Science and Software Engineering offer the Joint Major in Computation Arts and Computer Science (see §71.80, and Fine Arts – Design and Computation Arts, §81.90). The Faculty of Arts and Science and the Department of Computer Science and Software Engineering offer the Joint Major in <del>Mathematics and Statistics and Computer Science</del> (see §71.85, and Arts and Science – Mathematics and Statistics, §31.200)</p>	<p><b>71.70.6 Programs Related to Computer Science</b></p> <p>The Faculty of Fine Arts and the Department of Computer Science and Software Engineering offer the Joint Major in Computation Arts and Computer Science (see §71.80, and Fine Arts – Design and Computation Arts, §81.90). The Faculty of Arts and Science and the Department of Computer Science and Software Engineering offer the Joint Major in <u>Data Science</u> (see §71.85, and Arts and Science – Mathematics and Statistics, §31.200)</p>
<p><b>Rationale:</b>                      Editorial change – Due to name change of Joint Major</p> <p><b>Resource Implications:</b>                      None</p>	

**PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: GCS-COMP-364 v1**

**PROGRAM CHANGE :** Change Joint Major in Mathematics and Statistics and Computer Applications program into Joint Major in Data Science

**Proposed**  Undergraduate or  Graduate Curriculum **Change**

**Calendar for Academic Year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty:** Gina Cody School of Engineering and Computer Science  
**Department:** Computer Science and Software Engineering  
**Program:** Computer Science  
**Degree:** BCompSc  
**Calendar Section:** Section 71.85: Joint Major in Mathematics and Statistics and Computer Science

**Type of Change:**

Editorial       Requirements       Regulations       New Program       Program Deletion

Present Text (Text from 2021 – 2022 Calendar)	Proposed Text
<p style="color: red; font-weight: bold; font-size: 1.2em;"><del>Joint Major in Mathematics and Statistics and Computer Science</del></p> <p><b>Section 71.85</b></p> <p><b>Faculty</b></p> <p><i>Undergraduate Program Director</i>                      NEMATOLLAH SHIRI-VARNAAMKHAASTI, PhD Concordia University; Associate Professor</p> <p><b>Location</b></p> <p><i>Sir George Williams Campus</i>  <del>Engineering, Computer Science and Visual Arts Complex, Room: EV 003.139</del>                      514-848-2424, ext. 3000</p> <p><b>Objectives</b></p> <p>The Gina Cody School of Engineering and Computer Science and the Faculty of Arts and Science have created a program of study which combines a comprehensive education in computer science and mathematics. This program resides in both Faculties. In the Gina Cody School of Engineering and Computer Science, it is offered under the aegis of the Bachelor of/Baccalaureate in Computer Science (BCompSc). According to their preferences and aspirations, students may apply</p>	<p style="color: blue; font-weight: bold; font-size: 1.2em;"><u>Joint Major in Data Science</u></p> <p><b>Section 71.85</b></p> <p><b>Faculty</b></p> <p><i>Undergraduate Program Director</i>                      NEMATOLLAH SHIRI-VARNAAMKHAASTI, PhD Concordia University; Associate Professor</p> <p><b>Location</b></p> <p><i>Sir George Williams Campus</i></p> <p><a href="#">ER Building, Room: 10.77</a>                      514-848-2424, ext. 3000</p> <p><b>Objectives</b></p> <p>The Gina Cody School of Engineering and Computer Science and the Faculty of Arts and Science have created a program of study which combines a comprehensive education in computer science and mathematics. This program resides in both Faculties. In the Gina Cody School of Engineering and Computer Science, it is offered under the aegis of the Bachelor of/Baccalaureate in Computer Science (BCompSc). According to their preferences and aspirations, students may apply</p>

either for a Bachelor of/Baccalaureate in Computer Science program, Bachelor of/Baccalaureate in Science program, or Bachelor of/Baccalaureate in Arts program. The Arts and Science offering is described in [§31.200](#). The Computer Science program is described below.

### Curriculum

The BCompSc Joint Major in ~~Mathematics and Statistics and Computer Science~~ provides a foundation ~~for integrated studies in computer science and mathematics~~. The mathematics component of the program includes topics that overlap with computer science, such as ~~modelling, symbolic computation, and combinatorics, as well as the standard topics of a mathematical curriculum~~.

### Structure of the Program

The program consists of 90 credits.

<b>Joint Major in <del>Mathematics and Statistics and Computer Science</del></b>	<i>Credits</i>
Computer Science Core (see §71.70.2)*	33.00
Complementary Core (see §71.70.2)	6.00
Mathematics and Statistics Core ( <del>see §31.200</del> )	<del>36.00</del>
Computer Science Electives (see §71.70.2)	3.00
General Electives (see §71.70.2)	12.00
	<hr/> 90.00

\*~~COMP 232 may be replaced by MAST 217~~. COMP 233 must be replaced by MAST 221.

<b>Mathematics and Statistics Core</b>	<i>Credits</i>	
<del>COMP 339</del> <del>Combinatorics*</del>	<del>3.00</del>	
<del>COMP 361</del> <del>Elementary Numerical Methods**</del>	<del>3.00</del>	
<del>COMP 367</del> <del>Techniques in Symbolic Computation***</del>	<del>3.00</del>	
<del>COMP 465</del> <del>Design and Analysis of Algorithms</del>	<del>3.00</del>	
MAST 218	Multivariable Calculus I	3.00
<del>MAST 219</del>	<del>Multivariable Calculus II</del>	<del>3.00</del>
<del>MAST 232</del>	<del>Mathematics with Computer Algebra</del>	<del>3.00</del>
MAST 234	Linear Algebra and Applications I	3.00
<del>MAST 235</del>	<del>Linear Algebra and Applications II</del>	<del>3.00</del>
<del>MAST 324</del>	<del>Introduction to Optimization</del>	<del>3.00</del>
<del>MAST 331</del>	<del>Mathematical Modelling</del>	<del>3.00</del>
MAST 333	Applied Statistics	3.00
	<hr/> 36.00	

either for a Bachelor of/Baccalaureate in Computer Science program, Bachelor of/Baccalaureate in Science program, or Bachelor of/Baccalaureate in Arts program. The Arts and Science offering is described in [§31.200](#). The Computer Science program is described below.

### Curriculum

The BCompSc Joint Major in [Data Science](#) provides [the foundational courses that are critical for Data Science](#). The mathematics [and statistics](#) component of the program includes topics that overlap with computer science, such as [calculus, probability and statistics, numerical analysis, and a data science lab](#).

### Structure of the Program

The program consists of 90 credits.

<b>Joint Major in <a href="#">Data Science</a></b>	<i>Credits</i>
Computer Science Core (see §71.70.2)	33.00
Complementary Core (see §71.70.2)	6.00
<a href="#">Data Science Courses</a>	<a href="#">16.00</a>
Mathematics and Statistics Core	<a href="#">18.00</a>
Computer Science Electives (see §71.70.2)	<a href="#">6.00</a>
General Electives (see §71.70.2)	<a href="#">11.00</a>
	<hr/> 90.00

Note: COMP 233 must be replaced by MAST 221.

<b>Mathematics and Statistics Core</b>	<i>Credits</i>	
MAST 218	Multivariable Calculus I	3.00
MAST 234	Linear Algebra and Applications I	3.00
MAST 333	Applied Statistics	3.00
<a href="#">MAST 334</a>	<a href="#">Numerical Analysis</a>	<a href="#">3.00</a>
<a href="#">MAST 387</a>	<a href="#">Data Science Lab</a>	<a href="#">3.00</a>
<a href="#">STAT 280</a>	<a href="#">Introduction to Statistical Programming</a>	<a href="#">3.00</a>
	<hr/> 18.00	

[Note: MAST 334 may be replaced by COMP 361.](#)

<b><a href="#">Data Science Courses</a></b>	<i>Credits</i>	
<a href="#">COMP 353</a>	<a href="#">Databases</a>	<a href="#">4.00</a>
<a href="#">COMP 432</a>	<a href="#">Machine Learning</a>	<a href="#">4.00</a>
<a href="#">COMP 433</a>	<a href="#">Introduction to Deep Learning</a>	<a href="#">4.00</a>
<a href="#">SOEN 471</a>	<a href="#">Big Data Analytics</a>	<a href="#">4.00</a>
	<hr/> 16.00	



~~\*COMP 339 is cross-listed with MATH 339.~~  
~~\*\*COMP 361 may be replaced by MAST 334.~~  
~~\*\*\*COMP 367 is cross-listed with MAST 332.~~

### Admission Requirements

The ~~Computer Science and Mathematics and Statistics~~ program is restricted to students who are enrolled in or simultaneously applying for the BCompSc and who are qualified for the mathematics component. Applicants must fulfill the admission requirements for the BCompSc (see §71.10.2) and be accepted into the BCompSc. For admission requirements for the mathematics component, see §31.200.

### Admission Requirements

The [Joint Major in Data Science](#) program is restricted to students who are enrolled in or simultaneously applying for the BCompSc and who are qualified for the mathematics component. Applicants must fulfill the admission requirements for the BCompSc (see §71.10.2) and be accepted into the BCompSc. For admission requirements for the mathematics component, see §31.200.

### Rationale:

Since its inception, the Joint Major in Mathematics and Statistics and Computer Science has struggled with attracting students (approximately an average 12 new Joint Major student registrations each year) in comparison to the other Majors in both departments. Thus, we propose to update the curriculum to refocus and redesign it as a Joint Major in Data Science. We believe this will better address the demand for Data Science professionals with skills in Mathematics, Statistics, and Computer Science and will attract significantly more students.

### Resource Implications:

Given the demand for Data Science programs in Canada and internationally there is the potential for a significant increase in the number of students enrolling in program courses in FAS and GCS. The increased enrollments could require further allocations of course sections in both FAS and GCS.

**PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: GCS-COMP-364 v1**

**COURSE CHANGE:** New course: COMP-433 Introduction to Deep Learning

**COURSE NUMBER:** COMP 433 Introduction to Deep Learning

**NEW COURSE NUMBER:**

**Proposed**  Undergraduate or  Graduate Curriculum **Changes**

**Calendar for Academic Year:** 2022/2023

**Implementation Month/Year:** Fall 2022

**Faculty:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Computer Science and Software Engineering  
**Program:** Computer Science and Software Engineering  
**Degree:** BCompSc, BEng  
**Calendar Section :** Section 71.70.10

**Type of Change:**

Course Number     Course Title     Credit Value     Prerequisite     Course Description  
 Editorial         New Course         Course Deletion     Other - Specify:

<b>Present Text</b> (Text from 20xx – 2xx Calendar)	<b>Proposed Text</b>
	<p><b>COMP 433 <i>Introduction to Deep Learning</i></b> (4 credits)</p> <p>The following course must be completed previously: COMP 352</p> <p>This course introduces conceptual and practical aspects of deep learning and their implementation in software. Topics covered include commonly used deep learning model architectures, loss functions, regularization, optimization methods, and a strong emphasis is placed on review of their foundations and use of software tools such as pytorch, jax, and tensorflow to implement and/or apply these models. Applications in computer vision and natural language processing are covered. A final project is required. Lectures: three hours per week. Laboratory: two hours per week.</p>

**Rationale:**

Deep learning has recently become a fundamental tool in many well-known empirical results in object recognition, segmentation and detection, speech recognition, and natural language processing. It is widely used in scientific disciplines such as neuroscience, genomics, operations research, and astronomy among others. Furthermore, data scientist, data analyst, machine learning engineer, and software engineer roles in industry increasingly require a minimum of basic familiarity with deep learning toolkits and pipelines. A cross-listed course on Deep Learning was offered as a slot course in the Winter 2021 term, with an enrollment of 11 undergraduate students and with more of a research focus. A number of undergraduate students expressed interest in an introductory course in Deep Learning, which provided the impetus for offering this new course COMP 433. The cross-listed slot course will be converted to a graduate-only permanent course.

**Resource Implications:**

None. The course credit will be part of the faculty member's regular teaching load.

**Other Programs within which course is listed:**

None.

# COMP 433: Introduction to Deep Learning

Eugene Belilovsky

Department of Computer Science and Software Engineering

## Background and Motivation

Deep learning has recently become a fundamental tool in a large number of well known empirical results in machine learning and artificial intelligence. Most dramatically in object recognition, segmentation and detection, speech recognition, and recently natural language processing. Alongside other machine learning methods it is becoming heavily used in a wide variety of scientific disciplines such as neuroscience, genomics, operations research, and astronomy among others. Indeed data scientist, data analyst, machine learning engineer, and software engineering roles in industry increasingly require a minimum of basic familiarity with deep learning toolkits and pipelines.

The goal of the course is to introduce practical aspects of deep learning at the undergraduate level. The course will be aimed at undergraduate students with minimal basic familiarity in machine learning and knowledge of linear algebra and multi-variable calculus. The course will aim to have students learn about and properly apply a variety of commonly used deep learning models and methods using standard software frameworks and tools quickly becoming in demand in the job market. Topics covered will include commonly used deep learning model architectures, loss functions, regularization, optimization methods, and software tools. The course will cover applications in supervised and unsupervised learning.

Deep Learning is taught at the graduate level at many Universities worldwide including the University of Toronto, University of Montreal, and the University of British Columbia. Deep Learning is also taught at the undergraduate level at Stanford University and Carnegie Mellon University. The proposed Deep Learning course will add value to the teaching portfolio of the Department of Computer Science and Software Engineering by complementing the other courses on machine learning and artificial intelligence courses in the undergraduate curriculum. The course will integrate into the material when appropriate a review of practical applications of concepts from applied linear algebra, matrix calculus, optimization, and use of python scientific computing tools.

## Calendar Descriptions

COMP 433 Introduction to Deep Learning (4 credits)

Prerequisite: COMP 352

This course introduces conceptual and practical aspects of deep learning and their implementation in software. Topics covered will include commonly used deep learning model architectures, loss functions, regularization, optimization methods, and a strong emphasis on review of their foundations and use of software tools such as pytorch and jax to implement and/or apply these models. Concepts will be introduced using applications in computer vision and natural language processing. A final project will be required. Lectures: three hours per week. Laboratory: two hours per week.

## Time of Offering

Fall

## Textbooks

Lecture material will draw primarily from:

- *Deep Learning* by Ian Goodfellow, Yoshua Bengio, and Aaron Courville (2016)

## Grading Scheme

Labs:	15%
Assignments:	30%
Final Project:	20%
Midterm Examination:	15%
Final Examination:	20%

## Lecture Schedule

Lectures: three hours per week. Laboratory: two hours per week.

Week 1 : Machine Learning Foundations for Deep Learning

Week 2 : Introduction to Neural Networks

Week 3 : Backpropagation

Week 4 : Automatic Differentiation Software

Week 5 : Loss functions, Regularization and Optimization for Neural Networks

Week 6: Convolution Neural Networks and Applications in Image Recognition

Week 7: Recurrent Neural Networks and NLP Applications

Week 8 : Attention Models

Week 9 : Self-Attention and Transformer Models

Week 10 : Transfer Learning and Multi-Task Learning

Week 11: Self-Supervised Learning

Week 12 : Introduction to Deep Generative Models

## Relation to other courses

**COMP 691 Deep Learning.** This course is geared towards graduate students who want to pursue research in the subject area. It covers a broader set of material and goes into theoretical aspects of each topic as well as the latest research. Students in COMP691 are asked to read research papers and do proofs as part of the assignments which is not part of the proposed course. The proposed undergraduate course on the other hand covers a subset of topics from COMP691 in an introductory format appropriate for an undergraduate audience and as well reviews elementary topics not covered by COMP 691.

**COMP 432 Machine Learning.** This course teaches a broad overview of methods in machine learning. Some of the basic concepts related to deep learning will be covered in this course but the proposed course will focus more in depth on deep learning and it's applications.

**COMP 6321 Machine Learning.** This is a graduate level course teaches advanced concepts in machine learning. Some of the techniques related to deep learning will be covered in the proposed course but will be focused on in much more breadth and depth.

**COMP 6731 Pattern Recognition.** This course is focused more on image processing and clustering algorithms. It covers feature extraction and selection, similarity between patterns and distance measurements, syntactic and statistical approaches, clustering analysis, Bayesian decision theory and discriminant functions, and clustering and classification techniques. This course covers some overlapping topics but the focus is not deep learning which is the main topic of the proposed course.

**COMP 7551 Advanced Pattern Recognition.** This course builds on COMP 6731 and focuses on advanced topics in image processing and clustering techniques as well as touching on neural networks methods. The proposed course will cover complementary materials going in much greater depth on modern neural network methods and representation learning.

**COMP 472 Artificial Intelligence.** This course teaches a combination of classical AI such as heuristic search, path finding and adversarial games, along with neural networks, auto-encoders, decision trees, and natural language processing. It relies on the classic book *Artificial Intelligence: A Modern Approach* by Russell & Norvig. This course covers some overlapping topics but the focus is not deep learning which is the main topic of the proposed course.

**COMP 473 Pattern Recognition.** This course teaches many of the same concepts as the proposed course but with a more statistical and mathematical focus. It is largely based on the classic *Pattern Classification* book by Duda & Hart but includes neural networks and convolutional neural networks. It is also taught using Matlab. This course covers some overlapping topics but the focus is not deep learning which is the main topic of the proposed course.

**COMP 474 Intelligent Systems.** This course focuses on explicit rule-based systems, knowledge representation, and reasoning under uncertainty. It represents a different paradigm than machine learning and classical pattern recognition, with its own strengths and weaknesses. This course covers

some overlapping topics, but the focus is not deep learning which is the main topic of the proposed course.

**COMP 425 Computer Vision.** The Computer Vision course covers image processing, camera models, multiview geometry, tracking, segmentation, classical features, and special data sets. There are also many machine learning methods that are tailored to computer vision which are discussed. This course covers some overlapping topics but the focus is not deep learning which is the main topic of the proposed course.

**COMP 6721 Applied Artificial Intelligence**

The course covers heuristic and adversarial searches for concrete applications. It then discusses automated reasoning, advanced knowledge representation and dealing with uncertainty for Artificial Intelligence applications. Finally, it introduces autoencoders, recurrent neural networks and sequence to sequence models. A project is required. This course covers some overlapping topics but the focus is not deep learning which is the main topic of the proposed course.

**MACF 491 (STAT 497/ MAST 679/881) Topics in Mathematics and Computational Finance:  
Reinforcement Learning**

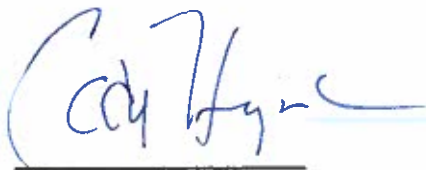
This course covers reinforcement learning techniques. The proposed course on the other hand focuses largely on supervised and unsupervised learning paradigms. The overlap between the course topics are thus minimal (less than 2%), while at the same time the topics covered are complementary.

Tuesday, October 12, 2021

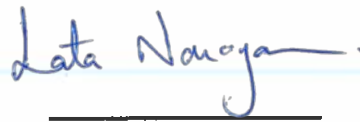
The Departments of Computer Science and Software Engineering (CSSE) and Mathematics and Statistics are presenting revisions to the Joint Major in Mathematics and Statistics and Computer Science, which has suffered from low enrollment since its introduction. A committee composed of members from CSSE and the Department of Mathematics and Statistics has worked over the last year on revising the curriculum, and focusing it on Data Science. The program is renamed as the Joint Major in Data Science; the new name better reflects the changed curriculum, and is expected to attract significantly higher enrollment. The program will be offered in two similar but not identical versions:

- (a) a BCompSc Joint Major in Data Science degree, focused more on computer science and housed in CSSE, and meeting our accreditation requirements,
- (b) a BA/BSc Joint Major in Data Science degree, focused more on statistics, and housed in the Department of Mathematics and Statistics.

We are pleased to propose this joint program and our respective departments will work cooperatively to ensure its success.



Cody Hyndman



Lata Narayanan





### INTERNAL MEMORANDUM

**TO:** Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Office of the Provost and Vice-President, Academic Affairs  
Chair, Academic Programs Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 28, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Changes  
Department of Applied Human Sciences (AHSC-38)

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The following proposal was presented under ASFC-2021-6M-C and approved at the Arts and Science Faculty Council meeting of October 22, 2021. The resource implications pertaining to this dossier were reviewed and approved prior to presentation at Council. We request that this proposal be reviewed at the next meeting of the Academic Programs Committee.

Thank you for your consideration of this proposal.



## INTERNAL MEMORANDUM

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 7<sup>th</sup>, 2021

**SUBJECT:** 2022-23 Undergraduate Calendar Curriculum Changes  
Department of Applied Human Sciences  
**AHSC-38**  
Program changes to Major in Human Relations and Certificate in  
Family Life Education; deletion of AHSC 435; new course AHSC 434

The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

The **Department of Applied Human Sciences** is proposing program changes in their Major in Human Relations and Certificate in Family Life Education. They propose the deletion of AHSC 435 *Fieldwork Practice*, to be replaced with the new course AHSC 434 *Human Relations Capstone Project*.

Currently, students enrolled in AHSC 435 are matched in pairs and, along with supervision by the course instructor and on-site supervisor, apply the knowledge learned in the classroom in a pre-selected establishment, typically within the community or in an organizational setting. With a recent curriculum change in the department (AHSC-25: the addition of four concentrations- Community Development, Family Science, Individual and Small Group Processes, and Organizational Development and Change), this approach is no longer consistent with what is taught in the classroom. Newly developed AHSC 434 will allow students, now in teams of 6-10, to be more involved in researching and seeking out new sites where they can conduct their intervention sessions. Students will be more involved with the planning processes and establishing relationships with their groups, either in a family/community setting or within a broader organizational environment.

For the new course, the department proposes the addition of a coordinator, whose key responsibilities will include building and maintaining relationships with a variety of community partners, ensuring that both students and partners benefit from proposed projects, and providing support to course instructors. These tasks require continuous activity throughout the academic year. Resource implications, which have been factored in, thus include a 3-credit course remission for a course coordinator.

Thank you for your consideration of this proposal.

*Reference documents:*  
*FCC 2021.1-AHSC-38*

# Department of Applied Human Sciences

## AHSC-38

### **Memo from Chair**

Major in Human Relations

Certificate in Family Life Education

### **New course**

AHSC 434     *Human Relations Capstone Experience*

### **Course deletion**

AHSC 435     *Fieldwork Practice*



## INTERNAL MEMORANDUM

**TO:** Richard Courtemanche  
**FROM:** Peter Morden  
**DATE:** August 6, 2021  
**SUBJECT:** **Curriculum Proposal: Course changes**

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Following the unanimous approval by the Full-time Faculty Committee at its meeting on April 8th 2021, the Department of Applied Human Sciences is proposing the following two undergraduate program changes for your consideration:

1. *AHSC 435: Fieldwork Practice*  
Remove course from Human Relations Major and Certificate in Family Life Education

The fieldwork course was designed so that self-directed, 2-person teams would conduct 8-session interventions within a community or organizational setting. However, this format is outdated and is no longer consonant with the approaches taught within the program and it does not meet the needs of the organizations in which our students work. As well, it is difficult for instructors to engage meaningfully with 12 teams and intervention sites in order to ensure the partnership is unfolding to everyone's mutual benefit.

2. *AHSC 434: Human Relations Capstone Project*  
Add to Human Relations Major and Certificate in Family Life Education

The format for the *Capstone Project* class will capitalize on the new Human Relations concentrations in order to develop a limited number of project teams that will utilize participatory planning processes in order to understand and engage in meeting defined needs within varied settings. A course coordinator will be responsible for developing and maintaining working relationships with such settings. This will obviate the need for diverse groups of students to seek their own intervention sites and will allow them immediately to begin the project development process. By pre-establishing relationships, students will be afforded the opportunity to develop meaningful interventions informed by their area of concentrated study, whether in the realm of the micro-contexts of individuals and families, or broader community or organizational environments. This approach will also allow for greater involvement of the course instructor-providing direction, advice, and assistance to the students and maintaining lines of communication with the sites during project development and implementation.

A 3-credit course remission is requested for the course coordinator position. The course coordinator role is to create and sustain relationships with a wide variety of community partners, and to identify specific, potential student projects before the start of each semester. The course coordinator will, on an ongoing basis, initiate contact with potential new community partners and maintain existing partner relationships. The coordinator will identify approximately 24 projects for students annually (based on 6 sections of 24 students, with up to 144 students per year). The site and the purpose of each potential project (which can include such activities as team building, visioning, needs assessments, stakeholder consultations, etc.) will be negotiated by the coordinator and transferred to instructors before the start of each semester.

The work of preparing these projects exceeds the time allotted for regular teaching over a 13-week term and requires continuous activity throughout the academic year. A course coordinator for AHSC 434 will offer instructors and students the support they need so that they can focus on the learning outcomes of the course. At the same time, the course coordinator can continually create and update the documentation for this capstone course and can work on new partnerships as needed.

The following is a summary of the course coordinator's role.

- 1) Create and maintain partnerships with organizations in the field:
  - Set up partnership agreements.
  - Discuss possible projects with partners before start of the term, with the goal of establishing mandates for each team to offer to instructors.
  - Conduct and review overall needs (long term).
  - Ensure that there are sufficient partners.
  - Maintain the relationships.
- 2) "Co-design" projects for implementation by teams of students with partners:
  - Ensure that proposed projects are mutually beneficial for partners and students (students act in teams of 6 to 10 members).
  - Create a Fieldwork Manual for students.
  - If needed, adapt the syllabus to the given context.
- 3) Support course instructors by laying the groundwork before the term starts:
  - Introduce partners to course instructors.
  - Conduct preliminary needs assessments.
  - Identify expected activities for the term (one activity per student team).
  - Provide up-to-date information about each partner and their anticipated project.
- 4) Facilitate collaboration and learning between course instructors:
  - Hold meetings with course instructors at the start and end of each semester.
  - Review evaluations provided by course instructors and their teams.

- 5) Maintain records:
- Archive completed projects (student reports and client evaluations).
  - Document any additional feedback from community partners.
  - Track relationships, evaluations and projects implemented with the partners over time.

I would be pleased to respond to any questions you may have about this proposal.



Peter Morden  
Chair, Department of Applied Human Sciences  
L-VE- 223.02

**PROGRAM CHANGE:** Major in Human Relations

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Arts and Science  
**Department:** Applied Human Sciences  
**Program:** Major in Human Relations  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.010

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>BA Major in Human Relations (42 credits)</b></p> <p><b>15 credits:</b>                      AHSC 220 Lifespan Growth and Development for Practitioners (3.00)                      AHSC 230 Interpersonal Communication and Relationships (3.00)                      AHSC 232 Working in Task Groups (3.00)                      AHSC 260 Program Planning, Design and Evaluation (3.00)                      AHSC 270 Introduction to Human Relations Theory and Research (3.00)</p> <p><b>9 credits:</b>                      AHSC 311 Respecting Diversity in Human Relations (3.00)                      AHSC 330 Leadership and Facilitation in Small Groups (6.00)</p> <p><b>3 credits:</b>  <del>AHSC 435 Fieldwork Practice (3.00)</del></p> <p><b>15 credits chosen from one of the following concentrations:</b></p> <p>Individual and Small Group Processes Concentration: Major in Human Relations                      Community Development Concentration: Major in Human Relations                      Organization Development and Change Concentration: Major in Human Relations</p> <p><b>Individual and Small Group Processes Concentration: Major in Human Relations (15 credits)</b></p> <p><b>6 credits:</b>                      AHSC 225 Principles of Experiential and Action Learning and the Reflective Practitioner (3.00)                      AHSC 400 Advanced Facilitation and Ethics (3.00)</p>	<p><b>BA Major in Human Relations (42 credits)</b></p> <p><b>15 credits:</b>                      AHSC 220 Lifespan Growth and Development for Practitioners (3.00)                      AHSC 230 Interpersonal Communication and Relationships (3.00)                      AHSC 232 Working in Task Groups (3.00)                      AHSC 260 Program Planning, Design and Evaluation (3.00)                      AHSC 270 Introduction to Human Relations Theory and Research (3.00)</p> <p><b>9 credits:</b>                      AHSC 311 Respecting Diversity in Human Relations (3.00)                      AHSC 330 Leadership and Facilitation in Small Groups (6.00)</p> <p><b>3 credits:</b>  <a href="#">AHSC 434 Human Relations Capstone Experience (3.00)</a></p> <p><b>15 credits chosen from one of the following concentrations:</b></p> <p>Individual and Small Group Processes Concentration: Major in Human Relations                      Community Development Concentration: Major in Human Relations                      Organization Development and Change Concentration: Major in Human Relations</p> <p><b>Individual and Small Group Processes Concentration: Major in Human Relations (15 credits)</b></p> <p><b>6 credits:</b>                      AHSC 225 Principles of Experiential and Action Learning and the Reflective Practitioner (3.00)                      AHSC 400 Advanced Facilitation and Ethics (3.00)</p>

**3 credits of elective courses chosen from the Individual focus list:**

AHSC 312 Sexuality in Human Relations (3.00)  
AHSC 314 Adolescence: Issues and Intervention (3.00)  
AHSC 315 Interviewing (3.00)  
AHSC 316 Adulthood: Patterns and Transitions (3.00)  
AHSC 319 Older Adulthood: Issues and Intervention (3.00)  
AHSC 451 Counselling Skills and Concepts (6.00)

**3 credits of elective courses chosen from the Group focus list:**

AHSC 313 Family Communication (3.00)  
AHSC 322 Fundamentals of Child- and Youth-Care Work (3.00)  
AHSC 335 Power and Conflict Resolution in Human Systems (3.00)  
AHSC 355 Foundations of Family Life Education (3.00)  
AHSC 403 Cultivating Creativity and Social Innovation (3.00)  
AHSC 460 Health Promotion (6.00)  
AHSC 470 Basic Human Relations Laboratory (3.00)

**3 credits of elective courses at the 400 level chosen from the Individual focus list or the Group focus list**

**Community Development Concentration: Major in Human Relations (15 credits)**

**6 credits:**

AHSC 343 Community Development I (3.00)  
AHSC 445 Community Development II (3.00)

**9 credits of elective courses with at least three credits at the 400 level, chosen from:**

AHSC 225 Principles of Experiential and Action Learning and the Reflective Practitioner (3.00)  
AHSC 335 Power and Conflict Resolution in Human Systems (3.00)  
AHSC 400 Advanced Facilitation and Ethics (3.00)  
AHSC 411 Social Change and Analysis Methods (3.00)  
AHSC 415 Organizational and Community Sustainability (3.00)  
AHSC 460 Health Promotion (6.00)  
AHSC 475 Organizational and Community Leadership: A Systems Approach (3.00)

**Organization Development and Change Concentration: Major in Human Relations (15 credits)**

**6 credits:**

AHSC 332 Organization Development I (3.00)  
AHSC 425 Organization Development II (3.00)

**9 credits of elective courses with at least three credits at the 400 level, chosen from:**

AHSC 315 Interviewing (3.00)  
AHSC 335 Power and Conflict Resolution in Human Systems (3.00)

**3 credits of elective courses chosen from the Individual focus list:**

AHSC 312 Sexuality in Human Relations (3.00)  
AHSC 314 Adolescence: Issues and Intervention (3.00)  
AHSC 315 Interviewing (3.00)  
AHSC 316 Adulthood: Patterns and Transitions (3.00)  
AHSC 319 Older Adulthood: Issues and Intervention (3.00)  
AHSC 451 Counselling Skills and Concepts (6.00)

**3 credits of elective courses chosen from the Group focus list:**

AHSC 313 Family Communication (3.00)  
AHSC 322 Fundamentals of Child- and Youth-Care Work (3.00)  
AHSC 335 Power and Conflict Resolution in Human Systems (3.00)  
AHSC 355 Foundations of Family Life Education (3.00)  
AHSC 403 Cultivating Creativity and Social Innovation (3.00)  
AHSC 460 Health Promotion (6.00)  
AHSC 470 Basic Human Relations Laboratory (3.00)

**3 credits of elective courses at the 400 level chosen from the Individual focus list or the Group focus list**

**Community Development Concentration: Major in Human Relations (15 credits)**

**6 credits:**

AHSC 343 Community Development I (3.00)  
AHSC 445 Community Development II (3.00)

**9 credits of elective courses with at least three credits at the 400 level, chosen from:**

AHSC 225 Principles of Experiential and Action Learning and the Reflective Practitioner (3.00)  
AHSC 335 Power and Conflict Resolution in Human Systems (3.00)  
AHSC 400 Advanced Facilitation and Ethics (3.00)  
AHSC 411 Social Change and Analysis Methods (3.00)  
AHSC 415 Organizational and Community Sustainability (3.00)  
AHSC 460 Health Promotion (6.00)  
AHSC 475 Organizational and Community Leadership: A Systems Approach (3.00)

**Organization Development and Change Concentration: Major in Human Relations (15 credits)**

**6 credits:**

AHSC 332 Organization Development I (3.00)  
AHSC 425 Organization Development II (3.00)

**9 credits of elective courses with at least three credits at the 400 level, chosen from:**

AHSC 315 Interviewing (3.00)  
AHSC 335 Power and Conflict Resolution in Human Systems (3.00)  
AHSC 370 Organizational Development and Change: Models and Methods (3.00)



AHSC 370 Organizational Development and Change: Models and Methods (3.00)  
AHSC 403 Cultivating Creativity and Social Innovation (3.00)  
AHSC 411 Social Change and Analysis Methods (3.00)  
AHSC 415 Organizational and Community Sustainability (3.00)  
AHSC 470 Basic Human Relations Laboratory (3.00)  
AHSC 475 Organizational and Community Leadership: A Systems Approach (3.00)

AHSC 403 Cultivating Creativity and Social Innovation (3.00)  
AHSC 411 Social Change and Analysis Methods (3.00)  
AHSC 415 Organizational and Community Sustainability (3.00)  
AHSC 470 Basic Human Relations Laboratory (3.00)  
AHSC 475 Organizational and Community Leadership: A Systems Approach (3.00)

**Rationale:**

Through extensive consultations and curriculum analysis and development, the Applied Human Sciences Department has recently updated and revamped its major and specialization programs in Human Relations. This process of renewal includes the introduction of four program 'concentrations' that offer career pathways for our undergraduates. These four concentrations are Family Science and Youth, Community Development, Individual and Small Groups, and Organization Development. Each concentration includes courses that develop specific skills appropriate to those concentrations. Specialization students (and Family Science and Youth has only the specialization option and no major) have a culminating Internship course. Majors students used to have a culminating field work course; however, the introduction of concentrations has rendered the field work course obsolete. See the separate justification for the elimination of the AHSC 435 course for more information.

We are therefore proposing to offer a new course, AHSC 434, that meets the needs of students in the Major program with a concentration in Community Development, Individual and Small Groups, and Organization Development concentrations. This new course offers students a capstone experience in which they will be able to synthesize their learnings with a relevant field experience. Students will work in small teams of up to ten students, and will learn how to build relationships with community partners, assess client needs, and design, deliver and evaluate projects to meet those needs. The course instructor will coach the small teams and link learnings from earlier courses to the application in the field. A request has been made to secure a three-credit remission for a course coordinator who will establish partnerships in the community and establish appropriate projects prior to the start of this one-semester course.

This new capstone course fills several gaps that now exist in the AHSC 435 field work course. For example, the AHSC 435 course does not cover collecting, analyzing and presenting data, and evaluating the process and impact of projects and interventions. These will be core elements of the new 434 capstone course. In the old approach, students were responsible for finding their own client. The new 434 approach is based on the work of a course coordinator who forms and sustains partnerships with a stable of relevant community and organizational partners, and who then transitions specific partner requirements to the instructors responsible for teaching sections of 434, thus freeing student time and attention for the core activities of working with a client. The importance of contracting with a client, of letting data and intention drive design, and of exploring the client system will also be emphasized in the new course.

Students in our certificate programs will also benefit from the opportunity to interact with a non-profit organization applying principles of small and large group intervention. With this new approach the capstone course will be significantly less reliant on school-based projects so we may be able to offer at least one section during the summer semester and create additional options for students.

**Resource Implications:**

A 3-credit course remission will be required in order to free up the time necessary for the course coordinator to perform his/her role of initiating contact with potential sites and developing and maintaining mutually beneficial working relationships.

**PROGRAM CHANGE:** Certificate in Family Life Education

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Arts and Science  
**Department:** Applied Human Sciences  
**Program:** Certificate in Family Life Education  
**Degree:** Certificate  
**Calendar Section/Graduate Page Number:** 31.010

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Certificate in Family Life Education</b></p> <p><b>Notes</b></p> <ul style="list-style-type: none"> <li>The Department of Applied Human Sciences offers a 30-credit program leading to the Concordia University Certificate in Family Life Education.</li> <li>Students may transfer into the certificate program credits earned in an incomplete degree or certificate program or as an Independent student, as approved by a departmental undergraduate advisor, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.</li> <li><b>Admission Requirements:</b> Students are required to complete the 0.00G entrance profile to enter the certificate. Mature Entry students require the prerequisite: ENGL 212.</li> <li>AHSC 220, AHSC 230, and AHSC 232 are prerequisites for courses included in this certificate.</li> <li>In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the program, chosen in consultation with the coordinator of undergraduate programs.</li> </ul> <p><b>Degree Requirements</b></p> <p>12 credits from Phase I: Certificate in Family Life Education                      6 credits from Phase II: Certificate in Family Life Education</p>	<p><b>Certificate in Family Life Education</b></p> <p><b>Notes</b></p> <ul style="list-style-type: none"> <li>The Department of Applied Human Sciences offers a 30-credit program leading to the Concordia University Certificate in Family Life Education.</li> <li>Students may transfer into the certificate program credits earned in an incomplete degree or certificate program or as an Independent student, as approved by a departmental undergraduate advisor, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.</li> <li><b>Admission Requirements:</b> Students are required to complete the 0.00G entrance profile to enter the certificate. Mature Entry students require the prerequisite: ENGL 212.</li> <li>AHSC 220, AHSC 230, and AHSC 232 are prerequisites for courses included in this certificate.</li> <li>In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the program, chosen in consultation with the coordinator of undergraduate programs.</li> </ul> <p><b>Degree Requirements</b></p> <p>12 credits from Phase I: Certificate in Family Life Education                      6 credits from Phase II: Certificate in Family Life Education                      12 credits from Phase III: Certificate in Family Life Education</p>

12 credits from Phase III: Certificate in Family Life Education

**Phase I Certificate in Family Life Education (12 credits)**

**12 credits:**

AHSC 260 Program Planning, Design and Evaluation (3.00)  
AHSC 312 Sexuality in Human Relations (3.00)  
AHSC 313 Family Communication (3.00)  
AHSC 355 Foundations of Family Life Education (3.00)

**Phase II Certificate in Family Life Education (6 credits)**

**6 credits:**

AHSC 330 Leadership and Facilitation in Small Groups (6.00)

**Phase III Certificate in Family Life Education (12 credits)**

**3 credits:**

~~AHSC 435 Fieldwork Practice~~

**9 credits of elective courses chosen from:**

AHSC 225 Principles of Experiential and Action Learning and the Reflective Practitioner (3.00)  
AHSC 270 Introduction to Human Relations Theory and Research (3.00)  
AHSC 311 Respecting Diversity in Human Relations (3.00)  
AHSC 314 Adolescence: Issues  
AHSC 315 Interviewing (3.00)  
AHSC 316 Adulthood: Patterns and Transitions (3.00)  
AHSC 319 Older Adulthood Issues and Intervention  
AHSC 335 Power and Conflict Resolution in Human Systems (3.00)  
AHSC 360 Play, Adult Learning and Development (3.00)  
AHSC 460 Health Promotion (6.00)

**Phase I Certificate in Family Life Education (12 credits)**

**12 credits:**

AHSC 260 Program Planning, Design and Evaluation (3.00)  
AHSC 312 Sexuality in Human Relations (3.00)  
AHSC 313 Family Communication (3.00)  
AHSC 355 Foundations of Family Life Education (3.00)

**Phase II Certificate in Family Life Education (6 credits)**

**6 credits:**

AHSC 330 Leadership and Facilitation in Small Groups (6.00)

**Phase III Certificate in Family Life Education (12 credits)**

**3 credits:**

[AHSC 434 Human Relations Capstone Experience](#)

**9 credits of elective courses chosen from:**

AHSC 225 Principles of Experiential and Action Learning and the Reflective Practitioner (3.00)  
AHSC 270 Introduction to Human Relations Theory and Research (3.00)  
AHSC 311 Respecting Diversity in Human Relations (3.00)  
AHSC 314 Adolescence: Issues  
AHSC 315 Interviewing (3.00)  
AHSC 316 Adulthood: Patterns and Transitions (3.00)  
AHSC 319 Older Adulthood Issues and Intervention  
AHSC 335 Power and Conflict Resolution in Human Systems (3.00)  
AHSC 360 Play, Adult Learning and Development (3.00)  
AHSC 460 Health Promotion (6.00)

**Rationale:**

Through extensive consultations and curriculum analysis and development, the Applied Human Sciences Department has recently updated and revamped its major and specialization programs in Human Relations. This process of renewal includes the introduction of four program 'concentrations' that offer career pathways for our undergraduates. These four concentrations are Family Science and Youth, Community Development, Individual and Small Groups, and Organization Development. Each concentration includes courses that develop specific skills appropriate to those concentrations. Specialization students (and Family Science and Youth has only the specialization option and no major) have a culminating Internship course. Majors students used to have a culminating field work course; however, the introduction of concentrations has rendered the field work course obsolete. See the separate justification for the elimination of the AHSC 435 course for more information.

We are therefore proposing to offer a new course, AHSC 434, that meets the needs of major students in the Community Development, Individual and Small Groups, and Organization Development concentrations. This new course offers students a capstone experience in which they will be able to synthesize their learnings with a relevant field experience. Students will work in small teams of up to ten students, and will learn how to build relationships with community partners, assess client needs, and design, deliver and evaluate projects to meet those needs. The course instructor will coach the small teams and link learnings from earlier courses to the application in the field. A request has been made to secure a three-credit remission for a course coordinator who will establish partnerships in the community and establish appropriate projects prior to the start of this one-semester course.

This new capstone course fills several gaps that now exist in the AHSC 435 field work course. For example, the AHSC 435 course does not cover collecting, analyzing and presenting data, and evaluating the process and impact of projects and interventions. These will be core elements of the new 434 capstone course. In the old approach, students were

responsible for finding their own client. The new 434 approach is based on the work of a course coordinator who forms and sustains partnerships with a stable of relevant community and organizational partners, and who then transitions specific partner requirements to the instructors responsible for teaching sections of 434, thus freeing student time and attention for the core activities of working with a client. The importance of contracting with a client, of letting data and intention drive design, and of exploring the client system will also be emphasized in the new course.

Students in our certificate programs will also benefit from the opportunity to interact with a non-profit organization applying principles of small and large group intervention would complement the certificate programs.

With this new approach the capstone course will be significantly less reliant on school-based projects, allowing us to offer at least one section during the summer semester and create additional options for students.

**Resource Implications:**

A 3-credit course remission will be required in order to free up the time necessary for the course coordinator to perform his/her role of initiating contact with potential sites and developing and maintaining mutually beneficial working relationships.

**COURSE CHANGE:** AHSC 434      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Arts and Science  
**Department:** Applied Human Sciences  
**Program:** Major in Human Relations; Certificate in Family Life Education  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.010

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20XX/20XX) calendar	Proposed Text
	<p><b>AHSC 434 Human Relations Capstone Experience (3.00)</b></p> <p><i>Prerequisite or corequisite:</i> 60 university credits including the following courses must be completed previously: AHSC 400; AHSC 425 or AHSC 445. Permission of the department is required for students enrolled in the Certificate in Family Life Education.</p> <p><i>Description:</i> The course provides students with an opportunity to apply skills acquired through their coursework in Human Relations by carrying out a project with a client organization in the community. The course includes classroom sessions, tutorials, coordination and planning with a team of peers, and a field-based group project.</p> <p><i>Component(s):</i> Fieldwork, Field Studies, Lecture.</p> <p><i>Note(s):</i></p> <ul style="list-style-type: none"> <li>• Students who have received credit for AHSC 435 may not take this course for credit.</li> </ul>

**Rationale:**  
 AHSC 434 better meets the needs of major students in the Community Development, Individual and Small Groups, and Organization Development concentrations. This new course offers students a capstone experience in which they will be able to synthesize their learnings with a relevant field experience. Students will work in small teams of up to ten students, and will learn how to build relationships with community partners, assess client needs, and design, deliver and evaluate projects to meet those needs. The course instructor will coach the small teams and link learnings from earlier courses to the application in the field. A request has been made to secure a three-credit remission for a course coordinator who will establish partnerships in the community and establish appropriate projects prior to the start of this one-semester course.  
 This new capstone course fills several gaps that now exist in the AHSC 435 field work course. For example, the AHSC 435 course does not cover collecting, analyzing and presenting data, and evaluating the process and impact of projects and interventions. These will be core elements of the new 434 capstone course. In the old approach, students were responsible for finding their own client. The new 434 approach is based on the work of a course coordinator who forms and sustains partnerships with a stable of relevant community

and organizational partners, and who then transitions specific partner requirements to the instructors responsible for teaching sections of 434, thus freeing student time and attention for the core activities of working with a client. The importance of contracting with a client, of letting data and intention drive design, and of exploring the client system will also be emphasized in the new course.

Students in our certificate programs will benefit from the opportunity to interact with a non-profit organization applying principles of small and large group intervention would complement the certificate programs.

With this new approach the capstone course will be significantly less reliant on school-based projects, allowing us to offer at least one section during the summer semester and create additional options for students.

**Resource Implications:**

A 3-credit course remission will be required in order to free up the time necessary for the course coordinator to perform his/her role of initiating contact with potential sites and developing and maintaining mutually beneficial working relationships.

**Other Programs within which course is listed:**

None.



## TEACHING AFFILIATION AGREEMENT

THIS AGREEMENT entered into on the \_\_\_1st\_\_\_ day of \_May\_\_\_\_\_,  
2020\_\_ in the City of Montreal, Province of Quebec, Canada (the “**Agreement**”)

### **BETWEEN:**

**CONCORDIA UNIVERSITY**, a corporation duly incorporated by the *Concordia University Act*, S.Q. 1948, c. 91 as amended by S.Q. 1959-60, c. 191 and S.Q. 2006, c. 69 having its head office at 1455 de Maisonneuve Blvd. West, suite GM 801, City of Montreal, Province of Quebec H3G 1M8, herein acting and represented by **Dr. Pascale Sicotte**, Dean, Faculty of Arts and Science, and **Dr. Peter Morden**, Chair, Department of Applied Human Sciences (“**AHSC**”) duly authorized as they so declare.

Hereinafter referred to as the “**University**”

### **AND**

ORGANIZATION having its head office at ADDRESS, herein acting and represented by NAME, TITLE, duly authorized as they so declare.

Hereinafter referred to as the “**Organization**”

**WHEREAS** the University desires to affiliate itself with the Organization and shares a desire to create opportunities for the educational experience of students in the Capstone Experience class in the Human Relations undergraduate degree (the “**Program**”);

**WHEREAS** the Organization has offered to provide certain facilities and supervision of the University’s students in order to provide and facilitate the educational experience of students who are enrolled in the Program.



**THEREFORE**, the parties hereby agree as follows:

## **1. Definitions**

- 1.1. “**AHSC Instructor**” means an employee of the University who the University chooses to act as the University’s faculty supervisor for a particular Internship.
- 1.2. “**AHSC Representative**” means one (1) or more employee(s) of the University who the University chooses to act on its behalf in the overall administration of the Internships.
- 1.3. “**Claims**” means any suit, action, dispute, investigation, claim, arbitration, order, summons, citation, directive, ticket, charge, demand or prosecution, whether legal or administrative or any other proceeding.
- 1.4. “**Project**” and “**Projects**” mean a program wherein:

Students in the Capstone Experience in the Human Relations undergraduate degree of the University collaborate with the organization to complete a defined project of benefit to the organization, within the term dates specified in the Concordia University Undergraduate Calendar.
- 1.5. “**Site Supervisor**” means one (1) or more employee(s) of the Organization who the Organization chooses to act on its behalf in supervising students taking part in a Capstone Experience.
- 1.6. “**Student**” and “**Students**” mean one (1) or multiple students in the Program who are deemed eligible by the University to participate in an Capstone Experience.

## **2. RESPONSIBILITIES OF PARTIES:**

### **2.1) The Organization**

- 2.1.1) The Organization shall provide Students in the Program with a work-embedded experience within its organization. The Organization understands and agrees that the primary objective of the Capstone Experience is to provide Students with a rewarding and a comprehensive learning experience while exposing them to the reality of a workplace environment.
- 2.1.2) In consultation with the AHSC Representative, the Organization shall determine the number of Students for whom educational experience,

necessary facilities, and supervision can be provided at any given time; and collaborate with the AHSC Representative in the process of project development.

- 2.1.3) The Organization understands and agrees that the project and deliverables must be completed by the Students in order for the Students to be eligible to receive a passing grade for a Capstone Experience. Except as provided in the present Agreement, the Organization shall ensure that Students are provided with the opportunity to complete such project.
- 2.1.4) The Organization shall provide each Student with an appropriate Site Supervisor and an equitable amount of work as part of the Capstone Experience, dependent upon the need of the Organization and the ability and interest of the enrolled Students.
- 2.1.5) When undertaking Capstone Projects at the Organization, it is understood that the Students are making a commitment to the Organization and to the project to which they have agreed. This commitment and the professional responsibilities that are to be undertaken are defined in an agreement between each Student and the Site Supervisor at the commencement of the Capstone Experience. The Site Supervisor shall send a signed copy of this agreement to the AHSC Instructor.
- 2.1.6) Each Site Supervisor will establish ongoing communication with the AHSC Instructor regarding items such as curriculum, objectives for the educational experience, methods and tools for evaluation, etc.
- 2.1.7) Each Site Supervisor will complete Student performance evaluations on the forms provided by the University at the midpoint and end of the Capstone Project for each Student at their site and send such evaluations to the AHSC Faculty Supervisor.
- 2.1.8) At all times, the Organization shall be responsible for the care and safety of its student population. In keeping with such responsibility, the Organization has and maintains the right to intervene in a Student's actions where a Student acts in a manner considered by the Organization to be of potential danger to the well-being of its organization and to the extent that it deems appropriate to ensure the safety and well-being of its organization.
- 2.1.9) The University shall ensure adequate professional liability coverage with respect to the performance of the duties of the Capstone Experience Students under the supervision of the Organization.

## 2.2 AHSC

- 2.2.1. AHSC will ensure that a qualified AHSC Instructor is appointed to be responsible for the Capstone Experience courses at Concordia. The AHSC Instructor will:
- a. Monitor the Students' progress, overseeing workload, and assigning the final grade for the Capstone Experience course.
  - b. Provide Students with a course outline listing the University's expectations for the Student.
  - c. Provide regular classroom instruction that focuses on activities designed to complement the Capstone learning experience through exposure to theoretical material, case studies and relevant activities.
  - d. Ensure that Students follow the policies, procedures and code of ethics of the Organization, as well as the Concordia University Academic Code of Conduct.
  - e. Maintain consistent contact and communication via telephone and/or email with the Site Supervisor regarding any and all concerns or problems with the Capstone Experience. The AHSC Instructor will visit the site at least once during the tenure of the Internship.
- 2.2.2. AHSC shall ensure that the AHSC Instructor and students observe the Organization's and its student's right to confidentiality and to preserve this confidentiality in respect to all information, both written and unwritten, to which the AHSC Instructor and Students may have access during the Internship. To that effect, the AHSC Instructor and the Students will sign a confidentiality agreement with the Organization.
- 2.3. In the event that a problematic situation arises, the AHSC Instructor will discuss it with the Site Supervisor. If the situation is still not resolved, the Site Supervisor will arrange a meeting with the AHSC Instructor. The Student/s may be included when his/her/their performance is at issue. If the conflict cannot be resolved, AHSC, the Organization and the University reserve the right to terminate the Capstone Experience.
- 2.4. If a Student participating in a Capstone Experience desires to interrupt/terminate his/her participation in the project, he/she may communicate his/her reasons with both the Site Supervisor and the AHSC Instructor at a joint meeting. The issues and decisions arrived at from this meeting shall be put in writing by the AHSC Instructor and shall be placed in the Student's file at the Organization and at AHSC. If all parties agree that the Capstone Experience should be terminated, the Student must meet all requirements of the Organization for terminating work before departing.

- 2.5. When a Student's performance in a Capstone Experience is deemed to be unsatisfactory, the Site Supervisor must inform the AHSC Instructor and Student as soon as possible. Following notification, a meeting may be convened with the Student, the Site Supervisor and the AHSC Instructor to review the Student's work, and assess the Student's performance. Following the meeting, the Site Supervisor and the AHSC Instructor will decide what actions to take, including, but not limited to, terminating the Student's Capstone Experience or, placing the student on probation.

Should the student be placed on probation, he/she may be required to prepare, in writing, a statement of goals and expectations that he/she needs to meet during the probation period, in order to have the possibility to attain satisfactory performance in his/her placement. The contents of this document are to be reviewed and agreed to by the Site Supervisor and the AHSC Instructor. The Site Supervisor and the AHSC Instructor may request that the contents of the document be modified prior to agreeing to their contents. Once agreed to, the document shall be dated and signed by the Student, the Site Supervisor and the AHSC Instructor, and a copy of this document is provided to each party.

At the end of the probation period, the Site Supervisor, the AHSC Instructor and the Student will meet to assess whether the identified goals and expectations have been adequately met. If so, the probationary status will be lifted and the Student will continue the Capstone Experience. If the Student does not fulfill the identified goals and expectations, then the Capstone Experience may be terminated and could result in a "failed" grade.

- 2.6 In order to be eligible for an internship at \_\_\_\_\_ the Student must send written proof that they have no judicial record relevant to the functions that could be assigned to them within the \_\_\_\_\_.

### **3) Term**

- 3.1) This Agreement shall be effective commencing on **May 1, 2022** and shall terminate on **April 30, 2023** unless terminated before the end of the term by either party upon a four (4) month written notice.

### **4) Limitation of Liability**

- 4.1) Each party agrees to indemnify and hold harmless the other party, their directors, employees, volunteers, and agents harmless from any indirect, special, incidental, consequential, punitive damages or loss of profits, regardless of the form of action, whether caused by a party, their students, faculty, employees, and agents related to or arising out of the programs or other matters to which this Agreement pertains, whether in contract or in tort including negligence, even if the other party has been advised of the possibility of such damages. If either party, without fault on its part, should be made a party to any Claims commenced by or against the other party, then the other party shall protect,

indemnify and hold harmless and shall pay all costs and expenses and legal fees incurred or paid by the party in connection with such Claims.

## **5) Assignment**

- 5.1) This Agreement may not be assigned by either party, in whole or in part, without the other party's prior written consent. Assignment shall not relieve either party of its obligations hereunder.

## **6) Survival**

- 6.1) The following sections shall survive the expiration or termination of this Agreement regardless of the reasons for its expiration or termination, in addition to any other provision which by law or by its nature should survive: Section 4 Limitation of Liability; Section 9 Governing Law.

## **7) Severability**

- 7.1) If any provision, or portion thereof, of this Agreement is determined by a court of competent jurisdiction to be invalid, illegal or unenforceable, such determination shall not impair or affect the validity, legality or enforceability of the remaining provisions of this Agreement, and each provision, or portion thereof, is hereby declared to be separate, severable and distinct.

## **8) Waiver**

- 8.1) A waiver of any provision of this Agreement shall only be valid if provided in writing and shall only be applicable to the specific incident and occurrence so waived. The failure by either party to insist upon the strict performance of this Agreement, or to exercise any term hereof, shall not act as a waiver of any right, promise or term, which shall continue in full force and effect.

Unless the context requires otherwise, words importing the singular include the plural and vice versa and words importing gender include all genders.

This Agreement may only be amended by written agreement duly executed by authorized representatives of the parties.

## **9) Governing Law**

- 9.1) This Agreement shall be governed by and construed in accordance with the laws of the Province of Quebec and the laws of Canada applicable therein. The parties hereby irrevocably attorn to the exclusive jurisdiction of the courts of the Province of Quebec for any legal proceedings arising out of this Agreement or the performance of the obligations hereunder.

## **10)NOTICES**

10.1) All notices under the terms of this Agreement shall be given in writing and sent by registered mail or facsimile transmission or shall be delivered by hand to the following addresses:

<b>Concordia University</b>	<b>ORGANIZATION</b>
1455 de Maisonneuve Blvd. W.	ADDRESS
Montréal, Québec	
H3G 1M8	
Dr. Peter Morden, Chair	
Applied Human Sciences	

All notices shall be presumed to have been received when they are hand delivered, or five (5) business days after their mailing, or on the business day following the day of facsimile transmission.

## **11)Language**

11.1) The parties hereto have requested that this Agreement and all correspondence and all documentation relating to this Agreement, be written in the English language. Les parties aux présentes ont exigé que la présente entente, de même que toute la correspondance et la documentation relative à cette entente, soient rédigées en langue anglaise.

## **12)Entire Agreement**

12.1) This Agreement shall constitutes the entire agreement between the Parties with respect to the subject matter hereof and shall replace all prior promises or understandings, oral or written.

IN WITNESS WHEREOF the parties hereto attest to this Agreement by the hands of their duly authorized signing officers:

**CONCORDIA UNIVERSITY**

June 1, 2022

\_\_\_\_\_

\_\_\_\_\_

Dr. Pascale Sicotte

Date

Dean, Faculty of Arts and Science

\_\_\_\_\_

\_\_\_\_\_

Dr. Peter Morden

Date

Chair, Department of Applied Human Sciences

**ORGANIZATION REPRESENTATIVE**

\_\_\_\_\_

\_\_\_\_\_

NAME

Date

POSITION

Department of Applied Human Sciences  
**AHSC 434 HUMAN RELATIONS CAPSTONE EXPERIENCE**  
**Preliminary Project Agreement**

**Partner Organization Name and Address:**

Semester when the project will take place: \_\_\_\_\_

**Title of the Proposed Project:** \_\_\_\_\_

Summary of the partner organization's needs/requirements:

Description of how a student project team can help to meet those needs/requirements:

Preliminary description of milestones and deliverables for the project:

Preliminary description of people in the partner organization that students will interact with:

**Signatures**

- We agree that a student team from Concordia University's AHSC 434 Human Relations Capstone Experience course will carry out a project with the partner organization identified above.
- The goals of the course have been explained and questions answered.
- The partner organization contact identified below will act as the students' primary contact person.
- The partner organization contact person may contact the course coordinator at any time.
- The course coordinator will transfer the project to a course instructor, after which a team of students and the course instructor will be in touch with the partner organization contact person to finalize the project.

**Partner Organization Contact Person:**

**AHSC 434 Course Coordinator:**

\_\_\_\_\_  
Name (print)

\_\_\_\_\_  
Name (print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

\_\_\_\_\_  
Telephone

\_\_\_\_\_  
Telephone

\_\_\_\_\_  
Email Address

\_\_\_\_\_  
Email Address



Department of Applied Human Sciences  
**AHSC 434 HUMAN RELATIONS CAPSTONE EXPERIENCE**  
**Project Agreement**

**Partner Organization Name and Address:**

Semester when the project will take place: \_\_\_\_\_

**Project Title:** \_\_\_\_\_

Partner organization's needs/requirements:

How a student project team will help to meet those needs/requirements:

Milestones and deliverables for the project:

People in the partner organization that students will interact with:

**Signatures**

- We agree that a student team from Concordia University's AHSC 434 Human Relations Capstone Experience course will carry out the project described above.
- The contact identified below will act as the students' primary contact person.
- The partner organization contact person may contact the course instructor, coordinator, or the students at any time.

**Partner Organization Contact Person:**

**AHSC 434 Course Instructor:**

\_\_\_\_\_  
Name (print)

\_\_\_\_\_  
Name (print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

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## Student Team Signatures

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**AHSC 434/X-OY Term 202Z** 3 credits

## Human Relations Capstone Experience

Day, Time, Room.

<b>Instructor</b>	
Office:	
<b>Telephone email Office hours</b>	
<b>Course website</b>	Available through the myconcordia.ca portal, using "Moodle".

### Calendar description

**AHSC 434 *Human Relations Capstone Experience*** (3 credits): This course must be taken in the final year. The course provides students with an opportunity to apply the skills, methods, and theories acquired through their coursework in Human Relations and in their specific concentration (Organization Development, Community Development, or Individual & Small Group Processes) by carrying out a project with a client organization in the community. Projects will involve design, facilitation and evaluation activities. The course includes classroom sessions, tutorials, coordination and planning with a team of peers, and a field-based group project.

Prerequisite or corequisite: AHSC 400 Advanced Facilitation and Ethics, AHSC 425 Organization Development II, or AHSC 445 Community Development II.

**NOTE:** Students who have received credit for AHSC 435 may not take this course for credit.

*In the event of extraordinary circumstances beyond the University's control,  
the content and/or evaluation scheme in this course is subject to change.*

### Textbook:

Kaner, Sam (2014). *Facilitator's Guide to Participatory Decision-Making*, 3rd ed. San Francisco: Jossey-Bass.

This textbook is also on reserve at Vanier library.

### Other resources:

Holman, P., Devane, T., Cady, S., & Associates (Eds.). (2007). *The change handbook: The definitive resource on today's best methods for engaging whole systems* (2<sup>nd</sup> ed. rev. and expanded). San Francisco: Berrett-Koehler

Corrigan, Chris. 2020. *Facilitation resources*, retrieved from <http://www.chriscorrigan.com/parkinglot/facilitation-resources/> specifically The Chaordic Stepping Stones:

<http://chriscorrigan.com/Chaordic%20stepping%20stones.pdf>

# **AHSC 434: Human Relations Capstone Experience**

## **Description of the Course**

This course provides students with an opportunity to deliver a group project for a client organization in the local community. The project's focus and content will be established before the start of the course through discussions between the course coordinator and the client organization. Each course section will include up to 4 separate teams that will undertake separate projects.

The instructor will oversee the relationships with clients and will coach the student teams as they conduct their projects. The instructor will evaluate student work based on both group and individual assignments related to the team project.

Students must be available to work with their teams both during and outside class time. Students must also be present for critical team interactions with the client that are identified in the contract negotiated by the course coordinator with help of the instructor.

Examples of relevant projects for this course include assistance in developing a community vision, work to build new organizational capacity, social innovation workshops, implementation of new organizational processes, participative community processes, and stakeholder consultations. Clients are stable and functioning organizations that have an identified need and are prepared to undertake participative activities to achieve an important objective.

Teams will consist of no more than 10 Students in the B. A. Major in Human Relations. Projects will align with the knowledge domains and skills of the three Human Relations concentrations of Individual and Small Group Processes, Community Development, and Organization Development.

## **Course objectives**

### **Course Objectives and Fieldwork Requirements**

The course provides experiences relevant for students in the Individual & Group, Community Development, and Organization Development concentrations of the Human Relations program. Students in each section will be organized into four (or fewer) teams. In some cases, a single project might encompass concerns relevant to the three concentrations (for example, a project involving a community organization). In other cases it may be necessary to organize the students into from two to four project teams to ensure that all students have a relevant capstone experience. The course ensures that all students will have relevant experiences involving contracting, data collection, sensemaking, facilitation, capacity building, and evaluation. The course coordinator and individual course instructors share responsibility for forming and maintaining relationships with participating organizations from the community, and instructors will play a direct and hands-on supervisory role with the project teams.

Through this course a student will develop his/her/their skills and knowledge in such a way that, at the end of the course he/she/they will:

- Develop an understanding of roles, strengths and areas of growth while engaged in project work with a client group.
- Further refine skills in designing, planning, implementing and evaluating client projects.
- Develop a practical understanding of the relationship between team dynamics, leadership, facilitation of client group dynamics and the conduct of a client project.
- Develop personal skills in leadership and collaboration, teamwork, group facilitation, event planning and implementation, and client relations.
- Develop skills in reflecting on, understanding, and assessing one's own role on a team.

### Course Schedule

Attending and participating in the critical client activities in week 11 event is a compulsory part of this course.

Week	Topics	Client Interaction (minimally)	Assignments Due	Grade (%)
1	Intro & creation of teams			
2	Overview of the assigned projects and creating a plan for the term			
3	Confirming the needs of the client organizations and reviewing methodological frameworks to be used in the work with clients	First meeting of student team with client Goal: Assessing needs and establishing a contract	<b>Discovery Paper:</b> Case analysis and identification of client needs (group assignment) <b>Individual learning goals</b> (individual assignment)	10 %  10 %
4	Contracting with clients	Contracting meeting to finalize the project and sign the contract	<b>Validated Needs Assessment and Contract Documents</b>	10 %
5	Detailed planning of how to conduct the project, including action plan with responsibilities, milestones, and deliverables			
6	Continued detailed planning	Review detailed plan with client		
7	Work on the detailed project plan and the evaluation plan			
Possible Mid-Term Break (To be confirmed) around this time				
8	Logistical planning, including review of venue and scheduling	Meeting with client to plan logistics	<b>Detailed Project Design and Evaluation Plan</b>	20 %
9	Work on relevant milestones and deliverables, with coaching	Consultations with client as needed		
10	Work on relevant milestones	Consultations with		

Week	Topics	Client Interaction (minimally)	Assignments Due	Grade (%)
	and deliverables, with coaching	client as needed		
11	<b>Teams deliver the major activities / deliverables specified by their project plan (date to be specified)</b>	Interactions will depend on the nature of the project		
12	Evaluation by participants and assessment of the results of the evaluation	Evaluation meeting with the client		
13	Conclusion and closure with clients	Closure meeting with the client	<b>Client Evaluation Report</b>	5 %
One week after last classes			<b>Project Summary</b> for the course coordinator	5%
			<b>Final Paper</b> , an individual reflection on the experience, the role played by the student, and the relationship to past learning and future career plans	40%

### Evaluation approach by assignment

Paper	Grade (%)	Due Week
<b>Discovery Paper</b> Summary of the proposed project including: <ul style="list-style-type: none"> <li>• Description of the client situation and objectives</li> <li>• Process for creating a detailed plan for the project</li> <li>• Summary of preliminary methodological frameworks under consideration</li> <li>• Areas to be explored through data collection to establish and validate client needs</li> </ul>	10 % Group mark	3
<b>Individual Learning goals</b> (reflection on the student's specific role and what they wish to accomplish)	10% Individual mark	3
<b>Validation of the Needs Assessment &amp; Contract Documents</b> <ul style="list-style-type: none"> <li>• Summary of the contracting process and its outcomes</li> <li>• Reflection on the relationship with the client</li> <li>• Contract Documents (Written Summary of Agreement or Letter of Intent)</li> <li>• Description of the methodology for collecting data</li> </ul>	10% Group mark	4
<b>Detailed Project Design and Evaluation Plan</b>	20 % Group mark	8
<b>Summary and reflection on the client evaluation of the</b>	5 %	13

<b>Paper</b>	<b>Grade (%)</b>	<b>Due Week</b>
<b>project</b>	Group mark	
<b>Project summary for the course coordinator</b>	5 % Group mark	13
<b>Final Reflection Paper</b> Assessment of individual contributions and achievements, and a structured reflection on individual contribution and teamwork.	40 % Individual mark	One week after last class
<b>Total</b>	100	

**Final grades:** (According to AHSC Department policy). A total of 100 marks may be earned in this course, and final grades will be computed as follows:

A+	98-100	
A	94-97	Outstanding
A-	90-93	
B+	85-89	
B	80-84	Very Good
B-	76-79	
C+	72-75	
C	67-71	Satisfactory
C-	63-66	
D+	59-62	
D	54-58	Marginal Pass
D -	50-53	
FNS	Less than 50	Poor - Failure



### INTERNAL MEMORANDUM

**TO:** Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Office of the Provost and Vice-President, Academic Affairs  
Chair, Academic Programs Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 28, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Changes  
Département d'Études françaises (FRAN-39)

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The following proposal was presented under ASFC-2021-6M-D and approved at the Arts and Science Faculty Council meeting of October 22, 2021. We request that this proposal be reviewed at the next meeting of the Academic Programs Committee.

Thank you for your consideration of this proposal for which there are no additional resource implications.





## INTERNAL MEMORANDUM

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 6, 2021

**SUBJECT:** 2022-23 Undergraduate Calendar Curriculum Changes  
Département d'Études françaises  
**FRAN-39**  
Changes to langue française, littératures de langue française, and  
profil langue seconde/étrangère programs; FRAA 409, 432 deleted;  
new course FRAN 222; changes to FRAA 403, 413, 423

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The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

The **Département d'Études françaises** is proposing a number of adjustment changes to its calendar section. First, they propose title changes to FRAA 413 *Rédaction I* to *Rédaction*, and FRAA 423 *Rédaction II* to *Rédaction avancée*, in order to maintain consistency with the graduate level *rédaction* counterparts, FRAA 523/623.

Two linguistics courses, FRAA 400 *Introduction à la linguistique française I* and FRAA 401 *Introduction à la linguistique française II*, are made mandatory in the Majeure en langue française, to ensure that students have a certain level of French as well as a basic understanding of linguistics.

The course FRAA 432 *Écriture pour le Web* is being deleted, as it is no longer offered. The department will replace this course with FRAA 429 *Fondements en linguistique française* in its various Spécialisation and Majeure programs. The course FRAA 409 *Cours libre de traduction* is also being deleted. In addition, the department is proposing the new course FRAN 222 *Initiation à la lecture de textes littéraires*. Finally, the department is proposing a prerequisite change to FRAA 403 *Histoire de la langue française*.

Thank you for your consideration of this proposal for which there are no additional resource implications.

*Reference documents:*  
FCC 2021.1-FRAN-39

## Département d'Études françaises FRAN-39

### Memo from Chair

#### Program change

Spécialisation en langue française

Spécialisation en littératures de langue française

Spécialisation en traduction (Option F: anglais-français)

Majeure en langue française

Majeure en langue française (profil langue seconde/étrangère)

Majeure en littératures de langue française

Majeure en littératures de langue française (profil langue seconde/étrangère)

Mineure en langue française

Certificat en langue française

#### Course prerequisite change

FRAA 403     *Histoire de la langue française*

#### Course deletion

FRAA 409     *Cours libre de traduction*

FRAA 432     *Écriture pour le Web*

#### Course title change

FRAA 413     *Rédaction*

FRAA 423     *Rédaction avancée*

#### New course

FRAN 222     *Initiation à la lecture de textes littéraires*

## INTERNAL MEMORANDUM

À : Monsieur Richard Courtemanche, Vice-doyen, Academic Programs  
De : Denis Liakin, Directeur, Études françaises  
Date : 28 avril 2021  
Objet : Programmes de premier cycle – année 2022-2023

Les changements proposés au cursus de l'annuaire du premier cycle et approuvés par l'Assemblée départementale le 16 avril 2021 sont les suivants :

**Les cours FRAA 400 et FRAA 401 deviennent des cours obligatoires dans la majeure en langue française :**

Les FRAA 400 et 401 (cours d'introduction à la linguistique française 1 et 2) fournissent aux étudiants les bases de l'analyse linguistique. Comme ces étudiants doivent avoir un certain niveau en langue, on s'assure qu'ils aient un certain niveau en linguistique aussi. En outre, ces deux cours étaient dans le programme auparavant, ils deviennent maintenant obligatoires dans le cadre de cette majeure.

**La modification du préalable au FRAA 403 du FRAA 400 ou FRAA 401 au FRAN 321 :**

Il n'est pas nécessaire d'avoir une formation en linguistique pour suivre ce cours à saveur historique dont l'objet principal reste la langue. De plus, ce changement facilitera le cheminement des étudiants dans nos différents programmes.

**La modification des descriptifs des FRAA 413 et FRAA 423 (co-listé avec 523 et 623) :**

Étant donné que le Département a demandé que le titre du cours FRAA 623/523 Rédaction 11 (co-listé avec le FRAA 423) soit modifié par FRAA 623/523 Rédaction avancée, il est nécessaire que le titre FRAA 423 Rédaction 11 soit aussi changé en FRAA 423 Rédaction avancée et que FRAA 413 Rédaction 1 soit transformé en FRAA 413 Rédaction pour assurer une cohérence dans les titres des cours de rédaction.

**Enlever le FRAA 409 entièrement de l'annuaire :**

Les cours FRAA 409 aurait dû être enlevé depuis longtemps de l'annuaire, car il n'est plus donné et ne figure plus dans nos programmes.

**Ajouter le FRAA 429 aux programmes de langue et de littérature :**

Le cours FRAA 429 Fondements en linguistique française aurait dû être ajouté à cette liste, car il fait partie des cours de linguistique.

**L'ajout d'un nouveau cours : FRAN 222 Initiation à la lecture de textes littéraires (3 crédits) :**

Le cours FRAN 222 permettra aux étudiants des programmes de langue et de littérature (profil langue seconde/étrangère) de s'initier à la lecture et à la compréhension de textes littéraires dès le début du cheminement dans les cours de langue. Il pourra aussi intéresser des étudiants anglophones hors département. Il facilitera par ailleurs le passage aux cours FLIT de niveau 200 (6 crédits obligatoires dans la Majeure en langue française et la Majeure en littératures de langue française, profil langue seconde/étrangère) pour lesquels les préalables sont les FRAN 301 et 303 depuis la refonte de la grille des cours FLIT en 2019. Il n'y aura aucune incidence sur les ressources, car ce cours sera offert dans le cadre de l'allocation annuelle.

Pour l'Assemblée du Département d'études françaises,



Denis Liakin  
Direc

**PROGRAM CHANGE:** Spécialisation en langue française**Proposed**  Undergraduate or  Graduate Curriculum Changes**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022**Faculty/School:** Arts and Science  
**Department:** Arts and Science  
**Program:** Spécialisation en langue française  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110**Type of Change:** Editorial  Requirements  Regulations  Program Deletion  New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>BA Spécialisation en langue française</b></p> <p><b>Exigences du programme</b></p> <p><b>Spécialisation en langue française (60 crédits)</b></p> <p>45 crédits à choisir parmi :</p> <ul style="list-style-type: none"> <li>• FRAN 304 Langue française : niveau d'approfondissement III (3.00)</li> <li>• FRAN 305 Communication orale (3.00)</li> <li>• FRAN 306 Communication écrite (3.00)</li> <li>• FRAN 315 Correction phonétique (niveau avancé) (3.00)</li> <li>• FRAN 318 Le français des affaires (3.00)</li> <li>• FRAN 320 Le vocabulaire français (3.00)</li> <li>• FRAN 321 Grammaire fonctionnelle du français (3.00)</li> </ul> <p>FRAA de niveau 400 de langue ou de rédaction FRAA de niveau 400 de linguistique française Langue française : niveaux d'approfondissement</p> <p>12 crédits:</p> <ul style="list-style-type: none"> <li>• FLIT 300 Littérature et culture françaises du Moyen Âge au XVIIe siècle (3.00)</li> <li>• FLIT 302 Littérature et culture françaises du XVIIIe siècle à aujourd'hui (3.00)</li> <li>• FLIT 305 Littérature et culture québécoises (3.00)</li> </ul>	<p><b>BA Spécialisation en langue française</b></p> <p><b>Exigences du programme</b></p> <p><b>Spécialisation en langue française (60 crédits)</b></p> <p>45 crédits à choisir parmi :</p> <ul style="list-style-type: none"> <li>• FRAN 304 Langue française : niveau d'approfondissement III (3.00)</li> <li>• FRAN 305 Communication orale (3.00)</li> <li>• FRAN 306 Communication écrite (3.00)</li> <li>• FRAN 315 Correction phonétique (niveau avancé) (3.00)</li> <li>• FRAN 318 Le français des affaires (3.00)</li> <li>• FRAN 320 Le vocabulaire français (3.00)</li> <li>• FRAN 321 Grammaire fonctionnelle du français (3.00)</li> </ul> <p>FRAA de niveau 400 de langue ou de rédaction FRAA de niveau 400 de linguistique française Langue française : niveaux d'approfondissement</p> <p>12 crédits:</p> <ul style="list-style-type: none"> <li>• FLIT 300 Littérature et culture françaises du Moyen Âge au XVIIe siècle (3.00)</li> <li>• FLIT 302 Littérature et culture françaises du XVIIIe siècle à aujourd'hui (3.00)</li> </ul>

- FLIT 308 Littératures et cultures de la Francophonie (3.00)

3 crédits à choisir parmi les cours FLIT de niveau 300

- FLIT 305 Littérature et culture québécoises (3.00)
- FLIT 308 Littératures et cultures de la Francophonie (3.00)

3 crédits à choisir parmi les cours FLIT de niveau 300

Rationale:

Le cours FRAA 432 Écriture pour le Web aurait dû être enlevé depuis longtemps de l'annuaire, car il n'est plus donné et ne figure plus dans nos programmes.

Le FRAA 429 Fondements en linguistique française aurait dû être ajouté à cette liste car il fait partie des cours de linguistique.

**These courses were placed in the defined groups FRAA de niveau 400 de langue ou de rédaction, and FRAA de linguistique française in the CCMS so are no longer listed directly within the program, but the program page is provided for reference as it is impacted. The Defined Group will appear after the programs are listed. See page D21 for the changes to the Defined Groups.**

Resource Implications:

No resource implications

**PROGRAM CHANGE:** Majeure en langue française**Proposed**  Undergraduate or  Graduate Curriculum Changes**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Majeure en langue française  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110**Type of Change:** Editorial  Requirements  Regulations  Program Deletion  New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>BA Majeure en langue française : profil langue seconde/étrangère</b></p> <p><b>Exigences du programme</b></p> <p><b>21 crédits à choisir parmi les cours :</b>  FRAN 218 FRAN 218 (3.00)  FRAN 219 Initiation au français écrit (3.00)  FRAN 221 Correction phonétique (3.00)  FRAN 304 Langue française : niveau d'approfondissement III (3.00)  FRAN 305 Communication orale (3.00)  FRAN 306 Communication écrite (3.00)  FRAN 315 Correction phonétique (niveau avancé) (3.00)  FRAN 320 Le vocabulaire français (3.00)  FRAN 321 Grammaire fonctionnelle du français (3.00)  FRAA 410 Grammaire du français en contextes (3.00)  FRAA 412 Grammaire de texte (3.00)  FRAA 413 Rédaction + (3.00)  Langue française : niveaux intermédiaires  Langue française : niveaux d'approfondissement I &amp; II</p> <p><b>6 crédits à choisir parmi les cours FLIT de niveau 200</b></p> <p><b>18 crédits à choisir parmi les cours :</b>  FRAN 318 Le français des affaires (3.00)  FRAN 320 Le vocabulaire français (3.00)  FRAN 321 Grammaire fonctionnelle du français (3.00)  FRAA de niveau 400 de langue ou de rédaction  FRAA de niveau 400 de linguistique française</p>	<p><b>BA Majeure en langue française : profil langue seconde/étrangère</b></p> <p><b>Exigences du programme</b></p> <p><b>21 crédits à choisir parmi les cours :</b>  FRAN 218 FRAN 218 (3.00)  FRAN 219 Initiation au français écrit (3.00)  FRAN 221 Correction phonétique (3.00)  <a href="#">FRAN 222 Initiation à la lecture de textes littéraires</a>  FRAN 304 Langue française : niveau d'approfondissement III (3.00)  FRAN 305 Communication orale (3.00)  FRAN 306 Communication écrite (3.00)  FRAN 315 Correction phonétique (niveau avancé) (3.00)  FRAN 320 Le vocabulaire français (3.00)  FRAN 321 Grammaire fonctionnelle du français (3.00)  FRAA 410 Grammaire du français en contextes (3.00)  FRAA 412 Grammaire de texte (3.00)  FRAA 413 Rédaction (3.00)  Langue française : niveaux intermédiaires  Langue française : niveaux d'approfondissement I &amp; II</p> <p><b>6 crédits à choisir parmi les cours FLIT de niveau 200</b></p> <p><b>18 crédits à choisir parmi les cours :</b>  FRAN 318 Le français des affaires (3.00)  FRAN 320 Le vocabulaire français (3.00)  FRAN 321 Grammaire fonctionnelle du français (3.00)  FRAA de niveau 400 de langue ou de rédaction  FRAA de niveau 400 de linguistique française</p>

Rationale:

Le cours FRAA 432 *Écriture pour le Web* aurait dû être enlevé depuis longtemps de l'annuaire, car il n'est plus donné et ne figure plus dans nos programmes Le FRAA 429 *Fondements en linguistique française* aurait dû être ajouté à cette liste car il fait partie des cours de linguistique  
**(see the Defined Group changes for the FRAA de niveau 400 de langue ou de rédaction on D21, which have an impact on this program).**

La première tranche de 36 crédits de cours de langue et de linguistique est scindée en deux, soit une de 30 crédits de cours de langue et de linguistique et une de 6 crédits de cours obligatoires en linguistique. Les deux FRAA 400 et 401 (cours d'introduction à la linguistique française 1 et 2) fournissent aux étudiants les bases de l'analyse linguistique. Comme ces étudiants doivent avoir un certain niveau en langue, on s'assure qu'ils aient un certain niveau en linguistique aussi. En outre, ces deux cours étaient dans le programme auparavant, maintenant ils deviennent obligatoires dans cette majeure.

**The defined group FRAA de linguistic française can no longer be used as FRAA 400 and 401 have been pulled out and made required courses. Instead, the individual courses are listed.**

Resource Implications:

No resource implications

**PROGRAM CHANGE:** Mineure en langue française**Proposed**  Undergraduate or  Graduate Curriculum Changes**Calendar for academic year:** 2021/2022  
**Implementation Month/Year:** May 2022**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Mineure en langue française  
**Degree:**  
**Calendar Section/Graduate Page Number:** 31.110**Type of Change:** Editorial  Requirements  Regulations  Program Deletion  New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Mineure en langue française</b></p> <p><b>Exigences du programme</b></p> <p><b>Mineure en langue française (24 crédits)</b></p> <p>24 crédits de langue, dont un maximum de 12 crédits FRAN de niveau 200, choisis dans un ordre accepté par le département, parmi les cours suivants :</p> <p><b>Un maximum de 18 crédits à choisir parmi les cours:</b>  FRAN 218 Initiation au français oral (3.00)  FRAN 219 Initiation au français écrit (3.00)  FRAN 221 Correction phonétique (3.00)  FRAN 304 Langue française : niveau d'approfondissement III (3.00)  FRAN 305 Communication orale (3.00)  FRAN 306 Communication écrite (3.00)  FRAN 318 Le français des affaires (3.00)  FRAN 320 Le vocabulaire français (3.00)  FRAN 321 Grammaire fonctionnelle du français (3.00)  FLIT 240 Introduction aux littératures et aux cultures de la Francophonie (3.00)  Langue française : niveaux intermédiaires  Langue française : niveaux d'approfondissement I &amp; II</p> <p><b>Un minimum de six crédits à choisir parmi les cours FRAA de niveau 400 ou :</b>  FRAN 321 Grammaire fonctionnelle du français (3.00)</p>	<p><b>Mineure en langue française</b></p> <p><b>Exigences du programme</b></p> <p><b>Mineure en langue française (24 crédits)</b></p> <p>24 crédits de langue, dont un maximum de 12 crédits FRAN de niveau 200, choisis dans un ordre accepté par le département, parmi les cours suivants :</p> <p><b>Un maximum de 18 crédits à choisir parmi les cours:</b>  FRAN 218 Initiation au français oral (3.00)  FRAN 219 Initiation au français écrit (3.00)  FRAN 221 Correction phonétique (3.00)  <a href="#">FRAN 222 Initiation à la lecture de textes littéraires (3.00)</a>  FRAN 304 Langue française : niveau d'approfondissement III (3.00)  FRAN 305 Communication orale (3.00)  FRAN 306 Communication écrite (3.00)  FRAN 318 Le français des affaires (3.00)  FRAN 320 Le vocabulaire français (3.00)  FRAN 321 Grammaire fonctionnelle du français (3.00)  FLIT 240 Introduction aux littératures et aux cultures de la Francophonie (3.00)  Langue française : niveaux intermédiaires  Langue française : niveaux d'approfondissement I &amp; II</p> <p><b>Un minimum de six crédits à choisir parmi les cours FRAA de niveau 400 ou :</b>  FRAN 321 Grammaire fonctionnelle du français (3.00)</p>

**Rationale:**  
Le nouveau cours FRAN 222 Initiation à la lecture de textes littéraires permettra aux étudiants des programmes de langue et de littérature (profil langue seconde/étrangère) de s'initier à la lecture et à la compréhension de textes littéraires dès le début du cheminement dans les cours de langue. Il pourra aussi intéresser des étudiants anglophones hors-département. Il facilitera par ailleurs le passage aux cours FLIT de niveau 200 (6 crédits obligatoires dans la Majeure en langue française et la Majeure en littératures de langue françaises, profil langue seconde/étrangère) pour lesquels les préalables sont les FRAN 301 et 303 depuis la refonte de la grille des cours FLIT en 2019.



Resource Implications:  
No resource implications

**PROGRAM CHANGE:** Certificat en langue française**Proposed**  Undergraduate or  Graduate Curriculum Changes**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Certificat en langue française  
**Degree:** Certificat  
**Calendar Section/Graduate Page Number:** 31.110**Type of Change:** Editorial  Requirements  Regulations  Program Deletion  New Program

<b>Present Text (from 2021/2022) calendar</b>	<b>Proposed Text</b>
<p><b>Certificat en langue française</b></p> <p><b>Notes</b></p> <ul style="list-style-type: none"> <li>• Ce programme est accessible soit aux vrais débutants soit à des personnes qui ont déjà une certaine connaissance du français. Dans les deux cas, il permettra d'accéder à un niveau relativement avancé de communication et d'expression en français.</li> <li>• Ce certificat exige normalement plus d'une année de scolarité.</li> </ul> <p><b>Exigences du programme</b></p> <p>Ce programme comprend 30 crédits FRAN, choisis à un niveau et dans un ordre acceptés par le département.</p> <p><b>Certificat en langue française (30 credits)</b></p> <p><b>18 crédits à choisir parmi les cours:</b>  FRAN 211 French Language: Elementary (6.00)  FRAN 212 French Language: Transitional Level (6.00)  FRAN 218 FRAN 218 (3.00)  FRAN 219 Initiation au français écrit (3.00)  FRAN 221 Correction phonétique (3.00)  FRAN 304 Langue française : niveau d'approfondissement III (3.00)  FRAN 305 Communication orale (3.00)  FRAN 306 Communication écrite (3.00)  FRAN 320 Le vocabulaire français (3.00)  FRAN 321 Grammaire fonctionnelle du français (3.00)  Langue française : niveaux intermédiaires  Langue française : niveaux d'approfondissement I &amp; II</p>	<p><b>Certificat en langue française</b></p> <p><b>Notes</b></p> <ul style="list-style-type: none"> <li>• Ce programme est accessible soit aux vrais débutants soit à des personnes qui ont déjà une certaine connaissance du français. Dans les deux cas, il permettra d'accéder à un niveau relativement avancé de communication et d'expression en français.</li> <li>• Ce certificat exige normalement plus d'une année de scolarité.</li> </ul> <p><b>Exigences du programme</b></p> <p>Ce programme comprend 30 crédits FRAN, choisis à un niveau et dans un ordre acceptés par le département.</p> <p><b>Certificat en langue française (30 credits)</b></p> <p><b>18 crédits à choisir parmi les cours:</b>  FRAN 211 French Language: Elementary (6.00)  FRAN 212 French Language: Transitional Level (6.00)  FRAN 218 FRAN 218 (3.00)  FRAN 219 Initiation au français écrit (3.00)  FRAN 221 Correction phonétique (3.00)  <a href="#">FRAN 222 Initiation à la lecture de textes littéraires (3.00)</a>  FRAN 304 Langue française : niveau d'approfondissement III (3.00)  FRAN 305 Communication orale (3.00)  FRAN 306 Communication écrite (3.00)  FRAN 320 Le vocabulaire français (3.00)  FRAN 321 Grammaire fonctionnelle du français (3.00)  Langue française : niveaux intermédiaires  Langue française : niveaux d'approfondissement I &amp; II</p>

**12 crédits à choisir parmi les cours:**

FRAN 304 Langue française : niveau d'approfondissement III (3.00)  
FRAN 305 Communication orale (3.00)  
FRAN 306 Communication écrite (3.00)  
FRAN 320 Le vocabulaire français (3.00)  
FRAN 321 Grammaire fonctionnelle du français (3.00)  
FRAA 405 Le code oratoire (3.00)  
FRAA 410 Grammaire du français en contextes (3.00)  
FRAA 412 Grammaire de texte (3.00)  
FRAA 413 FRAA 413 (3.00)  
FRAA 415 Français avancé I (3.00)  
FRAA 416 Français avancé II (3.00)  
Langue française : niveaux d'approfondissement I & II

**12 crédits à choisir parmi les cours:**

FRAN 304 Langue française : niveau d'approfondissement III (3.00)  
FRAN 305 Communication orale (3.00)  
FRAN 306 Communication écrite (3.00)  
FRAN 320 Le vocabulaire français (3.00)  
FRAN 321 Grammaire fonctionnelle du français (3.00)  
FRAA 405 Le code oratoire (3.00)  
FRAA 410 Grammaire du français en contextes (3.00)  
FRAA 412 Grammaire de texte (3.00)  
FRAA 413 FRAA 413 (3.00)  
FRAA 415 Français avancé I (3.00)  
FRAA 416 Français avancé II (3.00)  
Langue française : niveaux d'approfondissement I & II

**Rationale:**

Le nouveau cours FRAN 222 Initiation à la lecture de textes littéraires permettra aux étudiants des programmes de langue et de littérature (profil langue seconde/étrangère) de s'initier à la lecture et à la compréhension de textes littéraires dès le début du cheminement dans les cours de langue. Il pourra aussi intéresser des étudiants anglophones hors-département. Il facilitera par ailleurs le passage aux cours FLIT de niveau 200 (6 crédits obligatoires dans la Majeure en langue française et la Majeure en littératures de langue françaises, profil langue seconde/étrangère) pour lesquels les préalables sont les FRAN 301 et 303 (Langue française : niveaux d'approfondissement I & II) depuis la refonte de la grille des cours FLIT en 2019.

**Resource Implications:**

No resource implications

**PROGRAM CHANGE:** Spécialisation en littératures de langue française

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Spécialisation en littératures de langue française  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Spécialisation en littératures de langue française (60 crédits)</b></p> <p><b>12 crédits à choisir parmi les cours :</b>                      FRAA de niveau 400 de langue ou de rédaction                      FRAA de niveau 400 de linguistique française</p> <p><b>12 crédits:</b>                      FLIT 300 Littérature et culture françaises du Moyen Âge au XVIIe siècle (3.00)                      FRAN 302 Langue française : niveau d'approfondissement I (3.00)                      FLIT 305 Littérature et culture québécoises (3.00)                      FLIT 308 Littératures et cultures de la Francophonie (3.00)</p> <p><b>36 crédits à choisir parmi les cours FLIT de niveaux 300 et 400</b></p>	<p><b>Spécialisation en littératures de langue française (60 crédits)</b></p> <p><b>12 crédits à choisir parmi les cours :</b>                      FRAA de niveau 400 de langue ou de rédaction                      FRAA de niveau 400 de linguistique française</p> <p><b>12 crédits:</b>                      FLIT 300 Littérature et culture françaises du Moyen Âge au XVIIe siècle (3.00)                      FRAN 302 Langue française : niveau d'approfondissement I (3.00)                      FLIT 305 Littérature et culture québécoises (3.00)                      FLIT 308 Littératures et cultures de la Francophonie (3.00)</p> <p><b>36 crédits à choisir parmi les cours FLIT de niveaux 300 et 400</b></p>
<p>Rationale:                      Rationale:                      Le cours FRAA 432 Écriture pour le Web aurait dû être enlevé depuis longtemps de l'annuaire, car il n'est plus donné et ne figure plus dans nos programmes.                      Le FRAA 429 Fondements en linguistique française aurait dû être ajouté à cette liste car il fait partie des cours de linguistique.  <b>See the changes on page D21 for the changes to the defined groups FRAA de niveau 400 de langue ou de rédaction and FRAA de linguistique française, which have an impact on this program.</b></p>	
<p>Resource Implications:                      No resource implications</p>	

**PROGRAM CHANGE:** Majeure en littératures de langue française**Proposed**  Undergraduate or  Graduate Curriculum Changes**Calendar for academic year:** 2021/2022  
**Implementation Month/Year:** May 2022**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Majeure en littératures de langue française  
**Degree:** Majeure en littératures de langue française  
**Calendar Section/Graduate Page Number:** 31.110**Type of Change:** Editorial  Requirements  Regulations  Program Deletion  New Program

<b>Present Text (from 2021/2022) calendar</b>	<b>Proposed Text</b>
<p><b>Majeure en littératures de langue française (24 credits)</b></p> <p><b>15 crédits à choisir parmi les cours :</b> FRAN 306 Communication écrite (3.00) FRAN 321 Grammaire fonctionnelle du français (3.00) FRAA de niveau 400 de langue ou de rédaction FRAA de niveau 400 de linguistique française</p> <p><b>9 crédits à choisir parmi les cours :</b> FLIT 300 Littérature et culture françaises du Moyen Âge au XVIIe siècle (3.00) FLIT 302 Littérature et culture françaises du XVIIIe siècle à aujourd'hui (3.00) FLIT 305 Littérature et culture québécoises (3.00) FLIT 308 Littératures et cultures de la Francophonie (3.00)</p> <p><b>21 crédits à choisir parmi les cours FLIT de niveaux 300 et 400</b></p>	<p><b>Majeure en littératures de langue française (24 credits)</b></p> <p><b>15 crédits à choisir parmi les cours :</b> FRAN 306 Communication écrite (3.00) FRAN 321 Grammaire fonctionnelle du français (3.00) FRAA de niveau 400 de langue ou de rédaction FRAA de niveau 400 de linguistique française</p> <p><b>9 crédits à choisir parmi les cours :</b> FLIT 300 Littérature et culture françaises du Moyen Âge au XVIIe siècle (3.00) FLIT 302 Littérature et culture françaises du XVIIIe siècle à aujourd'hui (3.00) FLIT 305 Littérature et culture québécoises (3.00) FLIT 308 Littératures et cultures de la Francophonie (3.00)</p> <p><b>21 crédits à choisir parmi les cours FLIT de niveaux 300 et 400</b></p>
<p>Rationale: Le cours FRAA 432 Écriture pour le Web aurait dû être enlevé depuis longtemps de l'annuaire, car il n'est plus donné et ne figure plus dans nos programmes. <b>See the changes on page D21 for the changes to the defined groups FRAA de niveau 400 de langue ou de rédaction and FRAA de linguistique française, which have an impact on this program.</b></p>	
<p>Resource Implications: No resource implications</p>	

**PROGRAM CHANGE:** Majeure en littératures de langue française (profil lang. sec. étr.)**Proposed**  Undergraduate or  Graduate Curriculum Changes**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** profil langue seconde/étrangère  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110**Type of Change:** Editorial  Requirements  Regulations  Program Deletion  New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Majeure en littératures de langue française : profil langue seconde/étrangère (45 crédits)</b></p> <p><b>18 crédits à choisir parmi les cours :</b>  FRAN 218 FRAN 218 (3.00)  FRAN 219 Initiation au français écrit (3.00)  FRAN 221 Correction phonétique (3.00)  FRAN 304 Langue française : niveau d'approfondissement III (3.00)  FRAN 305 Communication orale (3.00)  FRAN 306 Communication écrite (3.00)  FRAN 315 Correction phonétique (niveau avancé) (3.00)  FRAN 320 Le vocabulaire français (3.00)  FRAN 321 Grammaire fonctionnelle du français (3.00)  FRAA 410 Grammaire du français en contextes (3.00)  FRAA 412 Grammaire de texte (3.00)  FRAA 413 Rédaction I (3.00)  FRAA 415 Français avancé I (3.00)  FRAA 416 Français avancé II (3.00)  Langue française : niveaux intermédiaires  Langue française : niveaux d'approfondissement I &amp; II</p> <p><b>6 crédits à choisir parmi les cours FLIT de niveau 200</b></p> <p><b>9 crédits à choisir parmi les cours:</b>  FLIT 300 Littérature et culture françaises du Moyen Âge au XVIIe siècle (3.00)  FLIT 302 Littérature et culture françaises du XVIIIe siècle à aujourd'hui (3.00)  FLIT 305 Littérature et culture québécoises (3.00)  FLIT 308 Littératures et cultures de la Francophonie (3.00)</p>	<p><b>Majeure en littératures de langue française : profil langue seconde/étrangère (45 crédits)</b></p> <p><b>18 crédits à choisir parmi les cours :</b>  FRAN 218 FRAN 218 (3.00)  FRAN 219 Initiation au français écrit (3.00)  FRAN 221 Correction phonétique (3.00)  <a href="#">FRAN 222 Initiation à la lecture de textes littéraires (3.00)</a>  FRAN 304 Langue française : niveau d'approfondissement III (3.00)  FRAN 305 Communication orale (3.00)  FRAN 306 Communication écrite (3.00)  <a href="#">FRAN 315 Correction phonétique (niveau avancé) (3.00)</a>  FRAN 320 Le vocabulaire français (3.00)  FRAN 321 Grammaire fonctionnelle du français (3.00)  FRAA 410 Grammaire du français en contextes (3.00)  FRAA 412 Grammaire de texte (3.00)  FRAA 413 Rédaction (3.00)  FRAA 415 Français avancé I (3.00)  FRAA 416 Français avancé II (3.00)  Langue française : niveaux intermédiaires  Langue française : niveaux d'approfondissement I &amp; II</p> <p><b>6 crédits à choisir parmi les cours FLIT de niveau 200</b></p> <p><b>9 crédits à choisir parmi les cours :</b>  FLIT 300 Littérature et culture françaises du Moyen Âge au XVIIe siècle (3.00)  FLIT 302 Littérature et culture françaises du XVIIIe siècle à aujourd'hui (3.00)  FLIT 305 Littérature et culture québécoises (3.00)  FLIT 308 Littératures et cultures de la Francophonie (3.00)</p>

12 crédits à choisir parmi les cours FLIT de niveaux 300 et 400

**Mineure en littératures de langue française ...**

**Mineure en linguistique française**

...

**12 crédits à choisir parmi les cours FLIT de niveaux 300 et 400**

**Mineure en littératures de langue française**

...

**Mineure en linguistique française**

...

Rationale:

Le nouveau cours FRAN 222 Initiation à la lecture de textes littéraires permettra aux étudiants des programmes de langue et de littérature (profil langue seconde/étrangère) de s'initier à la lecture et à la compréhension de textes littéraires dès le début du cheminement dans les cours de langue. Il pourra aussi intéresser des étudiants anglophones hors-département. Il facilitera par ailleurs le passage aux cours FLIT de niveau 200 (6 crédits obligatoires dans la Majeure en langue française et la Majeure en littératures de langue françaises, profil langue seconde/étrangère) pour lesquels les préalables sont les FRAN 301 et 303 depuis la refonte de la grille des cours FLIT en 2019. Course titles are updated here to align with the course changes proposed in this dossier.

Resource Implications:

No resource implications

**PROGRAM CHANGE:** Spécialisation en traduction**Proposed**  Undergraduate or  Graduate Curriculum Changes**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022**Faculty/School:** Arts and Science  
**Department:** Arts and Science  
**Program:** Spécialisation en traduction  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110**Type of Change:** Editorial  Requirements  Regulations  Program Deletion  New Program

<b>Present Text (from 2021/2022) calendar</b>	<b>Proposed Text</b>
<p><b>Spécialisation en traduction</b></p> <p><b>Notes</b></p> <ol style="list-style-type: none"> <li>1. Le BA Spécialisation en traduction est un programme contingenté. Comme il demande une excellente connaissance du français et de l'anglais, les étudiantes et étudiants admis devront subir des tests de placement dans les deux langues. Les cours FTRA sont réservés en priorité aux étudiantes et étudiants inscrits dans les programmes de traduction.</li> <li>2. Le programme comporte deux options : la traduction du français vers l'anglais ou de l'anglais vers le français. Normalement, l'étudiante ou l'étudiant choisira l'une ou l'autre de ces deux options. Dans de rares cas, certaines candidates et certains candidats pourront satisfaire aux exigences des deux options.</li> <li>3. Les étudiantes et étudiants du programme de BA Spécialisation en traduction doivent obtenir une note minimale de C dans tous les cours de traduction. Si la note obtenue est inférieure à C, les étudiantes et étudiants devront reprendre le cours dans l'année qui suit.</li> <li>4. Une seule reprise est permise. Si cette exigence n'est pas satisfaite ou en cas d'échec, les étudiantes et étudiants seront radiés du programme. En cas de probation ou de radiation, les étudiantes et étudiants recevront un avis écrit de la direction du département.</li> <li>5. Les étudiantes et étudiants inscrits à un programme de traduction doivent remettre leurs travaux en français dans les cours de littérature.</li> <li>6. Pour l'option d'enseignement coopératif, voir Programme d'enseignement coopératif en traduction.</li> <li>7. Comme le BA Spécialisation en traduction comporte 69 crédits, les étudiantes et étudiants du programme doivent obtenir 21 crédits hors département (plutôt que les 24 crédits indiqués à la section Degree Requirements).</li> </ol> <p><b>Exigences du programme</b></p> <p><b>Spécialisation en traduction (69 credits)</b></p>	<p><b>Spécialisation en traduction</b></p> <p><b>Notes</b></p> <ol style="list-style-type: none"> <li>1. Le BA Spécialisation en traduction est un programme contingenté. Comme il demande une excellente connaissance du français et de l'anglais, les étudiantes et étudiants admis devront subir des tests de placement dans les deux langues. Les cours FTRA sont réservés en priorité aux étudiantes et étudiants inscrits dans les programmes de traduction.</li> <li>2. Le programme comporte deux options : la traduction du français vers l'anglais ou de l'anglais vers le français. Normalement, l'étudiante ou l'étudiant choisira l'une ou l'autre de ces deux options. Dans de rares cas, certaines candidates et certains candidats pourront satisfaire aux exigences des deux options.</li> <li>3. Les étudiantes et étudiants du programme de BA Spécialisation en traduction doivent obtenir une note minimale de C dans tous les cours de traduction. Si la note obtenue est inférieure à C, les étudiantes et étudiants devront reprendre le cours dans l'année qui suit.</li> <li>4. Une seule reprise est permise. Si cette exigence n'est pas satisfaite ou en cas d'échec, les étudiantes et étudiants seront radiés du programme. En cas de probation ou de radiation, les étudiantes et étudiants recevront un avis écrit de la direction du département.</li> <li>5. Les étudiantes et étudiants inscrits à un programme de traduction doivent remettre leurs travaux en français dans les cours de littérature.</li> <li>6. Pour l'option d'enseignement coopératif, voir Programme d'enseignement coopératif en traduction.</li> <li>7. Comme le BA Spécialisation en traduction comporte 69 crédits, les étudiantes et étudiants du programme doivent obtenir 21 crédits hors département (plutôt que les 24 crédits indiqués à la section Degree Requirements).</li> </ol> <p><b>Exigences du programme</b></p> <p><b>Spécialisation en traduction (69 credits)</b></p>



69 crédits à choisir parmi :  
Spécialisation en traduction Option A : français-anglais  
Spécialisation en traduction Option F : anglais-français

### **Spécialisation en traduction Option A : français-anglais (69 credits)**

36 crédits de la 1re étape : Spécialisation en traduction Option A  
15 crédits de la 2e étape : Spécialisation en traduction Option A  
18 crédits de la 3e étape : Spécialisation en traduction Option A

#### **1re étape : Spécialisation en traduction Option A (36 credits)**

##### **6 crédits à choisir parmi les cours :**

FRAA 413 Rédaction-† (3.00)  
FRAA 415 Français avancé I (3.00)  
FRAA 416 Français avancé II (3.00)  
FRAA 423 Rédaction-‡ (3.00)

Note : Une étudiante ou un étudiant qui, à l'examen de classement, n'a pas obtenu une note lui permettant de suivre les cours de niveau 400 doit s'inscrire au(x) cours Langue française : niveaux d'approfondissement I & II, ou FRAN 304, ou FRAN 306, ou FRAN 321 et suivre les cours ci-dessus en 2e année au plus tard.

##### **6 crédits à choisir parmi les cours :**

ENGL 212 English Composition — Stage I (3.00)  
FRAN 213 Langue française : niveaux intermédiaires I et II (6.00)  
ENGL 396 Content Creation and Management in Professional Writing (6.00)

Note: L'étudiante ou l'étudiant peut comptabiliser les 6 crédits des cours ci-dessus dans les 21 crédits à réaliser hors département. Dans ce cas, pour les remplacer il devra effectuer 6 crédits parmi ceux offerts au département.

#### **6 crédits à choisir parmi les cours FLIT de niveaux 300 et 400**

##### **6 crédits en littératures de langue anglaise**

##### **12 crédits :**

FTRA 200 Méthodologie de la traduction (3.00)  
FTRA 201 Traduction générale du français à l'anglais I (3.00)  
FTRA 203 L'anglais en contact avec le français au Québec (3.00)  
FTRA 207 Traduction générale du français à l'anglais II (3.00)

#### **2e étape : Spécialisation en traduction Option A (15 credits)**

##### **12 crédits:**

FTRA 301 Traduction littéraire du français à l'anglais (3.00)  
FTRA 305 Initiation à la traduction économique du français à l'anglais (3.00)  
FTRA 310 Initiation à la recherche documentaire et terminologique (3.00)  
FTRA 316 Informatique et traduction (3.00)

69 crédits à choisir parmi :  
Spécialisation en traduction Option A : français-anglais  
Spécialisation en traduction Option F : anglais-français

### **Spécialisation en traduction Option A : français-anglais (69 credits)**

36 crédits de la 1re étape : Spécialisation en traduction Option A  
15 crédits de la 2e étape : Spécialisation en traduction Option A  
18 crédits de la 3e étape : Spécialisation en traduction Option A

#### **1re étape : Spécialisation en traduction Option A (36 credits)**

##### **6 crédits à choisir parmi les cours :**

FRAA 413 Rédaction (3.00)  
FRAA 415 Français avancé I (3.00)  
FRAA 416 Français avancé II (3.00)  
FRAA 423 Rédaction [avancé](#) (3.00)

Note : Une étudiante ou un étudiant qui, à l'examen de classement, n'a pas obtenu une note lui permettant de suivre les cours de niveau 400 doit s'inscrire au(x) cours Langue française : niveaux d'approfondissement I & II, ou FRAN 304, ou FRAN 306, ou FRAN 321 et suivre les cours ci-dessus en 2e année au plus tard.

##### **6 crédits à choisir parmi les cours :**

ENGL 212 English Composition — Stage I (3.00)  
FRAN 213 Langue française : niveaux intermédiaires I et II (6.00)  
ENGL 396 Content Creation and Management in Professional Writing (6.00)

Note: L'étudiante ou l'étudiant peut comptabiliser les 6 crédits des cours ci-dessus dans les 21 crédits à réaliser hors département. Dans ce cas, pour les remplacer il devra effectuer 6 crédits parmi ceux offerts au département.

#### **6 crédits à choisir parmi les cours FLIT de niveaux 300 et 400**

##### **6 crédits en littératures de langue anglaise**

##### **12 crédits :**

FTRA 200 Méthodologie de la traduction (3.00)  
FTRA 201 Traduction générale du français à l'anglais I (3.00)  
FTRA 203 L'anglais en contact avec le français au Québec (3.00)  
FTRA 207 Traduction générale du français à l'anglais II (3.00)

#### **2e étape : Spécialisation en traduction Option A (15 credits)**

##### **12 crédits:**

FTRA 301 Traduction littéraire du français à l'anglais (3.00)  
FTRA 305 Initiation à la traduction économique du français à l'anglais (3.00)  
FTRA 310 Initiation à la recherche documentaire et terminologique (3.00)  
FTRA 316 Informatique et traduction (3.00)

**3 crédits à choisir parmi les cours de linguistique:**

FRAA 400 Introduction à la linguistique française I (3.00)  
FRAA 401 Introduction à la linguistique française II (3.00)  
FRAA 404 Histoire de la langue française au Québec (3.00)  
FRAA 419 Le français en Amérique du Nord, histoire et destins (3.00)  
LING 200 Introduction to Linguistic Science (3.00)  
LING 222 Language and Mind: The Chomskyan Program (3.00)  
LING 300 Sociolinguistics (3.00)

**3e étape : Spécialisation en traduction Option A (18 credits)****6 crédits à choisir parmi les cours :**

FTRA 401 Traduction littéraire avancée : du français à l'anglais (3.00)  
FTRA 403 Traduction scientifique et technique du français à l'anglais (3.00)  
FTRA 405 Traduction commerciale et juridique du français à l'anglais (3.00)  
FTRA 408 Adaptation publicitaire (3.00)

**6 crédits :**

FTRA 409 Révision et correction en traduction (3.00)  
FTRA 411 Terminologie et mondialisation (3.00)

**3 crédits à choisir parmi les cours :**

FTRA 412 Théories de la traduction (3.00)  
FTRA 414 Histoire de la traduction (3.00)  
FTRA 418 Web, technologies, traduction : théories et critiques (3.00)

**3 crédits à choisir parmi les cours :**

FTRA 438 Initiation au sous-titrage (3.00)  
FTRA 452 Traduction automatique (TA) et traduction assistée par ordinateur (TAO) (3.00)  
FTRA 455 Gestion de projets (3.00)  
FTRA 458 Pratique de la localisation (3.00)

**Spécialisation en traduction Option F : anglais-français (69 credits)**

33 crédits de la 1re étape : Spécialisation en traduction Option F  
18 crédits de la 2e étape : Spécialisation en traduction Option F  
18 crédits de la 3e étape : Spécialisation en traduction Option F

**1re étape : Spécialisation en traduction Option F (33 credits)****6 crédits à choisir parmi les cours :**

FRAA 413 Rédaction ~~+~~(3.00)  
FRAA 415 Français avancé I (3.00)  
FRAA 416 Français avancé II (3.00)  
FRAA 423 Rédaction ~~+~~ (3.00)

**6 crédits à choisir parmi les cours :**

ENGL 212 English Composition — Stage I (3.00)  
ENGL 213 English Composition — Stage II (3.00)

**3 crédits à choisir parmi les cours de linguistique:**

FRAA 400 Introduction à la linguistique française I (3.00)  
FRAA 401 Introduction à la linguistique française II (3.00)  
FRAA 404 Histoire de la langue française au Québec (3.00)  
FRAA 419 Le français en Amérique du Nord, histoire et destins (3.00)  
LING 200 Introduction to Linguistic Science (3.00)  
LING 222 Language and Mind: The Chomskyan Program (3.00)  
LING 300 Sociolinguistics (3.00)

**3e étape : Spécialisation en traduction Option A (18 credits)****6 crédits à choisir parmi les cours :**

FTRA 401 Traduction littéraire avancée : du français à l'anglais (3.00)  
FTRA 403 Traduction scientifique et technique du français à l'anglais (3.00)  
FTRA 405 Traduction commerciale et juridique du français à l'anglais (3.00)  
FTRA 408 Adaptation publicitaire (3.00)

**6 crédits :**

FTRA 409 Révision et correction en traduction (3.00)  
FTRA 411 Terminologie et mondialisation (3.00)

**3 crédits à choisir parmi les cours :**

FTRA 412 Théories de la traduction (3.00)  
FTRA 414 Histoire de la traduction (3.00)  
FTRA 418 Web, technologies, traduction : théories et critiques (3.00)

**3 crédits à choisir parmi les cours :**

FTRA 438 Initiation au sous-titrage (3.00)  
FTRA 452 Traduction automatique (TA) et traduction assistée par ordinateur (TAO) (3.00)  
FTRA 455 Gestion de projets (3.00)  
FTRA 458 Pratique de la localisation (3.00)

**Spécialisation en traduction Option F : anglais-français (69 credits)**

33 crédits de la 1re étape : Spécialisation en traduction Option F  
18 crédits de la 2e étape : Spécialisation en traduction Option F  
18 crédits de la 3e étape : Spécialisation en traduction Option F

**1re étape : Spécialisation en traduction Option F (33 credits)****6 crédits à choisir parmi les cours :**

FRAA 413 Rédaction (3.00)  
FRAA 415 Français avancé I (3.00)  
FRAA 416 Français avancé II (3.00)  
FRAA 423 Rédaction [avancé](#) (3.00)

**6 crédits à choisir parmi les cours :**

ENGL 212 English Composition — Stage I (3.00)  
ENGL 213 English Composition — Stage II (3.00)

**ENGL 396 Content Creation and Management in Professional Writing (6.00)**

Note: L'étudiante ou l'étudiant peut comptabiliser les 6 crédits ci-dessus dans les 21 crédits à réaliser hors département. Dans ce cas, pour les remplacer il devra effectuer 6 crédits parmi ceux offerts au département.

Note : Une étudiante ou un étudiant qui à l'examen de classement n'a pas obtenu une note lui permettant de suivre ces cours, doit s'inscrire au(x) cours ESL 204, ou ENGL 206 ou ENGL 210 et suivre les cours ENGL 212 et ENGL 213 en 2e année au plus tard.

**9 crédits à choisir parmi les cours FLIT de niveaux 300 et 400**

**12 crédits :**

FTRA 200 Méthodologie de la traduction (3.00)  
FTRA 202 Traduction générale de l'anglais au français I (3.00)  
FTRA 204 Le français en contact avec l'anglais au Québec (3.00)  
FTRA 208 Traduction générale de l'anglais au français II (3.00)

**2e étape : Spécialisation en traduction Option F (18 credits)**

**12 crédits:**

FTRA 304 Traduction littéraire de l'anglais au français (3.00)  
FTRA 306 Initiation à la traduction économique de l'anglais au français (3.00)  
FTRA 310 Initiation à la recherche documentaire et terminologique (3.00)  
FTRA 316 Informatique et traduction (3.00)

**3 crédits à choisir parmi les cours de linguistique :**

FRAA 400 Introduction à la linguistique française I (3.00)  
FRAA 401 Introduction à la linguistique française II (3.00)  
FRAA 404 Histoire de la langue française au Québec (3.00)  
FRAA 419 Le français en Amérique du Nord, histoire et destins (3.00)

**3 crédits à choisir parmi les cours de littérature :**

FLIT 447 Les voix de Montréal (3.00)  
FLIT 449 Littérature québécoise – Canadian Literature (3.00)  
FRAA de niveau 400 de linguistique française

**3e étape : Spécialisation en traduction Option F (18 credits)**

**6 crédits à choisir parmi les cours :**

FTRA 402 Traduction littéraire avancée : de l'anglais au français (3.00)  
FTRA 404 Traduction scientifique et technique de l'anglais au français (3.00)  
FTRA 406 Traduction commerciale et juridique de l'anglais au français (3.00)  
FTRA 408 Adaptation publicitaire (3.00)

**6 crédits :**

FTRA 410 Révision et correction en traduction (3.00)  
FTRA 411 Terminologie et mondialisation (3.00)

**ENGL 396 Content Creation and Management in Professional Writing (6.00)**

Note: L'étudiante ou l'étudiant peut comptabiliser les 6 crédits ci-dessus dans les 21 crédits à réaliser hors département. Dans ce cas, pour les remplacer il devra effectuer 6 crédits parmi ceux offerts au département.

Note : Une étudiante ou un étudiant qui à l'examen de classement n'a pas obtenu une note lui permettant de suivre ces cours, doit s'inscrire au(x) cours ESL 204, ou ENGL 206 ou ENGL 210 et suivre les cours ENGL 212 et ENGL 213 en 2e année au plus tard.

**9 crédits à choisir parmi les cours FLIT de niveaux 300 et 400**

**12 crédits :**

FTRA 200 Méthodologie de la traduction (3.00)  
FTRA 202 Traduction générale de l'anglais au français I (3.00)  
FTRA 204 Le français en contact avec l'anglais au Québec (3.00)  
FTRA 208 Traduction générale de l'anglais au français II (3.00)

**2e étape : Spécialisation en traduction Option F (18 credits)**

**12 crédits:**

FTRA 304 Traduction littéraire de l'anglais au français (3.00)  
FTRA 306 Initiation à la traduction économique de l'anglais au français (3.00)  
FTRA 310 Initiation à la recherche documentaire et terminologique (3.00)  
FTRA 316 Informatique et traduction (3.00)

**3 crédits à choisir parmi les cours de linguistique :**

FRAA 400 Introduction à la linguistique française I (3.00)  
FRAA 401 Introduction à la linguistique française II (3.00)  
FRAA 404 Histoire de la langue française au Québec (3.00)  
FRAA 419 Le français en Amérique du Nord, histoire et destins (3.00)

**3 crédits à choisir parmi les cours de littérature :**

FLIT 447 Les voix de Montréal (3.00)  
FLIT 449 Littérature québécoise – Canadian Literature (3.00)  
FRAA de niveau 400 de linguistique française

**3e étape : Spécialisation en traduction Option F (18 credits)**

**6 crédits à choisir parmi les cours :**

FTRA 402 Traduction littéraire avancée : de l'anglais au français (3.00)  
FTRA 404 Traduction scientifique et technique de l'anglais au français (3.00)  
FTRA 406 Traduction commerciale et juridique de l'anglais au français (3.00)  
FTRA 408 Adaptation publicitaire (3.00)

**6 crédits :**

FTRA 410 Révision et correction en traduction (3.00)  
FTRA 411 Terminologie et mondialisation (3.00)

**3 crédits à choisir parmi les cours :**

FTRA 412 Théories de la traduction (3.00)

FTRA 414 Histoire de la traduction (3.00)

FTRA 418 Web, technologies, traduction : théories et critiques (3.00)

**3 crédits à choisir parmi les cours :**

FTRA 438 Initiation au sous-titrage (3.00)

FTRA 452 Traduction automatique (TA) et traduction assistée par ordinateur (TAO) (3.00)

FTRA 455 Gestion de projets (3.00)

FTRA 458 Pratique de la localisation (3.00)

**3 crédits à choisir parmi les cours :**

FTRA 412 Théories de la traduction (3.00)

FTRA 414 Histoire de la traduction (3.00)

FTRA 418 Web, technologies, traduction : théories et critiques (3.00)

**3 crédits à choisir parmi les cours :**

FTRA 438 Initiation au sous-titrage (3.00)

FTRA 452 Traduction automatique (TA) et traduction assistée par ordinateur (TAO) (3.00)

FTRA 455 Gestion de projets (3.00)

FTRA 458 Pratique de la localisation (3.00)

Rationale:

Rationale:

Le cours FRAA 432 Écriture pour le Web aurait dû être enlevé depuis longtemps de l'annuaire, car il n'est plus donné et ne figure plus dans nos programmes. Le FRAA 429 Fondements en linguistique française aurait dû être ajouté à cette liste car il fait partie des cours de linguistique.

**See the changes on page D21 for the changes to the defined groups FRAA de niveau 400 de langue ou de rédaction and FRAA de linguistique française, which have an impact on this program.**

Course titles are updated here to align with the course changes proposed in this dossier.

Resource Implications:

No resource implications

**PROGRAM CHANGE:** Majeure en traduction**Proposed**  Undergraduate or  Graduate Curriculum Changes**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Majeure en traduction  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110**Type of Change:** Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text																																										
<p><b>BA Majeure en traduction</b></p> <p><b>Notes :</b></p> <ul style="list-style-type: none"> <li>Les étudiantes et étudiants inscrits à un programme de traduction doivent remettre leurs travaux en français dans les cours de littérature.</li> </ul> <p><b>Exigences du programme</b></p> <p><b>Majeure en traduction (48 crédits)</b></p> <p>12 crédits de la 1<sup>re</sup> étape : Majeure en traduction</p> <p>21 crédits de la 2<sup>e</sup> étape : Majeure en traduction)</p> <p>15 crédits de la 3<sup>e</sup> étape : Majeure en traduction</p> <p><b>1<sup>re</sup> étape : Majeure en traduction (12 crédits)</b></p> <p>6 <i>crédits:</i></p> <table border="0"> <tr> <td>ENGL 212</td> <td>English Composition — Stage I</td> <td>3.00</td> </tr> <tr> <td>ENGL 213</td> <td>English Composition — Stage II</td> <td>3.00</td> </tr> </table> <p>6 <i>crédits à choisir parmi les cours :</i></p> <table border="0"> <tr> <td>FRAN 304</td> <td>Langue française : niveau d'approfondissement III</td> <td>3.00</td> </tr> <tr> <td>FRAN 321</td> <td>Grammaire fonctionnelle du français</td> <td>3.00</td> </tr> <tr> <td>FRAA 410</td> <td>Grammaire du français en contextes</td> <td>3.00</td> </tr> <tr> <td>FRAA 412</td> <td>Grammaire de texte</td> <td>3.00</td> </tr> <tr> <td>FRAA 413</td> <td>Rédaction</td> <td>3.00</td> </tr> </table> <p>Cours de langue française : niveaux d'approfondissement I et II</p>	ENGL 212	English Composition — Stage I	3.00	ENGL 213	English Composition — Stage II	3.00	FRAN 304	Langue française : niveau d'approfondissement III	3.00	FRAN 321	Grammaire fonctionnelle du français	3.00	FRAA 410	Grammaire du français en contextes	3.00	FRAA 412	Grammaire de texte	3.00	FRAA 413	Rédaction	3.00	<p><b>BA Majeure en traduction</b></p> <p><b>Notes :</b></p> <ul style="list-style-type: none"> <li>Les étudiantes et étudiants inscrits à un programme de traduction doivent remettre leurs travaux en français dans les cours de littérature.</li> </ul> <p><b>Exigences du programme</b></p> <p><b>Majeure en traduction (48 crédits)</b></p> <p>12 crédits de la 1<sup>re</sup> étape : Majeure en traduction</p> <p>21 crédits de la 2<sup>e</sup> étape : Majeure en traduction)</p> <p>15 crédits de la 3<sup>e</sup> étape : Majeure en traduction</p> <p><b>1<sup>re</sup> étape : Majeure en traduction (12 crédits)</b></p> <p>6 <i>crédits:</i></p> <table border="0"> <tr> <td>ENGL 212</td> <td>English Composition — Stage I</td> <td>3.00</td> </tr> <tr> <td>ENGL 213</td> <td>English Composition — Stage II</td> <td>3.00</td> </tr> </table> <p>6 <i>crédits à choisir parmi les cours :</i></p> <table border="0"> <tr> <td>FRAN 304</td> <td>Langue française : niveau d'approfondissement III</td> <td>3.00</td> </tr> <tr> <td>FRAN 321</td> <td>Grammaire fonctionnelle du français</td> <td>3.00</td> </tr> <tr> <td>FRAA 410</td> <td>Grammaire du français en contextes</td> <td>3.00</td> </tr> <tr> <td>FRAA 412</td> <td>Grammaire de texte</td> <td>3.00</td> </tr> <tr> <td>FRAA 413</td> <td>Rédaction</td> <td>3.00</td> </tr> </table> <p>Cours de langue française : niveaux d'approfondissement I et II</p>	ENGL 212	English Composition — Stage I	3.00	ENGL 213	English Composition — Stage II	3.00	FRAN 304	Langue française : niveau d'approfondissement III	3.00	FRAN 321	Grammaire fonctionnelle du français	3.00	FRAA 410	Grammaire du français en contextes	3.00	FRAA 412	Grammaire de texte	3.00	FRAA 413	Rédaction	3.00
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**2<sup>e</sup> étape : Majeure en traduction (21 crédits)**

6 crédits à choisir parmi les cours FLIT de niveaux 300 et 400

6	crédits à choisir parmi les cours :		
	FRAN 306	Communication écrite	3.00
	FRAN 321	Grammaire fonctionnelle du français	3.00
	FRAA 410	Grammaire du français en contextes	3.00
	FRAA 412	Grammaire de texte	3.00
	FRAA 413	Rédaction †	3.00
	FRAA 423	Rédaction ‡	3.00
	<del>FRAA 432</del>	<del>Écriture pour le Web</del>	<del>3.00</del>

3 FTRA 200 Méthodologie de la Traduction 3.00

6 crédits à choisir parmi :  
Traduction générale du français à l'anglais I et II  
Traduction générale de l'anglais au français I et II**Traduction générale du français à l'anglais I et II (6 crédits)**

3	crédits à choisir parmi les cours :		
	FTRA 201	Traduction générale du français à l'anglais I	3.00
	FTRA 207	Traduction générale du français à l'anglais II	3.00

**Traduction générale de l'anglais au français I et II (6 crédits)**

3	crédits à choisir parmi les cours:		
	FTRA 202	Traduction générale de l'anglais à français I	3.00
	FTRA 208	Traduction générale de l'anglais à français II	3.00

**3<sup>e</sup> étape : Majeure en traduction (15 crédits)**

6 crédits à choisir parmi :

L'anglais en contact avec le français / le français en contact avec l'anglais au Québec  
Traduction littéraire du français à l'anglais / de l'anglais au français  
Initiation à la traduction économique du français à l'anglais / de l'anglais au français  
Traduction littéraire du français à l'anglais / de l'anglais au français  
Initiation à la traduction économique du français à l'anglais / de l'anglais au français  
Traduction scientifique et technique du français à l'anglais / de l'anglais au français  
Traduction commerciale et juridique du français à l'anglais / de l'anglais au français

FTRA 310	Initiation à la recherche documentaire et terminologique	3.00
FTRA 408	Adaptation publicitaire	3.00

3	crédits à choisir parmi les cours:		
	FTRA 412	Théories de la Traduction	3.00
	FTRA 414	Histoire de la Traduction	3.00
	FTRA 418	Web, technologies, traduction : théories et critiques	3.00

**2<sup>e</sup> étape : Majeure en traduction (21 crédits)**

6 crédits à choisir parmi les cours FLIT de niveaux 300 et 400

6	crédits à choisir parmi les cours :		
	FRAN 306	Communication écrite	3.00
	FRAN 321	Grammaire fonctionnelle du français	3.00
	FRAA 410	Grammaire du français en contextes	3.00
	FRAA 412	Grammaire de texte	3.00
	FRAA 413	Rédaction	3.00
	FRAA 423	Rédaction <a href="#">avancée</a>	3.00

3 FTRA 200 Méthodologie de la Traduction 3.00

6 crédits à choisir parmi :  
Traduction générale du français à l'anglais I et II  
Traduction générale de l'anglais au français I et II**Traduction générale du français à l'anglais I et II (6 crédits)**

3	crédits à choisir parmi les cours :		
	FTRA 201	Traduction générale du français à l'anglais I	3.00
	FTRA 207	Traduction générale du français à l'anglais II	3.00

**Traduction générale de l'anglais au français I et II (6 crédits)**

3	crédits à choisir parmi les cours:		
	FTRA 202	Traduction générale de l'anglais à français I	3.00
	FTRA 208	Traduction générale de l'anglais à français II	3.00

**3<sup>e</sup> étape : Majeure en traduction (15 crédits)**

6 crédits à choisir parmi :

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Traduction littéraire du français à l'anglais / de l'anglais au français  
Initiation à la traduction économique du français à l'anglais / de l'anglais au français  
Traduction littéraire du français à l'anglais / de l'anglais au français  
Initiation à la traduction économique du français à l'anglais / de l'anglais au français  
Traduction scientifique et technique du français à l'anglais / de l'anglais au français  
Traduction commerciale et juridique du français à l'anglais / de l'anglais au français

FTRA 310	Initiation à la recherche documentaire et terminologique	3.00
FTRA 408	Adaptation publicitaire	3.00

3	crédits à choisir parmi les cours:		
	FTRA 412	Théories de la Traduction	3.00
	FTRA 414	Histoire de la Traduction	3.00
	FTRA 418	Web, technologies, traduction : théories et critiques	3.00

6 crédits en littérature anglaise

**L'anglais en contact avec le français / le français en contact avec l'anglais au Québec (3 crédits)**

3 crédits à choisir parmi les cours:  
FTRA 203 L'anglais en contact avec le français au Québec 3.00  
FTRA 204 Le français en contact avec l'anglais au Québec 3.00

**Traduction littéraire du français à l'anglais / de l'anglais au français (3 crédits)**

3 crédits à choisir parmi les cours:  
FTRA 301 Traduction littéraire du français à l'anglais 3.00  
FTRA 304 Traduction littéraire de l'anglais au français 3.00

**Initiation à la traduction économique du français à l'anglais / de l'anglais au français (3 crédits)**

3 crédits à choisir parmi les cours:  
FTRA 305 Initiation à la traduction économique du français à l'anglais 3.00  
FTRA 306 Initiation à la traduction économique de l'anglais au français 3.00

**Traduction scientifique et technique du français à l'anglais / de l'anglais au français (3 crédits)**

3 crédits à choisir parmi les cours:  
FTRA 403 Traduction scientifique et technique du français à l'anglais 3.00  
FTRA 404 Traduction scientifique et technique de l'anglais au français 3.00

**Traduction commerciale et juridique du français à l'anglais / de l'anglais au français (3 crédits)**

3 crédits à choisir parmi les cours:  
FTRA 405 Traduction commerciale et juridique du français à l'anglais 3.00  
FTRA 406 Traduction commerciale et juridique de l'anglais au français 3.00

6 crédits en littérature anglaise

**L'anglais en contact avec le français / le français en contact avec l'anglais au Québec (3 crédits)**

3 crédits à choisir parmi les cours:  
FTRA 203 L'anglais en contact avec le français au Québec 3.00  
FTRA 204 Le français en contact avec l'anglais au Québec 3.00

**Traduction littéraire du français à l'anglais / de l'anglais au français (3 crédits)**

3 crédits à choisir parmi les cours:  
FTRA 301 Traduction littéraire du français à l'anglais 3.00  
FTRA 304 Traduction littéraire de l'anglais au français 3.00

**Initiation à la traduction économique du français à l'anglais / de l'anglais au français (3 crédits)**

3 crédits à choisir parmi les cours:  
FTRA 305 Initiation à la traduction économique du français à l'anglais 3.00  
FTRA 306 Initiation à la traduction économique de l'anglais au français 3.00

**Traduction scientifique et technique du français à l'anglais / de l'anglais au français (3 crédits)**

3 crédits à choisir parmi les cours:  
FTRA 403 Traduction scientifique et technique du français à l'anglais 3.00  
FTRA 404 Traduction scientifique et technique de l'anglais au français 3.00

**Traduction commerciale et juridique du français à l'anglais / de l'anglais au français (3 crédits)**

3 crédits à choisir parmi les cours:  
FTRA 405 Traduction commerciale et juridique du français à l'anglais 3.00  
FTRA 406 Traduction commerciale et juridique de l'anglais au français 3.00

**Rationale:**  
Le cours FRAA 432 *Initiation à la lecture de textes littéraires* aurait dû être enlevé depuis longtemps de l'annuaire, car il n'est plus donné et ne figure plus dans nos programmes.

**Resource Implications:**  
No resource implications

**PROGRAM CHANGE:** Groupes de cours**Proposed**  Undergraduate or  Graduate Curriculum Changes**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:**  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110**Type of Change:** Editorial  Requirements  Regulations  Program Deletion  New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Groupes de cours de langue et linguistique française</b></p> <p><b>FRAA de niveau 400 de langue ou de rédaction</b>            FRAA 410 Grammaire du français en contextes (3.00)            FRAA 412 Grammaire de texte (3.00)            FRAA 413 Rédaction-I (3.00)            FRAA 415 FRAA 416            FRAA 423 Rédaction-II (3.00)  <del>FRAA 432 Écriture pour le Web (3.00)</del></p> <p><b>FRAA de niveau 400 de linguistique française</b></p> <p>FRAA 400 Introduction à la linguistique française I (3.00)            FRAA 401 Introduction à la linguistique française II (3.00)            FRAA 403 Histoire de la langue française (3.00)            FRAA 404 Histoire de la langue française au Québec (3.00)            FRAA 405 Le code oratoire (3.00)            FRAA 419 Le français en Amérique du Nord, histoire et destins (3.00)            FRAA 422 Questions actuelles en linguistique française (3.00)</p> <p><b>Langue française : niveaux intermédiaires (6 credits)</b></p> <p>6 crédits à choisir parmi les cours:            FRAN 213 Langue française : niveaux intermédiaires I et II (6.00)            FRAN 214 Langue française : niveau intermédiaire I (3.00)            FRAN 215 Langue française : niveau intermédiaire II (3.00)</p> <p><b>Langue française : niveaux d'approfondissement (6 credits)</b></p> <p>6 crédits à choisir parmi les cours:</p>	<p><b>Groupes de cours de langue et linguistique française</b></p> <p><b>FRAA de niveau 400 de langue ou de rédaction</b>            FRAA 410 Grammaire du français en contextes (3.00)            FRAA 412 Grammaire de texte (3.00)            FRAA 413 Rédaction (3.00)            FRAA 415 FRAA 416            FRAA 423 Rédaction <a href="#">avancée</a> (3.00)</p> <p><b>FRAA de niveau 400 de linguistique française</b></p> <p>FRAA 400 Introduction à la linguistique française I (3.00)            FRAA 401 Introduction à la linguistique française II (3.00)            FRAA 403 Histoire de la langue française (3.00)            FRAA 404 Histoire de la langue française au Québec (3.00)            FRAA 405 Le code oratoire (3.00)            FRAA 419 Le français en Amérique du Nord, histoire et destins (3.00)            FRAA 422 Questions actuelles en linguistique française (3.00)  <a href="#">FRAA 429 Fondements en linguistique française (3.00)</a></p> <p><b>Langue française : niveaux intermédiaires (6 credits)</b></p> <p>6 crédits à choisir parmi les cours:            FRAN 213 Langue française : niveaux intermédiaires I et II (6.00)            FRAN 214 Langue française : niveau intermédiaire I (3.00)            FRAN 215 Langue française : niveau intermédiaire II (3.00)</p> <p><b>Langue française : niveaux d'approfondissement (6 credits)</b></p> <p>6 crédits à choisir parmi les cours:            FRAN 301 Langue française : niveaux d'approfondissement I et II (6.00)</p>



FRAN 301 Langue française : niveaux d'approfondissement I et II (6.00)  
FRAN 302 Langue française : niveau d'approfondissement I (3.00)  
FRAN 303 Langue française : niveau d'approfondissement II (3.00)

FRAN 302 Langue française : niveau d'approfondissement I (3.00)  
FRAN 303 Langue française : niveau d'approfondissement II (3.00)

**Rationale:**

Le cours FRAA 432 Écriture pour le Web aurait dû être enlevé depuis longtemps de l'annuaire, car il n'est plus donné et ne figure plus dans nos programmes. Le FRAA 429 Fondements en linguistique française aurait dû être ajouté à cette liste car il fait partie des cours de linguistique.

**Resource Implications:**

No resource implications

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **FRAN-39 VERSION: 4**

**COURSE CHANGE:** FRAA 403      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Language, translation & literature programmes  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>FRAA 403 Histoire de la langue française (3 crédits)</b></p> <p><i>Prerequisite/corequisite:</i> Le cours suivant doit être complété au préalable: FRAA <del>400</del> ou <del>404</del> ou l'équivalent.</p> <p><i>Description:</i> Ce cours est une initiation à l'histoire interne et à l'histoire externe du français. On étudiera, d'une part, les origines de cette langue et ses transformations au cours des siècles, sur les plans phonétique, orthographique, morphologique, syntaxique, lexical et sémantique et, d'autre part, l'évolution de sa situation dans le monde comme langue maternelle, langue seconde, langue de culture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>Les étudiantes et étudiants qui ont suivi FRAN 333 ne peuvent obtenir de crédits pour ce cours.</li> </ul>	<p><b>FRAA 403 Histoire de la langue française (3 crédits)</b></p> <p><i>Prerequisite/corequisite:</i> Le cours suivant doit être complété au préalable: <a href="#">FRAN 321</a> ou l'équivalent.</p> <p><i>Description:</i> Ce cours est une initiation à l'histoire interne et à l'histoire externe du français. On étudiera, d'une part, les origines de cette langue et ses transformations au cours des siècles, sur les plans phonétique, orthographique, morphologique, syntaxique, lexical et sémantique et, d'autre part, l'évolution de sa situation dans le monde comme langue maternelle, langue seconde, langue de culture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>Les étudiantes et étudiants qui ont suivi FRAN 333 ne peuvent obtenir de crédits pour ce cours.</li> </ul>
<p><b>Rationale:</b>                  Il n'est pas nécessaire d'avoir une formation en linguistique pour suivre ce cours à saveur historique dont l'objet principal reste la langue. FRAA 400 et 401 <i>Introduction à la linguistique française I et II</i> sont supprimées et remplacé par FRAN 321 <i>Grammaire fonctionnelle du français</i>.</p> <p>De plus, ce changement facilitera le cheminement des étudiants dans nos différents programmes.</p>	
<p><b>Resource Implications:</b>                  No resource implications.</p>	
<p>Other Programs within which course is listed:</p>	

None.

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **FRAN-39 VERSION: 4**

**COURSE CHANGE:** FRAA 409      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Spécialisation, majeure, mineure littérature  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110

**Type of Change:**

- |   |   |                                       |                                       |
|---|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number              | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description         | <input type="checkbox"/> Editorial        | <input type="checkbox"/> New Course   |                                       |
| <input checked="" type="checkbox"/> Course Deletion | <input type="checkbox"/> Other - Specify: |                                       |                                       |

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>FRAA 409 Cours libre de traduction (3 crédits)</b></p> <p><i>Prérequisito/coroquisito:</i> Le cours suivant doit être complété au préalable: six crédits parmi FRAN 306, FRAN 321, FRAA 410, FRAA 413; ou autorisation du département.</p> <p><i>Description:</i> Étude systématique des anglicismes; notions de méthodologie de la traduction; étude de quelques aspects de la stylistique comparée du français et de l'anglais; travaux pratiques de traduction de l'anglais au français.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• Ce cours est destiné particulièrement, mais non exclusivement, aux étudiantes et étudiants qui ne se spécialisent pas en traduction.</li> <li>• Les étudiantes et étudiants qui ont suivi FRAN 409 ne peuvent obtenir de crédits pour ce cours.</li> </ul>	
<p>Rationale: Ce cours aurait dû être enlevé depuis longtemps de l'annuaire, car il n'est plus donné et ne figure plus dans nos programmes.</p>	
<p>Resource Implications: No resource implications.</p>	
<p>Other Programs within which course is listed: None.</p>	



PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **FRAN-39 VERSION: 4**

**COURSE CHANGE:** FRAA 413      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Spécialisation, majeure, mineure littérature  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110

**Type of Change:**

- |   |  |                                       |                                       |
|---|--|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input checked="" type="checkbox"/> Course Title | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial               | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify:        |                                       |                                       |

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>FRAA 413 Rédaction I (3 crédits)</b></p> <p><i>Prerequisite/corequisite:</i> Le cours suivant doit être complété au préalable: FRAN 321 ou l'équivalent.</p> <p><i>Description:</i> Ce cours est destiné à l'étudiante ou à l'étudiant qui possède déjà une connaissance approfondie de la langue française. Il vise l'apprentissage des exigences méthodologiques propres aux travaux universitaires en abordant l'élaboration d'un plan et d'une bibliographie ainsi que la rédaction de textes informatifs et argumentatifs. Par le biais d'exercices de lecture, de rappels grammaticaux et d'ateliers de rédaction, l'étudiante ou l'étudiant pourra corriger ses lacunes et apprendre à nuancer son expression.</p>	<p><b>FRAA 413 Rédaction (3 crédits)</b></p> <p><i>Prerequisite/corequisite:</i> Le cours suivant doit être complété au préalable: FRAN 321 ou l'équivalent.</p> <p><i>Description:</i> Ce cours est destiné à l'étudiante ou à l'étudiant qui possède déjà une connaissance approfondie de la langue française. Il vise l'apprentissage des exigences méthodologiques propres aux travaux universitaires en abordant l'élaboration d'un plan et d'une bibliographie ainsi que la rédaction de textes informatifs et argumentatifs. Par le biais d'exercices de lecture, de rappels grammaticaux et d'ateliers de rédaction, l'étudiante ou l'étudiant pourra corriger ses lacunes et apprendre à nuancer son expression.</p>
<p><b>Rationale:</b>            Étant donné que le Département a demandé que le titre du cours FRAA 623/523 Rédaction II (co-listé avec le FRAA 423) soit modifié à FRAA 623/523 Rédaction avancée (FRAN-37), il est nécessaire que le FRAA 413 Rédaction I soit transformé en FRAA 413 Rédaction pour assurer une cohérence dans les titres des cours de rédaction.</p>	
<p><b>Resource Implications:</b>            No resource Implications.</p>	
<p><b>Other Programs within which course is listed:</b></p> <p>None.</p>	

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **FRAN-39 VERSION: 4**

**COURSE CHANGE:** FRAA 423      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Spécialisation, majeure, mineure littérature  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110

**Type of Change:**

- |   |  |                                       |                                       |
|---|--|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input checked="" type="checkbox"/> Course Title | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial               | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify:        |                                       |                                       |

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>FRAA 423 Rédaction II (3 crédits)</b></p> <p><i>Prerequisite/corequisite:</i> Le cours suivant doit être complété au préalable: FRAA 413 ou l'équivalent.</p> <p><i>Description:</i> Ce cours vise l'approfondissement des compétences rédactionnelles par l'apprentissage de techniques de recherche documentaire et de synthèse textuelle, et par l'écriture de textes combinant ces techniques comme le compte rendu critique, le dossier ou le texte de vulgarisation.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>Les étudiantes et étudiants qui ont suivi FRAN 403 ne peuvent obtenir de crédits pour ce cours.</li> </ul>	<p><b>FRAA 423 Rédaction <u>avancée</u> (3 crédits)</b></p> <p><i>Prerequisite/corequisite:</i> Le cours suivant doit être complété au préalable: FRAA 413 ou l'équivalent.</p> <p><i>Description:</i> Ce cours vise l'approfondissement des compétences rédactionnelles par l'apprentissage de techniques de recherche documentaire et de synthèse textuelle, et par l'écriture de textes combinant ces techniques comme le compte rendu critique, le dossier ou le texte de vulgarisation.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>Les étudiantes et étudiants qui ont suivi FRAN 403 ne peuvent obtenir de crédits pour ce cours.</li> </ul>

**Rationale:**  
 Étant donné que le Département a demandé que le titre du cours FRAA 623/523 Rédaction II (co-listé avec le FRAA 423) soit modifié à FRAA 623/523 Rédaction avancée (FRAN-37), il est nécessaire que le titre FRAA 423 Rédaction II soit aussi changé en FRAA 423 Rédaction avancée pour assurer une cohérence des titres de ce cours co-listé.

**Resource Implications:**  
 No resource implications.

**Other Programs within which course is listed:**  
 None.

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **FRAN-39 VERSION: 4**

**COURSE CHANGE:** FRAA 432      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Spécialisation, majeure, mineure littérature  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110

**Type of Change:**

- Course Number                       Course Title                                       Credit Value                                       Prerequisite  
 Course Description                       Editorial                                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2021/2022) calendar	Proposed Text
<p><del><b>FRAA 432 Écriture pour le Web (3 crédits)</b></del>  <del>-</del>  <del>Prérequisito/corequisito: Le cours suivant doit être complété au préalable: FRAN 321 ou l'équivalent.</del>  <del>Description: Ce cours vise à familiariser l'étudiante ou l'étudiant aux techniques d'écriture pour le web et aux technologies associées à ce média. Il permettra de mieux comprendre ce que l'hypertexte et l'écrit sur support numérique impliquent du point de vue du traitement de l'information et des spécificités linguistiques et ergonomiques. Il vise à initier l'étudiante et l'étudiant à la création et à la traduction de pages et de sites web.</del></p>	
<p><b>Rationale:</b>                  Ce cours aurait dû être enlevé depuis longtemps de l'annuaire, car il n'est plus donné et ne figure plus dans nos programmes.</p>	
<p><b>Resource Implications:</b>                  No resource implications.</p>	
<p><b>Other Programs within which course is listed:</b></p> <p>BA Spécialisation en langue française                  BA Spécialisation en littératures de langue française                  BA Spécialisation en traduction, option F : anglais – français                  BA Majeure en langue française                  BA Majeure en langue française (profil langue seconde/étrangère) BA Majeure en littératures de langue française                  BA Majeure en traduction</p>	



PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **FRAN-39 VERSION: 4**

**COURSE CHANGE:** FRAN 222      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Arts and Science  
**Department:** Études Françaises  
**Program:** Spécialisation, majeure, mineure littérature  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.110

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

<b>Present Text (from 20XX/20XX) calendar</b>	<b>Proposed Text</b>
	<p><b>FRAN 222 Initiation à la lecture de textes littéraires (3 crédits)</b></p> <p><i>Prerequisite/corequisite:</i> FRAN 213, FRAN 215 ou l'équivalent.</p> <p><i>Description:</i> Ce cours est une initiation à la compréhension de textes littéraires. Il permet de développer une plus grande autonomie en lecture, d'enrichir le vocabulaire et, plus généralement, d'améliorer les compétences en français.</p>
<p><b>Rationale:</b>                      Le cours FRAN 222 permettra aux étudiants des programmes de langue et de littérature (profil langue seconde/étrangère) de s'initier à la lecture et à la compréhension de textes littéraires dès le début du cheminement dans les cours de langue. Il pourra aussi intéresser des étudiants anglophones hors-département. Il facilitera par ailleurs le passage aux cours FLIT de niveau 200 (6 crédits obligatoires dans la Majeure en langue française et la Majeure en littératures de langue françaises, profil langue seconde/étrangère) pour lesquels les préalables sont les FRAN 301 et 303 depuis la refonte de la grille des cours FLIT en 2019.</p>	
<p><b>Resource Implications:</b>                      No resource implications.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	

## FRAN 222 Initiation à la lecture de textes littéraires

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### 1. DESCRIPTION DU COURS

Préalable : FRAN 213, 215 ou l'équivalent. Ce cours est une initiation à la compréhension de textes littéraires. Il permet de développer une plus grande autonomie en lecture, d'enrichir le vocabulaire et, plus généralement, d'améliorer les compétences en français.

### OBJECTIF GÉNÉRAL

Amener les étudiants à acquérir une autonomie en lecture et en compréhension de textes littéraires, c'est-à-dire :

- à saisir le sens global d'un texte et à comprendre son déroulement logique et chronologique;
- à résumer (à l'oral ou à l'écrit) le sens du texte analysé;
- à enrichir le vocabulaire par la pratique d'exercices lexicaux diversifiés.

### 3. OBJECTIFS SPÉCIFIQUES

3.1. Sensibiliser les étudiants aux rapports qu'entretient la langue avec le texte.

3.2. Apprendre à reconnaître les moyens linguistiques utilisés tant sur le plan lexical (vocabulaire spécialisé/général, monosémie/polysémie) que syntaxique (choix des modes et des temps, types de phrase, etc.).

3.3. Développer des stratégies de compréhension de textes littéraires facilitant l'identification des idées principales et la reconnaissance de la logique interne d'un texte.

3.4. Amener les étudiants à interpréter les subtilités de la langue et à réviser des points de grammaire rencontrés dans les textes étudiés.

### 4. CONTENU

(une liste d'œuvres de difficulté appropriée pour ce niveau sera suggérée à l'enseignant.e du cours en temps et lieu)

### 5. MATÉRIEL OBLIGATOIRE

(à compléter par le professeur du cours en collaboration avec le coordonnateur des cours de langue)

### 6. BIBLIOGRAPHIE SUGGESTIVE

6.1. BESCHERELLE, Louis-Nicolas. *Bescherelle, t. 1. L'Art de conjuguer. Dictionnaire de 12 000 verbes*, Montréal/Paris : Hurtubise/HMH/Hatier, nouvelle éd. 2012.

6.2. ROBERT, Paul. *Le Micro-Robert (Poche)*, Paris : Le Robert, 2018 (ou *Le Mini Robert*, 2017).

- 6.3. DUMAREST, Danièle, MORSEL, Marie-Hélène (2017). *Les mots*. Grenoble : Presses Universitaires de Grenoble.
- 6.4. THIRY, Paul, DIDIER, Jean-Jacques, MOREAU, Philippe, SERON, Michel (2009). *Vocabulaire français : trouver et choisir le mot juste 550 exercices pour enrichir son vocabulaire et améliorer son style*. Bruxelles : Duculot.

## 7. ÉVALUATION

2 tests (20 % chacun)	40 %
1 examen de mi-session	25 %
1 examen de fin de session	30 %
Attitude professionnelle*	5 %

*\*Dans le but de favoriser des échanges harmonieux dans la classe, aucun ton agressif ni aucune parole irrespectueuse ne seront tolérés dans le cours.*

**Tests** Les tests évalueront ce qui aura été vu en classe.

**Examen de mi-session** Cet examen portera sur le lexique.

**Examen de fin de session** L'examen évaluera la matière de l'ensemble des cours, des lectures et des exercices sur le vocabulaire et la grammaire.

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Bibliographie suggestive pour l'enseignant :

Marie-Claude Albert, Marc Souchon (2000). *Les Textes littéraires en classe de langue*, Paris, Hachette, coll. Références

Ferroudja Allouche, Nicole Blondeau, Marie-Françoise Né (2016). *Littérature progressive du français, niveau débutant*, CLE International

Ferroudja Allouche, Nicole Blondeau (2020). *Littérature progressive de la francophonie, niveau intermédiaire*, CLE International

## CALENDRIER

Cours 1 :	Présentation du cours : contenu, méthode de travail, évaluation. Test de niveau
Cours 2 :	Texte littéraire : description technique / description subjective <ul style="list-style-type: none"> <li>• Rôle des adjectifs</li> <li>• Étude du vocabulaire lié au thème</li> </ul>
Cours 3 :	Texte littéraire <ul style="list-style-type: none"> <li>• Le portrait physique et psychologique</li> </ul>
Cours 4 :	Atelier de lecture <ul style="list-style-type: none"> <li>• La formation des mots</li> <li>• Les familles de mots</li> </ul>
Cours 5 :	Atelier de lexique <ul style="list-style-type: none"> <li>• La formation des mots</li> </ul> <b>TEST No 1</b>
Cours 6 :	Texte littéraire <ul style="list-style-type: none"> <li>• Les temps de la narration : passé composé/imparfait/plus-que-parfait/présent</li> </ul>
Cours 7 :	Texte littéraire <ul style="list-style-type: none"> <li>• La polysémie</li> </ul> <b>EXAMEN DE MI-SESSION</b>
Cours 8 :	Texte littéraire <ul style="list-style-type: none"> <li>• Prise de notes</li> <li>• Rôle des marqueurs de relation</li> </ul>
Cours 9 :	Texte littéraire Atelier de lexique <ul style="list-style-type: none"> <li>• Champs lexicaux</li> </ul>
Cours 10 :	Texte littéraire <ul style="list-style-type: none"> <li>• Activités de vocabulaire</li> </ul> <b>TEST No 2</b>
Cours 11 :	Texte littéraire <ul style="list-style-type: none"> <li>• Activités de vocabulaire</li> </ul>
Cours 12 :	<b>EXAMEN DE FIN DE SESSION</b>
Cours 13 :	Révision Retour sur les contenus

Le calendrier est donné à titre indicatif. Les étudiant.e.s seront avisés de toute modification.



### INTERNAL MEMORANDUM

**TO:** Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Office of the Provost and Vice-President, Academic Affairs  
Chair, Academic Programs Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** September 20, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Changes  
Liberal Arts College (LBCL-7)

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The following proposal was presented under ASFC-2021-5M-D and approved at the Arts and Science Faculty Council meeting of September 17, 2021. We request that this proposal be reviewed at the next meeting of the Academic Programs Committee.

Thank you for your consideration of this proposal for which there are no additional resource implications.

**INTERNAL MEMORANDUM**

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 29, 2021 (revised)  
September 1, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Changes  
Liberal Arts College  
**LBCL-7**  
Prerequisites removed from LBCL 390, 392, 394, 395

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The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

The Liberal Arts College is proposing the removal of the prerequisites, and the College permission requirement from the following courses in the Honours, Major, and Minor in Liberal Arts: LBCL 390 *History of Music: Ancient to Classical*, LBCL 392 *History of Music: Classical to Contemporary*, LBCL 394 *The History of Science: Antiquity to the Renaissance*, and LBCL 395 *The History of Science: Early Modern to Contemporary*. The removal of these prerequisites, LBCL 291 *Structure and Dynamics of Western Civilization I* (6 credits), LBCL 292 *Modes of Expression and Interpretation I* (6 credits), LBCL 295 *History of Art* (6 credits), will facilitate enrolment in the aforementioned courses for both College and non-College students.

Thank you for your consideration of this proposal for which there are no additional resource implications.

# Liberal Arts College

## LBCL-7

### Memo from Principal

### Prerequisite changes

- LBCL 390     *History of Music: Ancient to Classical*
- LBCL 392     *History of Music: Classical to Contemporary*
- LBCL 394     *The History of Science: Antiquity to the Renaissance*
- LBCL 395     *The History of Science: Early Modern to Contemporary*

## INTERNAL MEMORANDUM

To: Dr. Richard Courtemanche, Associate Dean, Academic Programs Faculty of Arts and Science

From: Jarrett A. Carty, Principal, Liberal Arts College

Date: October 29, 2021 (2<sup>nd</sup> revision)  
March 27, 2021

Subject: 2022-23 Undergraduate Curriculum Changes  
Liberal Arts College  
Changes to LBCL 291, 292, 295, 391, 393, 490; editorial changes to program text

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I am writing on behalf of the members of the Liberal Arts College (LBCL-7).

We would like to request that two requirements be changed for the following courses:

LBCL 390 *History of Music: Ancient to Classical*

LBCL 392 *History of Music: Classical to Contemporary*

LBCL 394 *The History of Science: Antiquity to the Renaissance*

LBCL 395 *The History of Science: Early Modern to Contemporary*

The requested changes in requirements pertain to prerequisites. They are:

- 1) eliminating the prerequisite of LBCL 291, 292, 293 for student members of the LBCL;
- 2) removing the required permission of the college for non-LBCL students.

The removal of these prerequisites will allow access to these courses to both new College students and Concordia students at large. As these are introductory courses, prerequisites and/or College permission are not necessary.

These proposed changes were approved by all members of the College on October 28, 2021.

There are no resource implications related to these changes.













Other Programs within which course is listed:

None.



Other Programs within which course is listed:

None.





### INTERNAL MEMORANDUM

**TO:** Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Office of the Provost and Vice-President, Academic Affairs  
Chair, Academic Programs Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** September 20, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Changes  
Loyola College of Diversity and Sustainability (LOYC-14)

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The following proposal was presented under ASFC-2021-5M-E and approved at the Arts and Science Faculty Council meeting of September 17, 2021. We request that this proposal be reviewed at the next meeting of the Academic Programs Committee.

Thank you for your consideration of this proposal for which there are no additional resource implications.

**INTERNAL MEMORANDUM**

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** September 2, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Changes  
Loyola College for Diversity and Sustainability  
**LOYC-14**  
Changes to Minor in Diversity and the Contemporary World and Minor in  
Sustainability Studies; removal of foundation year; new courses LOYC  
421, 498

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The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

The **Loyola College for Diversity and Sustainability** is proposing changes to their Minor in Diversity and the Contemporary World, and their Minor in Sustainability Studies. These changes include addition of courses and current course modifications.

For changes that touch both Minors, two new courses will be added to each Minor: LOYC 421 *Directed and Independent Study* and LOYC 498 *Selected Topics in the Loyola College for Diversity and Sustainability*. As the title implies, LOYC 421 will allow students to pursue interests in specific areas of choice in either minor under the supervision of a faculty member in the College. The addition of LOYC 498 *Special Topics* to the 12-credit block in both minors gives the College flexibility as to what topic will be chosen to offer as the topic may change from year to year. It is also cross-listed as a 400-level course with other departments such as Psychology.

Three *Special Topics* courses, LOYC 298, 398, and 498 are offered every year by the College, but they are not listed in the Undergraduate Calendar under the Minor in Diversity and the Contemporary World. Adding these courses to the 15-credit block in the Minor will be clearer for students to understand that these courses will count towards their program. The same goes for the course LOYC 420 *Integrative Project*, which is added as well in the course choices for the Minor in Diversity and the Contemporary World.

The College is also proposing specific changes to their Minor in Sustainability Studies. The *Special Topics* courses LOYC 298 and 398 will be added to the 9-credit and 12-credit blocks, respectively. The course PHYS 273 *Energy and the Environment* will be added to the 9-credit block, as the addition of this course is relevant in teaching students the perspective of the role of energy in sustainability. A support letter from the Department of Physics is included in the documentation.

The deletion of the *Foundation Year* was also part of this dossier. This preparatory year was intended to better guide the students entering an Extended Credit Program (120 credits), but it was never implemented, and remained a wish. Also, two required courses for this foundation, LOYC 201 and 202, have not been offered in the last five years. A future revision might include the updating or deletion of these courses, however best appropriate.

Thank you for your consideration of this proposal for which there are no additional resource implications.

*Reference documents:*  
FCC 2020.12\_LOYC-14

# Loyola College for Diversity and Sustainability

## LOYC-14

### Memo from Principal and Acting Principal

#### Program Changes

Minor in Diversity and the Contemporary World

Minor in Sustainability Studies

Deletion of Foundation Year

#### New Course

LOYC 421     *Directed and Independent Study*

LOYC 498     *Selected Topics in the Loyola College for Diversity and Sustainability*

## INTERNAL MEMORANDUM

**TO:** Dr. Richard Courtemanche, Associate Dean, Academic Programs

**FROM:** Dr. James Grant, Principal, Loyola College for Diversity & Sustainability

**DATE:** December 9, 2020; revised May 18, 2021 and August 25, 2021

**SUBJECT: Changes to Section 31.525 of the Undergraduate Calendar**

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Dear Richard-

After consultation with and agreement on the part of the Fellows of the Loyola College for Diversity and Sustainability, I request that a number of changes be made to section 31.525 of the Undergraduate Calendar as soon as possible. These changes include the addition of courses to our Minor in Sustainability Studies and our Minor in Diversity and the Contemporary World as well as program notes that will provide clarity to students. The proposed changes will also facilitate experiential learning and directed study options. These changes were approved by the Fellows of the Loyola College for Diversity and Sustainability via email on or before October 3<sup>rd</sup>, 2020. There are no resource implications.

The proposed changes fall into several categories

(1) Deletions:

- Eliminate the GPA requirement for membership in the College. At present, it reads as though students must earn at least a B in 9 LOYC credits to earn membership. However, they can earn a Minor in Sustainability Studies or a Sustainability Studies Elective Group through the College without getting a B in 9 LOYC credits. We would like all program students to be members to avoid the semblance of a two-class system of members and non-members within our student community.
- Eliminate the Foundation Year because two required courses, LOYC 201<sup>3</sup> and 202<sup>3</sup> are no longer offered, and no students have enrolled in this program in the past five years.

(2) The addition of new courses to our minors.

- Add PHYS 273<sup>3</sup> (Energy and the Environment) to the choice of courses accepted towards the 9-credit block of the Minor in Sustainability Studies. This is the online

version of a course that was previously listed as part of the Minor. It is a popular course for students in the Minor, currently accepted through student request. It is open to all students and has no prerequisites. We also have a letter of support from Alexandre Champagne, Chair of the Department of Physics (see appendix). This course allows non-physics students to learn about the topic of energy from a scientific perspective. Discussions around energy are crucial for an understanding of sustainability.

- Add LOYC 498<sup>3</sup> (Selected Topics in the Loyola College for Diversity and Sustainability) because this provides the College with more flexibility, especially when cross-listing courses that are listed as 400-level courses in other departments. For example, in the fall of 2020, the College offered a popular course entitled Diversity and Sustainability in the Era of the COVID 19 pandemic, taught by William Bukowski, Professor of Psychology and Fellow of the College. Although hosted by the College, we also wanted to open the course up to the Department of Psychology by offering a cross-listing. The course was listed as PSYC 428/LOYC 398 because PSYC did not have an appropriate 300-level listing and the College did not have an appropriate 400-level listing. This listing was obviously confusing. Allowing the College the option of listing courses as 498 would alleviate this problem in the future.
- Add LOYC 421<sup>3</sup> (Directed and Independent Study) to the Calendar as a choice of courses accepted towards the 12-credit block of the Minor in Sustainability Studies and to the 15-credit block OR 3-credit block of the Minor in Diversity and the Contemporary World. This course has been offered successfully as LOYC 398-01 in every semester for the past three years. It allows students to do independent research of relevance to Sustainability or Diversity with faculty members willing to supervise them. Note that there are no resource implications in running this class – the Principal is the official course coordinator and the faculty supervisors are not remunerated.

For the Diversity minor, LOYC 420 is currently required. Through this course, students can do either a directed study research project under the supervision of the professor assigned to teach this course, or they can do an internship. LOYC 421 gives them the opportunity to do a directed study with another professor with a particular expertise in their area of interest. By allowing students to complete both LOYC 420 and LOYC 421, they can complete both an internship and a research project, or complete two research projects. This is consistent with Strategic Direction number 3 (Get your hands dirty).

Changes to the calendar wording:

- Add a note about that the Minor in Sustainability Studies can be combined with a major, specialization, or honours program - indeed the Minor cannot be taken in any other way. We already have this note for the Minor in Diversity and the Contemporary World. However, the two Minors are not aligned in the Calendar because they have different requirements, so the relevant notes should be included under both.

- Add “relevant 298<sup>3</sup>, 398<sup>3</sup>, 498<sup>3</sup>” language to both programs because we offer these courses every year; it is confusing for the students if they’re not listed in the Calendar as counting towards our program and will likely reduce the number of student requests we have to process. The College is in contact with the appropriate people to have the relevant topics listed in the student’s advisement reports in SIS. Note that these Selected Topics courses are crucial to the College’s ability to continue to innovate in the fast-moving fields of sustainability and diversity studies.

Sincerely,

Dr. James Grant  
Principal  
Loyola College for Diversity and Sustainability  
L-CC-326

**PROGRAM CHANGE:** Minor in Diversity and the Contemporary World

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Loyola College for Diversity and Sustainability  
**Program:** Minor in Diversity and the Contemporary World  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.525

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Minor in Diversity and the Contemporary World</b></p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>The minor is designed for students to combine with an honours, specialization, or major in another discipline.</li> <li>Students must obtain a minimum grade of “B” in all courses counting towards their minor <del>and/or membership</del> in order to continue in the College.</li> </ul> <p><b>Degree Requirements</b></p> <p><b>Minor in Diversity and the Contemporary World (24 credits)</b></p> <p>15 credits chosen from:</p> <ul style="list-style-type: none"> <li>LOYC 210 The 20th Century (3.00)</li> <li>LOYC 220 The Contemporary World (3.00)</li> <li>LOYC 230 Globalization and Diversity (3.00)</li> <li>LOYC 310 Science and the Contemporary World (3.00)</li> <li>LOYC 320 Biodiversity on Earth (3.00)</li> <li>LOYC 330 Self, Culture, and Development (3.00)</li> <li>LOYC 340 Culture and Communication (3.00)</li> </ul>	<p><b>Minor in Diversity and the Contemporary World</b></p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>The minor is designed for students to combine with an honours, specialization, or major in another discipline.</li> <li>Students must obtain a minimum grade of “B” in all courses counting towards their minor in order to continue in the College.</li> </ul> <p><b>Degree Requirements</b></p> <p><b>Minor in Diversity and the Contemporary World (24 credits)</b></p> <p>15 credits chosen from:</p> <ul style="list-style-type: none"> <li>LOYC 210 The 20th Century (3.00)</li> <li>LOYC 220 The Contemporary World (3.00)</li> <li>LOYC 230 Globalization and Diversity (3.00)</li> <li><a href="#">LOYC 298 Selected Topics in the Loyola College for Diversity and Sustainability (3.00)</a></li> <li>LOYC 310 Science and the Contemporary World (3.00)</li> <li>LOYC 320 Biodiversity on Earth (3.00)</li> <li>LOYC 330 Self, Culture, and Development (3.00)</li> <li>LOYC 340 Culture and Communication (3.00)</li> </ul>



<p>6 credits chosen in consultation with a Loyola College for Diversity and Sustainability advisor</p> <p>3 credits:</p> <ul style="list-style-type: none"> <li>• LOYC 420 Integrative Project (3.00)</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">LOYC 398 Selected Topics in the Loyola College for Diversity and Sustainability (3.00)</a></li> <li>• <a href="#">LOYC 420 Integrative Project (3.00)</a></li> <li>• <a href="#">LOYC 421 Directed and Independent Study (3.00)</a></li> <li>• <a href="#">LOYC 498 Selected Topics in the Loyola College for Diversity and Sustainability (3.00)</a></li> </ul> <p>6 credits chosen in consultation with a Loyola College for Diversity and Sustainability advisor</p> <p>3 credits <a href="#">chosen from:</a></p> <ul style="list-style-type: none"> <li>• LOYC 420 Integrative Project (3.00)</li> <li>• <a href="#">LOYC 421 Directed and Independent Study (3.00)</a></li> </ul>
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Rationale:

**(1) Addition of LOYC 298<sup>3</sup>, 398<sup>3</sup>, and 498<sup>3</sup> to the list of courses to choose from for the 15-credit block of the Minor in Diversity and the Contemporary World**  
The Loyola College for Diversity and Sustainability (LCDS) offers these Special Topics courses every year and it is confusing for the students that they're not listed in the Calendar as counting towards our programs. Including them would not only reduce confusion for students but also reduce the number of student requests that must be processed. LCDS has been and will continue to be in touch with the Analyst in SIS Advisement (Enrollment Services) about adding the relevant topics to SIS so students will see them on their online advisement reports as well. It has been suggested that it might be simpler to split the Selected Topics courses into two streams, one for the Minor in Diversity and the Contemporary World and the other for the Minor in Sustainability Studies. This would not work because our Selected Topics are often relevant for both Minors (ex: LOYC 398-02: Diversity and Sustainability in the Era of the Covid-19 Pandemic, offered in the fall of 2020; LOYC 398-03: Perspectives on the United Nations Sustainable Development Goals, offered in the fall of 2021). It therefore makes sense to keep them as they are. However, to limit confusion, in addition to updating the Analyst in SIS Advisement regularly so that the online advisement report is up to date, we do post an updated list of courses eligible for our programs every year on our website and advertise this heavily to all our students when they add our programs and at registration time (<https://www.concordia.ca/arts/loyola-college-diversity-sustainability/programs/courses.html>).

LOYC 498 (Special Topics course) is added to provide students with more flexibility, especially when cross-listing courses that are listed as 400-level courses in other departments (ex: in the fall of 2020, the course *Diversity and Sustainability in the Era of the COVID 19 pandemic* had to be listed as PSYC 428/LOYC 398; in the summer of 2020, the course *SICK! Social Innovation through Creative Knowing* had to be listed as ANTH 498/SOCI 498/LOYC 398). Again, LCDS will contact the Analyst in SIS Advisement (Enrollment Services) about adding the relevant topics to SIS so students will see them on their online advisement reports as well.

**(2) Addition of LOYC 421<sup>3</sup> to the list of courses to choose from for the 15-credit block of the Minor in Diversity and the Contemporary World**  
This course has been run successfully as LOYC 398-01 for the past two years and is running this year as well. It allows for students to do independent research of relevance to the Minor in Sustainability Studies or the Minor in Diversity and the Contemporary World with faculty members willing to supervise them. Projects must be approved as relevant by LCDS, hence the required Permission of the Department. Note that, as for all other changes requested here, there are no resource implications for this addition: the Principal is the official course coordinator and the supervisors are not remunerated.

**(3) Addition of LOYC 420<sup>3</sup> to the list of courses to choose from for the 15-credit block of the Minor in Diversity and the Contemporary World, and addition of the option to take LOYC 421<sup>3</sup> towards the 3-credit block of this same program**  
At present, students can do either an internship or a directed study research project under the supervision of the professor assigned to teach LOYC 420. However, if there is a willing supervisor not assigned to teach LOYC 420 who has particular expertise in the area of the research topic in question, it would be more beneficial to the student and potentially the professors involved to allow the student to work under the supervision of the professor not assigned to teach LOYC 420, therefore under LOYC 421. Thus, the capstone course would

be LOYC 421 rather than LOYC 420.

However, LOYC 420 also allows students to get credit for an approved internship of relevance to their program. At present, a student who chooses to do an approved internship cannot also do a directed study research project. Recognizing the importance of both directed study and experiential learning opportunities, we would like to allow students to do both while still requiring them to do at least one. These proposed changes allow for this possibility.

**(4) Reference to membership removed from program note**

There is no reason to discuss membership under the Minor in Diversity and the Contemporary World; it is not discussed under the Minor in Sustainability Studies. Furthermore, although the GPA requirement of a B in every class does apply to the Minor, it should not apply to the Membership because Membership should be awarded to all students in our programs (not just those in the Minor in Diversity and the Contemporary World) and not all our programs have this B requirement.

Resource Implications:

None.

**PROGRAM CHANGE:** Minor in Sustainability Studies

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Loyola College for Diversity and Sustainability  
**Program:** Minor in Sustainability Studies  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.525

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Minor in Sustainability Studies</b></p> <ul style="list-style-type: none"> <li>In keeping with the interdisciplinary goals of the minor, students cannot take courses in the same department as their major, specialization, or honours program to fulfill their program requirements. Students are responsible for ensuring they have the necessary prerequisites for courses at the 300 and 400 level.</li> <li>Students must have a cumulative GPA of at least 3.00 in courses taken toward the minor in order to be awarded the minor upon graduation.</li> <li>Several of the courses listed in the degree requirements below are cross-listed. In cases where cross-listed courses appear, either version of the course may be applied towards the program requirements. Students may not, however, take both versions of a cross-listed course for credit.</li> </ul> <p><b>Degree Requirements</b></p> <p><b>Minor in Sustainability Studies (27 credits)</b></p> <p>6 credits chosen from:</p> <ul style="list-style-type: none"> <li>BIOL 205 Introduction to Sustainability (3.00)</li> <li>LOYC 205 Introduction to Sustainability (3.00)</li> <li>LOYC 320 Biodiversity on Earth (3.00)</li> </ul>	<p><b>Minor in Sustainability Studies</b></p> <ul style="list-style-type: none"> <li>In keeping with the interdisciplinary goals of the minor, students cannot take courses in the same department as their major, specialization, or honours program to fulfill their program requirements.</li> <li><a href="#">Students may only apply credits from Special Topics courses LOYC 298, 398, and 498 where the subject matter is of a sustainability nature.</a></li> <li>Students are responsible for ensuring they have the necessary prerequisites for courses at the 300 and 400 level.</li> <li><a href="#">The minor is designed for students to combine with an honours, specialization, or major in another discipline.</a></li> <li>Students must have a cumulative GPA of at least 3.00 in courses taken toward the minor in order to be awarded the minor upon graduation.</li> <li>Several of the courses listed in the degree requirements below are cross-listed. In cases where cross-listed courses appear, either version of the course may be applied towards the program requirements. Students may not, however, take both versions of a cross-listed course for credit.</li> </ul> <p><b>Degree Requirements</b></p> <p><b>Minor in Sustainability Studies (27 credits)</b></p> <p>6 credits chosen from:</p> <ul style="list-style-type: none"> <li>BIOL 205 Introduction to Sustainability (3.00)</li> <li>LOYC 205 Introduction to Sustainability (3.00)</li> <li>LOYC 320 Biodiversity on Earth (3.00)</li> </ul>

Note: The following courses are cross-listed:  
BIOL 205 and LOYC 205

9 credits chosen from:

- ANTH 277 Contemporary Issues in Economy, Society, and Biodiversity (3.00)
- BIOL 226 Biodiversity and Ecology (3.00)
- CHEM 209 Discovering Biotechnology (3.00)
- EXCI 233 Current Issues in Personal and Community Health (3.00)
- FPST 201 Introduction to First Peoples Studies (3.00)
- FPST 203 First Peoples of Canada (3.00)
- GEOG 203 Canadian Environmental Issues (3.00)
- GEOG 204 Global Environmental Issues (3.00)
- LOYC 220 The Contemporary World (3.00)
- PHIL 236 Environmental Ethics (3.00)
- LOYC 240 Global Environmental Issues and Ecological Justice (3.00)
- SCPA 215 Economics for Public Policy and Community Development (3.00)
- SOCI 277 Contemporary Issues in Economy, Society, and Biodiversity (3.00)

Note: The following courses are cross-listed:  
ANTH 277 and SOCI 277

12 credits chosen from:

- ANTH 319 Socio-Environmental Issues (3.00)
- ANTH 384 Food and Sustainability (3.00)
- ANTH 450 Social Economy and Sustainable Futures (3.00)
- BIOL 353 Communities and Ecosystems (3.00)
- COMS 372 Theories of Public Discourse (3.00)
- ECON 391 Economics of the Environment (3.00)
- FPST 341 Globalization and Indigenous Peoples (3.00)
- GEOG 321 GEOG 321 (3.00)
- HIST 395 Environmental History (3.00)
- LOYC 310 Science and the Contemporary World (3.00)
- LOYC 350 Internship in Sustainability (3.00)
- LOYC 420 Integrative Projec (3.00)
- MANA 369 Business and Sustainability (3.00)
- MANA 374 Sustainable Management (3.00)
- POLI 394 Globalization and Sustainable Development (3.00)
- SOCI 319 Socio-Environmental Issues (3.00)
- SOCI 384 Food and Sustainability (3.00)
- SOCI 450 Social Economy and Sustainable Futures (3.00)

Note: The following courses are cross-listed:  
BIOL 205 and LOYC 205

9 credits chosen from:

- ANTH 277 Contemporary Issues in Economy, Society, and Biodiversity (3.00)
- BIOL 226 Biodiversity and Ecology (3.00)
- CHEM 209 Discovering Biotechnology (3.00)
- EXCI 233 Current Issues in Personal and Community Health (3.00)
- FPST 201 Introduction to First Peoples Studies (3.00)
- FPST 203 First Peoples of Canada (3.00)
- GEOG 203 Canadian Environmental Issues (3.00)
- GEOG 204 Global Environmental Issues (3.00)
- LOYC 220 The Contemporary World (3.00)
- LOYC 240 Global Environmental Issues and Ecological Justice (3.00)
- [LOYC 298 Selected Topics in the Loyola College for Diversity and Sustainability \(3.00\)](#)
- PHIL 236 Environmental Ethics (3.00)
- [PHYS 273 Energy and Environment \(3.00\)](#)
- SCPA 215 Economics for Public Policy and Community Development (3.00)
- SOCI 277 Contemporary Issues in Economy, Society, and Biodiversity (3.00)

Note: The following courses are cross-listed:  
ANTH 277 and SOCI 277

12 credits chosen from:

- ANTH 319 Socio-Environmental Issues (3.00)
- ANTH 384 Food and Sustainability (3.00)
- ANTH 450 Social Economy and Sustainable Futures (3.00)
- BIOL 353 Communities and Ecosystems (3.00)
- COMS 372 Theories of Public Discourse (3.00)
- ECON 391 Economics of the Environment (3.00)
- FPST 341 Globalization and Indigenous Peoples (3.00)
- GEOG 321 GEOG 321 (3.00)
- HIST 395 Environmental History (3.00)
- LOYC 310 Science and the Contemporary World (3.00)
- LOYC 350 Internship in Sustainability (3.00)
- [LOYC 398 Selected Topics in the Loyola College for Diversity and Sustainability \(3.00\)](#)
- LOYC 420 Integrative Projec (3.00)
- [LOYC 421 Directed and Independent Study \(3.00\)](#)
- [LOYC 498 Selected Topics in the Loyola College for Diversity and Sustainability \(3.00\)](#)
- MANA 369 Business and Sustainability (3.00)

Note: The following courses are cross-listed:  
ANTH 319 and SOCI 319  
ANTH 384 and SOCI 384  
ANTH 450 and SOCI 450

- MANA 374 Sustainable Management (3.00)
- POLI 394 Globalization and Sustainable Development (3.00)
- SOCI 319 Socio-Environmental Issues (3.00)
- SOCI 384 Food and Sustainability (3.00)
- SOCI 450 Social Economy and Sustainable Futures (3.00)

Note: The following courses are cross-listed:  
ANTH 319 and SOCI 319  
ANTH 384 and SOCI 384  
ANTH 450 and SOCI 450

Rationale:

**(1) Addition of LOYC 298<sup>3</sup> to the list of courses to choose from for the 9-credit block of the Minor in Sustainability Studies**

The Loyola College for Diversity and Sustainability (LCDS) offers these Special Topics courses every year and it is confusing for the students that they're not listed in the Calendar as counting towards our programs. Including them would not only reduce confusion for students but also reduce the number of student requests that must be processed. LCDS has been in touch with the Analyst in SIS Advisement (Enrollment Services) about adding the relevant topics to SIS so students will see them on their online advisement reports as well. It has been suggested that it might be simpler to split the Selected Topics courses into two streams, one for the Minor in Diversity and the Contemporary World and the other for the Minor in Sustainability Studies. This would not work because our Selected Topics are often relevant for both Minors (ex: LOYC 398-02: Diversity and Sustainability in the Era of the Covid-19 Pandemic, offered in the fall of 2020; LOYC 398-03: Perspectives on the United Nations Sustainable Development Goals, offered in the fall of 2021). It therefore makes sense to keep them as they are. However, to limit confusion, in addition to updating the Analyst in SIS Advisement regularly so that the online advisement report is up to date, we do post an updated list of courses eligible for our programs every year on our website and advertise this heavily to all our students when they add our programs and at registration time (<https://www.concordia.ca/artsci/loyola-college-diversity-sustainability/programs/courses.html>).

**(2) Addition of PHYS 273<sup>3</sup> to the list of courses to choose from for the 9-credit block of the Minor in Sustainability Studies**

This course fulfills the important role of providing some relevant Physics training in this area of crucial importance to Sustainability Studies. Until 2015, this role was fulfilled by PHYS 270: *Introduction to Energy and the Environment*, which was listed as an accepted course to fulfill 3 credits towards the 9-credit block of the Minor in Sustainability Studies. PHYS 270 was removed from this listing in the Calendar because it was no longer being offered. The Department of Physics listed PHYS 270 as a prerequisite for PHYS 273 until 2016; there have been no required prerequisites since then. PHYS 273 is now open to all. The Chair of the Department of Physics, Alex Champagne, is in support (see Appendix A in LOYC 14 Supporting Documents).

**(3) Addition of LOYC 398<sup>3</sup> to the list of courses to choose from for the 12-credit block of the Minor in Sustainability Studies**

LCDS offers these Special Topics courses most years and it is confusing for the students that they're not listed in the Calendar as counting towards our programs. Including them would not only reduce confusion for students but also reduce the number of student requests that must be processed. LCDS has been in touch with the Analyst in SIS Advisement (Enrollment Services) about adding the relevant topics to SIS so students will see them on their online advisement reports as well.

**(4) Addition of LOYC 421<sup>3</sup> to the list of courses to choose from for the 12-credit block of the Minor in Sustainability Studies**

This course has been run successfully as LOYC 398-01 for the past two years and is running this year as well. It allows for students to do independent research of relevance to the Minor in Sustainability Studies or the Minor in Diversity and the Contemporary World with faculty members willing to supervise them. Projects must be approved as relevant by LCDS, hence the required Permission of the Department. Note that, as for all other changes requested here, there are no resource implications for this addition: the Principal is the official course coordinator and the supervisors are not remunerated.

**(5) Addition of LOYC 498<sup>3</sup> to the list of courses to choose from for the 12-credit block of the Minor in Sustainability Studies**

The addition of a LOYC 498 Special Topics course provides LCDS with more flexibility, especially when cross-listing courses that are listed as 400-level courses in other departments (ex: in the fall of 2020, the course *Diversity and Sustainability in the Era of the COVID 19 pandemic* had to be listed as PSYC 428/LOYC 398; in the summer of 2020, the course *SICK! Social Innovation through Creative Knowing* had to be listed as ANTH 498/SOCI 498/LOYC 398). LCDS will contact the Analyst in SIS Advisement (Enrolment Services) about adding the relevant topics to SIS so students will see them on their online advisement reports as well.

**(6) Addition of note about Special Topics courses LOYC 298<sup>3</sup>, 398<sup>3</sup>, and 498<sup>3</sup>**

This note is important because not all LOYC Special Topics courses are relevant to the Minor in Sustainability Studies. Some may only be relevant to our other programs. As noted above, LCDS has been in touch with the Analyst in SIS Advisement (Enrollment Services) about adding the relevant topics to SIS so students will see them on their online advisement reports; this will also reduce confusion.

**(7) Addition of note about the combination of the Minor with honours, specialization, or major programs in another discipline**

This note is in the same section of the Calendar in the description of the Minor in Diversity and the Contemporary World. It does not make sense to have it for one program and not for the other when it is equally applicable to both. This difference may imply that, unlike the Minor in Diversity and the Contemporary World, the Minor in Sustainability Studies can be taken as a stand-alone program, which it cannot. Thus, the failure to include this note may be misleading.

Resource Implications:

None.

**PROGRAM CHANGE:** Deletion of Foundation Year

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Loyola College for Diversity and Sustainability  
**Program:** n/a  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.525

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><del>Foundation Year: Loyola College for Diversity and Sustainability</del></p> <p><del>Notes</del></p> <ul style="list-style-type: none"> <li><del>• The foundation year is designed for students pursuing a 120-credit Extended Credit Program (ECP) in an undergraduate degree.</del></li> <li><del>• Students must complete a minimum of 15 credits and a maximum of 27 credits.</del></li> </ul> <p><del>Foundation Year: Loyola College for Diversity and Sustainability</del></p> <p><del>6 credits:</del></p> <ul style="list-style-type: none"> <li><del>• LOYC 201 The Idea of Modernity (3.00)</del></li> <li><del>• LOYC 202 What is the Environment? (3.00)</del></li> </ul> <p><del>24 credits chosen as follows:</del></p> <p><del>a minimum of nine credits and a maximum of 24 credits chosen from:</del></p> <ul style="list-style-type: none"> <li><del>• ANTH 272 Comparative Culture (3.00)</del></li> <li><del>• CHEM 209 Discovering Biotechnology (3.00)</del></li> <li><del>• HIST 202 Modern Europe (3.00)</del></li> <li><del>• POLI 205 Introduction to International Relations (3.00)</del></li> <li><del>• RELI 216 Encountering Religions (3.00)</del></li> <li><del>• THEO 233 Religious Pluralism in a Secular Culture (3.00)</del></li> </ul> <p><del>Note: Students must obtain permission from the Principal of the Loyola College for Diversity and Sustainability regarding course substitutions. Students who have received credit for these courses within their departmental program may not take these courses for credit toward the foundation year.</del></p>	
<p>Rationale:</p>	

There are not currently and possibly never have been any students in this foundation year. It was originally intended for out-of-province students, however it was never implemented. The College has no plans to enrol students in this foundation year.

Resource Implications:  
None



**COURSE CHANGE:** LOYC 421      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Loyola College for Diversity and Sustainability  
**Program:** Minor in Diversity and the Contemporary World; Minor in Sustainability Studies  
**Degree:** BA  
**Calendar Section/Graduate Page Number:** 31.525

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

<b>Present Text (from 20XX/20XX) calendar</b>	<b>Proposed Text</b>
	<p><b>LOYC 421 <i>Directed and Independent Study</i></b> (3 credits)</p> <p><i>Prerequisites:</i> Students must be members of the Loyola College for Diversity and Sustainability to enroll in this course. Students must have completed 30 university credits. Permission of the Loyola College for Diversity and Sustainability is also required.</p> <p><i>Description:</i> The student works under the supervision of a Concordia faculty member on an in-depth research project approved by the Loyola College for Diversity and Sustainability as relevant to either Sustainability Studies or Diversity Studies. Note that the onus is on the student to find a supervisor willing to supervise their work.</p> <p><i>Component:</i> Independent study</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• Students who have received credit for this topic under a LOYC 398 number may not take this course for credit.</li> </ul>

**Rationale:**  
This course has been run successfully as LOYC 398-01 for the past two years and is running this year as well, with students registered in almost every semester. It allows for students to do independent research of relevance to the Minor in Sustainability Studies or the Minor in Diversity and the Contemporary World with faculty members willing to supervise them. Projects must be approved as relevant by LCDS, hence the required Permission of the Department.

At present, students can do a directed study research project under the supervision of the professor assigned to teach LOYC 420. However, this course serves both the Minor in Sustainability Studies and the Minor in Diversity Studies, so the range of topics covered is quite broad and the professor assigned to teach the course may or may not have extensive expertise in the area of interest to the student. If there is a willing supervisor not assigned to teach LOYC 420 who has particular expertise in the area of the research topic in question, it is more beneficial to the student and the professors involved to allow the student to work under the supervision of the professor with the appropriate expertise, therefore under LOYC

421. For example, if there were a student minoring in Sustainability Studies who wanted to examine coverage of climate change in the print media and the professor assigned to teach LOYC 420, although an expert in sustainability in general, was not a journalist, it would be better for all concerned for this student to work under the supervision of a professor in the Department of Journalism with particular expertise in this field if such a willing supervisor could be found.

Since relevant projects may vary greatly within Sustainability and Diversity Studies, there is no set syllabus for this course. Instead, potential supervisors and students are asked to submit a form to the College describing the project, the relevance to Sustainability or Diversity Studies, the expected outcomes, the work on which the student will be graded, applicable deadlines, and the grading scheme - see Appendix B in LOYC 14 Supporting Documents. This provides the necessary information for the College to judge the relevance of the project and the appropriateness of the workload, as well as providing a necessary contract between the student and the supervising professor. Students are registered in the course once this form has been submitted, signed by both the student and the supervising professor, and the project has been approved. Under LOYC 398-01 thus far, students and Concordia faculty members have benefitted from the program in the Departments of Psychology, Biology, Journalism, Sociology and Anthropology, and more.

**Resource Implications:**

None. The Principal is the official course coordinator for this course. Neither the Principal nor the supervisors are remunerated.

**Other Programs within which course is listed:**

None.

**COURSE CHANGE:** LOYC 498      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Loyola College for Diversity and Sustainability  
**Program:** Minor in Diversity and the Contemporary World; Minor in Sustainability Studies  
**Degree:** Undergraduate  
**Calendar Section/Graduate Page Number:** 31.525

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>LOYC 498    <i>Selected Topics in the Loyola College for Diversity and Sustainability</i></b> (3 credits)</p> <p><i>Prerequisites:</i> Students must complete 30 credits of LOYC courses prior to enrolling. If prerequisites are not satisfied, permission of the College is required.</p> <p><i>Description:</i> Specific topics for this course and prerequisites relevant in each case are stated in the Undergraduate Class Schedule.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• <i>Students who have received credit for this topic under a LOYC 398 number may not take this course for credit.</i></li> </ul>

**Rationale:**  
 As explained in the Program Change section, the addition of a LOYC 498 Selected Topics course provides LCDS with more flexibility, especially when cross-listing courses that are listed as 400-level courses in other departments (ex: in the fall of 2020, the course *Diversity and Sustainability in the Era of the COVID 19 pandemic* had to be listed as PSYC 428/ LOYC 398; in the summer of 2020, the course *SICK! Social Innovation through Creative Knowing* had to be listed as ANTH 498/SOCI 498/LOYC 398). Again, LCDS will contact the Analyst in SIS Advisement (Enrollment Services) about adding the relevant topics to SIS so students will see them on their online advisement reports as well.

**Resource Implications:**  
 None. This course is often cross-listed with courses in other departments (prime). When the College is the prime, it is included in the regular annual allotment.

**Other Programs within which course is listed:**  
 None.

LOYC 14

Appendix A:

Letter of Support from the Chair of the Department of Physics  
for the addition of PHYS 273<sup>3</sup> to the Minor in Sustainability  
Studies

## Rebecca Tittler

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**From:** James Grant  
**Sent:** November 27, 2020 12:08 PM  
**To:** Alexandre Champagne  
**Cc:** Rebecca Tittler  
**Subject:** Re: PHYS 273

Thanks Alex! Have a great weekend,

Jim

---

**From:** Alexandre Champagne <A.Champagne@concordia.ca>  
**Sent:** Friday, November 27, 2020 11:27 AM  
**To:** James Grant <james.grant@concordia.ca>; Laszlo Kalman <Laszlo.Kalman@concordia.ca>; Matthew Storms <matthew.storms@concordia.ca>  
**Subject:** Re: PHYS 273

Dear Jim,

Of course, I cc our UPD (Laszlo) and Program Coordinator/Advisor (Matthew) so that they are aware. Since the three of us work closely and share the same vision, I am rather certain that they will also be most happy to welcome your students.

We more or less always increase capacity/offering in our service courses so that everyone (or almost) who wants them can attend. I also mention that we never reserve seats for anyone (including our own programs), so that access is completely fair to all.

Thank you for letting me know,

Alex

Alexandre Champagne, Chair and Associate Professor  
Concordia University - Department of Physics  
7141 Sherbrooke St. W., SP 367.03  
Montreal, Quebec H4B 1R6

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**From:** James Grant <james.grant@concordia.ca>  
**Sent:** Friday, November 27, 2020 11:06 AM  
**To:** Alexandre Champagne <A.Champagne@concordia.ca>  
**Subject:** PHYS 273

Dear Alex,

I hope you are doing well. It is nice to see you, even via Zoom, at our Faculty meetings.

I am writing to request permission to list PHYS 273 (Energy and the Environment) in the Calendar as a 200-level elective towards the Minor in Sustainability Studies for non-Physics students. There is a shortage of science courses available for non-science students in our curriculum, so we would encourage our students to take PHYS 273. At present, there are about 150 students in the Minor and there are many options from which they can choose, so there probably wouldn't be more than a half dozen students taking it in any one semester. Students currently take the course for the Minor via the student request option. We would not require any resources from Physics, nor saved seats in the class, nor any special help registering students since the course is open as a general elective to all.

Please let me know if you approve this request.

Best wishes,

Jim Grant  
Loyola College for Diversity and Sustainability

LOYC 14  
Appendix B:  
LCDS Directed Study Form

### **Directed Study Research Project (LOYC 398-01)**

*Thank you for agreeing to supervise the Directed Study Research Project of a Loyola College student. Please fill out this form so we can keep track of this project and make sure it is relevant to the student's program. Note that a final grade must be submitted to the College within 5 days of the end of the semester in which the project is being completed. Questions, concerns, comments, and grades can be submitted to the College at [loyolacollege.fas@concordia.ca](mailto:loyolacollege.fas@concordia.ca).*

**Name of Student:**

**Student ID number:**

**LCDS Program:**

Minor in Diversity and the Contemporary World

Minor in Sustainability Studies

Sustainability Studies Elective Group

None

**Name of Supervisor:**

**Semester of directed study:**

**Briefly describe the research project to be carried out by the student (attach extra pages if needed):**



**How is the proposed project relevant to sustainability or diversity studies?**

**Marking scheme: On what will the student be graded?**

Assignment

% of Grade

Due date

*What grading scheme will be used?*

A+:

A:

A-:

B+:

B:

B-:

C+:

C:

C-:

D+:

D:

D-:

F:

*Or paste it here:*

**Signature of Student:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Signature of Supervisor:** \_\_\_\_\_ **Date:** \_\_\_\_\_



### INTERNAL MEMORANDUM

**TO:** Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Office of the Provost and Vice-President, Academic Affairs  
Chair, Academic Programs Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 28, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Changes  
Mathematics and Statistics (MATH-34)

---

The following proposal was presented under ASFC-2021-6M-F and approved at the Arts and Science Faculty Council meeting of October 22, 2021. The resource implications pertaining to this dossier were reviewed and approved prior to presentation at Council. We request that this proposal be reviewed at the next meeting of the Academic Programs Committee.

Thank you for your consideration of this proposal.

## INTERNAL MEMORANDUM

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 5, 2021

**SUBJECT:** 2022-23 Undergraduate Calendar Curriculum Changes  
Department of Mathematics and Statistics  
**MATH-34**  
Changes to BA or BSc Honours, Specialization in Actuarial  
Mathematics; BA or BSc Specialization in Actuarial  
Mathematics/Finance; new course MACF 301

---

The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

With the goal to modernize the curriculum and provide students with skillsets necessary to have a competitive advantage in the job market upon graduation, the **Department of Mathematics and Statistics** is proposing changes to the BA/BSc Honours and Specialization in Actuarial Mathematics (ACTU), and BA/BSc Specialization in Actuarial Mathematics and Finance (ACTU-F). Two computational statistics courses offered in our other programs, STAT 280 *Introduction to Statistical Programming* (required) and 380 *Statistical Learning* (elective), as well as the courses MATH 354 *Numerical Analysis* and MATH 365 *Analysis II* will be added to both the BA/BSc Honours and Specialization ACTU and BA/BSc Specialization in ACTU-F as elective courses.

The department also proposes adding the new course MACF 301 *Introduction to Quantitative Finance* to both ACTU and the ACTU-F programs. Both programs are accredited by the Canadian Institute of Actuaries (CIA) through their University Accreditation Program (UAP) and MACF 301 is accredited by the CIA. Therefore, the department proposes removing FINA 385 *Theory of Finance I* which is not accredited and replace it with MACF 301.

Resource implications include a request for one 3-credit section for MACF 301, which have been factored in, and will be added to the department's current allocation.

Thank you for your consideration of this proposal.

## Department of Mathematics and Statistics

### MATH-34

#### **Memo from Chair**

#### **Program change**

Honours in Actuarial Mathematics

Specialization in Actuarial Mathematics

Specialization in Actuarial Mathematics/Finance

#### **New course**

MACF 301     *Introduction to Quantitative Finance*

## INTERNAL MEMORANDUM

**TO:** Richard Courtemanche, Associate Dean, Academic Programs, Faculty of Arts and Science

**FROM:** Cody Hyndman, Chair, Department of Mathematics and Statistics  
Patrice Gaillardetz, Director, Actuarial Mathematics and Actuarial Mathematics and Finance Undergraduate Programs, Department of Mathematics and Statistics

**DATE:** March 10, 2021  
Revised October 5, 2021

**SUBJECT:** Changes in the BA/BSc Specialization and Honours in Actuarial Mathematics (ACTU), BA/BSc Specialization in Actuarial Mathematics and Finance (ACTU-F) programs

---

Dear Dr. Courtemanche,

Over the past few years, the Department of Mathematics and Statistics has been conducting a review and renewal process of its curriculum. We previously revamped our Specialization and Honours in Statistics BA/BSc programs (MATH-30) and now submit for consideration the attached dossier revamping our BA/BSc Specialization and Honours in Actuarial Mathematics (ACTU), and BA/BSc Specialization in Actuarial Mathematics and Finance (ACTU-F), undergraduate programs. The proposed modifications were approved by the Curriculum Committee on February 22, 2021, and Department Council on March 8, 2021.

Summary of changes for the ACTU, and ACTU-F programs:

As the ACTU and ACTU-F programs share the same core curriculum (with the ACTU-F program additionally incorporating a Minor in Finance), the changes for these programs will be summarized together. Students who wish to become an Associate, or a Fellow of the Society of Actuaries can do so by completing exams (7-10 depending on the designation). Several of these exams can be exempted by achieving a minimum grade (usually B or B+) from an accredited undergraduate university program. Concordia's ACTU, and ACTU-F programs are accredited by the Canadian Institute of Actuaries (CIA) through their University Accreditation Program (UAP). There are only 11 universities across Canada with undergraduate actuarial mathematics programs

that are accredited by the CIA. Further, Concordia's ACTU, and ACTU-F programs are the only accredited programs taught in English in Quebec.

To maintain our competitive edge among accredited programs, we propose several curriculum updates. All of our suggested modifications are made to modernize our curriculum, and to best align with the skillsets our graduating students need to be competitive for immediate entry into the job market.

In recognition of the increasing need for statistical programming and computational skills for our recent graduates, we propose to incorporate two computational statistics courses to these programs (STAT 280: Introduction to Statistical Programming; STAT 380: Statistical learning). STAT 280 is an introductory course pertaining to data visualization and statistical programming. STAT 380 is a computational statistics course covering advanced topics in statistics and machine learning and is accredited by the CIA. The methodologies covered in STAT 380 are pertinent to all students interested in statistics. However, these topics are necessary for students in the ACTU-F program who are likely planning a career in the financial sector where forecasting and prediction is a key component. As such, STAT 380 will be a required course for the ACTU-F program, but optional for the ACTU program.

We also propose to add a required course (MACF 301: Introduction to Quantitative Finance) to both the ACTU and the ACTU-F programs. MACF 301 has been previously taught as a topics course (MAST 397; Fall 2020: 23/35; Fall 2019: 28/35). The course is an introduction to quantitative finance, and is recognized as a valid prerequisite for courses requiring FINA 385 by Dr. Imants Paeglis (Chair of the Finance Department), and Dr. Jooseop Lim (Associate Dean of Academic & Student Affairs for Undergraduate Programs in JMSB). Currently, FINA 385 is a required course for the ACTU-F program. However, as MACF 301 has been accredited by the CIA, we propose to formally add MACF 301 to our department offerings. As an accredited course MACF 301 is in high demand by all of our ACTU and ACTU-F students. However, for students in the ACTU-F program, there is no flexibility in electives, and they cannot currently take this course for credit toward their undergraduate degree. Instead, these students are taking the equivalent (but not accredited) FINA 385 course. As such, we propose to replace FINA 385 with MACF 301 in the ACTU-F, and ACTU programs.

For the ACTU-F program, the 400-level FINA courses allow students to tailor their program to suit their particular interests. Currently, the program requires 12 credits chosen from MACF 401; MACF 402; or 400-level FINA courses. However, given the incorporation of advanced statistical and computational courses to this program as stated in this proposal, we feel that more 400-level FINA courses will be beneficial to rounding these students' skillsets and knowledge base. Thus we propose to remove the MACF 401 and MACF 402 from the 'chosen from' list.

Lastly, in order to incorporate these required additions to our ACTU and ACTU-F programs, we propose to remove two courses (MATH 354: Numerical Analysis and MATH 365: Analysis II). These two courses are advanced theoretical courses and may be less pertinent for ACTU and ACTU-F students who are likely pursuing very applied careers as actuaries. Interested students may be able to take one or both of these courses as electives within the program, from a group of eligible courses, particularly if they are planning to attend graduate school as noted in the revised program descriptions.

Resource implications:

All of the suggested program additions are pre-existing courses offered in the department and the resource implications are minimal. We request one additional section to our current departmental allocation in order to offer the accredited MACF 301 yearly to our Actuarial students without removing other offerings. There are no other resource implications.

Sincerely,



Cody Hyndman  
Associate Professor and Chair  
Mathematics and Statistics

Patrice Gaillardetz  
Actuarial Programs Director



**PROGRAM CHANGE:** Honours in Actuarial Mathematics

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics and Statistics  
**Program:** Honours in Actuarial Mathematics  
**Degree:** BA, BSc  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Honours in Actuarial Mathematics (66 credits)</b></p> <p><del>27</del> credits:</p> <ul style="list-style-type: none"> <li>• MATH 251 Linear Algebra I (3.00)</li> <li>• MATH 252 Linear Algebra II (3.00)</li> <li>• MATH 264 Advanced Calculus I (3.00)</li> <li>• MATH 265 Advanced Calculus II (3.00)</li> <li>• <del>MATH 354 Numerical Analysis (3.00)</del></li> <li>• MATH 364 Analysis I (3.00)</li> <li>• <del>MATH 365 Analysis II (3.00)</del></li> <li>• STAT 249 Probability I (3.00)</li> <li>• STAT 250 Statistics (3.00)</li> </ul> <p><del>39</del> credits:</p> <ul style="list-style-type: none"> <li>• ACTU 256 Mathematics of Finance (3.00)</li> <li>• ACTU 257 Actuarial Mathematics I (3.00)</li> <li>• ACTU 357 Actuarial Mathematics II (3.00)</li> <li>• ACTU 457 Risk Theory (3.00)</li> <li>• ACTU 458 Credibility Theory (3.00)</li> <li>• ACTU 459 Loss Distributions (3.00)</li> <li>• STAT 349 Probability II (3.00)</li> <li>• STAT 360 Linear Models (3.00)</li> <li>• STAT 460 Time Series and Forecasting (3.00)</li> <li>• STAT 461 Statistical Simulation (3.00)</li> </ul>	<p><b>Honours in Actuarial Mathematics (66 credits)</b></p> <p><u>24</u> credits:</p> <ul style="list-style-type: none"> <li>• MATH 251 Linear Algebra I (3.00)</li> <li>• MATH 252 Linear Algebra II (3.00)</li> <li>• MATH 264 Advanced Calculus I (3.00)</li> <li>• MATH 265 Advanced Calculus II (3.00)</li> <li>• MATH 364 Analysis I (3.00)</li> <li>• STAT 249 Probability I (3.00)</li> <li>• STAT 250 Statistics (3.00)</li> <li>• <a href="#">STAT 280 Introduction to Statistical Programming (3.00)</a></li> </ul> <p><u>33</u> credits:</p> <ul style="list-style-type: none"> <li>• ACTU 256 Mathematics of Finance (3.00)</li> <li>• ACTU 257 Actuarial Mathematics I (3.00)</li> <li>• ACTU 357 Actuarial Mathematics II (3.00)</li> <li>• ACTU 457 Risk Theory (3.00)</li> <li>• ACTU 458 Credibility Theory (3.00)</li> <li>• ACTU 459 Loss Distributions (3.00)</li> <li>• <a href="#">MACF 301 Introduction to Quantitative Finance (3.00)</a></li> <li>• STAT 349 Probability II (3.00)</li> <li>• STAT 360 Linear Models (3.00)</li> <li>• STAT 460 Time Series and Forecasting (3.00)</li> <li>• STAT 461 Statistical Simulation (3.00)</li> </ul>

3 credits chosen from:

- ACTU 286 Actuarial Mathematics Lab I (1.00)
- ACTU 386 Actuarial Mathematics Lab II (2.00)
- ACTU 486 Actuarial Mathematics Lab III (2.00)
- ~~MAST 232 Mathematics with Computer Algebra (3.00)~~
- ~~MAST 332 Techniques in Symbolic Computation (3.00)~~
- STAT 287 Statistics Lab I (1.00)
- ~~STAT 388 Statistics Lab II (2.00)~~

6 credits:

- ACTU 493 Honours Project in Actuarial Mathematics (6.00)

3 credits chosen from:

- ACTU 286 Actuarial Mathematics Lab I (1.00)
- ACTU 386 Actuarial Mathematics Lab II (2.00)
- ACTU 486 Actuarial Mathematics Lab III (2.00)
- [MATH 354 Numerical Analysis \(3.00\)](#)
- [MATH 365 Analysis II \(3.00\)](#)
- STAT 287 Statistics Lab I (1.00)
- [STAT 380 Statistical Learning \(3.00\)](#)

6 credits:

- ACTU 493 Honours Project in Actuarial Mathematics (6.00)

*[\\*NOTE: MATH 365 is recommended for students interested in pursuing a graduate degree in Actuarial Mathematics or a related discipline.](#)*

**Rationale:**

All of our suggested modifications are made to modernize our curriculum, and to best align with the skillsets our graduating students need to be competitive for immediate entry into the job market.

In recognition of the increasing need for statistical programming and computational skills for our recent graduates, we propose to incorporate two computational statistics courses to this program (STAT 280 [required]; and STAT 380 [elective]). We also propose to add MACF 301 as required to this program. Two of these courses (STAT 380, and MACF 301) are necessary to maintain our accreditation by the Canadian Institute of Actuaries (CIA). Both STAT 380 and MACF 301 are also accredited courses by the CIA. Additionally, MACF 301 has been identified as a valid prerequisite for courses requiring FINA 385 by Dr. Imants Paeglis (Chair of the Finance Department), and Dr. Jooseop Lim (Associate Dean of Academic & Student Affairs for Undergraduate Programs in JMSB). Currently, FINA 385 is a required course for the ACTU-F program; we propose replacing FINA 385 with our accredited MACF 301.

Lastly, in order to incorporate these required additions, we propose to move two courses (MATH 354: Numerical Analysis and MATH 365: Analysis II) from required, to recommended electives. These two courses are advanced theoretical courses and may be less pertinent for ACTU students who are likely pursuing very applied careers as actuaries. However, as MATH 365 covers content that is critical for pursuing a graduate program in the mathematical sciences, we have added a note recommending that students who wish to pursue a graduate degree should take MATH 365. MAST 232 (Mathematics with Computer Algebra) and MAST 332 (Techniques in Symbolic Computation) introduce students to a mathematical programming language (such as MAPLE or MATHEMATICA). As STAT 280 introduces students to the R programming language, MAST 232 and 332 are no longer necessary as recommended electives and should be removed from the list.

STAT 388 has not been taught in the Department in the last 10 years. Removing this from the program will reduce students' confusion regarding registration and program requirements.

**Resource Implications:**

One section will need to be added to the department's current allocation in total for all programs in this proposal combined. All other courses are from our current course offerings and the resource implications are minimal.

**PROGRAM CHANGE:** Specialization in Actuarial Mathematics

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics and Statistics  
**Program:** Specialization in Actuarial Mathematics  
**Degree:** BA, BSc  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Specialization in Actuarial Mathematics (60 credits)</b></p> <p><del>27</del> credits:</p> <ul style="list-style-type: none"> <li>• MATH 251 Linear Algebra I (3.00)</li> <li>• MATH 252 Linear Algebra II (3.00)</li> <li>• MATH 264 Advanced Calculus I (3.00)</li> <li>• MATH 265 Advanced Calculus II (3.00)</li> <li>• <del>MATH 354 Numerical Analysis (3.00)</del></li> <li>• MATH 364 Analysis I (3.00)</li> <li>• <del>MATH 365 Analysis II (3.00)</del></li> <li>• STAT 249 Probability I (3.00)</li> <li>• STAT 250 Statistics (3.00)</li> </ul> <p><del>30</del> credits:</p> <ul style="list-style-type: none"> <li>• ACTU 256 Mathematics of Finance (3.00)</li> <li>• ACTU 257 Actuarial Mathematics I (3.00)</li> <li>• ACTU 357 Actuarial Mathematics II (3.00)</li> <li>• ACTU 457 Risk Theory (3.00)</li> <li>• ACTU 458 Credibility Theory (3.00)</li> <li>• ACTU 459 Loss Distributions (3.00)</li> <li>• STAT 349 Probability II (3.00)</li> <li>• STAT 360 Linear Models (3.00)</li> <li>• STAT 460 Time Series and Forecasting (3.00)</li> <li>• STAT 461 Statistical Simulation (3.00)</li> </ul> <p>3 credits chosen from:</p>	<p><b>Specialization in Actuarial Mathematics (60 credits)</b></p> <p><u>24</u> credits:</p> <ul style="list-style-type: none"> <li>• MATH 251 Linear Algebra I (3.00)</li> <li>• MATH 252 Linear Algebra II (3.00)</li> <li>• MATH 264 Advanced Calculus I (3.00)</li> <li>• MATH 265 Advanced Calculus II (3.00)</li> <li>• MATH 364 Analysis I (3.00)</li> <li>• STAT 249 Probability I (3.00)</li> <li>• STAT 250 Statistics (3.00)</li> <li>• <u>STAT 280 Introduction to Statistical Programming (3.00)</u></li> </ul> <p><u>33</u> credits:</p> <ul style="list-style-type: none"> <li>• ACTU 256 Mathematics of Finance (3.00)</li> <li>• ACTU 257 Actuarial Mathematics I (3.00)</li> <li>• ACTU 357 Actuarial Mathematics II (3.00)</li> <li>• ACTU 457 Risk Theory (3.00)</li> <li>• ACTU 458 Credibility Theory (3.00)</li> <li>• ACTU 459 Loss Distributions (3.00)</li> <li>• <u>MACF 301 Introduction to Quantitative Finance (3.00)</u></li> <li>• STAT 349 Probability II (3.00)</li> <li>• STAT 360 Linear Models (3.00)</li> <li>• STAT 460 Time Series and Forecasting (3.00)</li> <li>• STAT 461 Statistical Simulation (3.00)</li> </ul> <p>3 credits chosen from:</p>

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- ACTU 386 Actuarial Mathematics Lab II (2.00)
- ACTU 486 Actuarial Mathematics Lab III (2.00)
- ~~MAST 232 Mathematics with Computer Algebra (3.00)~~
- ~~MAST 332 Techniques in Symbolic Computation (3.00)~~
- STAT 287 Statistics Lab I (1.00)
- ~~STAT 388 Statistics Lab II (2.00)~~

- ACTU 286 Actuarial Mathematics Lab I (1.00)
- ACTU 386 Actuarial Mathematics Lab II (2.00)
- ACTU 486 Actuarial Mathematics Lab III (2.00)
- [MATH 354 Numerical Analysis \(3.00\)](#)
- [MATH 365 Analysis II \(3.00\)](#)
- STAT 287 Statistics Lab I (1.00)
- [STAT 380 Statistical Learning \(3.00\)](#)

\*Notes:

- [\*MATH 365 is recommended for students interested in pursuing a graduate degree in Actuarial Mathematics or a related discipline.\*](#)

**Rationale:**

All of our suggested modifications are made to modernize our curriculum, and to best align with the skillsets our graduating students need to be competitive for immediate entry into the job market.

In recognition of the increasing need for statistical programming and computational skills for our recent graduates, we propose to incorporate two computational statistics courses into this program (STAT 280 [required]; and STAT 380 [elective]). We also propose to add MACF 301 as required to this program. Two of these courses (STAT 380, and MACF 301) are necessary to maintain our accreditation by the Canadian Institute of Actuaries (CIA). Both STAT 380 and MACF 301 are also accredited courses by the CIA. Additionally, MACF 301 has been identified as a valid prerequisite for courses requiring FINA 385 by Dr. Imants Paeglis (Chair of the Finance Department), and Dr. Jooseop Lim (Associate Dean of Academic & Student Affairs for Undergraduate Programs in JMSB). Currently, FINA 385 is a required course for the ACTU-F program; we propose replacing FINA 385 with our accredited MACF 301.

Lastly, in order to incorporate these required additions, we propose to move two courses (MATH 354: Numerical Analysis and MATH 365: Analysis II) from required, to recommended electives. These two courses are advanced theoretical courses and may be less pertinent for ACTU students who are likely pursuing very applied careers as actuaries. However, as MATH 365 covers content that is critical for pursuing a graduate program in the mathematical sciences, we have added a note recommending that students who wish to pursue a graduate degree should take MATH 365. MAST 232 (Mathematics with Computer Algebra) and MAST 332 (Techniques in Symbolic Computation) introduce students to a mathematical programming language (such as MAPLE or MATHEMATICA). As STAT 280 introduces students to the R programming language, MAST 232 and 332 are no longer necessary as recommended electives and should be removed from the list.

STAT 388 has not been taught in the Department in the last 10 years. Removing this from the program will reduce students' confusion regarding registration and program requirements.

**Resource Implications:**

One section will need to be added to the department's current allocation in total for all programs in this proposal combined. All other courses are from our current course offerings and the resource implications are minimal.

**PROGRAM CHANGE:** Specialization in Actuarial Mathematics/Finance

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics and Statistics  
**Program:** Specialization in Actuarial Mathematics/Finance  
**Degree:** BA, BSc  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Specialization in Actuarial Mathematics/Finance (90 credits)</b></p> <p><del>27</del> credits:</p> <ul style="list-style-type: none"> <li>• MATH 251 Linear Algebra I (3.00)</li> <li>• MATH 252 Linear Algebra II (3.00)</li> <li>• MATH 264 Advanced Calculus I (3.00)</li> <li>• MATH 265 Advanced Calculus II (3.00)</li> <li>• <del>MATH 354 Numerical Analysis (3.00)</del></li> <li>• MATH 364 Analysis I (3.00)</li> <li>• <del>MATH 365 Analysis II (3.00)</del></li> <li>• STAT 249 Probability I (3.00)</li> <li>• STAT 250 Statistics (3.00)</li> </ul> <p><del>39</del> credits:</p> <ul style="list-style-type: none"> <li>• ACTU 256 Mathematics of Finance (3.00)</li> <li>• ACTU 257 Actuarial Mathematics I (3.00)</li> <li>• ACTU 357 Actuarial Mathematics II (3.00)</li> <li>• ACTU 457 Risk Theory (3.00)</li> <li>• ACTU 458 Credibility Theory (3.00)</li> <li>• ACTU 459 Loss Distributions (3.00)</li> <li>• STAT 349 Probability II (3.00)</li> <li>• STAT 360 Linear Models (3.00)</li> <li>• STAT 460 Time Series and Forecasting (3.00)</li> <li>• STAT 461 Statistical Simulation (3.00)</li> </ul> <p>3 credits chosen from:</p>	<p><b>Specialization in Actuarial Mathematics/Finance (90 credits)</b></p> <p><u>24</u> credits:</p> <ul style="list-style-type: none"> <li>• MATH 251 Linear Algebra I (3.00)</li> <li>• MATH 252 Linear Algebra II (3.00)</li> <li>• MATH 264 Advanced Calculus I (3.00)</li> <li>• MATH 265 Advanced Calculus II (3.00)</li> <li>• MATH 364 Analysis I (3.00)</li> <li>• STAT 249 Probability I (3.00)</li> <li>• STAT 250 Statistics (3.00)</li> <li>• <u>STAT 280 Introduction to Statistical Programming (3.00)</u></li> </ul> <p><u>36</u> credits:</p> <ul style="list-style-type: none"> <li>• ACTU 256 Mathematics of Finance (3.00)</li> <li>• ACTU 257 Actuarial Mathematics I (3.00)</li> <li>• ACTU 357 Actuarial Mathematics II (3.00)</li> <li>• ACTU 457 Risk Theory (3.00)</li> <li>• ACTU 458 Credibility Theory (3.00)</li> <li>• ACTU 459 Loss Distributions (3.00)</li> <li>• <u>MACF 301 Introduction to Quantitative Finance (3.00)</u></li> <li>• STAT 349 Probability II (3.00)</li> <li>• STAT 360 Linear Models (3.00)</li> <li>• <u>STAT 380 Statistical Learning (3.00)</u></li> <li>• STAT 460 Time Series and Forecasting (3.00)</li> <li>• STAT 461 Statistical Simulation (3.00)</li> </ul>

- ACTU 286 Actuarial Mathematics Lab I (1.00)
- ACTU 386 Actuarial Mathematics Lab II (2.00)
- ACTU 486 Actuarial Mathematics Lab III (2.00)
- STAT 287 Statistics Lab I (1.00)

~~48~~ credits:

- ECON 201 Introduction to Microeconomics (3.00)
- ECON 203 Introduction to Macroeconomics (3.00)\_
- COMM 220 Analysis of Markets (3.00)
- ACCO 230 Introduction to Financial Accounting (3.00)
- ~~FINA 385 Theory of Finance I (3.00)~~
- FINA 395 Theory of Finance II (3.00)

12 credits chosen ~~from the following courses, or~~ from Finance courses ~~at the 400 level:~~

- ~~MACF 401 Mathematical and Computational Finance I (3.00)~~
- ~~MACF 402 Mathematical and Computational Finance II (3.00)~~

3 credits chosen from:

- ACTU 286 Actuarial Mathematics Lab I (1.00)
- ACTU 386 Actuarial Mathematics Lab II (2.00)
- ACTU 486 Actuarial Mathematics Lab III (2.00)
- [MATH 354 Numerical Analysis \(3.00\)](#)
- [MATH 365 Analysis II \(3.00\)](#)
- STAT 287 Statistics Lab I (1.00)

[15](#) credits:

- ECON 201 Introduction to Microeconomics (3.00)
- ECON 203 Introduction to Macroeconomics (3.00)
- COMM 220 Analysis of Markets (3.00)
- ACCO 230 Introduction to Financial Accounting (3.00)
- FINA 395 Theory of Finance II (3.00)

12 credits chosen from [400-level](#) Finance courses

*[\\*NOTE: MATH 365 is recommended for students interested in pursuing a graduate degree in Actuarial Mathematics or related discipline.](#)*

#### Rationale:

All of our suggested modifications are made to modernize our curriculum, and to best align with the skillsets our graduating students need to be competitive for immediate entry into the job market.

In recognition of the increasing need for statistical programming and computational skills for our recent graduates, we propose to incorporate two computational statistics courses as required to this program (STAT 280 and STAT 380). We also propose to add MACF 301 as required to this program. Two of these courses (STAT 380, and MACF 301) are necessary to maintain our accreditation by the Canadian Institute of Actuaries (CIA). Both STAT 380 and MACF 301 are also accredited courses by the CIA. Additionally, MACF 301 has been identified as a valid prerequisite for courses requiring FINA 385 by Dr. Imants Paeglis (Chair of the Finance Department), and Dr. Jooseop Lim (Associate Dean of Academic & Student Affairs for Undergraduate Programs in JMSB). Currently, FINA 385 is a required course for the ACTU-F program; we propose replacing FINA 385 with our accredited MACF 301.

Given the incorporation of advanced statistical and computational courses to this program, we feel that more 400-level FINA courses will be more beneficial to rounding these students' skillsets and knowledge base. Thus we propose to remove the MACF 401 and MACF 402 from the 'chosen from' list.

Lastly, in order to incorporate these required additions, we propose to move two courses (MATH 354: Numerical Analysis and MATH 365: Analysis II) from required, to recommended electives. These two courses are advanced theoretical courses and may be less pertinent for ACTU students who are likely pursuing very applied careers as actuaries. However, as MATH 365 covers content that is critical for pursuing a graduate program in the mathematical sciences, we have added a note recommending that students who wish to pursue a graduate degree should take MATH 365.

#### Resource Implications:

One section will need to be added to the department's current allocation in total for all programs in this proposal combined. All other courses are from our current course offerings and the resource implications are minimal.



**COURSE CHANGE:** MACF 301      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics & Statistics  
**Program:** Hon, Spec in Actuarial Math; Spec in Actuarial Math/Finance  
**Degree:** BA, BSc  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

<b>Present Text (from 20xx/20xx) calendar</b>	<b>Proposed Text</b>
	<p><b>MACF 301 Introduction to Quantitative Finance (3.00)</b></p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: MAST 218 or MATH 264; MAST 221 or STAT 249.</p> <p><i>Description:</i> This course is an introduction to topics related to quantitative finance. Topics may include: financial derivatives, binomial option pricing models, Black-Scholes option pricing model, derivatives risk management, mean-variance portfolio theory, asset pricing models, investment risks, and behavioral finance.</p> <p><i>Component:</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• <i>Students who have received credit for FINA 385 may not take this course for credit.</i></li> </ul>

**Rationale:**  
 This course has been previously offered as a topics course with the following enrollment numbers:  
 2019/2020: 28/35  
 2020/2021: 23/35

MACF 301 is necessary to maintain our accreditation by the Canadian Institute of Actuaries (CIA). The course is also accredited by the CIA, and has been identified as a valid prerequisite for courses requiring FINA 385 by Dr. Imants Paeglis (Chair of the Finance Department), and Dr. Jooseop Lim (Associate Dean of Academic & Student Affairs for Undergraduate Programs in JMSB). Currently, FINA 385 is a required course for the ACTU-F program; we propose replacing FINA 385 with our accredited MACF 301.

**Resource Implications:**



We request one additional section to our current departmental allocation in order to offer this accredited MACF 301 course yearly to our students.

Other Programs within which course is listed:

BA/BSc Honours in Actuarial Mathematics

BA/BSc Specialization in Actuarial Mathematics

Minor in Quantitative Finance and Insurance (MATH-33)

**MAST 397A**

Topics in Mathematics and Statistics  
Introduction to Quantitative Finance  
*Fall 2019*

**Instructor:** Dr. F. Godin, Office: LB 921-05 (SGW), Phone: (514) 848-2424, Ext. 3494  
Email: [frederic.godin@concordia.ca](mailto:frederic.godin@concordia.ca)

**Office Hours:** Tuesdays and Thursdays, 15:00-16:00.

**Class Schedule:** Tuesdays and Thursdays, 13:15-14:30.

**Optional references:**

*Derivatives Markets* (Third Edition), 2013, by McDonald, R.L., Pearson Education.

*Corporate Finance* (Fourth Edition), 2017, by Berk, J. and DeMarzo, P., Pearson.

*Portfolio Theory and Risk Management*, 2014, by Capinski, M. and Kopp, E., Cambridge University Press.

SOA Study Note: [IFM-21-18](#): Measures of Investment Risk, Monte Carlo Simulation, and Empirical Evidence on the Efficient Markets Hypothesis.

SOA Study Note: [IFM-22-18](#): Actuarial Applications of Options and Other Financial Derivatives

**Outline:** This course is an introduction to several topics related to quantitative finance:

- **Financial derivatives:** derivatives specification and cash flows, static no-arbitrage relationships, futures contract.
- **Binomial option pricing models:** risk-neutral pricing, replicating portfolio.
- **Black-Scholes option pricing model:** lognormal model, Black-Scholes formula, historical volatility.
- **Derivatives risk management:** Greeks, hedging.
- **Mean-variance portfolio theory:** mean-variance setting, efficient frontier, capital market line.
- **Asset pricing models:** CAPM, factor models.
- **Investment Risks:** risk measures.
- **Behavioral Finance:** efficient market hypothesis (EMH), anomalies, behavioral biases.

**Evaluation:** The course mark will be determined by a mid-term exam (30% weight), a final exam (50% weight) and assignments (20% weight).

**CIA Accreditation:** This course is accredited by the Canadian Institute of Actuaries (CIA) under the [University Accreditation Program](#) (UAP). A grade of B+ or better in this course is needed to apply to the CIA for the exemption of Exam IFM. For more information, click [here](#).

In addition to the university's internal policies on conduct, including academic misconduct, candidates pursuing credits for writing professional examinations shall also be subject to the [Code of Conduct and Ethics for Candidates in the CIA Education System](#) and the associated [Policy on Conduct and Ethics for Candidates in the CIA Education System](#). For more information, please visit [Obtaining UAP Credits](#) and the [CIA FAQ](#).

#### **Academic Integrity and the Academic Code of Conduct**

This course is governed by Concordia University's policies on Academic Integrity and the Academic Code of Conduct as set forth in the Undergraduate Calendar and the Graduate Calendar. Students are expected to familiarize themselves with these policies and conduct themselves accordingly. "Concordia University has several resources available to students to better understand and uphold academic integrity. Concordia's website on academic integrity can be found at the following address, which also includes links to each Faculty and the School of Graduate Studies: [concordia.ca/students/academic-integrity](http://concordia.ca/students/academic-integrity)." [*Undergraduate Calendar, Sec 17.10.2*]



**INTERNAL MEMORANDUM**

**TO:** Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Office of the Provost and Vice-President, Academic Affairs  
Chair, Academic Programs Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 28, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Changes  
Mathematics and Statistics (MATH-36)

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The following proposal was presented under ASFC-2021-6M-G and approved at the Arts and Science Faculty Council meeting of October 22, 2021. We request that this proposal be reviewed at the next meeting of the Academic Programs Committee.

Thank you for your consideration of this proposal for which there are no additional resource implications.



### INTERNAL MEMORANDUM

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 5, 2021

**SUBJECT:** 2022-23 Undergraduate Calendar Curriculum Changes  
Department of Mathematics and Statistics  
**MATH-36**  
Changes to MACF 401, 402

The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

**The Department of Mathematics and Statistics** is updating the prerequisites for MACF 401 *Mathematical and Computational Finance I* and MACF 402 *Mathematical and Computational Finance II* to reflect what is currently taught in the courses. Also, the addition of MAST 218 *Multivariable Calculus I* and MAST 223 *Introduction to Stochastic Methods of Operations Research* to the prerequisites will allow students in all departmental programs, and not limited to the MACF Specialization program, to enrol in MACF 401. These changes also accommodate the inclusion of MACF 401 and MACF 402 in the proposed Minor in Quantitative Finance and Insurance (Dossier MATH-33).

Finally, minor editorial changes have been made to both course descriptions for calendar style.

Thank you for your consideration of this proposal for which there are no additional resource implications.

*Reference documents:*  
FCC 2020.12-MATH-36

## Department of Mathematics and Statistics

### MATH-36

#### Memo from Chair

#### Prerequisite and course description changes

MACF 401     *Mathematical and Computational Finance I*

MACF 402     *Mathematical and Computational Finance II*

**INTERNAL MEMORANDUM**

**TO:** Richard Courtemanche, Associate Dean, Academic Programs, Faculty of Arts and Science

**FROM:** Cody Hyndman, Chair, Department of Mathematics and Statistics

**DATE:** March 10, 2021  
Revised October 5, 2021

**SUBJECT:** Changes to prerequisites for two required courses in the BA/BSc Specialization in Mathematical and Computational Finance (MACF) program

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Dear Dr. Courtemanche,

The Department of Mathematics and Statistics submits modifications to two required courses, MACF 401 and 402 in the BA/BSc Specialization in Mathematical and Computational Finance (MACF) undergraduate program. The proposed modifications were approved by the Department Curriculum Committee on February 22, 2021, and by Department Council on March 8, 2021.

The prerequisites for the 400-level MACF courses (MACF 401: Mathematical and Computational Finance I; MACF 402: Mathematical and Computational Finance II) are being revised to reflect the necessary background as these courses have evolved since their introduction. Further, with the current calendar listing the only students who can meet the prerequisites are from the MACF Specialization programs. However, MACF 401 (and MACF 402) are often of interest to students in our other Specialization programs and the BA/BSc Major/Minor programs. By adding the Major/Minor equivalencies to the prerequisites (e.g., MAST 218; MAST 223), students in all departmental programs will be able to consider these courses as electives. These changes also accommodate the inclusion of MACF 401 and MACF 402 in the proposed Minor in Quantitative Finance and Insurance (Dossier MATH-33).

There are no resource implications.

Sincerely,



Cody Hyndman  
Associate Professor and Chair  
Mathematics and Statistics









### INTERNAL MEMORANDUM

**TO:** Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Office of the Provost and Vice-President, Academic Affairs  
Chair, Academic Programs Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 28, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Changes  
Mathematics and Statistics (MATH-37)

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The following proposal was presented under ASFC-2021-6M-H and approved at the Arts and Science Faculty Council meeting of October 22, 2021. We request that this proposal be reviewed at the next meeting of the Academic Programs Committee.

Thank you for your consideration of this proposal for which there are no additional resource implications.

**INTERNAL MEMORANDUM**

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 7, 2021

**SUBJECT:** 2022-23 Undergraduate Calendar Curriculum Changes  
Department of Mathematics and Statistics  
**MATH-37**  
Changes to Minor in Mathematics and Statistics

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The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

The **Department of Mathematics and Statistics** is proposing a change to the Minor in Mathematics and Statistics by adding the new course MAST 336 *Insurance Mathematics*. This new course is being introduced in the new Minor in Quantitative Finance and Insurance (see dossier MATH-33). This course provides training for students who wish to pursue careers in the insurance industry.

Resource implications include the addition of a 3-credit section to the department's allocation, which have been factored in the new minor proposed under MATH-33.

Thank you for your consideration of this proposal.

*Reference documents:*  
FCC 2020.12-MATH-37

**Department of Mathematics and Statistics**

**MATH-37**

**Memo from Chair**

**Program change**

Minor in Mathematics and Statistics

**INTERNAL MEMORANDUM**

**TO:** Richard Courtemanche, Associate Dean, Academic Programs, Faculty of Arts and Science

**FROM:** Cody Hyndman, Chair, Department of Mathematics and Statistics

**DATE:** October 5, 2021(Revised)  
March 10, 2021

**SUBJECT:** Changes to Minor in Mathematics and Statistics

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Dear Dr. Courtemanche,

The Department of Mathematics and Statistics submits for consideration, modifications to the Minor in Mathematics and Statistics. These proposed modifications were approved by the Curriculum Committee on February 22, 2021, and by Department Council on March 8, 2021.

With the introduction of the new course MAST 336 (*Insurance Mathematics*) in the proposed Minor in Quantitative Finance and Insurance (Dossier MATH-33), it makes sense to also allow access to this course to students in our existing Minor in Mathematics and Statistics.

There are no resource implications for this change.

Sincerely,



Cody Hyndman  
Associate Professor and Chair  
Mathematics and Statistics

**PROGRAM CHANGE:** Minor in Mathematics and Statistics

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics and Statistics  
**Program:** Minor in Mathematics and Statistics  
**Degree:** Minor  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Minor in Mathematics and Statistics (24 credits)</b></p> <p>18 credits:</p> <ul style="list-style-type: none"> <li>• MAST 217 Introduction to Mathematical Thinking (3.00)</li> <li>• MAST 218 Multivariable Calculus I (3.00)</li> <li>• MAST 219 Multivariable Calculus II (3.00)</li> <li>• MAST 221 Applied Probability (3.00)</li> <li>• MAST 324 Introduction to Optimization (3.00)</li> <li>• MAST 333 Applied Statistics (3.00)</li> </ul> <p>6 credits of MATH/STAT courses chosen with prior departmental approval from the following:</p> <ul style="list-style-type: none"> <li>• MAST 223 Introduction to Stochastic Methods of Operations Research (3.00)</li> <li>• MAST 232 Mathematics with Computer Algebra (3.00)</li> <li>• MAST 234 Linear Algebra and Applications I (3.00)</li> <li>• MAST 235 Linear Algebra and Applications II (3.00)</li> <li>• MAST 330 Differential Equations (3.00)</li> <li>• MAST 331 Mathematical Modelling (3.00)</li> <li>• MAST 332 Techniques in Symbolic Computation (3.00)</li> <li>• MAST 334 Numerical Analysis (3.00)</li> <li>• MAST 335 Investment Mathematics (3.00)</li> <li>• MAST 397 Topics in Mathematics and Statistics (3.00)</li> <li>• MAST 398 Reading Course in Mathematics and Statistics (3.00)</li> </ul> <p>Note: Students enrolled in a Mathematics and Statistics program who take probability/</p>	<p><b>Minor in Mathematics and Statistics (24 credits)</b></p> <p>18 credits:</p> <ul style="list-style-type: none"> <li>• MAST 217 Introduction to Mathematical Thinking (3.00)</li> <li>• MAST 218 Multivariable Calculus I (3.00)</li> <li>• MAST 219 Multivariable Calculus II (3.00)</li> <li>• MAST 221 Applied Probability (3.00)</li> <li>• MAST 324 Introduction to Optimization (3.00)</li> <li>• MAST 333 Applied Statistics (3.00)</li> </ul> <p>6 credits of MATH/STAT courses chosen with prior departmental approval from the following:</p> <ul style="list-style-type: none"> <li>• MAST 223 Introduction to Stochastic Methods of Operations Research (3.00)</li> <li>• MAST 232 Mathematics with Computer Algebra (3.00)</li> <li>• MAST 234 Linear Algebra and Applications I (3.00)</li> <li>• MAST 235 Linear Algebra and Applications II (3.00)</li> <li>• MAST 330 Differential Equations (3.00)</li> <li>• MAST 331 Mathematical Modelling (3.00)</li> <li>• MAST 332 Techniques in Symbolic Computation (3.00)</li> <li>• MAST 334 Numerical Analysis (3.00)</li> <li>• MAST 335 Investment Mathematics (3.00)</li> <li>• <a href="#">MAST 336 Insurance Mathematics (3.00)</a></li> <li>• MAST 397 Topics in Mathematics and Statistics (3.00)</li> <li>• MAST 398 Reading Course in Mathematics and Statistics (3.00)</li> </ul>

statistics courses in other departments may not receive credit for MAST 221, MAST 223, and MAST 333. Students taking a double Major or a Minor in Mathematics and Statistics and whose other program requires statistics courses should consult the Mathematics and Statistics undergraduate program advisor.

Note: Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for MAST 221, MAST 223, and MAST 333. Students taking a double Major or a Minor in Mathematics and Statistics and whose other program requires statistics courses should consult the Mathematics and Statistics undergraduate program advisor.

**Rationale:**  
With the addition of MAST 336 to the departmental offerings, students who are pursuing the Minor in Mathematics and Statistics may wish to take this course for credit. MAST 336 is a natural extension from MAST 335 and has two prerequisites: MAST 221, and MAST 335. MAST 221 is already required for the Minor thus no credit overages will be necessary for students who choose to take MAST 335 and MAST 336.

Note to calendar editor: MAST 336 is proposed as a new course under MATH-33.

**Resource Implications:**  
None.



### INTERNAL MEMORANDUM

**TO:** Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Office of the Provost and Vice-President, Academic Affairs  
Chair, Academic Programs Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** November 9, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Changes  
Department of Physics (AS-PHYS-341)

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The Faculty Curriculum Committee and Steering Committee for Arts and Science Faculty Council have reviewed and approved the following proposal. It is anticipated that it will be approved at the Arts and Science Faculty Council meeting on November 19, 2021 under ASFC-2021-7M-E. We request that it be reviewed at the Academic Programs Committee on November 19, 2021 for implementation in the 2022-23 Undergraduate Calendar.

Thank you for your consideration of this proposal which has no additional resource implications.



**Summary of Committee Discussion: Faculty**

**For Submission to:**

Pascale Sicotte, Dean, Faculty of Arts and Science,  
Faculty of Arts and Science Faculty Council, 19 Nov 2021

**Approved by:**

Richard Courtemanche, Associate Dean, Academic Programs,  
Faculty of Arts and Science Faculty Curriculum Committee, 29 Oct 2021

The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

The **Department of Physics** is proposing changes to five courses in their current offerings, from the 200- to the 400-level. These include description, title, and pre-requisite changes. These changes ensure that the courses are updated, provide a more accurate picture of the themes being taught, and also match more cleanly the expected roles in the overall programs in Physics. The course PHYS 206 *Waves and Modern Physics* receives a description change to better match the actual course and corresponding CEGEP offerings, while the courses (some new titles) PHYS 390 *Applied Electronics for Scientists*, PHYS 435 *Statistical Physics*, PHYS 459 *Condensed Matter Physics II*, and PHYS 468 *Condensed Matter Physics II* get great updates in terms of knowledge base and updated applications.

There are no resource implications. Thank you for your consideration of this proposal.

**Course changes**

- PHYS 206 *Waves and Modern Physics*
- PHYS 390 *Applied Electronics for Scientists*
- PHYS 435 *Statistical Physics*
- PHYS 459 *Condensed Matter Physics I*
- PHYS 468 *Condensed Matter Physics II*

**Summary of Committee Discussion: Department**

**For Submission to:**

Richard Courtemanche, Associate Dean, Academic Programs,  
Faculty Curriculum Committee, 29 Oct 2021

**Approved by:**

Alexandre Champagne, Associate Professor, Chair, Physics,  
Department of Physics Council, 07 May 2021

The details and rationale of the proposed changes are described below in the CCMS document. The committee considered input from the recent teachers for each course, comparable courses elsewhere, and had detailed discussions. The topics were changed to be more representative of the courses as they are presently taught, the language used is more modern and more evocative to students taking these courses for the first time, and the descriptions are more in line with similar courses at other institutions. The committee determined that the changes are a clear improvement over the status quo.

Some content is synchronized between the graduate and undergraduate calendars, so we hope to include these changes at your earliest possible convenience.

The Departmental Curriculum Committee duly approved this proposal on April 9th, 2021. The Departmental Council approved this proposal on May 7th, 2021. Thank you for your consideration, and please do not hesitate to contact us if additional information is needed.

**Summary and Rationale for Changes**

The Department of Physics is requesting to update (bring up-to-date, refresh, and modernize) five PHYS course descriptions (insome cases including the title and some prerequisites):

PHYS 206 Waves and Modern Physics

PHYS 390 Applied Electronics for Scientists (new title)

PHYS 435 Statistical Physics

PHYS 459 Condensed Matter Physics I (new title)

PHYS 468 Condensed Matter Physics II (new title)

Valter Zazubovits, Chair

**DEFINED GROUP CHANGE FORM**

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** Physics undergraduate course description updates (formerly PHYS-27)

**Calendar Section Name:** Concentration in Biophysics

**Calendar Section Type:** Defined group

**Description of Change:** Concentration in Biophysics Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Arts and Science

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 31 Jan 2022

**Effective/Push to SIS date:** 31 Jan 2022

**Implementation/Start date:** 01 Sep 2022

**Department:** Physics

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 31 Faculty of Arts and Science > Faculty of Arts and Science > Section 31.230 Department of Physics > Physics Programs > Honours in Physics > Degree Requirements > Honours in Physics

**Type of Change:** Defined Group Change

<b>Present Text (from 2021) calendar</b>		<b>Proposed Text</b>	
<b>24</b>	Concentration in Biophysics	<b>24</b>	Concentration in Biophysics
	12.0		12.0
	credits:		credits:
	BIOL 266 PHYS 260 PHYS 330 PHYS 460		BIOL 266 PHYS 260 PHYS 330 PHYS 460
	9.0		9.0
	credits chosen from:		credits chosen from:
	CHEM 235 CHEM 271 CHEM 431 PHYS 289 PHYS 345 PHYS 370 PHYS 389 PHYS 440 PHYS 445 PHYS 459 PHYS 461 PHYS 462 PHYS 463		CHEM 235 CHEM 271 CHEM 431 PHYS 289 PHYS 345 PHYS 370 PHYS 389 PHYS 440 PHYS 445 PHYS 459 PHYS 461 PHYS 462 PHYS 463
	3.0		3.0
	credits chosen from:		credits chosen from:
	BIOL 261 BIOL 340 BIOL 367 BIOL 371 PHYS 443		BIOL 261 BIOL 340 BIOL 367 BIOL 371 PHYS 443

**Rationale:**

Course title updated in the program requirements to align with course title change. See Honours in Physics publication preview.

**Resource Implications:**

None.

**DEFINED GROUP CHANGE FORM**

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** Physics undergraduate course description updates (formerly PHYS-27)

**Calendar Section Name:** Concentration in Physics

**Calendar Section Type:** Defined group

**Description of Change:** Concentration in Physics Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Arts and Science

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 31 Jan 2022

**Effective/Push to SIS date:** 31 Jan 2022

**Implementation/Start date:** 01 Sep 2022

**Department:** Physics

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 31 Faculty of Arts and Science > Faculty of Arts and Science > Section 31.230 Department of Physics > Physics Programs > Honours in Physics > Degree Requirements > Honours in Physics

**Type of Change:** Defined Group Change

	<b>Present Text (from 2021) calendar</b>		<b>Proposed Text</b>
<b>24</b>	Concentration in Physics	<b>24</b>	Concentration in Physics
	18.0		18.0
	credits:		credits:
	PHYS 330 PHYS 345 PHYS 355 PHYS 459 PHYS 468 PHYS 478		PHYS 330 PHYS 345 PHYS 355 PHYS 459 PHYS 468 PHYS 478
	6.0		6.0
	credits chosen from:		credits chosen from:
	PHYS 289 PHYS 370 PHYS 389 PHYS 436 PHYS 440 PHYS 443 PHYS 445 PHYS 458 PHYS 498		PHYS 289 PHYS 370 PHYS 389 PHYS 436 PHYS 440 PHYS 443 PHYS 445 PHYS 458 PHYS 498

**Rationale:**

Course title updated in program requirements to align with course title change. See Honours in Physics publication preview.

**Resource Implications:**

None.

**DEFINED GROUP CHANGE FORM**

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** Physics undergraduate course description updates (formerly PHYS-27)

**Calendar Section Name:** Option A: Physics

**Calendar Section Type:** Defined group

**Description of Change:** Option A: Physics Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Arts and Science

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 31 Jan 2022

**Effective/Push to SIS date:** 31 Jan 2022

**Implementation/Start date:** 01 Sep 2022

**Department:** Physics

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 31 Faculty of Arts and Science > Faculty of Arts and Science > Section 31.230 Department of Physics > Physics Programs > Specialization in Physics > Degree Requirements > Specialization in Physics

**Type of Change:** Defined Group Change

	<b>Present Text (from 2021) calendar</b>		<b>Proposed Text</b>
<b>24</b>	Option A: Physics	<b>24</b>	Option A: Physics
	21.0		21.0
	credits:		credits:
	PHYS 330 PHYS 345 PHYS 355 PHYS 459 PHYS 468 PHYS 478 PHYS 497		PHYS 330 PHYS 345 PHYS 355 PHYS 459 PHYS 468 PHYS 478 PHYS 497
	3.0		3.0
	credits chosen from:		credits chosen from:
	PHYS 370 PHYS 436 PHYS 440 PHYS 443 PHYS 445 PHYS 458 PHYS 498		PHYS 370 PHYS 436 PHYS 440 PHYS 443 PHYS 445 PHYS 458 PHYS 498

**Rationale:**

Course title updated in the program requirements to align with course change. See Specialization in Physics publication preview.

**Resource Implications:**

None.

**DEFINED GROUP CHANGE FORM**

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** Physics undergraduate course description updates (formerly PHYS-27)

**Calendar Section Name:** Option B: Physics

**Calendar Section Type:** Defined group

**Description of Change:** Option B: Physics Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Arts and Science

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 31 Jan 2022

**Effective/Push to SIS date:** 31 Jan 2022

**Implementation/Start date:** 01 Sep 2022

**Department:** Physics

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 31 Faculty of Arts and Science > Faculty of Arts and Science > Section 31.230 Department of Physics > Physics Programs > Specialization in Physics > Degree Requirements > Specialization in Physics

**Type of Change:** Defined Group Change

	<b>Present Text (from 2021) calendar</b>		<b>Proposed Text</b>
<b>24</b>	Option B: Physics	<b>24</b>	Option B: Physics
	15.0		15.0
	credits:		credits:
	BIOL 266 PHYS 260 PHYS 330 PHYS 460 PHYS 497		BIOL 266 PHYS 260 PHYS 330 PHYS 460 PHYS 497
	6.0		6.0
	credits chosen from:		credits chosen from:
	CHEM 235 CHEM 271 CHEM 431 PHYS 345 PHYS 370 PHYS 440 PHYS 445 PHYS 459 PHYS 461 PHYS 462 PHYS 463 PHYS 468		CHEM 235 CHEM 271 CHEM 431 PHYS 345 PHYS 370 PHYS 440 PHYS 445 PHYS 459 PHYS 461 PHYS 462 PHYS 463 PHYS 468
	3.0		3.0
	credits chosen from:		credits chosen from:
	BIOL 261 BIOL 340 BIOL 367 BIOL 371 PHYS 443		BIOL 261 BIOL 340 BIOL 367 BIOL 371 PHYS 443

**Rationale:**

Course titles updated in the program requirements to align with course changes. See Specialization in Physics publication preview.

**Resource Implications:**

None

## COURSE CHANGE FORM

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** Physics undergraduate course description updates (formerly PHYS-27)

**Calendar Section Name:** PHYS 206

**Calendar Section Type:** Course

**Description of Change:** PHYS 206 Description Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Arts and Science

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 01 Sep 2022

**Effective/Push to SIS date:** 01 Sep 2022

**Implementation/Start date:** 01 Sep 2022

**Department:** Physics

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 31 Faculty of Arts and Science > Faculty of Arts and Science > Section 31.230 Department of Physics > Physics Courses

**Type of Change:** Course Change

### Present Text (from 2021) calendar

PHYS 206 Waves and Modern Physics (3 credits)

*Prerequisites:*

The following course must be completed previously: PHYS 204 or equivalent.

*Description :*

~~Wave propagation. Superposition. Stationary waves. Doppler effect. Interference. Diffraction. Photoelectric effect. Compton effect. Bohr's atom. Radioactivity; fission; fusion.~~

*Component(s):*

Lecture

*Notes :*

Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration. See PHYS 226 for laboratory associated with this course.

### Proposed Text

PHYS 206 Waves and Modern Physics (3 credits)

*Prerequisites:*

The following course must be completed previously: PHYS 204 or equivalent.

*Description :*

This course reviews Geometrical optics, together with wave propagation and interference. It covers special relativity and the photoelectric and Compton effects as well as introduces the Schrödinger equation and wave function, the uncertainty principle, Bohr's atom, and radioactivity. Selected topics from high energy physics may be included.

*Component(s):*

Lecture

*Notes :*

Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration. See PHYS 226 for laboratory associated with this course.

### Rationale:

Updates are needed to keep the course contemporary. The new description is more in line with the material in the course as it is presently taught, as well as the material from similar courses in CEGEP and at other institutions.

### Resource Implications :

None



## COURSE CHANGE FORM

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** Physics undergraduate course description updates (formerly PHYS-27)

**Calendar Section Name:** PHYS 390

**Calendar Section Type:** Course

**Description of Change:** PHYS 390 Description and Title Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Arts and Science

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 01 Sep 2022

**Effective/Push to SIS date:** 01 Sep 2022

**Implementation/Start date:** 01 Sep 2022

**Department:** Physics

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 31 Faculty of Arts and Science > Faculty of Arts and Science > Section 31.230 Department of Physics > Physics Courses

**Type of Change:** Course Change

### Present Text (from 2021) calendar

PHYS 390 ~~Experimental~~ Digital Electronics (3 credits)

*Prerequisites:*

The following course must be completed previously: PHYS ~~296~~ or equivalent.

*Description :*

~~Breadboarding digital circuits; gating a signal; truth tables; decade counter; decoders, demultiplexers, multiplexers and sequencers; light-emitting diodes and LED displays; tristate and open collector outputs; flip-flops, monostable multivibrators; semiconductor memories; registers, binary counters, arithmetic logic units.~~

*Component(s):*

Laboratory

*Notes :*

~~Students who have received credit for PHYS 396 may not take this course for credit.~~

### Proposed Text

PHYS 390 Applied Electronics for Scientists (3 credits)

*Prerequisites:*

The following course must be completed previously: PHYS 355 or equivalent.

*Description :*

This course introduces students to hands-on design, assembly, analysis, and testing of electronic control and measurement circuits for modern laboratory experiments. Topics may include linear components, filters, transistors, semiconductor devices, operational amplifiers, integrated circuits, networks, ADCs/DACs, and microcontrollers/microprocessors (Arduino/Raspberry Pi).

*Component(s):*

Laboratory

*Notes :*

### Rationale:

The prerequisite is changed because it refers to a course that hasn't been offered in at least a decade.

The old course description is dated and does not reflect how electronics, especially digital electronics, are used in modern scientific experiments. The updated description and title are modernized and multidisciplinary so that it can be taken by BSc students in Physics and other departments.

The note is removed because it refers to a course that is no longer in the calendar and hasn't been offered in at least a decade.

**Resource Implications :**

None

## COURSE CHANGE FORM

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** Physics undergraduate course description updates (formerly PHYS-27)

**Calendar Section Name:** PHYS 435

**Calendar Section Type:** Course

**Description of Change:** PHYS 435 Description Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Arts and Science

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 01 Sep 2022

**Effective/Push to SIS date:** 01 Sep 2022

**Implementation/Start date:** 01 Sep 2022

**Department:** Physics

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 31 Faculty of Arts and Science > Faculty of Arts and Science > Section 31.230 Department of Physics > Physics Courses

**Type of Change:** Course Change

### Present Text (from 2021) calendar

PHYS 435 Statistical Physics 3 (credits)

*Prerequisites:*

The following courses must be completed previously: PHYS 334 ,  
PHYS 367 .

*Description :*

~~Statistical concepts, probability, Gaussian probability distribution, statistical ensemble, macrostates and microstates, thermodynamic probability, statistical thermodynamics, reversible and irreversible processes, entropy, thermodynamic laws and statistical relations, partition functions, Maxwell's distributions, phase transformation, Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein statistics, quantum statistics in classical limit, black-body radiation, conduction of electrons in metal, interacting particle system, lattice vibrations, virial coefficients, Weiss molecular field approximation, Kinetic theory of gases, Boltzmann equation.~~

*Component(s):*

Lecture

*Notes :*

### Rationale:

Updates are needed to keep the course contemporary. The new description is more in line with the material in the course as it is presently taught as well as the material from similar courses at other institutions.

### Resource Implications :

None

### Proposed Text

PHYS 435 Statistical Physics (3 credits)

*Prerequisites:*

The following courses must be completed previously: PHYS 334 ,  
PHYS 367 .

*Description :*

This course focuses on statistical ensembles (micro, macro, and grand canonical); introduces Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein distributions for the microstates and their applications, and formulates a statistical treatment of the laws of thermodynamics. These concepts are applied to classical problems like black-body radiation, thermodynamics of free electrons, and phase transitions involving ferromagnetism and the Ising model. This course also covers fluctuations and Onsager relations, Nyquist's theorem, Brownian motion and the diffusion equation, and selected topics on transport.

*Component(s):*

Lecture

*Notes :*

## COURSE CHANGE FORM

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** Physics undergraduate course description updates (formerly PHYS-27)

**Calendar Section Name:** PHYS 468

**Calendar Section Type:** Course

**Description of Change:** PHYS 468 Description and Title Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Arts and Science

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 01 Sep 2022

**Effective/Push to SIS date:** 01 Sep 2022

**Implementation/Start date:** 01 Sep 2022

**Department:** Physics

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 31 Faculty of Arts and Science > Faculty of Arts and Science > Section 31.230 Department of Physics > Physics Courses

**Type of Change:** Course Change

### Present Text (from 2021) calendar

PHYS 468 Condensed Matter ~~and Nanophysics~~ 3

*Prerequisites:*

The following course must be completed previously: PHYS 459 . The following course must be completed previously or concurrently: PHYS 478 .

*Description :*

~~Review of phonon modes and electron band structure. Quantum condensed-matter topics: Hartree-Fock, mesoscopic quantum transport theory (quantum dots, 1D systems, 2D systems), superconductivity, the quantum Hall effects, and weak localization.~~

*Component(s):*

Lecture

*Notes :*

### Proposed Text

PHYS 468 Condensed Matter Physics II 3

*Prerequisites:*

The following course must be completed previously: PHYS 459 . The following course must be completed previously or concurrently: PHYS 478 .

*Description :*

This course offers an introduction to the problem of many-electron interactions by introducing second-quantization notation and mean-field theory as an approximation to solve complex many-body problems. Quantum phases like magnets and superconductors are studied using mean-field theory along with associated phase transitions. The course also introduces the semi-classical and quantum theory of transport in quantum systems (Boltzmann's and Landauer's equations). Selected topics may include collective excitations, 2D Dirac materials, or integer and fractional quantum Hall effects.

*Component(s):*

Lecture

*Notes :*

### Rationale:

The title is changed to better align with the prerequisite course's new title (see PHYS 459).

Updates are needed to keep the course contemporary. The new description is more in line with the material in the course as it is presently taught, as well as the material from similar courses at other institutions.

### Resource Implications :

None

## COURSE CHANGE FORM

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** Physics undergraduate course description updates (formerly PHYS-27)

**Calendar Section Name:** PHYS 459

**Calendar Section Type:** Course

**Description of Change:** PHYS 459 Description and Title Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Arts and Science

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 01 Sep 2022

**Effective/Push to SIS date:** 01 Sep 2022

**Implementation/Start date:** 01 Sep 2022

**Department:** Physics

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 31 Faculty of Arts and Science > Faculty of Arts and Science > Section 31.230 Department of Physics > Physics Courses

**Type of Change:** Course Change

### Present Text (from 2021) calendar

PHYS 459 ~~Solid State~~ Physics (3 credits)

*Prerequisites:*

The following course must be completed previously or concurrently:  
PHYS 377 .

*Description :*

Drude and Sommerfeld theory of metals, crystal lattices, reciprocal lattice, electron levels in periodic potentials, tight-binding method, semiclassical model of electron dynamics ~~and of conduction~~ in metals, relaxation-time approximation, Boltzmann equation, homogeneous semiconductors; ~~lattice vibrations, Fermi surface, cohesive energy.~~

*Component(s):*

Lecture

*Notes :*

### Rationale:

The title is changed to replace dated/obsolete terminology.

Updates are needed to keep the course contemporary. The new description is more in line with the material in the course as it is presently taught, as well as the material from similar courses at other institutions.

### Resource Implications :

None

### Proposed Text

PHYS 459 ~~Condensed Matter~~ Physics I (3 credits)

*Prerequisites:*

The following course must be completed previously or concurrently:  
PHYS 377 .

*Description :*

In this course, students are introduced to the quantum theory of solids and their properties. The electronic properties of solids are explored, including the Drude and Sommerfeld theories of metals, crystal lattices, reciprocal lattice, electron levels in periodic potentials, band theory, Fermi surface, tight-binding method, semi-classical model of electron dynamics in metals, and relaxation-time approximation. Other concepts covered include the vibrations of crystals (phonons), heat conductivity, homogeneous semiconductors (p-n junctions). Selected topics may include magnetism, magneto-transport, or the role of topology in solids.

*Component(s):*

Lecture

*Notes :*

**Honours in Physics (72 credits)**

**Degree Requirements**

42 credits from Core Program: Physics

6 credits:

- PHYS 496 Honours Research Project (6.00)

24 credits from the Concentration in Physics or the Concentration in Biophysics

**Concentration in Biophysics (24 credits)**

12 credits:

- BIOL 266 Cell Biology (3.00)
- PHYS 260 Introductory Biophysics (3.00)
- PHYS 330 Experimental Physics II (3.00)
- PHYS 460 Chemical Aspects of Biophysics (3.00)

9 credits chosen from:

- CHEM 235 Physical Chemistry II: Kinetics of Chemical Reactions (3.00)
- CHEM 271 Biochemistry I (3.00)
- CHEM 431 Computational Chemistry for Chemists and Biochemists (3.00)
- PHYS 289 Honours Research Experience I (3.00)
- PHYS 345 Advanced Classical Mechanics (3.00)
- PHYS 370 Nonlinear Dynamics/Chaos/Fractals (3.00)
- PHYS 389 Honours Research Experience II (3.00)
- PHYS 440 Computational Methods and Simulations in Physics (3.00)
- PHYS 445 Principles of Medical Imaging (3.00)
- **PHYS 459 Condensed Matter Physics I (3.00)**
- PHYS 461 Membrane Biophysics (3.00)
- PHYS 462 Bioenergetics (3.00)
- PHYS 463 Optical Spectroscopy with Biophysics Applications (3.00)

3 credits chosen from:

- BIOL 261 Molecular and General Genetics (3.00)
- BIOL 340 Plant Biology (3.00)
- BIOL 367 Molecular Biology (3.00)
- BIOL 371 Microbiology (3.00)
- PHYS 443 Quantitative Human Systems Physiology (3.00)

**Concentration in Physics (24 credits)**

18 credits:

- PHYS 330 Experimental Physics II (3.00)
- PHYS 345 Advanced Classical Mechanics (3.00)
- PHYS 355 Electronics (3.00)
- PHYS 459 Solid State Physics (3.00)
- **PHYS 468 Condensed Matter Physics II (3.00)**
- PHYS 478 Quantum Mechanics II (3.00)

6 credits chosen from:

- PHYS 289 Honours Research Experience I (3.00)
- PHYS 370 Nonlinear Dynamics/Chaos/Fractals (3.00)
- PHYS 389 Honours Research Experience II (3.00)
- PHYS 436 Methods of Theoretical Physics III (3.00)
- PHYS 440 Computational Methods and Simulations in Physics (3.00)
- PHYS 443 Quantitative Human Systems Physiology (3.00)
- PHYS 445 Principles of Medical Imaging (3.00)
- PHYS 458 Advanced Electrodynamics (3.00)
- PHYS 498 Advanced Topics in Physics (3.00)

## Specialization in Physics (66 credits)

### Degree Requirements

42 credits from Core Program: Physics

24 credits from Option A: Physics or Option B: Physics

#### Option A: Physics (24 credits)

21 credits:

- PHYS 330 Experimental Physics II (3.00)
- PHYS 345 Advanced Classical Mechanics (3.00)
- PHYS 355 Electronics (3.00)
- PHYS 459 Solid State Physics (3.00)
- PHYS 468 Condensed Matter and Nanophysics (3.00)
- PHYS 478 Quantum Mechanics II (3.00)
- PHYS 497 Specialization Research Project (3.00)

3 credits chosen from:

- PHYS 370 Nonlinear Dynamics/Chaos/Fractals (3.00)
- PHYS 440 Computational Methods and Simulations in Physics (3.00)
- PHYS 443 Quantitative Human Systems Physiology (3.00)
- PHYS 445 Principles of Medical Imaging (3.00)
- PHYS 436 Methods of Theoretical Physics III (3.00)
- PHYS 458 Advanced Electrodynamics (3.00)
- PHYS 498 Advanced Topics in Physics (3.00)

#### Option B: Physics (24 credits)

15 credits:

- BIOL 266 Cell Biology (3.00)
- PHYS 260 Introductory Biophysics (3.00)
- PHYS 330 Experimental Physics II (3.00)
- PHYS 460 Chemical Aspects of Biophysics (3.00)
- PHYS 497 Specialization Research Project (3.00)

6 credits chosen from:

- CHEM 235 Physical Chemistry II: Kinetics of Chemical Reactions (3.00)
- CHEM 271 Biochemistry I (3.00)
- CHEM 431 Computational Chemistry for Chemists and Biochemists (3.00)
- PHYS 345 Advanced Classical Mechanics (3.00)
- PHYS 370 Nonlinear Dynamics/Chaos/Fractals (3.00)
- PHYS 440 Computational Methods and Simulations in Physics (3.00)
- PHYS 445 Principles of Medical Imaging (3.00)
- **PHYS 459 Condensed Matter Physics I (3.00)**
- PHYS 461 Membrane Biophysics (3.00)
- PHYS 462 Bioenergetics (3.00)
- PHYS 463 Optical Spectroscopy with Biophysics Applications (3.00)
- **PHYS 468 Condensed Matter Physics II (3.00)**

3 credits chosen from:

- BIOL 261 Molecular and General Genetics (3.00)
- BIOL 340 Plant Biology (3.00)
- BIOL 367 Molecular Biology (3.00)
- BIOL 371 Microbiology (3.00)
- PHYS 443 Quantitative Human Systems Physiology (3.00)

**Summary of Changes (Undergraduate Program Regular Curriculum Change)**

**Course Changes:**

	Subject Code Change	Catalogue Number Change	Title Change	Description Code Change	Prerequisite Change	Note Change (any change to any of the items under "Notes")	Credit Value Change	Component Change	Mode of Instruction Change	Cross-listed Course Change
PHYS 206 Description Change				X	X					
PHYS 390 Description and Title Change			X	X	X					
PHYS 435 Description Change				X	X					
PHYS 468 Description and Title Change			X	X	X					
PHYS 459 Description and Title Change			X	X	X					

**Defined Group Changes:**

**Defined Groups**

	Defined Group Title Change	Defined Group Requirements Change	Change to Total Credit Value of Defined Group
Concentration in Biophysics Change		X	
Concentration in Physics Change		X	
Option A: Physics Change		X	
Option B: Physics Change		X	



## Impact Report

### Programs

#### Certificate in Science Foundations

Source of Impact

- PHYS 206

#### Honours in Physics

Source of Impact

- Concentration in Biophysics
- Concentration in Physics

#### Specialization in Physics

Source of Impact

- Option A: Physics
- Option B: Physics

### Defined Groups

#### **Concentration in Biophysics\***

Source of Impact

- PHYS 459

#### **Concentration in Physics\***

Source of Impact

- PHYS 459
- PHYS 468

#### Core Program: Physics

Source of Impact

- PHYS 435

#### Extended Credit Program: Health and Life Sciences

Source of Impact

- PHYS 206

#### **Option A: Physics\***

Source of Impact

- PHYS 459
- PHYS 468

#### **Option B: Physics\***

Source of Impact

- PHYS 459
- PHYS 468

### Courses

CHEM 212

Source of Impact

- PHYS 206

CHEM 217

Source of Impact

- PHYS 206

CHEM 234

Source of Impact

- PHYS 206

CHEM 241

Source of Impact

- PHYS 206

PHYS 226

Source of Impact

- PHYS 206

PHYS 230

Source of Impact

- PHYS 206

PHYS 252

Source of Impact

- PHYS 206

PHYS 260

Source of Impact

- PHYS 206

PHYS 367

Source of Impact

- PHYS 206

PHYS 468

Source of Impact

- PHYS 459

PHYS 491

Source of Impact

- PHYS 390



**FACULTY OF FINE ARTS**

Internal Memorandum

**To:** Sandra Gabriele, Vice Provost, Innovation in Teaching and Learning  
**From:** Elaine Paterson, Associate Dean, Academic Programs and Pedagogy  
**Date:** September 15, 2021  
**Re:** Curriculum dossier, Interdisciplinary Studies in Fine Arts cluster, FFAR-41/FFAR1

---

As Dean of the Faculty of Fine Arts, I fully support the curriculum changes proposed in FA-FFAR-41. The dossier was reviewed and approved unanimously by the Fine Arts Faculty Council at its virtual meeting on October 8, 2021.

There are no resource implications.

A handwritten signature in blue ink, appearing to read "AG", written over a faint grid background.

Annie Gérin, PhD  
Dean, Faculty of Fine Arts [Annie.gerin@concordia.ca](mailto:Annie.gerin@concordia.ca)

**Summary of Committee Discussion: Faculty**

**For Submission to:**

Annie Gérin, Dean, Faculty of Fine Arts,  
Faculty Council, 08 Oct 2021

**Approved by:**

Elaine Cheasley Paterson, Associate Dean, Academic Programs and Pedagogy,  
Faculty Curriculum Committee, 03 Sep 2021

The Faculty of Fine Arts Curriculum Committee has reviewed the FFAR-41 and FFAR1 curriculum dossiers from the Interdisciplinary Studies in Fine Arts cluster on September 3, 2021. The Committee members approved the dossier with no revisions. We hereby submit this dossier for review by the Faculty Council on October 8, 2021.

The Faculty proposes to create three new course codes, one at the undergraduate and two at the graduate level, to accommodate Fine Arts Field Schools offered across our nine departments.

There are no resource implications.

**Summary and Rationale for Changes**

The Faculty of Fine Arts proposes to create three new course codes, one at the undergraduate and two at the graduate level, to accommodate Fine Arts Field Schools offered as electives across our nine departments.

In previous years, Fine Arts Field Schools have been offered through department's special topics or INDI course codes. INDI course codes have been used to allow graduate students to enroll when no graduate course codes were available in a department. The lack of specific course codes has created several issues, including properly showcasing the interdisciplinarity of our Field Schools, the ability to teach across cycles, and registration difficulties.

The creation of the new course codes, FAFS 398, FAFS 660, and FAFS 860, will provide students with a more accurate reflection of their academic accomplishments on their transcripts while solving internal administrative issues pertaining to registration. It will also offer a useful recruitment tool for students interested in this kind of experiential, international experience as part of their degree.

The new course codes should be implemented for the summer 2022 semester.

This curriculum proposal has no resource implications. Fine Arts Field Schools are offered through the department's standard credit envelope or through a credit allocation granted by the Dean's Office.

## COURSE CHANGE FORM

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** Field School ugrad course code

**Calendar Section Name:** FAFS 398

**Calendar Section Type:** Course

**Description of Change:** FAFS 398 New

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Fine Arts

**Department:** Interdisciplinary Studies in Fine Arts

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 01 Jan 0001

**Effective/Push to SIS date:** 01 Apr 2022

**Implementation/Start date:** 01 May 2022

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 81 Faculty of Fine Arts > Faculty of Fine Arts > Section 81.30 Interdisciplinary Studies in Fine Arts > Interdisciplinary Fine Arts Courses > Fine Arts Interdisciplinary Courses

**Type of Change:** New Course

### Present Text (from 2021) calendar

FAFS 398

*Prerequisites:*

*Description :*

*Component(s):*

*Notes :*

### Proposed Text

FAFS 398 Fine Arts Field School (3 credits)

*Prerequisites:*

24 credits completed and permission of the Field School instructor.

*Description :*

This course offers hands-on, experiential learning in one or more disciplines in the Fine Arts via faculty-led travel to and residency at a festival, conference, exhibition or partner institution either locally, nationally, or internationally.

*Component(s):*

*Notes :*

Students may be considered to repeat this course for credit, provided the subject matter is different each time.

Students enrolled in this course are required to defray the costs of the field school.

Students who have received credit for a field school under another course code may be considered to repeat this course for credit provided the subject matter is different.

Students will have to apply for this course by submitting required documentation.

### Rationale:

The creation of a new course code will provide students with a more accurate reflection of their academic accomplishments on their transcripts while solving internal administrative issues pertaining to registration.

Students will find information on how to apply to a Field School, as well as the application form on the Concordia International website.

Note that graduate course codes are created as well. These changes are introduced in the FA-FFAR-1 dossier, which has been approved by the

GCC on November 8, 2021.

**Resource Implications :**

There are no resource implications.

## Impact Report

### Courses

FAFS 398 New

Source of Impact



**Summary of Changes (Undergraduate Program Regular Curriculum Change)**

**Course Changes:**

	Subject Code Change	Catalogue Number Change	Title Change	Description Code Change	Prerequisite Change	Note Change (any change to any of the items under "Notes")	Credit Value Change	Component Change	Mode of Instruction Change	Cross-listed Course Change
FAFS 398 New	X	X	X	X	X	X	X	X	X	X

**FAFS 398 Fine Arts Field School (3 credits) – abridged syllabus**  
(Cross-listed with FAFS 660 and FAFS 860)

**Prerequisite**

24 credits completed and permission of the Field School instructor.

**Description**

This course offers hands-on, experiential learning in one or more disciplines of the Fine Arts via faculty-led travel to and residency at a festival, conference, exhibition or partner institution either locally, nationally, or internationally.

**Learning outcomes**

Learning outcomes will vary according to the course topic and discipline(s) involved. They may include:

- Introduction to interdisciplinarity and collaborative work with students from all Fine Arts departments and beyond
- Analyze and critically assess outcomes – including research, artistic work, exhibition, etc. – produced as part of a local, national, or international festival, conference, exhibition, etc.
- Engage critically and creatively in experiential, site-specific learning
- Develop a research and/or creative project in dialogue with the content of a local, national, or international festival, conference, exhibition, or learning activities offered by a partner institution

**Assessments**

Course assessments and weighting will vary according to the course topic and discipline(s) involved. They may include:

- Active participation (e.g. through live discussions, blog posts, attendance to shows, performances, exhibitions, conferences, or other activities planned as part of the Field School)
- Oral and/or performance presentation(s) solo and/or in a group
- Research paper(s) and/or creative project(s)
- Participation at an “end-of-Field-School” outcome, on site or in Montreal (e.g. exhibition, public performance, publication, etc.)

**FAFS 660 Fine Arts Field School (3 credits) – abridged syllabus**  
(Cross-listed with FAFS 860 and FAFS 398)

**Prerequisite**

9 credits completed at the Master's level and permission of the Field School instructor.

**Description**

This course offers hands-on, experiential learning in one or more disciplines of the Fine Arts via faculty-led travel to and residency at a festival, conference, exhibition or partner institution either locally, nationally, or internationally.

**Learning outcomes**

Learning outcomes will vary according to the course topic and discipline(s) involved. They may include:

- Introduction to interdisciplinarity and collaborative work with students from all Fine Arts departments and beyond
- Analyze and critically assess outcomes – including research, artistic work, exhibition, etc. – produced as part of a local, national, or international festival, conference, exhibition, etc.
- Engage critically and creatively in experiential, site-specific learning
- Develop a research and/or creative project in dialogue with the content of a local, national, or international festival, conference, exhibition, or learning activities offered by a partner institution

**Assessments**

Course assessments and weighting will vary according to the course topic and discipline(s) involved. They may include:

- Active participation (e.g. through live discussions, blog posts, attendance to shows, performances, exhibitions, conferences, or other activities planned as part of the Field School)
- Oral and/or performance presentation(s) solo and/or in a group
- Research paper(s) and/or creative project(s)
- Participation at an “end-of-Field-School” outcome, on site or in Montreal (e.g. exhibition, public performance, publication, etc.)

**FAFS 860 Fine Arts Field School (3 credits) – abridged syllabus**  
(Cross-listed with FAFS 660 and FAFS 398)

**Prerequisite**

9 credits completed at the PhD level and permission of the Field School instructor.

**Description**

This course offers hands-on, experiential learning in one or more disciplines of the Fine Arts via faculty-led travel to and residency at a festival, conference, exhibition or partner institution either locally, nationally, or internationally.

**Learning outcomes**

Learning outcomes will vary according to the course topic and discipline(s) involved. They may include:

- Introduction to interdisciplinarity and collaborative work with students from all Fine Arts departments and beyond
- Analyze and critically assess outcomes – including research, artistic work, exhibition, etc. – produced as part of a local, national, or international festival, conference, exhibition, etc.
- Engage critically and creatively in experiential, site-specific learning
- Develop a research and/or creative project in dialogue with the content of a local, national, or international festival, conference, exhibition, or learning activities offered by a partner institution

**Assessments**

Course assessments and weighting will vary according to the course topic and discipline(s) involved. They may include:

- Active participation (e.g. through live discussions, blog posts, attendance to shows, performances, exhibitions, conferences, or other activities planned as part of the Field School)
- Oral and/or performance presentation(s) solo and/or in a group
- Research paper(s) and/or creative project(s)
- Participation at an “end-of-Field-School” outcome, on site or in Montreal (e.g. exhibition, public performance, publication, etc.)



**FACULTY OF FINE ARTS**

## INTERNAL MEMORANDUM

**TO:** Dr. Sandra Gabriele, Vice Provost, Innovation in Teaching and Learning

**FROM:** Dr. Annie Gérin, Dean, Faculty of Fine Arts

**CC:** Dr. Elaine Paterson, AD, Academic Programs and Pedagogy, Faculty of Fine Arts

**DATE:** October 11, 2021

**RE:** Curriculum Dossier for the Interdisciplinary Studies in Fine Arts area, FA-FFAR-61

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As Dean of the Faculty of Fine Arts, I fully support the curriculum changes proposed in FA-FFAR-61. The dossier was reviewed and approved unanimously by the Fine Arts Faculty Council at its virtual meeting on October 8, 2021.

There are no resource implications.

A handwritten signature in blue ink, appearing to read "AG", written over a light blue grid background.

Annie Gérin, PhD  
Dean, Faculty of Fine Arts  
[Annie.gerin@concordia.ca](mailto:Annie.gerin@concordia.ca)

**Summary of Committee Discussion: Faculty**

**For Submission to:**

Annie Gérin, Dean, Faculty of Fine Arts,  
Fine Arts Faculty Council, 08 Oct 2021

**Approved by:**

Elaine Cheasley Paterson, Associate Dean, Academic Programs and Pedagogy,  
Fine Arts Faculty Curriculum Committee, 01 Oct 2021

The Faculty of Fine Arts Curriculum Committee has reviewed the FFAR-61 curriculum dossier from the Interdisciplinary Studies in Fine Arts area on September 3, 2021. After asking for revisions, the Committee members reviewed the dossier for a second time on October 1, 2021 and unanimously approved it. We hereby submit this dossier for review by the Faculty Council on October 8, 2021.

The Interdisciplinary Studies in Fine Arts area proposes course description revisions, as well as the creation of a permanent course code to accommodate the offering of a special topic course as a new eConcordia course.

There are no resource implications.

With thanks for your consideration.

**Summary and Rationale for Changes**

With this dossier, the Interdisciplinary Studies in Fine Arts area (FFAR) is proposing two groupings of curriculum changes.

1. The creation of a new FFAR 200-level course code to accommodate the process of re-designing a Special Topics FFAR298 B “The City After Dark” offering as an eConcordia 3-credit course, the creation of which is in process and slated to run in the coming 2021-2022 academic year. This course is offered for credits as a free elective for Fine Arts students (outside of Fine Arts electives required for their specialization, major, or minor, when applicable) and as an elective for non-Fine Arts students.
2. Updating several calendar descriptions run in the FFAR Area credit envelope to better reflect pedagogical and methodological changes in disciplines. These descriptions will better inform students of the current course outcomes and content remits when consulting the Undergraduate Student Calendar. These courses include:
  - a. FFAR 250 Keywords: Reading the Arts Across the Disciplines
  - b. FFAR 259 Art Forms of Bollywood
  - c. FFAR 258 History of 20th Century Fashion

The implementation is planned for Fall 2022, provided the proposed changes are approved for inclusion in the 2022-23 calendar.

Note: The FFAR area is housed in the Faculty of Fine Arts and is not a department. The course FFAR 250 is a BFA degree requirement for all programs. The other interdisciplinary FFAR courses can be taken for credits by Fine Arts students as free electives, but may not be applied within any Fine Arts specialization, major or minor program. Except for FFAR 250, FFAR courses are open to students outside the Faculty of Fine Arts and are meant to be taken as electives.

## COURSE CHANGE FORM

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** FFAR course descriptions update

**Calendar Section Name:** FFAR 253

**Calendar Section Type:** Course

**Description of Change:** FFAR 253 New

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Fine Arts

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 01 Jan 0001

**Effective/Push to SIS date:** 01 Jan 0001

**Implementation/Start date:** 01 Jan 0001

**Department:** Interdisciplinary Studies in Fine Arts

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 81 Faculty of Fine Arts > Faculty of Fine Arts > Section 81.30 Interdisciplinary Studies in Fine Arts > Interdisciplinary Fine Arts Courses > Fine Arts Interdisciplinary Courses

**Type of Change:** New Course

### Present Text (from 2021) calendar

FFAR 253

*Prerequisites:*

*Description :*

*Component(s):*

*Notes :*

### Proposed Text

FFAR 253 [The City After Dark \(3 credits\)](#)

*Prerequisites:*

*Description :*

This course explores how urban design and culture shape social interaction. It surveys the multiple meanings attributed to 'the night' through the lens of urban studies, human geography, sexuality studies, communication studies, and sociology, among others. Through analysis of and reflection on depictions of night, the course considers the binary constructions and representations of night and how those concepts have real world impacts.

*Component(s):*

*Notes :*

Students who have received credit for this topic under a FFAR 298 number may not take this course for credit.

This course may not be applied within a BFA degree or any Fine Arts specialization, major or minor program.

### Rationale:

This course was approved for development from an existing Special Topics in Fine Arts course (FFAR 298B The City after Dark) into an eConcordia course. The development of the eConcordia course requires the creation of a permanent course code and course description.

This course is offered for credits as a free elective for Fine Arts students (outside of Fine Arts electives required for their specialization, major, or minor, when applicable) and as an elective for non-Fine Arts students.

### Resource Implications :

None.



## COURSE CHANGE FORM

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** FFAR course descriptions update

**Calendar Section Name:** FFAR 250

**Calendar Section Type:** Course

**Description of Change:** FFAR 250 Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Fine Arts

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 01 Jan 0001

**Effective/Push to SIS date:** 01 Jan 0001

**Implementation/Start date:** 01 May 2022

**Department:** Interdisciplinary Studies in Fine Arts

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 81 Faculty of Fine Arts > Faculty of Fine Arts > Section 81.30 Interdisciplinary Studies in Fine Arts > Interdisciplinary Fine Arts Courses > Fine Arts Foundational Year Course

**Type of Change:** Course Change

### Present Text (from 2021) calendar

FFAR 250 Keywords: Reading the Arts Across the Disciplines (6 credits)

*Prerequisites:*

*Description :*

This course offers first-year standing students with fewer than 30 credits completed in a Faculty of Fine Arts degree program a broad introduction to ideas and aesthetics in the visual and performing arts in Canada. It focuses on key concepts shaping and shaped by artistic production and reception in all artistic disciplines. Students deepen their understanding of the cultural significance and the debate that occurs around keywords across the disciplines. Over the year, students extend their powers of reading, writing, and critical thinking in lectures and tutorials.

*Component(s):*

Lecture; Tutorial

*Notes :*

This is a required course for all Bachelor of/Baccalaureate in Fine Arts students. It is strongly recommended that students take this course in their first year.

### Rationale:

This proposed course description change reflects updates in pedagogy and curricular content of this 6-credit core requirement undergraduate course, in keeping with commensurate updates in similar introductory courses in Fine Arts programs in Canada.

### Resource Implications :

None.

### Proposed Text

FFAR 250 Keywords: Reading the Arts Across the Disciplines (6 credits)

*Prerequisites:*

*Description :*

This core course, aimed at first-year standing students with fewer than 30 credits completed in a Faculty of Fine Arts degree program, focuses on key concepts across methods, practices and contemporary theories in the arts. Lecture and tutorial content, assignments and discussions focus on introducing and practicing critical discussions of multi and interdisciplinary cultural and artistic work in North America and beyond. During the year, students deepen their skill sets in writing about culture, discussing ideas and perspectives, building a linguistic and visual vocabulary of current practices, forming critical stances while working across disciplines.

*Component(s):*

Lecture; Tutorial

*Notes :*

This is a required course for all Bachelor of/Baccalaureate in Fine Arts students. It is strongly recommended that students take this course in their first year.

## COURSE CHANGE FORM

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** FFAR course descriptions update

**Calendar Section Name:** FFAR 259

**Calendar Section Type:** Course

**Description of Change:** FFAR 259 Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Fine Arts

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 01 Jan 0001

**Effective/Push to SIS date:** 01 Jan 0001

**Implementation/Start date:** 01 May 2022

**Department:** Interdisciplinary Studies in Fine Arts

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 81 Faculty of Fine Arts > Faculty of Fine Arts > Section 81.30 Interdisciplinary Studies in Fine Arts > Interdisciplinary Fine Arts Courses > Fine Arts Interdisciplinary Courses

**Type of Change:** Course Change

### Present Text (from 2021) calendar

FFAR 259 Art Forms of Bollywood (3 credits)

*Prerequisites:*

*Description :*

This course ~~focuses on~~ one of the world's most popular film genres, Bollywood, ~~which began in the 1930s. Students study the theory, culture and historical development of film in Mumbai-as well as the components of a Bollywood film — plot, music and dance, with special emphasis on the films' songs. Screenings are part of the course.~~

*Component(s):*

Lecture

*Notes :*

Students who have received credit for this topic under a FFAR 298 number may not take this course for credit.

This course cannot be applied within any Fine Arts specialization, major or minor program.

### Proposed Text

FFAR 259 Art Forms of Bollywood (3 credits)

*Prerequisites:*

*Description :*

This course **is an introduction** to one of the world's most popular film genres, Bollywood. **The course offers, through screenings and lectures, an opportunity to study the theory, culture and historical development of the Indian films being produced in Mumbai/Bombay. The course focusses on specific themes covered in this popular yet often contested genre, studying the aesthetics and narrative styles of some prominent filmmakers from this industry.**

*Component(s):*

Lecture

*Notes :*

Students who have received credit for this topic under a FFAR 298 number may not take this course for credit.

This course cannot be applied within any Fine Arts specialization, major or minor program.

### Rationale:

The new calendar description reflects current views of multiple emergences of Bollywood prior to the 1930s, and it includes specific areas of focus in the course analysis.

This course is offered for credits as a free elective for Fine Arts students (outside of Fine Arts electives required for their specialization, major, or minor, when applicable) and as an elective for non-Fine Arts students.

**Resource Implications :**

None

## COURSE CHANGE FORM

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** FFAR course descriptions update

**Calendar Section Name:** FFAR 258

**Calendar Section Type:** Course

**Description of Change:** FFAR 258 Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** Faculty of Fine Arts

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 01 Jan 0001

**Effective/Push to SIS date:** 01 Jan 0001

**Implementation/Start date:** 01 May 2022

**Department:** Interdisciplinary Studies in Fine Arts

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 81 Faculty of Fine Arts > Faculty of Fine Arts > Section 81.30 Interdisciplinary Studies in Fine Arts > Interdisciplinary Fine Arts Courses > Fine Arts Interdisciplinary Courses

**Type of Change:** Course Change

### Present Text (from 2021) calendar

FFAR 258 History of ~~20th-Century~~ Fashion (3 credits)

*Prerequisites:*

*Description :*

This course ~~covers the history~~ of fashion from ~~pre-WWI~~ through the end of the century ~~with emphasis on Paris, London and later New York. Lectures cover important designers from each decade and other influences on fashion such as the impact of the economy, world wars and popular culture.~~

*Component(s):*

Lecture

*Notes :*

Students who have received credit for this topic under a FFAR 298 number may not take this course for credit.

### Proposed Text

FFAR 258 **Cultural** Histories of **Contemporary** Fashion (3 credits)

*Prerequisites:*

*Description :*

This course **invites students to consider** fashion as a key site for the **construction of both the self and the social collective**. Looking at a century of fashion and dress from a **global perspective**, the course **explores decolonial approaches to studying fashion history and de-centres European fashion houses and the star system of designers as the only contributions of 20th-century fashion.**

*Component(s):*

Lecture

*Notes :*

Students who have received credit for this topic under a FFAR 298 number may not take this course for credit.

This course cannot be applied within any Fine Arts specialization, major or minor program.

### Rationale:

The proposed description change opens up remit for the course to address decolonial approaches to studying fashion history and de-centres European fashion houses as the only contributions of 20th century fashion. Altering the course title also invites flexibility in definitions of histories and frames of the contemporary.

This course is offered for credits as a free elective for Fine Arts students (outside of Fine Arts electives required for their specialization, major, or minor, when applicable) and as an elective for non-Fine Arts students.

\*\*The note "This course cannot be applied within any Fine Arts specialization, major or minor program" is already published in the calendar and should not appear as a new addition.

**Resource Implications :**

None.

## Impact Report

### Programs

Joint Major in Computation Arts and Computer Science

Source of Impact

- FFAR 250

Specialization in Art Education – Visual Arts

Source of Impact

- FFAR 250

**Summary of Changes (Undergraduate Program Regular Curriculum Change)**

**Course Changes:**

	Subject Code Change	Catalogue Number Change	Title Change	Description Code Change	Prerequisite Change	Note Change (any change to any of the items under "Notes")	Credit Value Change	Component Change	Mode of Instruction Change	Cross-listed Course Change
FFAR 253 New	X	X	X	X		X	X	X	X	
FFAR 250 Change				X						
FFAR 259 Change				X		X				
FFAR 258 Change			X	X						

# FFAR 253 - The City After Dark

## Section EC

### (abridged syllabus)

#### Course Description

##### Where are you when the lights go out?

As a society, we have a tendency to organize our ideas in terms of binaries: good and bad, black and white, male and female, legal and criminal. Away from the (presumably legitimate) activity of daylight hours, nighttime has long been associated with the dangerous or the wicked, or at the very least, those trying to avoid scrutiny. “After dark” connotes a time and a space in which “regular” interactions transform or are suspended entirely.

Threats and terrors — both criminal and supernatural — are said to hide in the dark. This course will invite us to explore how binary thinking has shaped, and limited, the way we think about the night. In an urban context, darkness might conceal danger; but it also provides the freedom to explore desires or cross boundaries. Many consider darkness something to be conquered, developing ways to monitor or control what happens when the sun goes down. We will examine the ongoing impact of night-time lore against its real-world implications.

Is access to nighttime — like access to other resources — determined by status, location, income or design? More recently, new forms of technology promote accessibility at all hours of the day or night. Montreal will serve as our primary focus for considering how urban design and culture shape social interactions. In addition to film and literary studies, texts will borrow from urban studies, human geography, sexuality studies, communications and sociology.

#### Course Objectives

- To define and identify the various meanings attributed to ‘the night’ and how those meanings are constructed and circulated.
- To develop a more sophisticated understanding of ‘the night’ as time AND place - considering how it is exploited and regulated in an urban context.
- Critically engage with depictions of the urban night considering source, context, intention and audience.
- To recognize the impact of this social construction of meaning on policy, policing and the treatment of different populations within society.
- To produce, analyse and compare various representations of ‘the night’ via different media and through different genres.
- Apply knowledge of nighttime tropes and expectations through written assignments, class exchange and creative work.



## Assessments

The final grade for the course will be based on the following components:

<b>Discussion Board Participation (4 x 5%)</b>	<b>20%</b>
<b>Reflection Assignment</b>	<b>15%</b>
<b>Group Project</b>	<b>40%</b>
• <b>Plan</b>	5%
• <b>Paper (Individual Submission)</b>	20%
• <b>Magazine</b>	10%
• <b>Peer-Evaluation</b>	5%
<b>Final Exam</b>	<b>25%</b>
<b>Total:</b>	<b>100%</b>

### Discussion Board (20%)

Throughout the semester, you will participate in 4 discussions (due at the end of Lessons 3, 6, 9 and 12). Each post should be about 200 words responding to the question or prompt provided with clear reference to course materials. The introductory discussion during the first week is ungraded.

### Reflection Assignment (15%)

You will explore some part of your community after dark by walking through a particular neighbourhood, participating in a key experience or activity or exploring a familiar daytime spot at night. The assignment will include a 1,000-word paper and two photographs.

### Group Project (40%)

You will be assigned a group and together, you will select a theme and produce a series of assessments, some individual, some collective:

1. Work Plan (5%)
2. Paper (20%)
3. Magazine (10%)
4. Peer-evaluation (5%)

### Final Exam (25%)

This take-home exam will feature a series of questions with short essay responses. You will be given the possible questions in advance, to help you prepare. You will not know which randomly assigned questions you will be given until the exam begins. You will have several days to prepare and submit your final essays.



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**INTERNAL MEMORANDUM**

**TO:** Dr. Sandra Gabriele, Vice- Provost, Innovation in Teaching and Learning

**FROM:** Dr. M. Debbabi, Dean; Chair, GCS Council

**DATE:** October 27, 2021

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**RE:** Changes to the undergraduate programs in the BCEE Department

Please find attached the curriculum changes for the undergraduate programs in the Department of Building, Civil and Environmental Engineering. There is no resource implication required for this proposal. A summary of changes is listed as follows:

- Delete and replace BLDG 432 (Geology and Soil Mechanics) and CIVI 432 (Soil Mechanics) with a new course BCEE 432 (Soil Mechanics).
- Update course title and description of BLDG 462 (Modern Building Materials).
- Update the prerequisite of CIVI 390 (Civil Engineering Design Project) and CIVI 435 (Foundation Design).

This proposal was electronically passed by the GCS Undergraduate Studies Committee on October 18, 2021 and by the GCS Council on October 1, 2021. I would be grateful if you could put it on the agenda of the next APC meeting.

### Internal Memo

**TO:** Ali Akgunduz, Associate Dean, Academic Programs, Gina Cody School of Engineering and Computer Science

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**FROM:** Dr. A. Bagchi, BCEE Chair

**DATE:** September 27, 2021

**RE:** BCEE undergraduate curriculum changes

Attached please find a new BCEE dossier which proposed several changes to the BCEE undergraduate calendar as follows:

- 1) **CIVI 390.pdf** - shows a single word change in the course prerequisites. We want to ensure that all students that enroll in the course have sufficient background on fundamentals both concrete and steel design structures, prior to registering for this mini-capstone course.
- 2) **BLDG 462.pdf** - includes a revised course description and title because its graduate pair-equivalent course was modified last year (we want consistency between the graduate and undergraduate calendar, since it is the same course)
- 3) **BCEE 432.pdf** - CIVI 432 is a longstanding core course for the civil engineering program. One of the recommendations at the last CEAB visit was to give access to building engineering students to similar knowledge, hence the equivalent BLDG 432 was created two years ago. This new course gave the opportunity to students in the building program to choose one of the electives that has CIVI 432 as a prerequisite (i.e., CIVI 435 - Foundation Design). In order to allow the building engineering students to register for CIVI 435 it is proposed that CIVI 432 and BLDG 432 are dropped and BCEE 432 is created with the same content as these two courses. This way, the CIVI 435 course will replace its current prerequisite (CIVI 432) with BCEE 432 and all the subsequent calendar editorial changes are shown in the document.

The dossier was approved by the BCEE Undergraduate Curriculum Committee and subsequently by the BCEE Department Council on September 27, 2021.

I would be grateful if you could put this on the agenda of the next ECSGSC Committee meeting for approval.

**DOSSIER TITLE: 2022-2023 BCEE Undergraduate Changes**

**DESCRIPTION OF CHANGE: 71.50.1 Course Requirements (BEng in Building Engineering)**

**PROGRAM CHANGE - CALENDAR UPDATE FORM** – (please fill in all the appropriate information)

Proposed  Undergraduate or  Graduate Curriculum Changes

**Calendar for Academic Year:** 2022/2023

**Implementation Month/Year:** May 2022

**Faculty:** Gina Cody School of Engineering and Computer Science **Department:** Building, Civil and Environmental Engineering

**Program:** Building Engineering

**Degree:** BEng

**Section Title:** 71.50.1

**Type of Change:** (please fill in all the appropriate boxes with an “X”) **A separate form is required for each change.**

Editorial  Requirements  Regulations

New Program  Program Deletion

Present Text (Text from 20__ – 20__ Calendar)	Proposed Text																																																
Paste description from current calendar in 'present text' (strike-out text sections to be changed or deleted) and in 'proposed text' (underline additions and changes proposed). Attach a separate sheet if necessary.																																																	
<p><b>71.50.1 Course Requirements (BEng in Building Engineering)</b></p> <p>The program in Building Engineering consists of the Engineering Core, the Building Engineering Core, and one of the options listed below. The normal length of the program is 119 credits.</p> <p><b>Engineering Core for Building Engineering (29 credits)*</b> See <a href="#">§71.20.5</a>. Students in BEng (Bldg) must successfully complete BLDG 482 instead of ENGR 392. *Note: The Engineering Core credits for students in the Building Engineering program are reduced from 30.5 credits to 29 credits since Building Engineering students are not required to take ENGR 202 (1.5 credits) in their program.</p> <p><b>Building Engineering Core</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 15%;">BCEE 231</td><td>Structured Programming and Applications for Building and Civil Engineers</td></tr> <tr><td>BCEE 342</td><td>Structural Analysis I</td></tr> <tr><td>BCEE 344</td><td>Structural Design of Steel and Wood Elements</td></tr> <tr><td>BCEE 345</td><td>Structural Design of Reinforced Concrete Elements</td></tr> <tr><td>BCEE 371*</td><td>Surveying</td></tr> <tr><td>BCEE 451</td><td>Construction Engineering</td></tr> <tr><td>BLDG 212</td><td>Building Engineering Drawing and Introduction to Design</td></tr> <tr><td>BLDG 341</td><td>Building Engineering Systems</td></tr> <tr><td>BLDG 365</td><td>Building Science</td></tr> <tr><td>BLDG 371</td><td>Building Service Systems</td></tr> <tr><td>BLDG 390</td><td>Building Engineering Design Project</td></tr> <tr><td><del>BLDG 432</del></td><td><del>Geology and Soil Mechanics</del></td></tr> </table>	BCEE 231	Structured Programming and Applications for Building and Civil Engineers	BCEE 342	Structural Analysis I	BCEE 344	Structural Design of Steel and Wood Elements	BCEE 345	Structural Design of Reinforced Concrete Elements	BCEE 371*	Surveying	BCEE 451	Construction Engineering	BLDG 212	Building Engineering Drawing and Introduction to Design	BLDG 341	Building Engineering Systems	BLDG 365	Building Science	BLDG 371	Building Service Systems	BLDG 390	Building Engineering Design Project	<del>BLDG 432</del>	<del>Geology and Soil Mechanics</del>	<p><b>71.50.1 Course Requirements (BEng in Building Engineering)</b></p> <p>The program in Building Engineering consists of the Engineering Core, the Building Engineering Core, and one of the options listed below. The normal length of the program is 119 credits.</p> <p><b>Engineering Core for Building Engineering (29 credits)*</b> See <a href="#">§71.20.5</a>. Students in BEng (Bldg) must successfully complete BLDG 482 instead of ENGR 392. *Note: The Engineering Core credits for students in the Building Engineering program are reduced from 30.5 credits to 29 credits since Building Engineering students are not required to take ENGR 202 (1.5 credits) in their program.</p> <p><b>Building Engineering Core</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 15%;">BCEE 231</td><td>Structured Programming and Applications for Building and Civil Engineers</td></tr> <tr><td>BCEE 342</td><td>Structural Analysis I</td></tr> <tr><td>BCEE 344</td><td>Structural Design of Steel and Wood Elements</td></tr> <tr><td>BCEE 345</td><td>Structural Design of Reinforced Concrete Elements</td></tr> <tr><td>BCEE 371*</td><td>Surveying</td></tr> <tr><td><u>BCEE 432</u></td><td><u>Soil Mechanics</u></td></tr> <tr><td>BCEE 451</td><td>Construction Engineering</td></tr> <tr><td>BLDG 212</td><td>Building Engineering Drawing and Introduction to Design</td></tr> <tr><td>BLDG 341</td><td>Building Engineering Systems</td></tr> <tr><td>BLDG 365</td><td>Building Science</td></tr> <tr><td>BLDG 371</td><td>Building Service Systems</td></tr> <tr><td>BLDG 390</td><td>Building Engineering Design Project</td></tr> </table>	BCEE 231	Structured Programming and Applications for Building and Civil Engineers	BCEE 342	Structural Analysis I	BCEE 344	Structural Design of Steel and Wood Elements	BCEE 345	Structural Design of Reinforced Concrete Elements	BCEE 371*	Surveying	<u>BCEE 432</u>	<u>Soil Mechanics</u>	BCEE 451	Construction Engineering	BLDG 212	Building Engineering Drawing and Introduction to Design	BLDG 341	Building Engineering Systems	BLDG 365	Building Science	BLDG 371	Building Service Systems	BLDG 390	Building Engineering Design Project
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BLDG 463	Building Envelope Design	BLDG 463	Building Envelope Design
BLDG 471	HVAC System Design	BLDG 471	HVAC System Design
BLDG 476	Thermal Analysis of Buildings	BLDG 476	Thermal Analysis of Buildings
BLDG 490	Capstone Building Engineering Design Project**	BLDG 490	Capstone Building Engineering Design Project**
CIVI 321	Engineering Materials	CIVI 321	Engineering Materials
ENGR 242	Statics	ENGR 242	Statics
ENGR 243	Dynamics	ENGR 243	Dynamics
ENGR 244	Mechanics of Materials	ENGR 244	Mechanics of Materials
ENGR 251	Thermodynamics I	ENGR 251	Thermodynamics I
ENGR 311	Transform Calculus and Partial Differential Equations	ENGR 311	Transform Calculus and Partial Differential Equations
ENGR 361	Fluid Mechanics I	ENGR 361	Fluid Mechanics I
<p><b>Rationale:</b> BLDG 432 will be replaced by BCEE 432.</p> <p><b>Resource Implications:</b> None.</p>			

\* Please attach supporting memos (Department, Faculty, Faculty Council, GCC, CSGS)

**DOSSIER TITLE: 2022-2023 BCEE Undergraduate Changes**

**DESCRIPTION OF CHANGE: 71.50.2 Course Requirements (BEng in Civil Engineering)**

**PROGRAM CHANGE - CALENDAR UPDATE FORM** – (please fill in all the appropriate information)

Proposed  Undergraduate or  Graduate Curriculum Changes

**Calendar for Academic Year:** 2022/2023

**Implementation Month/Year:** May 2022

**Faculty:** Gina Cody School of Engineering and Computer Science **Department:** Building, Civil and Environmental Engineering

**Program:** Civil Engineering

**Degree:** BEng

**Section Title:** 71.50.2

**Type of Change:** (please fill in all the appropriate boxes with an “X”) **A separate form is required for each change.**

Editorial  Requirements  Regulations

New Program  Program Deletion

Present Text (Text from 20__ – 20__ Calendar)	Proposed Text																																																																								
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<p><b>71.50.2 Course Requirements (BEng in Civil Engineering)</b></p> <p>The program in Civil Engineering consists of the Engineering Core, the Civil Engineering Core, and one of the options listed below. The normal length of the program is 119 credits.</p> <p><b>Engineering Core</b> (30.5 credits)</p> <p><b>Civil Engineering Core</b></p> <table border="0"> <tr><td>BCEE 231</td><td>Structured Programming and Applications for Building and Civil Engineers</td></tr> <tr><td>BCEE 342</td><td>Structural Analysis I</td></tr> <tr><td>BCEE 343</td><td>Structural Analysis II</td></tr> <tr><td>BCEE 344</td><td>Structural Design of Steel and Wood Elements</td></tr> <tr><td>BCEE 345</td><td>Structural Design of Reinforced Concrete Elements</td></tr> <tr><td>BCEE 371*</td><td>Surveying</td></tr> <tr><td>BCEE 451</td><td>Construction Engineering</td></tr> <tr><td>CIVI 212</td><td>Civil Engineering Drawing and Introduction to Design</td></tr> <tr><td>CIVI 231</td><td>Geology for Civil Engineers</td></tr> <tr><td>CIVI 321</td><td>Engineering Materials</td></tr> <tr><td>CIVI 341</td><td>Civil Engineering Systems</td></tr> <tr><td>CIVI 361</td><td>Introduction to Environmental Engineering</td></tr> <tr><td>CIVI 372</td><td>Transportation Engineering</td></tr> <tr><td>CIVI 381</td><td>Hydraulics</td></tr> <tr><td>CIVI 390</td><td>Civil Engineering Design Project</td></tr> <tr><td><del>CIVI 432</del></td><td><del>Soil Mechanics</del></td></tr> <tr><td>CIVI 490</td><td>Capstone Civil Engineering Design Project**</td></tr> <tr><td>ENGR 242</td><td>Statics</td></tr> </table>	BCEE 231	Structured Programming and Applications for Building and Civil Engineers	BCEE 342	Structural Analysis I	BCEE 343	Structural Analysis II	BCEE 344	Structural Design of Steel and Wood Elements	BCEE 345	Structural Design of Reinforced Concrete Elements	BCEE 371*	Surveying	BCEE 451	Construction Engineering	CIVI 212	Civil Engineering Drawing and Introduction to Design	CIVI 231	Geology for Civil Engineers	CIVI 321	Engineering Materials	CIVI 341	Civil Engineering Systems	CIVI 361	Introduction to Environmental Engineering	CIVI 372	Transportation Engineering	CIVI 381	Hydraulics	CIVI 390	Civil Engineering Design Project	<del>CIVI 432</del>	<del>Soil Mechanics</del>	CIVI 490	Capstone Civil Engineering Design Project**	ENGR 242	Statics	<p><b>71.50.2 Course Requirements (BEng in Civil Engineering)</b></p> <p>The program in Civil Engineering consists of the Engineering Core, the Civil Engineering Core, and one of the options listed below. The normal length of the program is 119 credits.</p> <p><b>Engineering Core</b> (30.5 credits)</p> <p><b>Civil Engineering Core</b></p> <table border="0"> <tr><td>BCEE 231</td><td>Structured Programming and Applications for Building and Civil Engineers</td></tr> <tr><td>BCEE 342</td><td>Structural Analysis I</td></tr> <tr><td>BCEE 343</td><td>Structural Analysis II</td></tr> <tr><td>BCEE 344</td><td>Structural Design of Steel and Wood Elements</td></tr> <tr><td>BCEE 345</td><td>Structural Design of Reinforced Concrete Elements</td></tr> <tr><td>BCEE 371*</td><td>Surveying</td></tr> <tr><td><u>BCEE 432</u></td><td><u>Soil Mechanics</u></td></tr> <tr><td>BCEE 451</td><td>Construction Engineering</td></tr> <tr><td>CIVI 212</td><td>Civil Engineering Drawing and Introduction to Design</td></tr> <tr><td>CIVI 231</td><td>Geology for Civil Engineers</td></tr> <tr><td>CIVI 321</td><td>Engineering Materials</td></tr> <tr><td>CIVI 341</td><td>Civil Engineering Systems</td></tr> <tr><td>CIVI 361</td><td>Introduction to Environmental Engineering</td></tr> <tr><td>CIVI 372</td><td>Transportation Engineering</td></tr> <tr><td>CIVI 381</td><td>Hydraulics</td></tr> <tr><td>CIVI 390</td><td>Civil Engineering Design Project</td></tr> <tr><td>CIVI 490</td><td>Capstone Civil Engineering Design Project**</td></tr> <tr><td>ENGR 242</td><td>Statics</td></tr> </table>	BCEE 231	Structured Programming and Applications for Building and Civil Engineers	BCEE 342	Structural Analysis I	BCEE 343	Structural Analysis II	BCEE 344	Structural Design of Steel and Wood Elements	BCEE 345	Structural Design of Reinforced Concrete Elements	BCEE 371*	Surveying	<u>BCEE 432</u>	<u>Soil Mechanics</u>	BCEE 451	Construction Engineering	CIVI 212	Civil Engineering Drawing and Introduction to Design	CIVI 231	Geology for Civil Engineers	CIVI 321	Engineering Materials	CIVI 341	Civil Engineering Systems	CIVI 361	Introduction to Environmental Engineering	CIVI 372	Transportation Engineering	CIVI 381	Hydraulics	CIVI 390	Civil Engineering Design Project	CIVI 490	Capstone Civil Engineering Design Project**	ENGR 242	Statics
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<p><b>Rationale:</b> BLDG 432 will be replaced by BCEE 432.</p> <p><b>Resource Implications:</b> None.</p>			

\* Please attach supporting memos (Department, Faculty, Faculty Council, GCC, CSGS)

**DOSSIER TITLE:** 2022-2023 BCEE Undergraduate Changes

**COURSE NUMBER:** BCEE 432

**NEW COURSE NUMBER:**

**COURSE CHANGE - CALENDAR UPDATE FORM – A** (please fill in all the appropriate information)

Proposed  Undergraduate or  Graduate Curriculum Changes

**Calendar for Academic Year:** 2022/2023

**Implementation Month/Year:** May 2022

**Faculty:** Gina Cody School of Engineering and Computer Science      **Department:** Building, Civil and Environmental Engineering

**Program:** Building Engineering and Civil Engineering      **Degree:** B.Eng      **Section Title:** 71.60

**Type of Change:** (please fill in all the appropriate boxes with an “X”) **A separate form is required for each change.**

- |  |  |  |  |   |
|--|--|--|--|---|
| <input type="checkbox"/> Course Number | <input type="checkbox"/> Course Title                  | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite    | <input type="checkbox"/> Course Description |
| <input type="checkbox"/> Editorial     | <input type="checkbox"/> Other - <u>Specify: _____</u> | <input checked="" type="checkbox"/> New Course | <input type="checkbox"/> Course Deletion |   |

<b>Present Text</b> (Text from 2018 – 2019 Calendar)	<b>Proposed Text</b>
Paste description from current calendar in 'present text' ( <del>strike-out text sections to be changed or deleted</del> ) and in 'proposed text' ( <u>underline additions and changes proposed</u> ). Attach a separate sheet if necessary.	
	<p><b>BCEE 432 Soil Mechanics (3.5 credits)</b></p> <p><b>Prerequisite:</b> The following course must be completed previously: ENGR 244.</p> <p><b>Description:</b> This course covers the geological origin of soils, basic principles of physical geology with emphasis on topics related to soil mechanics; definition of the index properties and classification of soils and weight-volume relationships; the characterization of soils structure and moisture-density relationships; the definition of permeability, deformation, and strength of soils; the principle of total and effective stresses as related to soils; the characterization of steady stage seepage through isotropic soil media; the analysis of stress distribution due to external loads and evaluation of total settlements; brief outline of theory of consolidation; introduction to the fundamentals of stability of earth retaining walls, slopes, and footings.</p> <p>Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.</p>
<p><b>Rationale:</b> This course unifies CIVI 432 and BLDG 432 in order to ensure BLDG and CIVI students have the background to register for CIVI 435: Foundation Design.</p> <p><b>Resource Implications:</b> None. Course will be part of faculty member course load. Course will use existing Soil Mechanics laboratory</p> <p><b>Other Programs within which course is listed:</b> None.</p>	

\* Please attach supporting memos (Department, Faculty, Faculty Council, GCC, CS GS)



**DOSSIER TITLE: 2022-2023 BCEE Undergraduate Changes**

**COURSE NUMBER: BLDG 432**

**NEW COURSE NUMBER:**

**COURSE CHANGE - CALENDAR UPDATE FORM – A** (please fill in all the appropriate information)

Proposed  Undergraduate or  Graduate Curriculum Changes

**Calendar for Academic Year: 2022/2023**

**Implementation Month/Year: May 2022**

**Faculty: Gin a Cody School of Engineering and Computer Science**      **Department: Building, Civil and Environmental Engineering**

**Program: Building Engineering**

**Degree: B.Eng**

**Section Title: 71.60**

**Type of Change:** (please fill in all the appropriate boxes with an “X”) **A separate form is required for each change.**

Course Number

Course Title

Credit Value

Prerequisite

Course Description

Editorial

Other - Specify: \_\_\_\_\_

New Course

Course Deletion

<b>Present Text</b> (Text from 2018 – 2019 Calendar)	<b>Proposed Text</b>
Paste description from current calendar in 'present text' ( <del>strike-out text sections to be changed or deleted</del> ) and in 'proposed text' ( <u>underline additions and changes proposed</u> ). Attach a separate sheet if necessary.	
<p><del>BLDG 432 Geology and Soil Mechanics (3.5 credits)- Prerequisite: ENGR 244. Basic principles of physical geology are covered, with emphasis on topics related to soil mechanics. Furthermore, this course covers the study of minerals, index properties and classification of soils, weight volume relationships, soil structures and moisture density relationships. Permeability, deformation, and strength of soils, principle of total and effective stresses, steady state seepage through isotropic soil media, stress distribution due to external loads and analysis of total settlements, and outline of theory of consolidation are covered. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks</del></p>	
<p><b>Rationale:</b> This course will be replaced by BCEE 432.</p> <p><b>Resource Implications:</b> None.</p> <p><b>Other Programs within which course is listed:</b> None.</p>	

\* Please attach supporting memos (Department, Faculty, Faculty Council, GCC, CSGS)

**DOSSIER TITLE: 2022-2023 BCEE Undergraduate Changes****COURSE NUMBER: BLDG 462****NEW COURSE NUMBER:****COURSE CHANGE - CALENDAR UPDATE FORM – A** (please fill in all the appropriate information)Proposed  Undergraduate or  Graduate Curriculum Changes

Calendar for Academic Year: 2022/2023

Implementation Month/Year: May 2022

Faculty: Gina Cody School of Engineering and Computer Science Department: Building, Civil and Environmental Engineering

Program: Building Engineering

Degree: B.Eng

Section Title: 71.60

Type of Change: (please fill in all the appropriate boxes with an "X") A separate form is required for each change.

 Course Number Course Title Credit Value Prerequisite Course Description Editorial Other - Specify: \_\_\_\_\_ New Course Course Deletion

Present Text (Text from 2019 – 2020 Calendar)	Proposed Text
Paste description from current calendar in 'present text' (strike-out text sections to be changed or deleted) and in 'proposed text' (underline additions and changes proposed). Attach a separate sheet if necessary.	
<p><b>BLDG 462 <del>Modern</del> Building Materials (3 credits)</b>  <b>Prerequisite:</b> The following course must be completed previously: CIVI 321  <b>Description:</b> <del>Engineering properties of building materials such as: plastics, synthetic fibres, adhesives, sealants, caulking compounds, foams, sandwich panels, composites, polymer concrete systems, fibre-reinforced-concreted, plastics mortars, polymers for flooring, roofing, synthetic wall papers. Their structural, thermal, and acoustical properties. Consideration of corrosion, bio and thermal degradation, stability to ultraviolet and solar radiation. Laboratory sessions to illustrate synthesis, application, testing, deterioration, and protection.</del>  Lectures three hours per week.</p>	<p><b>BLDG 462 <u>Non-structural</u> Building Materials (3 credits)</b>  <b>Prerequisite:</b> The following course must be completed previously: CIVI 321.  <b>Description:</b> <u>This course covers the mechanical, thermal and of non-traditional building materials are discussed, such as: plastics, fibres, adhesives, sealants and coatings, plastic cellular foams, sandwich panels, composites, polymer and fibre-reinforced mortars, polymer and polymer composite membranes, water resistive membrane and air and vapour control barriers. The degradation of materials is introduced including the effects of actions due to corrosion, biological agents, heat and solar radiation, and thermal dilation. The application of materials and building products in buildings is demonstrated through the use of specifications, their performance assessment by testing, and relation to the building code.</u>  Lectures three hours per week.</p>
<p><b>Rationale:</b> To match BLDG 462 with recently revised outline of graduate cross-listed equivalent BLDG6621.</p> <p><b>Resource Implications:</b> There are no resource implications.</p> <p><b>Other Programs within which course is listed:</b> None.</p>	

\* Please attach supporting memos (Department, Faculty, Faculty Council, GCC, CSGS)

**DOSSIER TITLE: 2022-2023 BCEE Undergraduate Changes**

**COURSE NUMBER: CIVI 390**

**NEW COURSE NUMBER:**

**COURSE CHANGE - CALENDAR UPDATE FORM – A** (please fill in all the appropriate information)

Proposed  Undergraduate or  Graduate Curriculum Changes

**Calendar for Academic Year:** 2022/2023

**Implementation Month/Year:** May 2022

**Faculty:** Gina Cody School of Engineering and Computer Science      **Department:** Building, Civil and Environmental Engineering

**Program:** Civil Engineering and Building Engineering      **Degree:** B.Eng      **Section Title:** 71.60

**Type of Change:** (please fill in all the appropriate boxes with an “X”) **A separate form is required for each change.**

- |  |   |                                       |  |   |
|--|---|---------------------------------------|--|---|
| <input type="checkbox"/> Course Number | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value | <input checked="" type="checkbox"/> Prerequisite | <input type="checkbox"/> Course Description |
| <input type="checkbox"/> Editorial     | <input type="checkbox"/> Other - Specify: |                                       | <input type="checkbox"/> New Course              | <input type="checkbox"/> Course Deletion    |

Present Text (Text from 20__ - 20__ Calendar)	Proposed Text
Paste description from current calendar in 'present text' ( <del>strike out text sections to be changed or deleted</del> ) and in 'proposed text' ( <u>underline additions and changes proposed</u> ). Attach a separate sheet if necessary.	
<p><b>CIVI 390 Civil Engineering Design Project (3.5 credits)</b>  <b>Prerequisite:</b> The following course must be completed previously ENCS 282. The following courses must be completed previously or concurrently: CIVI 361; BCEE 344 <del>or</del> 345.  <b>Description:</b> The project of each team <del>will</del> encompass the various stages of design of a medium-size civil engineering project. Students learn civil engineering design process, methodology, identification of objectives, codes, formulation of design problems, and estimation of loads on structures. The topics of design include the development and evaluation of sustainable design alternatives; and the computer-aided design tools. Additionally, performance evaluation using modelling, sensitivity analysis, and cost estimation is presented.                      Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.</p>	<p><b>CIVI 390 Civil Engineering Design Project (3.5 credits)</b>  <b>Prerequisite:</b> The following course must be completed previously ENCS 282. The following courses must be completed previously or concurrently: CIVI 361; BCEE 344 <u>and</u> 345.  <b>Description:</b> The project of each team <u>encompasses</u> the various stages of design of a medium-size civil engineering project. Students learn civil engineering design process, methodology, identification of objectives, codes, formulation of design problems, and estimation of loads on structures. The topics of design include the development and evaluation of sustainable design alternatives; and the computer-aided design tools. Additionally, performance evaluation using modelling, sensitivity analysis, and cost estimation is presented.                      Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.</p>
<p><b>Rationale:</b> To ensure students acquire required knowledge as they undertake CIVI 390</p> <p><b>Resource Implications:</b> None</p> <p><b>Other Programs within which course is listed:</b> None.</p>	

\* Please attach supporting memos (Department, Faculty, Faculty Council, GCC, CSGS)

**DOSSIER TITLE: 2022-2023 BCEE Undergraduate Changes**

**COURSE NUMBER: CIVI 432**

**NEW COURSE NUMBER:**

**COURSE CHANGE - CALENDAR UPDATE FORM – A** (please fill in all the appropriate information)

Proposed  Undergraduate or  Graduate Curriculum Changes

**Calendar for Academic Year: 2022/2023**

**Implementation Month/Year: May 2022**

**Faculty: Gina Cody School of Engineering and Computer Science**      **Department: Building, Civil and Environmental Engineering**

**Program: Civil Engineering**      **Degree: B.Eng**      **Section Title: 71.60**

**Type of Change:** (please fill in all the appropriate boxes with an “X”) **A separate form is required for each change.**

- |  |  |                                       |   |   |
|--|--|---------------------------------------|---|---|
| <input type="checkbox"/> Course Number | <input type="checkbox"/> Course Title                  | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite               | <input type="checkbox"/> Course Description |
| <input type="checkbox"/> Editorial     | <input type="checkbox"/> Other - <u>Specify: _____</u> | <input type="checkbox"/> New Course   | <input checked="" type="checkbox"/> Course Deletion |   |

<b>Present Text</b> (Text from 2018 – 2019 Calendar)	<b>Proposed Text</b>
Paste description from current calendar in 'present text' ( <del>strike-out text sections to be changed or deleted</del> ) and in 'proposed text' ( <u>underline additions and changes proposed</u> ). Attach a separate sheet if necessary.	
<p><b>CIVI 432 Soil Mechanics (3.5 credits)</b>  <del>Prerequisite: ENGR 244. Index properties and classification of soils. Weight volume relationships. Soil structures. Moisture density relationships. Permeability, deformation, and strength of soils. Principle of total and effective stresses. Steady state seepage through isotropic soil media. Stress distribution due to external loads and analysis of total settlements. Outline of theory of consolidation. Fundamentals of stability of earth retaining walls, slopes, and footings. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.</del></p>	
<p><b>Rationale:</b> This course will be replaced by BCEE 432.</p> <p><b>Resource Implications:</b> None.</p> <p><b>Other Programs within which course is listed:</b> None.</p>	

\* Please attach supporting memos (Department, Faculty, Faculty Council, GCC, CSGS)

**DOSSIER TITLE: 2022-2023 BCEE Undergraduate Changes**

**COURSE NUMBER: CIVI 435**

**NEW COURSE NUMBER:**

**COURSE CHANGE - CALENDAR UPDATE FORM – A** (please fill in all the appropriate information)

Proposed  Undergraduate or  Graduate Curriculum Changes

**Calendar for Academic Year:** 2022/2023

**Implementation Month/Year:** May 2022

**Faculty:** Gina Cody School of Engineering and Computer Science      **Department:** Building, Civil and Environmental Engineering

**Program:** Civil Engineering      **Degree:** B.Eng      **Section Title:** 71.60

**Type of Change:** (please fill in all the appropriate boxes with an “X”) **A separate form is required for each change.**

- |   |  |                                       |  |   |
|---|--|---------------------------------------|--|---|
| <input type="checkbox"/> Course Number        | <input type="checkbox"/> Course Title                  | <input type="checkbox"/> Credit Value | <input checked="" type="checkbox"/> Prerequisite | <input type="checkbox"/> Course Description |
| <input checked="" type="checkbox"/> Editorial | <input type="checkbox"/> Other - <u>Specify: _____</u> | <input type="checkbox"/> New Course   | <input type="checkbox"/> Course Deletion         |   |

Present Text (Text from 2018 – 2019 Calendar)	Proposed Text
Paste description from current calendar in 'present text' ( <del>strike-out text sections to be changed or deleted</del> ) and in 'proposed text' ( <u>underline additions and changes proposed</u> ). Attach a separate sheet if necessary.	
<p>CIVI 435 Foundation Design (3 credits)  <b>Prerequisite:</b> The following course must be completed previously: <del>CIVI</del> 432.  <b>Description:</b> Site investigation. Shallow and deep foundations. Bearing capacity and settlement of foundations. Earth-retaining structures, sheet piles, cofferdams, anchors. Foundations subjected to dynamic loading. Foundations on difficult soils, soil improvement and underpinning.                      Lectures: three hours per week. Tutorial: two hours per week.</p>	<p>CIVI 435 Foundation Design (3 credits)  <b>Prerequisite:</b> The following course must be completed previously: <u>BCEE</u> 432.  <b>Description:</b> <u>This course covers the following:</u> site investigation; shallow and deep foundations; bearing capacity and settlement of foundations; earth-retaining structures; sheet piles; cofferdams; anchors; foundations subjected to dynamic loading; foundations on difficult soils; soil improvement and underpinning.                      Lectures: three hours per week. Tutorial: two hours per week.</p>
<p><b>Rationale:</b> CIVI 432 will be replaced by BCEE 432.</p> <p><b>Resource Implications:</b> None.</p> <p><b>Other Programs within which course is listed:</b> None.</p>	

\* Please attach supporting memos (Department, Faculty, Faculty Council, GCC, CSGS)

	<b>Concordia University</b>		
	Department of Building, Civil and Environmental Engineering		
	<b>BCEE 432 Soil Mechanics</b>		
		Fall 2022	
Instructor:	XXXX		
	XXX		
Office Hours:			
Lectures:			
Tutorials:			
Labs:	See online schedule, all labs will be in H-0015		
Required	B. M. Das, <b>Fundamentals</b> of Geotechnical Engineering, 5 <sup>th</sup> Ed.		
Book:	Also, for those who think they can benefit, the use of MindTap addition should be purchased.		

**Course Description:**

The geological origin of soils, basic principles of physical geology with emphasis on topics related to soil mechanics. Index properties and classification of soils. Weight-volume relationships. Soil structures. Moisture-density relationships. Permeability, deformation, and strength of soils. Principle of total and effective stresses. Steady stage seepage through isotropic soil media. Stress distribution due to external loads and analysis of total settlements. Outline of theory of consolidation. Fundamentals of stability of earth retaining walls and footings.

<b>Course Outline:</b>	Attribute
Introduction, basic principles of physical geology	A1
Ch. 2 - Soil Deposits - Geological Origin, Grain-Size and Shape	A3
Ch. 3 - Weight-Volume Relationships and Plasticity	A1, A2
Ch. 4 - Soil Classification	A3, A4
Ch. 6- Hydraulic Conductivity	A1, A2
Ch. 7- Seepage	A1, A2
Ch. 8- Stresses in Soil Mass	A2, A4
Ch. 9- Consolidation	A3
Ch. 10- Shear Strength of Soil	A2, A4
Ch. 14- Lateral Earth Pressure	A2
Ch. 16- Introduction to footings	A2

<b>Marking Scheme:</b>			
Lab Reports	15%	Attrib: A3, A5, A6	
Midterm	35% Close book (on Oct. 20, during tutorial)	Attrib: A1, A2,	A4
Final	50% Close book	Attrib: A1, A2,	A4, A5

**Notes:** In order to pass the course you must pass the final with at least a 50% and attend all labs and submit all lab reports.

The completed and signed originality sheet must be attached to your first lab report. Without it, the submission is automatically rejected, requiring re-submittal and incurring late penalty.

Schedule of experiments:

Laboratory Session	Experiment Number - in Lab Manual	
1	2	(Specific Gravity of Soil Solids & Compaction Test)
2	1	(Consistency Limits)
3	4	(Permeability Test)
4	6	(Direct Shear Test)
5	7	(Unconfined Compression Test)

- You must attend all your labs.
- You must submit an original lab report for each lab experiment attended. You are not allowed to submit lab reports for labs you have not attended.
- You have to attend the lab section that you are assigned to, no switching, no exceptions unless with my permission.

**Late fees:** Any late submission is penalized at a rate of 10%/day up to 100%.

**Attributes:** The attributes associated with this course are *knowledge base for engineering , problem analysis, investigation, use of engineering tools, communication skills and lifelong learning*. These attributes will be taught, practiced and evaluated as follows:

**A1 - A knowledge base for engineering:** Demonstrated competence in university level mathematics, natural sciences, engineering fundamentals, and specialized engineering knowledge appropriate to the program.

*Indicators:*

- Knowledge-base of mathematics
- Knowledge-base of natural science

**A2 - Problem analysis:** An ability to use appropriate knowledge and skills to identify, formulate, analyze, and solve complex engineering problems in order to reach substantiated conclusions.

*Indicators:*

- Problem identification and formulation
- Modeling
- Problem solving
- Analysis (uncertainty and incomplete knowledge)

**A3 - Investigation:** An ability to conduct investigations of complex problems by methods that include appropriate experiments, analysis and interpretation of data, and synthesis of information in order to reach valid conclusions.

*Indicators:*

- Background and Hypothesis Formulation
- Designing Experiments
- Conducting Experiments and Collection of Data
- Analysis and Interpretation of Data

**A4 - Use of engineering tools:** An ability to create, select, apply, adapt, and extend appropriate techniques, resources, and modern engineering tools to a range of engineering activities, from simple to complex, with an understanding of the associated limitations. Note: Programs should identify a list of essential tools and which courses cover their use.

*Indicators:*



- Ability to use appropriate engineering tools, techniques and resources
- Ability to select appropriate tools, techniques, and resources
- Demonstrate awareness of limitations of tools, create and extend tools as necessary

**A5 - Communication skills:** An ability to communicate complex engineering concepts within the profession and with society at large. Such ability includes reading, writing, speaking and listening, and the ability to comprehend and write effective reports and design documentation, and to give and effectively respond to clear instructions.

*Indicators:*

- Writing Process
- Research Methods
- Documentation

**A6 - Life-long learning:** An ability to identify and to address their own educational needs in a changing world in ways sufficient to maintain their competence and to allow them to contribute to the advancement of knowledge.

*Indicators:*

- Identifying missing knowledge and learning opportunities
- Continuous improvement and self-learning

### **Course Learning Outcomes:**

Upon successful completion of this course, students will be able to:

- Identify the geological origin of soils and determine their classification
- Set up models and perform seepage calculations
- Compute the state of stress in a soil mass
- Assess the consolidation and settlement of soils
- Evaluate the shear strength of soils
- Carry out slope stability assessments
- Perform related laboratory experiments, as outlined above.

**Notes:** In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.



**GINA CODY**  
SCHOOL OF ENGINEERING  
AND COMPUTER SCIENCE

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**INTERNAL MEMORANDUM**

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**TO:** Dr. Sandra Gabriele, Vice- Provost, Innovation in Teaching and Learning

**FROM:** Dr. M. Debbabi, Dean; Chair, GCS Council

**DATE:** October 27, 2021

**RE:** Changes to the undergraduate programs in the CSE Department

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Please find attached the curriculum changes for the undergraduate programs in the Department of Computer Science and Software Engineering. The department proposes to modify the prerequisite of SOEN 387 (Web-Based Enterprise Application Design) and its description with full sentences. There is no resource implication required for this proposal.

This proposal passed the GCS Undergraduate Studies Committee on October 12, 2021 and will be presented to the GCS Council on November 5, 2021. I would be grateful if you could put it on the agenda of the next APC meeting.

## INTERNAL MEMORANDUM

TO: Ali Akgunduz, Associate Dean, Academic Programs, Faculty of Engineering and Computer Science

FROM: Dr. Lata Narayanan, Chair Department of Computer Science and Software Engineering

DATE: October 1, 2021

SUBJECT: Undergraduate curriculum changes.

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Please find attached the curriculum package COMP-361 for the Computer Science and Software Engineering (CSE) Department. These changes have been approved by the SOEN Curriculum Committee, as well as the Department Council on September 17, 2021.

### Summary

#### Overview of Changes

The changes in this package are summarized below.

#### Changes to Undergraduate Courses

**SOEN 387:** The proposed change is for the addition of SOEN 363 as an alternative prerequisite for SOEN 387.

**Rationale:** SOEN387 has COMP353 (Databases) as a prerequisite. SOEN363 (Data Systems for Software Engineers) has been recently added to the Software Engineering Core. As SOEN363 is covering all the necessary database material for SOEN387, it should be added as an alternate course pre-requisite.

**Resource Implications:** None.

We would be grateful if you could put this on the agenda of the next ENCS Undergraduate Studies Committee meeting.

**PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: GCS-COMP-361 v1**

**COURSE CHANGE:** Add alternate prerequisite to SOEN 387 Web-Based Enterprise Application Design

**COURSE NUMBER:** SOEN 387 Web-Based Enterprise Application Design

**NEW COURSE NUMBER:**

**Proposed**  Undergraduate or  Graduate Curriculum **Changes**

**Calendar for Academic Year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty:** Gina Cody School of Engineering and Computer Science  
**Department:** Computer Science and Software Engineering  
**Program:** Computer Science and Software Engineering  
**Degree:** BCompSc, BEng  
**Calendar Section :** Section 71.70.10 Course Descriptions

**Type of Change:**  Course Number  Description  Course Title  Credit Value  Prerequisite  Course  
 Editorial  New Course  Course Deletion  Other - Specify:

Present Text (Text from 2021 – 2022 Calendar)	Proposed Text
<p><b>SOEN 387</b> <i>Web-Based Enterprise Application Design</i> (3 credits)  <b>Prerequisite:</b> The following course must be completed previously or concurrently: COMP 353. The following courses must be completed previously: COMP 354 or SOEN 341; and SOEN 287.  <b>Description:</b> This course <del>covers the following topics:</del> Hypertext Transfer Protocol(HTTP); client/server and layered architectures for Web-based Enterprise Applications (WEA); Application, Presentation, Domain and Data Source design patterns; Java servlets and Java Server Pages, <del>and generating responses;</del> authentication, security and transaction processing; system-level testing of web applications.  <b>Component(s):</b> Lectures: three hours per week. Tutorial: one hour per week.</p>	<p><b>SOEN 387</b> <i>Web-Based Enterprise Application Design</i> (3 credits)  <b>Prerequisite:</b> The following course must be completed previously or concurrently: COMP 353 <u>or SOEN 363</u>. The following courses must be completed previously: COMP 354 or SOEN 341; and SOEN 287.  <b>Description:</b> This course <u>introduces</u> Hypertext Transfer Protocol (HTTP), <u>and</u> client/server and layered architectures for Web-based Enterprise Applications (WEA). <u>The course covers</u> Application, Presentation, Domain and Data Source design patterns. <u>Students will learn how to use</u> Java servlets and Java Server Pages. <u>The course also covers</u> authentication, security and transaction processing, <u>as well as</u> system-level testing of web applications.  <b>Component(s):</b> Lectures: three hours per week. Tutorial: one hour per week.</p>
<p><b>Rationale:</b>                      SOEN387 has COMP353 (Databases) as a prerequisite. SOEN363 (Data Systems for Software Engineers) has been added to the Software Engineering Core. As SOEN363 is covering all the necessary database material for SOEN387, it should be added as an alternate course pre-requisite.</p>	
<p><b>Resource Implications:</b>                      None. The course credit will be part of the faculty member's regular teaching load.</p>	
<p><b>Other Programs within which course is listed:</b></p>	



**GINA CODY**  
SCHOOL OF ENGINEERING  
AND COMPUTER SCIENCE

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### **INTERNAL MEMORANDUM**

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**TO:** Dr. Sandra Gabriele, Vice- Provost, Innovation in Teaching and Learning

**FROM:** Dr. M. Debbabi, Dean; Chair, GCS Council

**DATE:** October 27, 2021

**RE:** Changes to the undergraduate programs in the ECE Department

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Please find attached the curriculum changes for the undergraduate programs in the Department of Electrical and Computer Engineering. There is no resource implication required for this proposal. A summary of changes is listed as follows:

- Reduce the minimum number of required credits for the work term of non-coop students in Electrical and Computer Engineering programs from 75 to 60 to provide more flexibility in planning the work terms.
- Students are required to finish one Co-op work term or C.Edge work term before registering in ELEC 490 or COEN 490.

This proposal passed the GCS Undergraduate Studies Committee on September 14, 2021 and by the GCS Council on October 1, 2021. I would be grateful if you could put it on the agenda of the next APC meeting.

INTERNAL MEMORANDUM

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**DATE:** September 13, 2021

**TO:** Dr. A. Akgunduz, Associate Dean, Academic Programs Faculty  
Gina Cody School of Engineering and Computer Science

**FROM:** Dr. Wahab Hamou-Lhadj, Associate Chair, Undergraduate Studies, Department of  
Electrical and Computer Engineering

**SUBJECT: Undergraduate Curriculum Changes 2022**

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Please find enclosed the curriculum package Dossiers #122 for the undergraduate program submitted by the Department of Electrical and Computer Engineering.

These changes have been approved at the Department Undergraduate Studies Committee meeting held on September 13, 2021, I would be grateful if you could put this on the agenda of the next Gina Cody School of Engineering Undergraduate Studies Committee meeting.

### **Overview of Program Changes**

#### **Electrical Engineering**

Students in the Electrical Engineering program are required to complete at least one work term administered by either the CIADI (§71.10.9) or co-op (§71.10.8) offices. Only work terms undertaken after successfully completing 60 credits in the Electrical Engineering program would satisfy this requirement.

#### **Computer Engineering**

Students in the Computer Engineering program are required to complete at least one work term administered by either the CIADI (§71.10.9) or co-op (§71.10.8) offices. Only work terms undertaken after successfully completing 60 credits in the Computer Engineering program would satisfy this requirement.

### Overview of Course Changes

Item	Rationale	Resource Implications	Course Number	Course Deletion	Change of Title	Credit Value	Description	Note	Prerequisite
<b>COEN 490</b>	Students are required to finish one coop work term or C-Edge work term before registering in COEN 490. This will enable students using their industrial experience gained in the work term and apply it to their capstone project.	None							X
<b>ELEC 490</b>	Students are required to finish one coop work term or C-Edge work term before registering in ELEC 490. This will enable students using their industrial experience gained in the work term and apply it to their capstone project.	None							X

### Overview of Program Changes

Item	Rationale	Resource Implications
71.30.2 <b>Computer Engineering</b> 1. Course Requirements changes	Lowering the minimum number of required credits for the work term of non-coop students (C-Edge Students) to 60 provides more flexibility in planning the work terms. Moreover, it is not required to have COEN 390 as pre-requisite since without these pre-requisites proper work terms for students could be arranged.	None

### Overview of Program Changes

Item	Rationale	Resource Implications
71.30.1 <b>Electrical Engineering</b> 1. Course Requirements changes	Lowering the minimum number of required credits for the work term of non-coop students (C-Edge Students) to 60 provides more flexibility in planning the work terms. Moreover, it is not required to have ELEC390 as pre-requisite since without these pre-requisites proper work terms for students could be arranged.	None

**PROGRAM CHANGE:** Electrical Engineering

**Faculty:** Engineering and Electrical Science

**Department:** Electrical and Computer Engineering

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023

**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science

**Department:** Department of Electrical and Computer Engineering

**Program:** Electrical Engineering

**Degree:** BEng

**Calendar Section/Graduate Page Number:** 71.30.1

**Type of Change:**

Editorial  Requirements  Regulations  Program Deletion  New Program

**Present Text** (Text from 2021-2022 Calendar)

**Proposed Text**

Paste description from current calendar in 'present text' (~~strike out text sections to be changed or deleted~~) and in 'proposed text' (underline additions and changes proposed). Attach a separate sheet if necessary.

**71.30.1 Course Requirements (BEng in Electrical Engineering)**

The program in Electrical Engineering consists of the Engineering Core, the Electrical Engineering Core, and Electives. The minimum length of the program is 120 credits. Students in the Electrical Engineering program are required to complete at least one work term administered by either the CIADI (§71.10.9) or co-op (§71.10.8) offices. Only work terms undertaken after successfully completing **75** credits in the Electrical Engineering program, ~~including ELEC-390~~, would satisfy this requirement. In order to fulfill the work term, students must successfully complete one of the courses managed through CIADI or the Institute for Co-operative Education. It should be noted that ultimately it is the responsibility of the student to find an approved work-term placement.

For information on co-op fees, see [concordia.ca/academics/co-op/students/fees](http://concordia.ca/academics/co-op/students/fees).

**71.30.1 Course Requirements (BEng in Electrical Engineering)**

The program in Electrical Engineering consists of the Engineering Core, the Electrical Engineering Core, and Electives. The minimum length of the program is 120 credits. Students in the Electrical Engineering program are required to complete at least one work term administered by either the CIADI (§71.10.9) or co-op (§71.10.8) offices. Only work terms undertaken after successfully completing **60** credits in the Electrical Engineering program would satisfy this requirement. In order to fulfill the work term, students must successfully complete one of the courses managed through CIADI or the Institute for Co-operative Education. It should be noted that ultimately it is the responsibility of the student to find an approved work-term placement.

For information on co-op fees, see [concordia.ca/academics/co-op/students/fees](http://concordia.ca/academics/co-op/students/fees).

**Rationale:** (You **must** give a brief justification for the above type of change.)

Lowering the minimum number of required credits for the work term of non-coop students (C.Edge Students) to 60 provides more flexibility in planning the work terms. Moreover, it is not required to have ELEC390 as pre-requisite since without this pre-requisite proper workterms for students could be arranged.

**Resource Implications:** (Indicate if software, special equipment, or space is required.)

*none*



**PROGRAM CHANGE:** Computer Engineering

**Faculty:** Engineering and Computer Science

**Department:** Electrical and Computer Engineering

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023

**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science

**Department:** Department of Electrical and Computer Engineering

**Program:** Computer Engineering

**Degree:** BEng

**Calendar Section/Graduate Page Number:** 71.30.2

**Type of Change:**

Editorial  Requirements  Regulations  Program Deletion  New Program

**Present Text** (Text from 2021-2022 Calendar)

**Proposed Text**

Paste description from current calendar in 'present text' (~~strike out text sections to be changed or deleted~~) and in 'proposed text' (underline additions and changes proposed). Attach a separate sheet if necessary.

**71.30.2 Course Requirements (BEng in Computer Engineering)**

The program in Computer Engineering consists of the Engineering Core, the Computer Engineering Core, and Electives. The minimum length of the program is 120 credits. Students in the Computer Engineering program are required to complete at least one work term administered by either the CIADI (§71.10.9) or co-op (§71.10.8) offices. Only work terms undertaken after successfully completing ~~75~~ credits in the Computer Engineering program, ~~including COEN 390~~, would satisfy this requirement. In order to fulfill the work term, students must successfully complete one of the courses managed through CIADI or the Institute for Co-operative Education. It should be noted that ultimately it is the responsibility of the student to find an approved work-term placement.

For information on co-op fees, see [concordia.ca/academics/co-op/students/fees](http://concordia.ca/academics/co-op/students/fees).

**71.30.2 Course Requirements (BEng in Computer Engineering)**

The program in Computer Engineering consists of the Engineering Core, the Computer Engineering Core, and Electives. The minimum length of the program is 120 credits. Students in the Computer Engineering program are required to complete at least one work term administered by either the CIADI (§71.10.9) or co-op (§71.10.8) offices. Only work terms undertaken after successfully completing 60 credits in the Computer Engineering program would satisfy this requirement. In order to fulfill the work term, students must successfully complete one of the courses managed through CIADI or the Institute for Co-operative Education. It should be noted that ultimately it is the responsibility of the student to find an approved work-term placement.

For information on co-op fees, see [concordia.ca/academics/co-op/students/fees](http://concordia.ca/academics/co-op/students/fees).

**Rationale:** (You **must** give a brief justification for the above type of change.)

Lowering the minimum number of required credits for the work term of non-coop students (C.Edge Students) to 60 provides more flexibility in planning the work terms. Moreover, it is not required to have COEN390 as pre-requisite since without this pre-requisite proper workterms for students could be arranged.

**Resource Implications:** (Indicate if software, special equipment, or space is required.)

*none*

**COURSE CHANGE – CALENDAR UPDATE FORM – A** *(please fill in all the appropriate information)*  
**Proposed  Undergraduate or  Graduate Curriculum Changes**

**Calendar for Academic Year: 2022-2023**  
**Implementation Month/Year: May 2022**

**Faculty:** Engineering and Computer Science

**Department:** Electrical and Computer Engineering

**Program:** Computer Engineering

**Degree:** B.Eng.

**Type of Change:** *(please fill in all the appropriate boxes with an "X")*

- |  |                                       |                                       |  |   |
|--|---------------------------------------|---------------------------------------|--|---|
| <input type="checkbox"/> Course Number | <input type="checkbox"/> Course Title | <input type="checkbox"/> Credit Value | <input checked="" type="checkbox"/> Prerequisite | <input type="checkbox"/> Course Description |
| <input type="checkbox"/> Editorial     | <input type="checkbox"/> Other –      | <input type="checkbox"/> New Course   | <input type="checkbox"/> Course Deletion         |   |

**Present Text** (Text from 2020-21 Calendar)

**Proposed Text**

Paste description from current calendar in 'present text' (~~strike out text sections to be changed or deleted~~) and in 'proposed text' (underline additions and changes proposed). Attach a separate sheet if necessary.

**COEN 490 Capstone Computer Engineering Design Project** (4 credits)  
**Prerequisite:** The following courses must be complete previously: ENGR 301, 371; COEN 390; SOEN 341. Students must complete a minimum of 75 credits in the BEng (Computer) prior to enrolling. If prerequisites are not satisfied, permission of the Department is required.

**Description:** Students are assigned to groups, and work together under faculty supervision to solve a complex interdisciplinary design problem — typically involving communications, control systems, electromagnetics, power electronics, software design, and/or hardware design. The project fosters teamwork between group members and allows students to develop their project management, technical writing, and technical presentation skills. Tutorial: one hour per week, two terms. Equivalent laboratory time: four hours per week, two terms.

*NOTE: All written documentation must follow the Concordia Form and Style guide. Students are responsible for obtaining this document before beginning the project.*

**COEN 490 Capstone Computer Engineering Design Project** (4 credits)  
**Prerequisite:** The following courses must be complete previously: ENGR 301, 371; COEN 390; SOEN 341. Students must complete a minimum of 75 credits in the BEng (Computer), as well as the C.Edge Workterm or one coop workterm prior to enrolling. If prerequisites are not satisfied, permission of the Department is required.

**Description:** Students are assigned to groups, and work together under faculty supervision to solve a complex interdisciplinary design problem — typically involving communications, control systems, electromagnetics, power electronics, software design, and/or hardware design. The project fosters teamwork between group members and allows students to develop their project management, technical writing, and technical presentation skills. Tutorial: one hour per week, two terms. Equivalent laboratory time: four hours per week, two terms.

*NOTE: All written documentation must follow the Concordia Form and Style guide. Students are responsible for obtaining this document before beginning the project.*

**Rationale:** (You **must** give a brief justification for the above type of change.)

Students are required to finish one coop workterm or the C.Edge workterm before registering in COEN 490. This will enable students using their industrial experience gained in the workterm and apply it to their capstone project.

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**Resource Implications:** (Indicate if software, special equipment, or space is required.)

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*None*

**Other Programs within which course is listed:** (Is this course shared with other Departments?)

*None*

**COURSE CHANGE – CALENDAR UPDATE FORM – A** *(please fill in all the appropriate information)*  
**Proposed  Undergraduate or  Graduate Curriculum Changes**

**Calendar for Academic Year: 2022-2023**  
**Implementation Month/Year: May 2022**

**Faculty:** Engineering and Computer Science

**Department:** Electrical and Computer Engineering

**Program:** Electrical Engineering

**Degree:** B.Eng.

**Type of Change:** *(please fill in all the appropriate boxes with an "X")*

- |  |                                       |                                       |  |   |
|--|---------------------------------------|---------------------------------------|--|---|
| <input type="checkbox"/> Course Number | <input type="checkbox"/> Course Title | <input type="checkbox"/> Credit Value | <input checked="" type="checkbox"/> Prerequisite | <input type="checkbox"/> Course Description |
| <input type="checkbox"/> Editorial     | <input type="checkbox"/> Other –      | <input type="checkbox"/> New Course   | <input type="checkbox"/> Course Deletion         |   |

Present Text (Text from 2020-21 Calendar)	Proposed Text
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Paste description from current calendar in 'present text' (~~strike-out text sections to be changed or deleted~~) and in 'proposed text' (underline additions and changes proposed). Attach a separate sheet if necessary.

**ELEC 490 Capstone Electrical Engineering Design Project** (4 credits)  
**Prerequisite:** The following courses must be completed previously: ENGR 301, 371; COEN 311; ELEC 342 or 364; ELEC 390. Students must complete a minimum of 75 credits in the BEng (Electrical) prior to enrolling. If prerequisites are not satisfied, permission of the Department is required.  
**Description:** Students are assigned to groups, and work together under faculty supervision to solve a complex interdisciplinary design problem — typically involving communications, control systems, electromagnetics, power electronics, software design, and/or hardware design. The project fosters teamwork between group members and allows students to develop their project management, technical writing, and technical presentation skills. Tutorial: one hour per week, two terms. Equivalent laboratory time: four hours per week, twoterms.  
*NOTE: All written documentation must follow the Concordia Form and Style guide. Students are responsible for obtaining this document before beginning the project.*

**ELEC 490 Capstone Electrical Engineering Design Project** (4 credits)  
**Prerequisite:** The following courses must be completed previously: ENGR 301, 371; COEN 311; ELEC 342 or 364; ELEC 390. Students must complete a minimum of 75 credits in the BEng (Electrical), as well as [the C.Edge Workterm or one coop workterm](#) prior to enrolling. If prerequisites are not satisfied, permission of the Department is required.  
**Description:** Students are assigned to groups, and work together under faculty supervision to solve a complex interdisciplinary design problem — typically involving communications, control systems, electromagnetics, power electronics, software design, and/or hardware design. The project fosters teamwork between group members and allows students to develop their project management, technical writing, and technical presentation skills. Tutorial: one hour per week, two terms. Equivalent laboratory time: four hours per week, two terms.  
*NOTE: All written documentation must follow the Concordia Form and Style guide. Students are responsible for obtaining this document before beginning the project.*

**Rationale:** (You **must** give a brief justification for the above type of change.)

Students are required to finish one coop workterm or the C.Edge workterm before registering in ELEC 490. This will enable students using their industrial experience gained in the workterm and apply it to their capstone project.

**Resource Implications:** (Indicate if software, special equipment, or space is required.)

*None*

**Other Programs within which course is listed:** (Is this course shared with other Departments?)

*None*



### INTERNAL MEMORANDUM

**TO:** Dr. Sandra Gabriele, Vice- Provost, Innovation in Teaching and Learning

**FROM:** Dr. M. Debbabi, Dean; Chair, GCS Council

**DATE:** October 27, 2021

**RE:** Changes to the undergraduate programs in the MIAE Department

Please find attached the curriculum changes for the undergraduate programs in the Department of Mechanical, Industrial and Aerospace Engineering. There is no resource implication required for this proposal. A summary of changes is listed as follows:

**Program Change:**

- Introduce a new elective MECH 451 - Renewable Energy: Fundamentals and Applications (3 credits) to the Mechanical Engineering program

**Course Change:**

Course	Type of Change			
	Course description	Prerequisite	New course	Exclusion notes
ENGR 391	x			
INDU 410		x		
INDU 411		x		
MECH 390		x		
MECH 414		x		
MECH 424		x		
MECH 425		x		
MECH 451			x	
MIAE 312				x

This proposal passed the GCS Undergraduate Studies Committee on April 30, 2021 and by the GCS Council on October 1, 2021. I would be grateful if you could put it on the agenda of the next APC meeting.

**INTERNAL MEMORANDUM**

**DATE:** April 23, 2021

**TO:** Dr. A. Akgunduz, Associate Dean, Academic Programs  
Faculty of Engineering and Computer Science

**FROM:** Dr. Martin Pugh, Chair,  
Department of Mechanical, Industrial and Aerospace Engineering

**SUBJECT:** **Mechanical and Industrial pre-requisite changes**

**Overview of Program Changes:**

Item	Details and/or Rationale	Resource Implications
<p><b>Mechanical Engineering</b></p> <p><b>ACTION(S):</b></p> <ul style="list-style-type: none"> <li>Editorial</li> </ul>	<ul style="list-style-type: none"> <li><b>Addition of MECH 451 Renewable Energy: Fundamentals and Applications as an elective course.</b></li> </ul> <p>A new course, MECH 451 Renewable Energy: Fundamentals and Applications, has been added to the list of technical electives.</p>	<p>There are no additional resource implications.</p>

**Overview of Course Changes:**

Item	Details and/or Rationale	Resource Implications
<p><b>All MIAE Programs:</b></p> <p><b>INDU 410</b> Safety Engineering, <b>INDU 411</b> Computer Integrated Manufacturing <b>MECH 390</b> Mechanical Engineering Design Project, <b>MECH 414</b> Computer Numerically Controlled Machining, <b>MECH 424</b> MEMS – Design and Fabrication, <b>MECH 425</b> Manufacturing of Composites</p> <p><b>ACTION(S):</b></p> <ul style="list-style-type: none"> <li>Prerequisite</li> </ul>	<p>When splitting the previous MIAE 311 course into MIAE311 and MIAE312 (Lab component), some courses had MIAE311 listed as a prerequisite or co-requisite but did not include MIAE312. We are now updating these courses to reflect the course split accordingly.</p> <p><b>These courses include MIAE 312 as a pre-requisite.</b></p> <ul style="list-style-type: none"> <li><b>INDU 411</b></li> <li><b>MECH 390</b></li> </ul> <p><b>These courses include MIAE 312 as a co-requisite.</b></p> <ul style="list-style-type: none"> <li><b>INDU 410</b></li> <li><b>MECH 414</b></li> </ul>	<p>There are no additional resource implications.</p>

	<ul style="list-style-type: none"> <li>• <b>MECH 424</b></li> <li>• <b>MECH 425</b></li> </ul>	
<p><b>All MIAE Programs:</b></p> <p><b>MIAE 312</b> Engineering Design and Manufacturing Processes Lab</p> <p><b>ACTION(S):</b></p> <ul style="list-style-type: none"> <li>• Course Description</li> </ul>	<p>We have added an exclusion note because students who took MECH 311 or MIAE 311 prior to Summer 2021, before the course was split into two components, have already completed these labs.</p>	<p>There are no additional resource implications.</p>
<p><b>All Engineering Programs:</b></p> <p><b>ENGR 391</b> Numerical Methods in Engineering</p> <p><b>ACTION(S):</b></p> <ul style="list-style-type: none"> <li>• Course Description</li> </ul>	<p>ENGR 391 has been developed as an online e-Concordia course and, as such, the contents of the course have been expanded to include error analysis and conditioning because these concepts are necessary when engineers have to select a numerical method and assess the validity of their solutions. Furthermore, since machine learning is becoming a more prominent technology in today's engineering work, the course now includes an introduction of the application of numerical methods in machine learning and data science. Finally, Octave and Matlab are introduced and the implementation of numerical methods and the assessment of the corresponding error using those two engineering tools are covered in detail.</p>	<p>There are no additional resource implications.</p>
<p><b>Mechanical and Industrial Engineering:</b></p> <p><b>MECH 451</b> Renewable Energy: Fundamentals and Applications</p> <p><b>ACTION(S):</b></p> <ul style="list-style-type: none"> <li>• New Course</li> </ul>	<p>Despite the worldwide growing interest in renewable energy systems, our students in the MECH program have not exposure to the fundamentals and applications of renewable energy systems. This course will be filling a gap in our curriculum.</p>	<p>This course will require a professor.</p>
<p><b>Mechanical and Industrial Engineering:</b></p> <p><b>MIAE 380</b> Product Design and Development</p> <p><b>ACTION(S):</b></p> <ul style="list-style-type: none"> <li>• Prerequisite</li> </ul>	<p>We are including ENCS 282 as a co-requisite as MIAE380 is a group project and technical communication is an asset.</p>	<p>There are no additional resource implications.</p>



**PROGRAM CHANGE:** New elective MECH 451**Proposed**  Undergraduate or  Graduate Curriculum Changes**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Mechanical, Industrial and Aerospace Engineering  
**Program:** Mechanical Engineering  
**Degree:** BEng  
**Calendar Section/Graduate Page Number:** 71.40.1**Type of Change:** Editorial       Requirements       Regulations       Program Deletion       New Program

<b>Present Text (from 2021/2022) calendar</b>	<b>Proposed Text</b>																																																																																													
<p><b>71.40.1 Course Requirements (BEng in Mechanical Engineering)</b></p> <p>The program in Mechanical Engineering consists of the Engineering Core, the Mechanical Engineering Core, and elective credits as shown below. The minimum length of the program is 120 credits.</p> <p><b>Engineering Core (27 credits)</b> See §71.20.5.</p> <table> <thead> <tr> <th colspan="2"><b>Mechanical Engineering Core</b></th> <th><i>Credits</i></th> </tr> </thead> <tbody> <tr><td>ENGR 242</td><td>Statics</td><td>3.00</td></tr> <tr><td>ENGR 243</td><td>Dynamics</td><td>3.00</td></tr> <tr><td>ENGR 244</td><td>Mechanics of Materials</td><td>3.75</td></tr> <tr><td>ENGR 251</td><td>Thermodynamics I</td><td>3.00</td></tr> <tr><td>ENGR 311</td><td>Transform Calculus and Partial Differential Equations</td><td>3.00</td></tr> <tr><td>ENGR 361</td><td>Fluid Mechanics I</td><td>3.00</td></tr> <tr><td>MECH 321</td><td>Properties and Failure of Materials</td><td>3.50</td></tr> <tr><td>MECH 343</td><td>Theory of Machines</td><td>3.50</td></tr> <tr><td>MECH 344</td><td>Machine Element Design</td><td>3.00</td></tr> <tr><td>MECH 351</td><td>Thermodynamics II</td><td>3.50</td></tr> <tr><td>MECH 352</td><td>Heat Transfer I</td><td>3.50</td></tr> <tr><td>MECH 361</td><td>Fluid Mechanics II</td><td>3.50</td></tr> <tr><td>MECH 368</td><td>Electronics for Mechanical Engineers</td><td>3.50</td></tr> <tr><td>MECH 370</td><td>Modelling and Analysis of Dynamic Systems</td><td>3.50</td></tr> <tr><td>MECH 371</td><td>Analysis and Design of Control Systems</td><td>3.75</td></tr> </tbody> </table>	<b>Mechanical Engineering Core</b>		<i>Credits</i>	ENGR 242	Statics	3.00	ENGR 243	Dynamics	3.00	ENGR 244	Mechanics of Materials	3.75	ENGR 251	Thermodynamics I	3.00	ENGR 311	Transform Calculus and Partial Differential Equations	3.00	ENGR 361	Fluid Mechanics I	3.00	MECH 321	Properties and Failure of Materials	3.50	MECH 343	Theory of Machines	3.50	MECH 344	Machine Element Design	3.00	MECH 351	Thermodynamics II	3.50	MECH 352	Heat Transfer I	3.50	MECH 361	Fluid Mechanics II	3.50	MECH 368	Electronics for Mechanical Engineers	3.50	MECH 370	Modelling and Analysis of Dynamic Systems	3.50	MECH 371	Analysis and Design of Control Systems	3.75	<p><b>71.40.1 Course Requirements (BEng in Mechanical Engineering)</b></p> <p>The program in Mechanical Engineering consists of the Engineering Core, the Mechanical Engineering Core, and elective credits as shown below. The minimum length of the program is 120 credits.</p> <p><b>Engineering Core (27 credits)</b> See §71.20.5.</p> <table> <thead> <tr> <th colspan="2"><b>Mechanical Engineering Core</b></th> <th><i>Credits</i></th> </tr> </thead> <tbody> <tr><td>ENGR 242</td><td>Statics</td><td>3.00</td></tr> <tr><td>ENGR 243</td><td>Dynamics</td><td>3.00</td></tr> <tr><td>ENGR 244</td><td>Mechanics of Materials</td><td>3.75</td></tr> <tr><td>ENGR 251</td><td>Thermodynamics I</td><td>3.00</td></tr> <tr><td>ENGR 311</td><td>Transform Calculus and Partial Differential Equations</td><td>3.00</td></tr> <tr><td>ENGR 361</td><td>Fluid Mechanics I</td><td>3.00</td></tr> <tr><td>MECH 321</td><td>Properties and Failure of Materials</td><td>3.50</td></tr> <tr><td>MECH 343</td><td>Theory of Machines</td><td>3.50</td></tr> <tr><td>MECH 344</td><td>Machine Element Design</td><td>3.00</td></tr> <tr><td>MECH 351</td><td>Thermodynamics II</td><td>3.50</td></tr> <tr><td>MECH 352</td><td>Heat Transfer I</td><td>3.50</td></tr> <tr><td>MECH 361</td><td>Fluid Mechanics II</td><td>3.50</td></tr> <tr><td>MECH 368</td><td>Electronics for Mechanical Engineers</td><td>3.50</td></tr> <tr><td>MECH 370</td><td>Modelling and Analysis of Dynamic Systems</td><td>3.50</td></tr> </tbody> </table>	<b>Mechanical Engineering Core</b>		<i>Credits</i>	ENGR 242	Statics	3.00	ENGR 243	Dynamics	3.00	ENGR 244	Mechanics of Materials	3.75	ENGR 251	Thermodynamics I	3.00	ENGR 311	Transform Calculus and Partial Differential Equations	3.00	ENGR 361	Fluid Mechanics I	3.00	MECH 321	Properties and Failure of Materials	3.50	MECH 343	Theory of Machines	3.50	MECH 344	Machine Element Design	3.00	MECH 351	Thermodynamics II	3.50	MECH 352	Heat Transfer I	3.50	MECH 361	Fluid Mechanics II	3.50	MECH 368	Electronics for Mechanical Engineers	3.50	MECH 370	Modelling and Analysis of Dynamic Systems	3.50
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MECH 375	Mechanical Vibrations	3.50
MECH 390	Mechanical Engineering Design Project	3.50
MECH 490	Capstone Mechanical Engineering Design Project*	4.00
MIAE 211	Mechanical Engineering Drawing	3.50
MIAE 215	Programming for Mechanical and Industrial Engineers	3.50
MIAE 221	Materials Science	3.00
MIAE 311	Manufacturing Processes	3.00
MIAE 312	Engineering Design and Manufacturing Processes Lab	1.00
MIAE 313	Machine Drawing and Design	3.50
MIAE 380	Product Design and Development	3.00
		81.50

Note: Students may replace MECH 490 with ENGR 490 if they are interested in a multidisciplinary project that requires collaboration with students from other engineering departments. In order for students to register in ENGR 490, their projects must be approved by the ENGR 490 Design Committee before the start of the fall term.

### Electives

Students in the Mechanical Engineering program must complete at least 11.50 elective credits from the list of courses below. Courses are listed in groups to facilitate the selection of courses in a particular area of the field.

<b>Aerospace</b>	<i>Credits</i>	
AERO 417	Standards, Regulations and Certification	3.00
AERO 446	Aerospace Vehicle Performance	3.00
AERO 455	Computational Fluid Dynamics for Aerospace Applications	3.75
AERO 462	Turbomachinery and Propulsion	3.00
AERO 464	Aerodynamics	3.00
AERO 465	Gas Turbine Design	3.50
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00
AERO 485	Introduction to Space Systems	3.00
AERO 486	Aircraft Stress Analysis	3.00
AERO 487	Design of Aircraft Structures	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00

MECH 371	Analysis and Design of Control Systems	3.75
MECH 375	Mechanical Vibrations	3.50
MECH 390	Mechanical Engineering Design Project	3.50
MECH 490	Capstone Mechanical Engineering Design Project*	4.00
MIAE 211	Mechanical Engineering Drawing	3.50
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MIAE 311	Manufacturing Processes	3.00
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AERO 487	Design of Aircraft Structures	3.00
ENGR 411	Special Technical Report	1.00

MECH 498	Topics in Mechanical Engineering	3.00	ENGR 412	Honours Research Project	3.00
<b>Design and Manufacturing</b>		<i>Credits</i>	MECH 498	Topics in Mechanical Engineering	3.00
ENGR 411	Special Technical Report	1.00	<b>Design and Manufacturing</b>		<i>Credits</i>
ENGR 412	Honours Research Project	3.00	ENGR 411	Special Technical Report	1.00
INDU 372	Quality Control and Reliability	3.00	ENGR 412	Honours Research Project	3.00
INDU 410	Safety Engineering	3.00	INDU 372	Quality Control and Reliability	3.00
INDU 411	Computer Integrated Manufacturing	3.50	INDU 410	Safety Engineering	3.00
MECH 412	Computer-Aided Mechanical Design	3.50	INDU 411	Computer Integrated Manufacturing	3.50
MECH 414	Computer Numerically Controlled Machining	3.50	MECH 412	Computer-Aided Mechanical Design	3.50
MECH 421	Mechanical Shaping of Metals and Plastics	3.50	MECH 414	Computer Numerically Controlled Machining	3.50
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00	MECH 421	Mechanical Shaping of Metals and Plastics	3.50
MECH 423	Casting, Welding, Heat Treating, and Non-Destructive Testing	3.50	MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 424	MEMS – Design and Fabrication	3.50	MECH 423	Casting, Welding, Heat Treating, and Non-Destructive Testing	3.50
MECH 425	Manufacturing of Composites	3.50	MECH 424	MEMS – Design and Fabrication	3.50
MECH 468	Wind Turbine Engineering	3.00	MECH 425	Manufacturing of Composites	3.50
MECH 476	Generative Design and Manufacturing in Engineering	3.00	MECH 468	Wind Turbine Engineering	3.00
MECH 498	Topics in Mechanical Engineering	3.00	MECH 476	Generative Design and Manufacturing in Engineering	3.00
<b>Systems and Mechatronics</b>		<i>Credits</i>	MECH 498	Topics in Mechanical Engineering	3.00
AERO 480	Flight Control Systems	3.50	<b>Systems and Mechatronics</b>		<i>Credits</i>
AERO 482	Avionic Navigation Systems	3.00	AERO 480	Flight Control Systems	3.50
ENGR 411	Special Technical Report	1.00	AERO 482	Avionic Navigation Systems	3.00
ENGR 412	Honours Research Project	3.00	ENGR 411	Special Technical Report	1.00
MECH 411	Instrumentation and Measurements	3.50	ENGR 412	Honours Research Project	3.00
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00	MECH 411	Instrumentation and Measurements	3.50
MECH 463	Fluid Power Control	3.50	MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 471	Microcontrollers for Mechatronics	3.50	MECH 463	Fluid Power Control	3.50
MECH 472	Mechatronics and Automation	3.50	MECH 471	Microcontrollers for Mechatronics	3.50
MECH 473	Control System Design	3.50	MECH 472	Mechatronics and Automation	3.50
MECH 474	Mechatronics	3.75	MECH 473	Control System Design	3.50
MECH 498	Topics in Mechanical Engineering	3.00	MECH 474	Mechatronics	3.75
<b>Thermo-Fluids and Propulsion</b>		<i>Credits</i>	MECH 498	Topics in Mechanical Engineering	3.00
AERO 455	Computational Fluid Dynamics for	3.75	<b>Thermo-Fluids and Propulsion</b>		<i>Credits</i>

	Aerospace Applications		AERO 455	Computational Fluid Dynamics for Aerospace Applications	3.75
AERO 462	Turbomachinery and Propulsion	3.00	AERO 462	Turbomachinery and Propulsion	3.00
AERO 465	Gas Turbine Design	3.50	AERO 465	Gas Turbine Design	3.50
ENGR 411	Special Technical Report	1.00	ENGR 411	Special Technical Report	1.00
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MECH 411	Instrumentation and Measurements	3.50	MECH 411	Instrumentation and Measurements	3.50
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00	MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 452	Heat Transfer II	3.50	<a href="#">MECH 451</a>	<a href="#">Renewable Energy: Fundamentals and Applications</a>	<a href="#">3.00</a>
MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00	MECH 452	Heat Transfer II	3.50
MECH 461	Gas Dynamics	3.50	MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00
MECH 463	Fluid Power Control	3.50	MECH 461	Gas Dynamics	3.50
MECH 468	Wind Turbine Engineering	3.00	MECH 463	Fluid Power Control	3.50
MECH 498	Topics in Mechanical Engineering	3.00	MECH 468	Wind Turbine Engineering	3.00
<b>Vehicle Systems</b>		<i>Credits</i>	MECH 498	Topics in Mechanical Engineering	3.00
ENGR 411	Special Technical Report	1.00	<b>Vehicle Systems</b>		<i>Credits</i>
ENGR 412	Honours Research Project	3.00	ENGR 411	Special Technical Report	1.00
MECH 411	Instrumentation and Measurements	3.50	ENGR 412	Honours Research Project	3.00
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00	MECH 411	Instrumentation and Measurements	3.50
MECH 444	Guided Vehicle Systems	3.00	MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 447	Fundamentals of Vehicle System Design	3.00	MECH 444	Guided Vehicle Systems	3.00
MECH 454	Vehicular Internal Combustion Engines	3.00	MECH 447	Fundamentals of Vehicle System Design	3.00
MECH 473	Control System Design	3.50	MECH 454	Vehicular Internal Combustion Engines	3.00
MECH 498	Topics in Mechanical Engineering	3.00	MECH 473	Control System Design	3.50
<b>Stress Analysis</b>		<i>Credits</i>	MECH 498	Topics in Mechanical Engineering	3.00
AERO 431	Principles of Aeroelasticity	3.00	<b>Stress Analysis</b>		<i>Credits</i>
AERO 486	Aircraft Stress Analysis	3.00	AERO 431	Principles of Aeroelasticity	3.00
ENGR 411	Special Technical Report	1.00	AERO 486	Aircraft Stress Analysis	3.00
ENGR 412	Honours Research Project	3.00	ENGR 411	Special Technical Report	1.00
MECH 411	Instrumentation and Measurements	3.50	ENGR 412	Honours Research Project	3.00
MECH 412	Computer-Aided Mechanical Design	3.50	MECH 411	Instrumentation and Measurements	3.50
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00	MECH 412	Computer-Aided Mechanical Design	3.50
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00	MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00

MECH 426	Stress and Failure Analysis of Machinery	3.00	MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 460	Finite Element Analysis	3.75	MECH 426	Stress and Failure Analysis of Machinery	3.00
MECH 498	Topics in Mechanical Engineering	3.00	MECH 460	Finite Element Analysis	3.75
			MECH 498	Topics in Mechanical Engineering	3.00

**Rationale:**

A new course, MECH 451 Renewable Energy: Fundamentals and Applications, has been added to the list of technical electives.

**Resource Implications:**

There are no resource implications. The new elective will be assigned as part of a normal teaching load.





**COURSE CHANGE:** INDU 411      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Mechanical, Industrial and Aerospace Engineering  
**Program:** Mechanical and Industrial Engineering  
**Degree:** BEng  
**Calendar Section/Graduate Page Number:** 71.60

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>INDU 411 <i>Computer Integrated Manufacturing</i></b> (3.5 credits)  <b>Prerequisite:</b> The following course must be completed previously: MECH 311 or MIAE 311. <b>Description:</b> This course focuses on concepts and benefits of computer integrated manufacturing (CIM); design for manufacturing; computer-aided design, process planning, manufacturing (computer numerical control parts programming), and inspection; robots in CIM; production planning and scheduling in CIM; system integration. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.</p>	<p><b>INDU 411 <i>Computer Integrated Manufacturing</i></b> (3.5 credits)  <b>Prerequisite:</b> The following course must be completed previously: MECH 311 or MIAE 311. <u>The following course must be completed previously or concurrently: MIAE 312.</u>  <b>Description:</b> This course focuses on concepts and benefits of computer integrated manufacturing (CIM); design for manufacturing; computer-aided design, process planning, manufacturing (computer numerical control parts programming), and inspection; robots in CIM; production planning and scheduling in CIM; system integration. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.</p>
<p>Rationale:                      When splitting the previous MIAE 311 course into MIAE311 and MIAE312 (Lab component), some courses had MIAE311 listed as a prerequisite or co-requisite but did not include MIAE312. We are now updating these courses to reflect the course split accordingly.</p>	
<p>Resource Implications:                      There are no resource implications.</p>	
<p>Other Programs within which course is listed:                       None.</p>	



**COURSE CHANGE:** MECH 390      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Mechanical, Industrial and Aerospace Engineering  
**Program:** Mechanical Engineering  
**Degree:** BEng  
**Calendar Section/Graduate Page Number:** 71.60

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>MECH 390 <i>Mechanical Engineering Design Project</i></b> (3.5 credits)  <b>Prerequisite:</b> The following courses must be completed previously: ENCS 282; MECH 311 or MIAE 311; MECH 343; MIAE 380. The following course must be completed previously or concurrently: MECH 344.  <b>Description:</b> This course covers the following topics: the design process; product cost, quality and time to market, open and concept design problems, problem description; geometric and type synthesis; direct and inverse design problems; material selection and load determination; mathematical modelling, analysis, and validation; introduction to Computer-Aided Design and Engineering (CAD and CAE); product evaluation for performance, tolerance, cost, manufacture, assembly, and other measures; design documentation. A team-based design project is an intrinsic part of this course.                      Lectures: three hours per week. Tutorial: one hour per week. Laboratory: one hour per week.</p>	<p><b>MECH 390 <i>Mechanical Engineering Design Project</i></b> (3.5 credits)  <b>Prerequisite:</b> The following courses must be completed previously: ENCS 282; MECH 311 or MIAE 311; MECH 343; <a href="#">MIAE 312</a>; MIAE 380. The following course must be completed previously or concurrently: MECH 344.  <b>Description:</b> This course covers the following topics: the design process; product cost, quality and time to market, open and concept design problems, problem description; geometric and type synthesis; direct and inverse design problems; material selection and load determination; mathematical modelling, analysis, and validation; introduction to Computer-Aided Design and Engineering (CAD and CAE); product evaluation for performance, tolerance, cost, manufacture, assembly, and other measures; design documentation. A team-based design project is an intrinsic part of this course.                      Lectures: three hours per week. Tutorial: one hour per week. Laboratory: one hour per week.</p>
<p><b>Rationale:</b>                      When splitting the previous MIAE 311 course into MIAE311 and MIAE312 (Lab component), some courses had MIAE311 listed as a prerequisite or co-requisite but did not include MIAE312. We are now updating these courses to reflect the course split accordingly.</p>	
<p><b>Resource Implications:</b>                      There are no resource implications.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	



**COURSE CHANGE:** MECH 424      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Mechanical, Industrial and Aerospace Engineering  
**Program:** Mechanical Engineering  
**Degree:** BEng  
**Calendar Section/Graduate Page Number:** 71.60

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>MECH 424 MEMS — Design and Fabrication</b> (3.5 credits)  <b>Prerequisite:</b> The following courses must be completed previously: MECH 311 or MIAE 311; MECH 343.  <b>Description:</b> This course is an introduction to microsystems and devices; mechanical properties of materials used in microsystems; microfabrication and post-processing techniques; sacrificial and structural layers; lithography, deposition and etching; introduction and design of different types of sensors and actuators; micromotors and other microdevices; mechanical design, finite element modelling; design and fabrication of free-standing structures; microbearings; special techniques: double-sided lithography, electrochemical milling, laser machining, LIGA, influence of IC fabrication methods on mechanical properties; application examples in biomedical, industrial, and space technology areas; integration, bonding and packaging of MEMS devices. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.</p>	<p><b>MECH 424 MEMS — Design and Fabrication</b> (3.5 credits)  <b>Prerequisite:</b> The following courses must be completed previously: MECH 311 or MIAE 311; MECH 343. <u>The following course must be completed previously or concurrently: MIAE 312.</u>  <b>Description:</b> This course is an introduction to microsystems and devices; mechanical properties of materials used in microsystems; microfabrication and post-processing techniques; sacrificial and structural layers; lithography, deposition and etching; introduction and design of different types of sensors and actuators; micromotors and other microdevices; mechanical design, finite element modelling; design and fabrication of free-standing structures; microbearings; special techniques: double-sided lithography, electrochemical milling, laser machining, LIGA, influence of IC fabrication methods on mechanical properties; application examples in biomedical, industrial, and space technology areas; integration, bonding and packaging of MEMS devices. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.</p>
<p><b>Rationale:</b>                      When splitting the previous MIAE 311 course into MIAE311 and MIAE312 (Lab component), some courses had MIAE311 listed as a prerequisite or co-requisite but did not include MIAE312. We are now updating these courses to reflect the course split accordingly.</p>	
<p><b>Resource Implications:</b>                      There are no resource implications.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	

**COURSE CHANGE:** MECH 425      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Mechanical, Industrial and Aerospace Engineering  
**Program:** Mechanical, Industrial and Aerospace Engineering  
**Degree:** BEng  
**Calendar Section/Graduate Page Number:** 71.60

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>MECH 425 <i>Manufacturing of Composites</i></b> (3.5 credits)  <b>Prerequisite:</b> The following course must be completed previously: MECH 311 or MIAE 311.  <b>Description:</b> This course focuses on fibres and resins. The following topics are covered: hand lay up; autoclave curing; compression molding; filamentwinding; resin transfer molding; braiding. Injection molding; cutting; joining; thermoset and thermoplastic composites; Polymer Nanocomposites; process modelling and computer simulation; non-destructive evaluation techniques. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.</p>	<p><b>MECH 425 <i>Manufacturing of Composites</i></b> (3.5 credits)  <b>Prerequisite:</b> The following course must be completed previously: MECH 311 or MIAE 311. <a href="#">The following course must be completed previously or concurrently: MIAE 312.</a>  <b>Description:</b> This course focuses on fibres and resins. The following topics are covered: hand lay up; autoclave curing; compression molding; filament winding; resin transfer molding; braiding. Injection molding; cutting; joining; thermoset and thermoplastic composites; Polymer Nanocomposites; process modelling and computer simulation; non-destructive evaluation techniques. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.</p>
<p><b>Rationale:</b>                      When splitting the previous MIAE 311 course into MIAE311 and MIAE312 (Lab component), some courses had MIAE311 listed as a prerequisite or co-requisite but did not include MIAE312. We are now updating these courses to reflect the course split accordingly.</p>	
<p><b>Resource Implications:</b>                      There are no resource implications.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	

**COURSE CHANGE:** MECH 451      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Mechanical, Industrial and Aerospace Engineering  
**Program:** Mechanical Engineering  
**Degree:** BEng  
**Calendar Section/Graduate Page Number:** 71.60

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20XX/20XX) calendar	Proposed Text
	<p><b>MECH 451 <i>Renewable Energy: Fundamentals and Applications</i></b> (3 credits)  <b>Prerequisite:</b> The following course must be completed previously: MECH 351, 352, 361.  <b>Description:</b> This course introduces the fundamental aspects and the main applications of renewable energy systems. The focus is on the thermodynamics, heat transfer and fluid mechanics aspects of renewable energy systems. The course covers the following topics: review of thermodynamics, review of heat transfer, review of fluid mechanics, solar energy, wind energy, hydropower, geothermal energy, biomass energy, ocean energy and hydrogen and fuel cells. Lectures: three hours per week.</p>
<p><b>Rationale:</b>                      Despite the worldwide growing interest in renewable energy systems, our students in the Mechanical Engineering program have not had exposure to the fundamentals and applications of renewable energy systems. This course will be filling a gap in our curriculum.</p>	
<p><b>Resource Implications:</b>                      The new elective will be assigned as part of a normal teaching load.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	



**COURSE CHANGE:** MIAE 380      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Mechanical, Industrial and Aerospace Engineering  
**Program:** Mechanical and Industrial Engineering  
**Degree:** BEng  
**Calendar Section/Graduate Page Number:** 71.60

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>MIAE 380 <i>Product Design and Development</i></b> (3 credits)  <b>Prerequisite:</b> The following course must be completed previously: MECH 211 or MIAE 211.  <b>Description:</b> This course focuses on development processes and organizations, product planning, identifying customer needs, product specifications, concept generation, concept selection, concept testing, product architecture, industrial design, design for manufacturing, prototyping robust design, patents and intellectual property. Lectures: three hours per week.  <i>NOTE: Students who have received credit for AERO 444 or INDU 440 may not take this course for credit</i></p>	<p><b>MIAE 380 <i>Product Design and Development</i></b> (3 credits)  <b>Prerequisite:</b> The following course must be completed previously: MECH 211 or MIAE 211. The following course must be completed <u>previously or concurrently</u>: <a href="#">ENCS 282</a>.  <b>Description:</b> This course focuses on development processes and organizations, product planning, identifying customer needs, product specifications, concept generation, concept selection, concept testing, product architecture, industrial design, design for manufacturing, prototyping robust design, patents and intellectual property. Lectures: three hours per week.  <i>NOTE: Students who have received credit for AERO 444 or INDU 440 may not take this course for credit</i></p>
<p><b>Rationale:</b>                      We are including ENCS 282 as a co-requisite as MIAE380 is a group project and technical communication is an asset.</p>	
<p><b>Resource Implications:</b>                      There are no additional resource implications.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	

Course number	Course Title	Term
<b>MECH 451</b>	<b>Renewable Energy: Fundamentals and Applications</b>	<b>FALL</b>

Course Instructor	Office	Email	Office Hours
Dr. Lyes Kadem, ing	EV.4.207	kadem@encs.concordia.ca	Office Hours: TBD

CLASS, LAB AND TUTORIAL SCHEDULE					
Section	Day	Time	Location	Instructor	E-mail
Lecture	TBD	TBD	TBD	Dr. Lyes Kadem	kadem@encs.concordia.ca

COURSE CALENDAR DESCRIPTION
This course introduces the fundamental aspects and the main applications of renewable energy systems. The focus is on the thermodynamics, heat transfer and fluid mechanics aspects of renewable energy systems. The course covers the following topics: review of thermodynamics, review of heat transfer, review of fluid mechanics, solar energy, wind energy, hydropower, geothermal energy, biomass energy, ocean energy and hydrogen and fuel cells. Lectures: three hours per week.

PREREQUISITE
MECH351; MECH352; MECH361

THIS COURSE IS A PREREQUISITE TO:
None

TEXTBOOK AND ADDITIONAL COURSE MATERIALS
A course pack can be freely downloaded from the course website. <a href="http://users.encs.concordia.ca/~kadem/MECH498.html">http://users.encs.concordia.ca/~kadem/MECH498.html</a>
<b>Additional References</b> Fundamentals and Applications of Renewable Energy Hardcover. M. Kanoglu, Y. Cengel, J. Cimbala (2019) Introduction to Renewable Energy for Engineers. Kirk D. Hagen (2016)



<b>GRADING POLICY</b>	
<b>Evaluation Tool</b>	<b>Weight</b>
<b>TEST 1</b>	<b>30%</b>
<b>TEST 2</b>	<b>30%</b>
<b>COURSE PROJECTS</b>	<b>40%</b>
<b>Total</b>	<b>100%</b>
<b>Passing Criteria:</b>	
<ul style="list-style-type: none"> <li>• Both tests are closed book and closed notes.</li> <li>• All tests are mandatory. Any test missed will be replaced by an oral exam.</li> </ul>	

<b>SYLLABUS</b>	
<b>Topics</b>	
<b>1</b>	<b>Introduction and review of basic thermal sciences.</b>
<b>2</b>	<b>Energy and the environment.</b>
<b>3</b>	<b>Solar energy.</b>
<b>4</b>	<b>Wind energy.</b>
<b>5</b>	<b>Hydropower.</b>
<b>6</b>	<b>Geothermal energy.</b>
<b>7</b>	<b>Biomass energy.</b>
<b>8</b>	<b>Ocean energy.</b>
<b>9</b>	<b>Hydrogen and fuel cells.</b>

### **Use of Engineering Tools:**

The course projects will involve learning and using the following open-access software used for the analysis of renewable energy systems:

<b>Solar energy.</b>	PV-Watts
<b>Wind energy.</b>	Q-blade
<b>Hydropower.</b>	Hera
<b>Geothermal energy.</b>	HyGCHP Modeling Tool
<b>Biomass energy.</b>	BioSteam
<b>Ocean energy.</b>	DTOcean suite
<b>Hydrogen and fuel cells.</b>	H2FillS: Hydrogen Filling Simulation

# ON CAMPUS RESOURCES

<p><b>HEALTH SERVICES</b></p> <p>An on-campus health clinic and health promotion center with nurses and doctors.</p> <p>SGW 514-848-2424 ext. 3565          LOY 514-848-2424 ext. 3575</p>	<p><b>COUNSELLING AND PSYCHOLOGICAL SERVICES</b></p> <p>Counsellors (licensed mental health professionals) work with students to address their mental health and wellbeing needs.</p> <p>SGW 514-848-2424 ext. 3545          LOY 514 848-2424 ext. 3555</p>
<p><b>ACCESS CENTRE FOR STUDENTS WITH DISABILITIES</b></p> <p>Supports students with a variety of disability conditions (including temporary disabilities arising from illness or injury). Students receive academic support for their educational experience at Concordia.</p> <p><a href="mailto:acsinfo@concordia.ca">acsinfo@concordia.ca</a> 514-848-2424 ext. 3525</p>	<p><b>SEXUAL ASSAULT RESOURCE CENTRE</b></p> <p>Provides confidential and non-judgemental support and services to students, staff and faculty of all genders and orientations affected by sexual violence and/or harassment.</p> <p>Jennifer Drummond, Coordinator  <a href="mailto:jennifer.drummond@concordia.ca">jennifer.drummond@concordia.ca</a>  <a href="mailto:sarc@concordia.ca">sarc@concordia.ca</a>          514-848-2424 ext. 3353</p>
<p><b>STUDENT SUCCESS CENTRE</b></p> <p>Support network from first-year to graduation. You'll find one-on-one tutors, study groups, workshops as well as learning and career advisors</p> <p>514-848-2424, ext. 3921</p>	<p><b>DEAN OF STUDENTS</b></p> <p>Supports students to enhance their Concordia experience by engaging in student life outside the classroom.</p> <p>Terry Kyle, Manager  <a href="mailto:deanofstudents.office@concordia.ca">deanofstudents.office@concordia.ca</a> SGW          514-848-2424 ext. 3517          LOY 514-848-2424 ext. 4239</p>
<p><b>ABORIGINAL STUDENT RESOURCE CENTRE</b></p> <p>An on-campus resource for First Nations, Métis and Inuit students that helps them make the most of the many resources available at the university.</p> <p>Orenda Konwawennotion Boucher-Curotte, Coordinator  <a href="mailto:orenda.boucher@concordia.ca">orenda.boucher@concordia.ca</a> 514-848-2424 ext. 7327</p>	<p><b>INTERNATIONAL STUDENTS OFFICE</b></p> <p>Supporting international students with immigration documents, health insurance, social events, and workshops.</p> <p><a href="mailto:iso@concordia.ca">iso@concordia.ca</a>          514-848-2424 ext. 3515</p>
<p><b>STUDENT ADVOCACY OFFICE</b></p> <p>Advocating for students facing charges under the Academic Code of Conduct or the Code of Rights and Responsibilities.</p> <p><a href="mailto:studentadvocates@concordia.ca">studentadvocates@concordia.ca</a> 514-848-2424, ext. 3992</p>	<p><b>MULTI-FAITH &amp; SPIRITUALITY CENTRE</b></p> <p>Provides a home for all those wishing to celebrate the human spirit in the widest sense of the word, through programs, events and a quiet space for reflection.</p> <p>Ellie Hummel, Coordinator  <a href="mailto:mfsc@concordia.ca">mfsc@concordia.ca</a>          514-848-2424, ext. 3593</p>
<p><b>CAMPUS SECURITY</b></p> <p>Ensures the safety of our members and campus property through prevention, surveillance, intervention, training, and education. Provides emergency medical services.</p> <p><a href="mailto:security@concordia.ca">security@concordia.ca</a> 514-848-3717          (dial 1 for urgent situations; dial 2 for non-urgent situations)</p>	<p><b>CONCORDIA UNIVERSITY STUDENT PARENTS CENTRE</b></p> <p>An accessible space for student parents to study, share interests and develop a support network.</p> <p>Sumaiya Gangat, Coordinator  <a href="mailto:cusp@concordia.ca">cusp@concordia.ca</a>          514-848-2424, ext. 2431</p>

## ACADEMIC HONESTY AND CODE OF CONDUCT

Violation of the Academic Code of Conduct in any form will be severely dealt with. This includes copying (even with modifications) of program segments. You must demonstrate independent thought through your submitted work. The Academic Code of Conduct of Concordia University is available at:

<http://www.concordia.ca/students/academic-integrity/offences.html>

*It is expected that during class discussions and in your written assignments you will communicate constructively and respectfully. Sexist, racist, homophobic, ageist, and ablest expressions will not be tolerated.*

### ADDENDUM

#### ACADEMIC CONDUCT ISSUES THAT APPLY IN GENERAL

##### The basic ten rules that make you a good engineer

The B. Eng. program is set to satisfy most of the requirements for your education and prepares you for a professional engineering career that requires dedication and knowledge. What you learn, and how you learn, will be used extensively in your engineering profession for the next 30 to 40 years. Therefore, the four years spent in the engineering program are crucial towards your professional formation. The first step is for you to learn to “think like an engineer” which means:

- accept responsibility for your own learning
- follow up on lecture material and homework
- learn *problem-solving skills*, not just how to solve each specific homework problem
- build a body of knowledge integrated throughout your program
- behave responsibly, ethically and professionally

One of the mainstays of being a professional engineer is a professional code of conduct and as an engineering student this starts with the Academic Code of Conduct (Article 16.3.14 of the undergraduate calendar). However, you may encounter situations that fall outside the norm and in such cases, you use your common sense.

Further, the following issues should be given serious consideration:

- 1) Attendance at lectures and tutorials are major learning opportunities and should not be missed. The labs represent a unique opportunity for you to acquire practical knowledge that you will need in your career. Class and tutorial attendance is important for you to comprehend the discipline and make the connections between engineering skills. You are strongly encouraged to participate in the class, ask questions and answer the instructor’s questions. Tutorials are just extensions of the classes in which application of the concepts presented during the lectures are presented and problems are practically solved.
- 2) The decision to write tests that are not mandatory is entirely yours. For example, midterm tests are often stated in many courses as optional. However, one of the objectives of midterms is to check on your comprehension of the material and allow time for whatever action is necessary (from more study time to discontinuing a course). Plan to attend the class tests even if they are not mandatory. If you pay attention in the lectures, it will take you significantly shorter time to comprehend the material. **Note also** that if you are in the unfortunate position of being unable to write a final exam due to medical reasons and seek a deferral, this may not be possible if the instructor has no information indicating that you have been attending the course and assimilating the material (ie through midterms, quizzes, assignments etc).

- 3) Homework is usually mandatory and it has some weight in the final grade (such information is given in the course outline). Homework may also be conceived as training material for the class tests. Under all circumstances, it is highly recommended to carry out the home work on time and submit it on the prescribed date. Late submissions are not granted to individual cases regardless of the reason. This is part of the training for being in the workforce where deadlines have to be met. Please, plan your work such that you submit all the assignments and lab reports on time and in the correct place (not in the corridor or on the street!).
- 4) Office hours with tutors, lab instructors or class instructors are listed in the course outline/website/office doors. Please respect these office hours and in case you have a serious conflict, contact the instructor asking for a special time arrangement.
- 5) Class tests (midterms, quizzes) are returned to the student. The final exams are not. If you wish to see your exam paper, be aware that most instructors allow only a narrow window of time for that purpose. For the fall term, exams may usually be reviewed in January and May for the spring term.
- 6) When you see your marked work (assignments, midterms, final exam etc), be aware that you are supposed to review your material and see the type of errors you made and if marks have been added incorrectly. This is not an opportunity to try and “negotiate” a higher grade with the instructor. If you believe that your grade is not right, you may apply for a formal Course Reevaluation through the Birks Student Centre.
- 7) Writing tests and exams represents a major component of your course work. These tests and exams have rigorous requirements such as:
  - **No cell phone or other communication enabling tool is allowed on the student** during the examination period.
  - Only **specified faculty calculators** are allowed during tests and exams unless otherwise indicated by the instructor.
  - Usually, **no materials** are allowed in the exam unless otherwise announced.Get used to signing in and out of your exam. Make sure that you leave your exam papers with the invigilator. There are rules concerning general exam issues in the UG Calendar. These requirements are there to eliminate any possible misunderstanding and you are asked to **respect the rules**. Disciplinary measures are taken when the rules are not followed.
- 8) Respect your colleagues and those that you meet during the class: tutors, instructors, lab instructors, technical personnel, assistants, etc. Use appropriate communication means and language. Be considerate for all human beings. This includes small things such as turning off cell-phones before a class begins. Concordia University is a very diverse group of people and a very large multicultural community.
- 9) Communication is part of your future profession. Learn how to communicate effectively and efficiently in the shortest time possible. Write short but meaningful e-mails, make effective phone calls, etc. If your instructor accepts emails make sure that your request is clear with the course number and your name in the *Subject* line. Do not ask for special treatment as instructors have to treat all students equitably.
- 10) Respect all the above and you will get closer to your future profession.

Undergraduate Program Regular Curriculum Change - JMSB-FINA-161 - VERSION : 3

**Summary of Committee Discussion: Faculty Council**

**For Submission to:**

Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Academic Programs Committee, 19 Nov 2021

**Approved by:**

Anne-Marie Croteau, Dean, John Molson School of Business,  
Faculty Council, John Molson School of Business 01 Oct 2021

The JMSB Faculty Council approved these changes included in the attached dossier on October 1, 2021.

I respectfully request to present the proposed changes to the next Academic Programs Committee meeting for consideration.

**Summary of Committee Discussion: Faculty Academic Programs Committee**

**For Submission to:**

Anne-Marie Croteau, Dean, John Molson School of Business,  
Faculty Council, John Molson School of Business 01 Oct 2021

**Approved by:**

Sandra Betton, Associate Dean, Graduate Professional Programs  
Faculty Academic Programs Committee (FAPC), John Molson School of Business, 17 Sep 2021


The FAPC has evaluated and approved the proposal submitted by the Department of Finance regarding changes to the prerequisites for FINA 465. The proposal consists of listing FINA 409 or FINA 410 and FINA 412 as prerequisites instead of requiring the department permission.

I respectfully request that the Faculty Council Committee approves the request so it can be submitted to APC.

**INTERNAL MEMORANDUM  
CONCORDIA UNIVERSITY  
JOHN MOLSON SCHOOL OF BUSINESS**

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**TO:** Dr. Sandra Betton  
Chair, Faculty Academic Programs Committee

**FROM:** Dr. Jooseop Lim, Associate Dean, Academic and Student Affairs,  
Undergraduate Programs 

**DATE:** August 25, 2021

**SUBJECT:** Proposal for a prerequisite change for FINA 465

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The Undergraduate Curriculum Committee (UCC) has evaluated and approved the proposal submitted by the Department of Finance regarding changes to the prerequisites for FINA 465. The Department proposes to list FINA 409 or FINA 410, and FINA 412 as prerequisites instead of requiring the department permission.

I respectfully request that the Faculty Academic Programs Committee approve the request so that it can be submitted to the faculty council.

Thank you.

**INTERNAL MEMORANDUM**

**TO:** Dr. Jooseop Lim, Associate Dean Academic & Student Affairs

**FROM:** Dr. Imants Paeglis, Interim Chair, Department of Finance

*Imants Paeglis*

**DATE:** April 25, 2021

**SUBJECT:** FINA 465 Pre-requisites change

Members of the Finance Department approved the recommendations of the DCC regarding changes to the pre-requisites for FINA 465 at the recent department meeting on April 23, 2021.

I ask that you kindly move the changes to the next committee for processing.





JOHN M. MOLSON  
SCHOOL OF BUSINESS



### INTERNAL MEMORANDUM

**TO:** Imants Paeglis, Interim Chair, Department of Finance

**FROM:** Rahul Ravi, on behalf of the Department Curriculum Committee

**DATE:** April 12, 2021

**SUBJECT:** FINA 465 – Trading in Financial Securities

A handwritten signature in blue ink, appearing to read "Rahul", is written over the "FROM:" line of the memorandum.

Members of the Department of Finance Curriculum Committee met on April 12, 2021 to discuss amending the pre-requisites of FINA 465. The pre-requisites of FINA 412 and department permission were put in place at the time the course was created. Over the last few years, the department permission has been consistently granted to all students who had completed FINA 410 or FINA 409 (applied version of FINA 410) and FINA 412. This has worked out well and at the request from the Undergraduate Advising team, the DCC considered replacing the *department permission* with a formal list of pre-requisites to be satisfied. After a discussion about the course requirements the following recommendations have been made:

#### Recommendations

To change the prerequisites from FINA 412 and department permission to FINA 409 or FINA 410 as well as FINA 412. In addition, the department permission should be removed.

**Summary and Rationale for Changes**

The pre-requisites of FINA 412 and department permission were put in place at the time the course was created. Over the last few years, the department permission has been consistently granted to all students who had completed FINA 410 or FINA 409 (applied version of FINA 410) and FINA 412. This has worked out well. Replacement of the department permission with a formal list of pre-requisites to be satisfied will reduce the burden lo both the department and the Undergraduate Advising team.

## COURSE CHANGE FORM

**Dossier Type:** Undergraduate Program Regular Curriculum Change

**Dossier Title:** FINA 465 - Prerequisites Change

**Calendar Section Name:** FINA 465

**Calendar Section Type:** Course

**Description of Change:** FINA 465 - Prerequisites Change

**Proposed:** Undergraduate Curriculum Changes

**Faculty/School:** John Molson School of Business

**Calendar publication date:** 2022/2023/Fall

**Planning and Promotion:** 10 Dec 2021

**Effective/Push to SIS date:** 10 Dec 2021

**Implementation/Start date:** 01 Sep 2022

**Department:** Finance

**Path:** Undergraduate > Undergraduate Calendar 2022-2023 > Faculties > Section 61 John Molson School of Business > John Molson School of Business > Section 61.70 Department of Finance > Finance Courses

**Type of Change:** Course Change

### Present Text (from 2021) calendar

FINA 465 Trading in Financial Securities (3 credits)

*Prerequisites:*

The following course must be completed previously: FINA 412 :  
~~Permission of the Department of Finance is required.~~

*Description :*

This course focuses on developing practical skills in trading financial securities. Topics covered include general trading practices, fundamental and technical analysis, term structure of interest rates, arbitrage opportunities, and trading strategies using options, futures and options on futures contracts. Speakers from the finance industry are also invited to share their experiences with the students.

*Component(s):*

Lecture

*Notes :*

Students who have received credit for this topic under a FINA 455 number may not take this course for credit.

### Proposed Text

FINA 465 Trading in Financial Securities (3 credits)

*Prerequisites:*

The following courses must be completed previously: FINA 409, or FINA 410 and FINA 412 .

*Description :*

This course focuses on developing practical skills in trading financial securities. Topics covered include general trading practices, fundamental and technical analysis, term structure of interest rates, arbitrage opportunities, and trading strategies using options, futures and options on futures contracts. Speakers from the finance industry are also invited to share their experiences with the students.

*Component(s):*

Lecture

*Notes :*

Students who have received credit for this topic under a FINA 455 number may not take this course for credit.

### Rationale:

The pre-requisites of FINA 412 and department permission were put in place at the time the course was created. Over the last few years the department permission has been consistently granted to all students who had completed FINA 410 or FINA 409 (applied version of FINA 410) and FINA 412. This has worked out well. Replacement of the department permission with a formal list of pre-requisites to be satisfied will reduce the burden to both the department and the Undergraduate Advising team.

### Resource Implications :

None

## Impact Report

### Programs

Specialization in Mathematical and Computational Finance

Source of Impact

- FINA 465

**Summary of Changes (Undergraduate Program Regular Curriculum Change)**

**Course Changes:**

	Subject Code Change	Catalogue Number Change	Title Change	Description Code Change	Prerequisite Change	Note Change (any change to any of the items under "Notes")	Credit Value Change	Component Change	Mode of Instruction Change	Cross listed Course Change
FINA 465 - Prerequisites Change					X					



## INTERNAL MEMORANDUM

**TO:** Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning

**FROM:** Claude Martel, Director, Institute for Co-operative Education

**Cc:** Julie Johnston, University Curriculum Administrator

**DATE:** May 25, 2021

**SUBJECT: Institute for Co-operative Education Undergraduate Calendar Changes for 2022: Update ICE section 24**

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Students enrolled in the Institute for Co-operative Education maintain full-time status when they are on a work term, by enrolling in Reflective Learning and Work Term complementary credit courses. The following update is to ensure the language regarding full-time status of Institute students on a work term in the calendar is clear.

### **I. Update language in the Undergraduate Calendar**

**Change requested:**

Add the following text to section 24 of the undergraduate calendar, under the “Work Term” sub-header: “*Students are considered to have full-time status at the University during their work terms.*”

**Rationale:**

Currently the calendar does not explicitly state that students enrolled in Co-op are considered to have full-time status while enrolled in their work terms. This is causing issues for students being refused a Québec Acceptance Certificate (CAQ) on the basis that there is insufficient evidence of their full-time status.

Thank you very much,

A handwritten signature in blue ink that reads "Claude Martel".

**Claude Martel**

Director / Directeur

**Concordia University/Université Concordia**

**Institute for Co-operative Education/Institut d'enseignement coopératif**

Office/Bureau: 1550, Boul. De Maisonneuve ouest, suite 430

Montréal (Québec), H3G 1M8

**PROGRAM CHANGE:** Correction to Work Term

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Co-op  
**Department:** Co-op  
**Program:** Co-op  
**Degree:** n/a  
**Calendar Section/Graduate Page Number:** Section 24

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Work Term</b> Co-operative education at Concordia is not to be construed as a placement operation or an inexpensive labour apprenticeship. The work term is an essential part of the student's learning experience and there is to be equitable remuneration paid for work performed. A co-op coordinator or participating faculty member visits the students at their place of work to evaluate the work performance, gauge the learning opportunities, assess the compatibility of student and employer and, if necessary, takes corrective action. The procedures for matching students with employers are managed by the Institute for Co-operative Education. Students must be willing to work anywhere in Canada, and may go abroad for a work term. Students must begin and end their degree with an academic study term. It should be noted that the University does not guarantee every student a job. The work terms are designated as CWT 100, 200, 300, and 400 Co-op Work Term I, II, III, and IV respectively). An appropriate letter is added to the course code to identify the student's area of study. These work terms carry no credit value and are used to indicate that the student is on a work term.</p>	<p><b>Work Term</b> Co-operative education at Concordia is not to be construed as a placement operation or an inexpensive labour apprenticeship. The work term is an essential part of the student's learning experience and there is to be equitable remuneration paid for work performed. A co-op coordinator or participating faculty member visits the students at their place of work to evaluate the work performance, gauge the learning opportunities, assess the compatibility of student and employer and, if necessary, takes corrective action. The procedures for matching students with employers are managed by the Institute for Co-operative Education. Students must be willing to work anywhere in Canada, and may go abroad for a work term. Students must begin and end their degree with an academic study term. It should be noted that the University does not guarantee every student a job. The work terms are designated as CWT 100, 200, 300, and 400 Co-op Work Term I, II, III, and IV respectively). An appropriate letter is added to the course code to identify the student's area of study. These work terms carry no credit value and are used to indicate that the student is on a work term. <a href="#">Students are considered to have full-time status at the University during their work terms. Students doing a work term through the Institute are enrolled in complementary credit and work term courses for the semester in which their work term takes place.</a></p>
<p><b>Rationale:</b>                      Currently the calendar does not explicitly state that students enrolled in Co-op are considered to have full-time status while enrolled in their work terms. This is causing issues for students being refused a CAQ on the basis that there is insufficient evidence of their full time status.</p>	
<p><b>Resource Implications:</b>                      None.</p>	

**SCHOOL OF GRADUATE STUDIES**

**MEMO TO:** Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning

**FROM:** Rachel Berger, Associate Dean, Academic Programs and Development  
School of Graduate Studies

**DATE:** October 28, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (ECON-37)  
(CALENDAR – 2022/2023)  
DEPARTMENT OF ECONOMICS  
FACULTY OF ARTS AND SCIENCE**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Arts and Science Faculty Council.

The Department of Economics is proposing the addition of the new course ECON 592 *Advanced Urban Economics* as well as a small editorial change to ECON 533 *Financial Economics*.

The GCC approved the proposed curriculum changes with minor modifications. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.

cc: R. Courtemanche, Associate Dean, Academic Programs, Faculty of Arts and Science  
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs



**INTERNAL MEMORANDUM**

**TO:** Dr. Rachel Berger  
Associate Dean, School of Graduate Studies  
Chair, Graduate Curriculum Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** September 20, 2021

**SUBJECT:** Graduate Calendar Curriculum Changes  
Department of Economics (ECON-37)

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The following proposal was presented under ASFC-2021-5M-H and approved at the Arts and Science Faculty Council meeting of September 17, 2021. We request that this proposal be reviewed at the next Graduate Curriculum Committee meeting.

Thank you for your consideration of this proposal for which there are no additional resource implications.

**INTERNAL MEMORANDUM**

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** September 2<sup>nd</sup>, 2021

**SUBJECT:** Graduate Calendar Curriculum Changes  
Department of Economics  
**ECON-37**  
Editorial change ECON 533; new course ECON 592

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The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

With the increased interest (and relevancy) in the study of urban planning and infrastructure of cities at Concordia, the **Department of Economics** is proposing the addition of the new course ECON 592 *Advanced Urban Economics* to its Graduate Diploma in Economics. Although the department currently offers ECON 593 *Regional Economics*, ECON 592 will offer students a more unique and complete coverage of cities and urban life. It is also being introduced as a cross-listed course, ECON 492, as an undergraduate 400-level course (see ECON-36, submitted concurrently). Offering this course at both the undergraduate and graduate levels will offer ample opportunity to students wanting to get informed on this topic.

The department is also submitting a small editorial change: the acronym for “Capital Asset Pricing Model” in ECON 433 *Financial Economics* was misspelled as CAPAM and should read CAPM.

Thank you for your consideration of this proposal for which there are no additional resource implications.

# Department of Economics

## ECON-37

### **Memo from Chair**

### **Editorial change**

ECON 533     *Financial Economics*

### **New course**

ECON 592     *Advanced Urban Economics*

## Internal Memorandum

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To: Dr. Richard Courtemanche, Associate Dean of Academic Affairs, Faculty of Arts and Science

From: Dr. Jorgen Hansen, Chair, Department of Economics

Date: May 4, 2021 – revised on June 22, 2021

Re: ECON-37 Addition of a new course and editorial change, 2022-23 Graduate Calendar

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In response to the recommendation from the Economics Graduate Curriculum Committee, the Department of Economics' assembly reviewed and unanimously supported the proposed changes to our graduate offerings. The approval was obtained on March 11, 2021.

Proposed changes, Graduate Diploma in Economics	
1. ECON 533 Financial Economics	Editorial change
2. ECON 592 Advanced Urban Economics	Addition of a new course

### 1. Editorial change: ECON 533 Financial Economics

There is a typo in the course description of ECON 533 Financial Economics: the acronym should read CAPM (Capital Asset Pricing Model) and not CAPAM. We are requesting that the correction be made, as 'CAPAM' does not stand for a concept or model in Economics. The change to cross-listed course ECON 433 is requested in Provotrack dossier ECON-36, submitted concurrently to ECON-37. ECON 433 is available to BA Economics students.

### 2. New course: ECON 592 Advanced Urban Economics

The Department is proposing the creation of ECON 592 Advanced Urban Economics in recognition of urban economics being a growing research area in the discipline; although ECON 593 Regional Economics can cover certain topics in urban economics, a unique course in urban economics can offer students a comprehensive coverage of the area. In addition, the topics of ECON 592 align well with the university's emphasis on cities and urban life.

ECON 592 will be cross-listed with ECON 492, the latter being available to BA Economics Students; the addition of ECON 492 to the Undergraduate Calendar is requested in Provotrack dossier ECON-36, submitted concurrently to ECON-37. Since all courses at the 400-level are cross-listed with an equivalent 500-level course in combined sections, we are proposing to create ECON 592 at the same time as ECON 492, to offer equivalent opportunities for specialization and variety in course selection to Graduate Diploma students. The creation of

ECON 492/592 does not have resource implications, as this course will be offered within the department's section allotment.

I thank you for your consideration and hope that this information will be sufficient in assessing our request. Please do not hesitate to contact me should you have any questions about these curriculum changes.

Best regards,

Dr. Jorgen Hansen  
Chair and Professor  
Department of Economics

Attached documents:

- Provotrack changes
- ECON 492/592 draft course outline (this outline is also presented in ECON-36)

**PROGRAM CHANGE:** Degree requirements

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Arts and Science  
**Department:** Economics  
**Program:** Graduate Diploma in Economics  
**Degree:** Graduate Diploma  
**Calendar Section/Graduate Page Number:** Fall 2021

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>Degree Requirements</b></p> <p>Fully-qualified candidates are required to complete a minimum of 30 credits.</p> <p>Please see the Economics Courses page for course descriptions.</p> <p>Each student's program of study must be approved by the Graduate Program Director.</p> <p><b>Economics Graduate Diploma (30 credits)</b></p> <p>6 credits of Core Courses:</p> <ul style="list-style-type: none"> <li>• ECON 501 Advanced Microeconomic Theory (3.00)</li> <li>• ECON 503 Advanced Macroeconomic Theory (3.00)</li> </ul> <p>6 credits minimum chosen from:</p> <p style="padding-left: 40px;">Economics Graduate Diploma Class B Courses</p> <p>18 credits maximum chosen from the following lists, with no more than six credits chosen from Class C:</p> <p style="padding-left: 40px;">Economics Graduate Diploma Class A Courses                      Economics Graduate Diploma Class B Courses                      Economics Graduate Diploma Class C Courses</p> <p>Note: No more than 12 credits can be earned as pro-tanto credit for previous work.</p> <p><b>Economics Graduate Diploma Class A Courses</b></p> <ul style="list-style-type: none"> <li>• ECON 509 History of Early Economic Thought (3.00)</li> </ul>	<p><b>Degree Requirements</b></p> <p>Fully-qualified candidates are required to complete a minimum of 30 credits.</p> <p>Please see the Economics Courses page for course descriptions.</p> <p>Each student's program of study must be approved by the Graduate Program Director.</p> <p><b>Economics Graduate Diploma (30 credits)</b></p> <p>6 credits of Core Courses:</p> <ul style="list-style-type: none"> <li>• ECON 501 Advanced Microeconomic Theory (3.00)</li> <li>• ECON 503 Advanced Macroeconomic Theory (3.00)</li> </ul> <p>6 credits minimum chosen from:</p> <p style="padding-left: 40px;">Economics Graduate Diploma Class B Courses</p> <p>18 credits maximum chosen from the following lists, with no more than six credits chosen from Class C:</p> <p style="padding-left: 40px;">Economics Graduate Diploma Class A Courses                      Economics Graduate Diploma Class B Courses                      Economics Graduate Diploma Class C Courses</p> <p>Note: No more than 12 credits can be earned as pro-tanto credit for previous work.</p> <p><b>Economics Graduate Diploma Class A Courses</b></p> <ul style="list-style-type: none"> <li>• ECON 509 History of Early Economic Thought (3.00)</li> </ul>

- ECON 510 History of Modern Economic Thought (3.00)
- ECON 513 Economic Growth and Fluctuations (3.00)
- ECON 514 Economic Development: Policy Analysis (3.00)
- ECON 521 Econometrics I (3.00)
- ECON 522 Econometrics II (3.00)
- ECON 523 Topics in Applied Econometrics (3.00)
- ECON 525 Mathematics for Advanced Study in Economics (3.00)
- ECON 530 Transportation Economics (3.00)
- ECON 532 Monetary Theory (3.00)
- ECON 533 Financial Economics (3.00)
- ECON 536 The Economics of Taxation (3.00)
- ECON 537 Economics of Public Expenditure (3.00)
- ECON 540 Market Design (3.00)
- ECON 542 International Economics: Trade Theory (3.00)
- ECON 543 International Economics: Finance (3.00)
- ECON 550 Economic History (3.00)
- ECON 561 Industrial Organization (3.00)
- ECON 562 The Corporate Economy (3.00)
- ECON 563 Economics of Regulation (3.00)
- ECON 564 Game Theory, Information, and Economic Modelling (3.00)
- ECON 565 The Economics of Professional Sport (3.00)
- ECON 581 Labour Economics (3.00)
- ECON 582 Economics of Personnel and Industrial Relations (3.00)
- ECON 583 Employment, Earnings and Labour Market Policies (3.00)
- ECON 585 Health Economics (3.00)
- ECON 591 Environmental Economics (3.00)
- ECON 593 Regional Economics (3.00)
- ~~ECON 595 Economics of Transportation and Communications (3.00)~~
- ECON 596 Natural Resource Economics (3.00)
- ECON 597 Income Distribution and Economic Inequality (3.00)
- ECON 598 Advanced Topics in Economics (3.00)

#### Economics Graduate Diploma Class B Courses

All 600-level courses listed in the Economics Courses section of the Calendar.

#### Economics Graduate Diploma Class C Courses (6 credits)

All courses listed in the Finance, Management, Marketing, and Administration MSc (MSCA) Courses section of the Calendar with prior permission of the Department of Economics and the John Molson School of Business. No more than six credits may be taken from this list.

- ECON 510 History of Modern Economic Thought (3.00)
- ECON 513 Economic Growth and Fluctuations (3.00)
- ECON 514 Economic Development: Policy Analysis (3.00)
- ECON 521 Econometrics I (3.00)
- ECON 522 Econometrics II (3.00)
- ECON 523 Topics in Applied Econometrics (3.00)
- ECON 525 Mathematics for Advanced Study in Economics (3.00)
- ECON 530 Transportation Economics (3.00)
- ECON 532 Monetary Theory (3.00)
- ECON 533 Financial Economics (3.00)
- ECON 536 The Economics of Taxation (3.00)
- ECON 537 Economics of Public Expenditure (3.00)
- ECON 540 Market Design (3.00)
- ECON 542 International Economics: Trade Theory (3.00)
- ECON 543 International Economics: Finance (3.00)
- ECON 550 Economic History (3.00)
- ECON 561 Industrial Organization (3.00)
- ECON 562 The Corporate Economy (3.00)
- ECON 563 Economics of Regulation (3.00)
- ECON 564 Game Theory, Information, and Economic Modelling (3.00)
- ECON 565 The Economics of Professional Sport (3.00)
- ECON 581 Labour Economics (3.00)
- ECON 582 Economics of Personnel and Industrial Relations (3.00)
- ECON 583 Employment, Earnings and Labour Market Policies (3.00)
- ECON 585 Health Economics (3.00)
- ECON 591 Environmental Economics (3.00)
- [ECON 592 Advanced Urban Economics \(3.00\)](#)
- ECON 593 Regional Economics (3.00)
- ECON 596 Natural Resource Economics (3.00)
- ECON 597 Income Distribution and Economic Inequality (3.00)
- ECON 598 Advanced Topics in Economics (3.00)

#### Economics Graduate Diploma Class B Courses

All 600-level courses listed in the Economics Courses section of the Calendar.

#### Economics Graduate Diploma Class C Courses (6 credits)

All courses listed in the Finance, Management, Marketing, and Administration MSc (MSCA) Courses section of the Calendar with prior permission of the Department of Economics and the John Molson School of Business. No more than six credits may be taken from this list.

#### Rationale:

The Department is proposing the creation of ECON 592 Advanced Urban Economics in recognition of urban economics being a growing research area in the discipline; although ECON 593 Regional Economics can cover certain topics in urban economics, a unique course in urban economics can offer students a comprehensive coverage of the area. In addition, the topics of ECON 592 align well with the university's emphasis on cities and urban life. Students in the Graduate Diploma in Economics will be able to take ECON 592 as part of the Class A courses in their degree requirements.

Note to calendar editor: ECON 595 was deleted from the calendar under ECON-35 (US-2020-6-D13) but was not removed from the Economics Graduate Diploma Class A Courses list. Its removal in this dossier corrects the oversight.

**Resource Implications:**

The creation of ECON 492/592 does not have resource implications, as this course will be offered within the department's section allotment.



**COURSE CHANGE:** ECON 533      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Arts and Science  
**Department:** Economics  
**Program:** Graduate Diploma in Economics  
**Degree:** Graduate Diploma  
**Calendar Section/Graduate Page Number:** Fall 2021

**Type of Change:**

- |   |   |                                       |                                       |
|---|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title         | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input checked="" type="checkbox"/> Editorial | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify:     |                                       |                                       |

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>ECON 533 Financial Economics (3.00 credits)</b></p> <p><i>Description:</i> This course introduces students to the theory and practice of finance as seen from the economist's point of view. In particular, it examines the following topics: the theory of decision-making under uncertainty; the basic portfolio models, such as the <b>CAPAM</b> and the APT; equilibrium aspects of financial markets, such as the role of arbitrage in the pricing of financial assets; the pricing of derivative securities, such as options.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• This course is cross-listed with an undergraduate 400-level course.</li> <li>• Students who have received credit for this topic under an ECON 598 number may not take this course for credit.</li> </ul>	<p><b>ECON 533 Financial Economics (3.00 credits)</b></p> <p><i>Description:</i> This course introduces students to the theory and practice of finance as seen from the economist's point of view. In particular, it examines the following topics: the theory of decision-making under uncertainty; the basic portfolio models, such as the <a href="#">Capital Asset Pricing Model (CAPM)</a> and the <a href="#">Arbitrage Pricing Theory (APT)</a>; equilibrium aspects of financial markets, such as the role of arbitrage in the pricing of financial assets; <a href="#">and</a> the pricing of derivative securities, such as options.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• This course is cross-listed with an undergraduate 400-level course.</li> <li>• Students who have received credit for this topic under an ECON 598 number may not take this course for credit.</li> </ul>
<p><b>Rationale:</b>                      There is a typo in the course description: the acronym should read CAPM (Capital Asset Pricing Model) and not CAPAM. We are requesting that the correction be made, as 'CAPAM' does not stand for a concept or model in Economics.</p>	
<p><b>Resource Implications:</b>                      None; this is an editorial change.</p>	
<p><b>Other Programs within which course is listed:</b></p> <p>ECON 533 is cross-listed with ECON 433 at the undergraduate level. The change has been requested in ECON-36.</p>	



**COURSE CHANGE:** ECON 592      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Arts and Science  
**Department:** Economics  
**Program:** Graduate Diploma in Economics  
**Degree:** Graduate Diploma  
**Calendar Section/Graduate Page Number:** Winter 2021

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b><u><a href="#">ECON 592 Advanced Urban Economics (3.00 credits)</a></u></b></p> <p><i><u><a href="#">Description:</a></u> This course examines geographic aspects of economies through the application of microeconomic theories. The objective of the course is to understand why, how and where cities are created and organized (or disorganized), and what types of remedies urban economics has to offer when market failure is present at a city level. Topics may include location choice, suburbanization, New Economic Geography, city-size distribution, geographic mobility, spatial sorting, and quality-of-life index.</i></p> <p><i><u><a href="#">Component(s):</a></u> Lecture</i></p> <p><i><u><a href="#">Note(s):</a></u></i></p> <ul style="list-style-type: none"> <li><i><u><a href="#">This course is cross-listed with an undergraduate 400-level course.</a></u></i></li> </ul>

**Rationale:**  
 The Department is proposing the creation of ECON 592 Advanced Urban Economics in recognition of urban economics being a growing research area in the discipline; although ECON 593 Regional Economics can cover certain topics in urban economics, a unique course in urban economics can offer students a comprehensive coverage of the area. In addition, the topics of ECON 592 align well with the university's emphasis on cities and urban life.

ECON 592 will be cross-listed with ECON 492, the latter being available to BA Economics Students; the addition of ECON 492 to the Undergraduate Calendar is requested in Provotrack dossier ECON-36, submitted concurrently to ECON-37. Since all courses at the 400-level are cross-listed with an equivalent 500-level course in combined sections, we are proposing to create ECON 592 at the same time as ECON 492, to offer equivalent opportunities for specialization and variety in course selection to Graduate Diploma students.

The course outline of ECON 492/592 is included as a supporting document to this dossier.

**Resource Implications:**  
 The creation of ECON 492/592 does not have resource implications, as this course will be offered within the department's section allotment.

Other Programs within which course is listed:

This course is cross-listed with ECON 492, which is available to students in the BA Economics as well as the JMSB Major in Economics students.

## COURSE SYLLABUS

Instructor: Axel Watanabe\*, Ph.D.

(proposed syllabus)

### CONTENTS

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The following is a contract between you and me for this course. **Read this syllabus carefully** and bring it to my attention if you have any questions or concerns within a week from the beginning of the semester. Otherwise, you are presumed to have agreed to the statements below and you and I both assume responsibility to honor them.

### 1 COURSE DESCRIPTION & OBJECTIVES

Cities are essential and indispensable components of modern economies. They nurture intense economic activities by making easy the exchange of ideas and economic resources. For instance, the three largest cities, Toronto, Montréal and Vancouver alone make up for more than one third of the GDP in the country. On the other hand,

\*Department of Economics, Concordia University ([email](mailto:axel.watanabe@concordia.ca)).

they do not come without a set of challenges such as congestion, inner city poverty concentration and sprawling.

This course is designed for students with interests in economic functions of cities and problems related to spatial allocation of resources. We review the geographical aspects of our economy by identifying and analyzing these issues stated above through the application of microeconomic theory both analytically and empirically. The goal of the course is to understand why, how and where cities are created and organized (or disorganized), and what types of remedies urban economics has to offer when market failure is present at a city level.

Urban economics is an applied field of microeconomics, and as such, your comprehension of microeconomic theory will give you a great jump start to get an intuitive grasp of the ideas that we will explore in this course. We inherit quite a few ideas from microeconomic theories and put them to use with the aim of understanding the economics of cities.

### 2 CLASS & OFFICE HOURS

Class meets Mondays and Wednesdays from 14:45 to 16:00 on Zoom. The session begins on September 8th and concludes on December 8th with the final exam to be held afterwards. I will hold my office hours from 16:00 to 17:00 on Mondays over Zoom or by appointment.

I am happy to answer your questions by [email](mailto:axel.watanabe@concordia.ca) if you cannot make it during the office hours.

TA for this course is [The Anh Vo](#). His responsibility includes grading and holding office hours (time and date TBA) or respond to your email if you cannot make it during his office hours.

### 3 SUBJECTS

We will cover the following topics (subject to change):

- o. Prologue
- 1. Intraurban Economics
  - 1A General Equilibrium
  - 1B Alonso Model
    - Alonso [[Alo64](#)]

- Arnott and McMillen, Ch 7 [AMo8]
  - Berliant and Fujita [BF92]
- 1C Monocentric City Model
- Arnott and McMillen, Ch 6 [AMo8]
  - Brueckner, Ch 2 and 3 [Bru11]
  - Fujita, Ch 2 [Fuj89]
  - Wassmer, Ch 8 [Wasoo]
- 1D Land Rent
- Arnott and McMillen, Ch 14 [AMo8]
  - Coulson [Cou91]
  - Carlino and Coulson [CCo4]
- 1E Suburbanization
- Anas et al. [AAS98]
  - Mieszkowski and Mills [MM93]
  - Rappaport [Rap05]
  - Briant, Combes and Lafourcade [BCL10]
- 1F Hotelling's Model
- Hotelling [Hot29]
2. Interurban Economics
- 2A Starrett's Theorem
- Starrett [Sta78]
  - Boyd and Conley [BC97]
- 2B New Economic Geography
- Fujita et al. [FKV99]
  - Krugman [Kru91]
- 2C Chicago and the Great West
- Cronon [Cro92]
- 2D City-Size Distribution
- Gabaix [Gab99]
  - Eeckhout [Eeco4]
- 2E Gravity Model
- Bergstrand [Ber85]
3. Applied Urban Economics
- 3A Quality of Life in Cities
- Rosen [Ros79]
  - Roback [Rob82]
  - Arnott and McMillen, Ch 28 [AMo8]
- 3B Housing
- Arnott and McMillen, Ch 9 [AMo8]
- 3C Transportation Economics
- Arnott and McMillen, Ch 15 and 17 [AMo8]
4. Epilogue

## 4 READINGS

You should be able to solve problem sets and exam questions from the lectures. References are provided in [section 3](#). Scan them to get the rough sketch and refer to them only when you would like to obtain further

information on a specific topic. Arnott and McMillen [AMo8], Fujita [Fuj89], Fujita et al [FKV99] and Cronon [Cro92] are left on reserve at Webster Library.

## 5 ATTENDANCE

Class attendance is expected.<sup>1</sup> You should also be well aware that your primary source of information for this course is lecture. The exams are based on the lecture rather than the textbook. **It is not my responsibility to pamper those who skip classes** and if you miss any critical information provided in class, you are held responsible. **Do not lose your lecture notes.** I will not post them.

The lecture will be recorded and posted for those who cannot attend the live lecture. Students are expected to have attended the lecture before the following lecture begins.

It usually takes a trained professional around five hours on average to prepare an hour of lecture. If you skip one hour of lecture, you are likely to spend more than five hours to catch up with one hour of lecture that you missed by yourself. The opportunity cost of attending the lecture is quite low for most of you (note that your tuition is a sunk cost). Ask yourself which action is economically rational to take: Come to class or do something else and spend five+ hours to make up for a missed class.

## 6 HOW TO TAKE NOTES

As described above, this course is lecture-oriented and your note taking skill is indispensable for your survival. Bring four colored pens with you for every lecture. I color-code the lecture notes according to:

**Purple** Know this or die (Fear not though. I will use this only twice in the entire semester).

**Red** Items of primary importance.

**Blue** Items of secondary importance.

**Green** Intuitive, counterintuitive or surprising things, and examples.

You can write everything in black if you like but you will have incredibly hard time figuring out which items you should focus on when you prepare for the exam. I cannot count how many times I saw students got completely lost because their lecture note is black all the way through and they can barely fish important information out of it. They probably thought that there were better things to buy with five dollars than pens. (No, there aren't). The course covers lots of subjects. You would want to stay organized. Prioritize the items with colors.<sup>2</sup>

<sup>1</sup>You will receive an F if you miss the entire first week of the lecture without prior notice.

<sup>2</sup>If you have medical conditions that make it difficult for you to take notes in colors, let me know and we will work things out.

Be sure to download or bring a copy of Graph Vault with you.

## 7 HOMEWORK & EXAMS

There are weekly homework problems and two exams in this course.

$V_1^{\circ}$  is a weekly homework to get you some hands-on experience to confirm and strengthen your comprehension. The class is split into a group of 3 or 4 and each group will submit its own solution. The homework is graded by group. Therefore, be sure to agree on the answer before submitting. To get a full credit, you must explain the steps that lead to your answer.

We will have two take-home exams on the dates specified in table 1. It is advised that you review your class notes and homework problem sets before the exam. Some of the exam questions will be taken from previous homework questions with some modifications. I will announce which chapters each exam will cover as we get close to the exam date. You may refer to anything from class (lecture notes,  $V_1^{\circ}$  or anything available on this course's Moodle). You may not refer to anything that can respond back to you (e.g., person).

The exam format may change if an alternative format is deemed more effective. You will be notified of the change in a timely manner.

## 8 IMPORTANT DATES

See table 1.

Date	Event
Oct 12	Thanksgiving day (no class)
Oct 21	Midterm exam (8 hours, time TBA)
Dec 8	Make-up day for Thanksgiving day
TBA	Final exam (8 hours, during the exam period)

Table 1.

No credit will be given to assignments submitted past due, unless you have my prior approval. If you have to miss the due date for pre-approved reasons, including verified illness, family emergencies or job interviews, **inform me as soon as possible and at least 24 hours before** the due date. **The same applies to the exams**, except for the final exam. If you have to miss the final exam, contact Exams Office to file a deferral. Note that Exams Office can grant you a deferral for **the final exam only**. For any other graded items, you will need to contact me as above.

## 9 COURSE GRADES

Your course grade is calculated according to the weighted average of the submitted assignments (with the weight of .28), midterm (.35) and final exam (.37). I would like a course that actually concludes and **there is no extra credit activity with a positive weight**.

I reserve the right to boost your grade if you make an exceptional, remarkable contribution in class and downgrade for a misdemeanor.

## 10 CORRESPONDENCE

If you need to email me or TA, it must originate from your Concordia email address. **Any email from any other address will be treated as spam and will be neither read nor answered**. If you have not activated your address already, follow the instructions at [www.concordia.ca/it/services/email-for-students-office-365.html](http://www.concordia.ca/it/services/email-for-students-office-365.html).

## 11 ACADEMIC INTEGRITY

My job is to help you understand urban economics and evaluate **your** progress. Students are specifically warned against all forms of cheating and plagiarism as they would tarnish Concordia's reputation and bring discredit on the accomplishments of our students. You are expected to follow the code of the university at <http://www.concordia.ca/students/academic-integrity.html>. Familiarize yourself with it and avoid any academic sanctions on your record.

Plagiarism: The most common offense under the Academic Code of Conduct is plagiarism, which the Code defines as "the presentation of the work of another person as one's own or without proper acknowledgement." This includes material copied word for word from books, journals, Internet sites, professor's course notes, etc. It refers to material that is paraphrased but closely resembles the original source. It also includes for example the work of a fellow student, an answer on a quiz, data for a lab report, a paper or assignment completed by another student. It might be a paper purchased from any source. Plagiarism does not refer to words alone. It can refer to copying images, graphs, tables and ideas. "Presentation" is not limited to written work. It includes oral presentations, computer assignments and artistic works. Finally, if you translate the work of another person into any other language and do not cite the source, this is also plagiarism.

In Simple Words: Do not copy, paraphrase or translate anything from anywhere without saying where you obtained it.

**SCHOOL OF GRADUATE STUDIES**

**MEMO TO:** Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning

**FROM:** Rachel Berger, Associate Dean, Academic Programs and Development  
School of Graduate Studies

**DATE:** October 28, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (EDUC-77)  
(CALENDAR – 2022/2023)  
DEPARTMENT OF EDUCATION  
FACULTY OF ARTS AND SCIENCE**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Arts and Science Faculty Council.

The Department of Education is proposing generalized changes to their MA in Educational Technology and their Diploma in Instructional Technology sections of the Graduate Calendar to reflect the programs' current offerings and the evolution of the discipline. The changes include a number of course description, note, and title changes as well as one new course, ETEC 634 *Communicating Instructional Content*. Furthermore, 500-level courses at the diploma level are being replaced with 600-level course numbers.

The GCC approved the proposed curriculum changes with minor modifications. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.

cc: R. Courtemanche, Associate Dean, Academic Programs, Faculty of Arts and Science  
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs



**INTERNAL MEMORANDUM**

**TO:** Dr. Rachel Berger  
Associate Dean, School of Graduate Studies  
Chair, Graduate Curriculum Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** September 20, 2021

**SUBJECT:** Graduate Calendar Curriculum Changes  
Department of Education (EDUC-77)

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The following proposal was presented under ASFC-2021-5M-I and approved at the Arts and Science Faculty Council meeting of September 17, 2021. We request that this proposal be reviewed at the next Graduate Curriculum Committee meeting.

Thank you for your consideration of this proposal for which there are no additional resource implications.



## INTERNAL MEMORANDUM

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** September 2<sup>nd</sup>, 2021

**SUBJECT:** Graduate Calendar Curriculum Changes  
Department of Education  
**EDUC-77**  
Changes to MA in Educational Technology and Graduate Diploma in  
Instructional Technology; removal of ETEC 500-level courses, ETEC  
621, 635, 680; new course ETEC 634; course descriptions added to  
600-level ETEC courses; various updates

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The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

The **Department of Education** is making global changes to their MA in Educational Technology and their Diploma in Instructional Technology sections of the Graduate Calendar to accurately reflect how these programs are currently offered. A number of course notes are updated to reflect cross-listings across programs. Also added to the course offerings is the new course ETEC 634 *Communicating Instructional Content*, which “aims to develop the professional instructional writing skills needed by educational technologists” (course syllabus attached). This course was offered to both MA and Diploma students and found successful enrolments when offered as a special topics course under ETEC 593/693. The addition of ETEC 634 and removal of ETEC 535/635 *Principles of Educational Message Design* reflect changes in the discipline and the department’s desire to better serve the needs of the students.

A major attempt at streamlining the course list is that under the Diploma, the 500-level ETEC courses designations are being replaced with identifiers at the 600-level, for the courses already existing at the MA level. While this is partly an administrative measure, it also simplifies the curriculum map, by removing multiple 500-600 cross-listings. Notes

are updated to reflect the 500-level equivalencies. In addition, multiple course descriptions are added or modified, to reflect current methods, technologies, and approaches in the field. All modifications to 600-level courses will be reflected in both the Diploma and MA programs.

Consequent to the sweeping removal of 500-level numbers and titles from the Diploma program, the course ETEC 690 (previously cross-listed with ETEC 590) *Field Experience*, formerly titled "*Field Experience (for Option A-Thesis/Thesis-Equivalent only)*" requires a title change eliminating the MA option reference. The amended title and prerequisite clarify that this course is available to both Diploma and MA students alike. A course description is added and identifies the internship component of 135 hours corresponding with the three credits awarded when the course requirements are completed.

Thank you for your consideration of this proposal for which there are no additional resource implications. The new course, ETEC 634, will be offered as an elective course and will be part of the department's regular annual course allocation.

*Reference documents:*  
*FCC 2020.12\_EDUC-77*

# Department of Education

## EDUC-77

### Memo from Chair

### Program change

MA in Educational Technology

Graduate Diploma in Instructional Technology

### Course deletion

ETEC 507	Philosophical Issues in Educational Research
ETEC 513	Learning Theories
ETEC 521	Educational Cybernetics
ETEC 535	Principles of Educational Message Design
ETEC 536	Evaluation in Education and Training
ETEC 537	Educational Gaming and Modelling
ETEC 540	Research Methods I
ETEC 541	Research Methods II
ETEC 550	Fundamentals of Instructional Design
ETEC 551	Fundamentals of Human Performance Technology
ETEC 552	Knowledge Management
ETEC 560	Introduction to Educational Computing
ETEC 562	Social Technologies and the Sociocultural Aspects of Learning
ETEC 565	Introduction to Digital Media in Education
ETEC 566	Contemporary Use of Simulation in Training and Education
ETEC 569	Designing and Developing Interactive Instruction

ETEC 571	Administering Educational Technology Groups
ETEC 572	Project Management
ETEC 573	Consulting Skills for Educational Technologists
ETEC 576	Human Resources Development
ETEC 580	Global Perspectives in E-Learning
ETEC 581	Fundamentals of Distance Education
ETEC 590	Field Experience
ETEC 593	Special Issues in Educational Technology
ETEC 621	Educational Cybernetics
ETEC 635	Principles of Educational Message Design
ETEC 680	Global Perspectives in E-Learning

**Cross-listing added; course description and note change**

ETEC 607	Philosophical Issues in Educational Research <i>(also listed as ESTU 601)</i>
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**Exclusion note added or changed**

ETEC 613	Learning Theories
ETEC 640	Research Methods I
ETEC 650	Fundamentals of Instructional Design
ETEC 651	Fundamentals of Human Performance Technology
ETEC 671	Administering Educational Technology Groups

**New course**

ETEC 634	Communicating Instructional Content
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**Course description added; exclusion note added or changed**

APLI 641	Research Methods II ( <i>corresponds to changes to prime ETEC 641</i> )
ETEC 636	Evaluation in Education and Training
ETEC 637	Educational Gaming and Modelling
ETEC 641	Research Methods II
ETEC 652	Knowledge Management
ETEC 660	Introduction to Educational Computing
ETEC 662	Social Technologies and the Sociocultural Aspects of Learning
ETEC 665	Introduction to Digital Media in Education
ETEC 666	Contemporary Use of Simulation in Training and Education
ETEC 669	Designing and Developing Interactive Instruction
ETEC 672	Project Management
ETEC 676	Human Resources Development
ETEC 681	Fundamentals of Distance Education
ETEC 693	Special Issues in Educational Technology

**Course title change; prerequisite, course description, exclusion note added**

ETEC 690	Field Experience
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**Course description added**

ETEC 691	Advanced Readings and Research in Educational Technology I
ETEC 692	Advanced Readings and Research in Educational Technology II

**Prerequisite and course description added**

ETEC 795	Thesis Proposal
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**Prerequisite and course description added; component change**

ETEC 796	Thesis or Thesis-Equivalent (15 credits)
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**TO:** Richard Courtemanche, Associate Dean for Academic Programs,  
FAS

**FROM:** Sara Kennedy, Chair, Department of Education

**DATE:** March 1, 2021 revised May 14, 2021

**SUBJECT:** EDUC-77: Curriculum Changes for the Graduate Diploma in  
Instructional Technology and Master of Arts in Educational  
Technology

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The Department proposes for consideration the attached dossier (EDUC-77), which was initially approved at the Department Council meeting October 14, 2020 and with subsequent changes approved February 10, 2021.

Here is a highlight of the changes and the key reasons for requesting them.

- We have added course descriptions for all elective courses. Under previous curriculum guidelines, these course descriptions were not included in the Calendar. But the School of Graduate Studies has requested that we add these descriptions to enhance the calendar and provide more complete information for prospective students: the same type of information they can find about most other master's programs already offered by the university. In the process of adding these course descriptions, we have also revised the course descriptions for some of the core courses to further clarify their content for prospective students.
- We have updated the curriculum to reflect our current offerings as based on the needs of our students and the current state of our field.
  - ETEC 621 Educational Cybernetics. Deleted a course that we have not taught since 2012. The core systems theory is covered in two core courses.
  - ETEC 634 Communicating Instructional Content. New course replaces ETEC 535 Principles of Educational Message Design. The new course better meets students' needs.
  - ETEC 666 Contemporary Use of Simulation in Training and Education - correction to a misspelling in the course title.
  - ETEC 672 Project Management. A correction to reflect a change in course requirements that was approved last year: removal of this course from the list of the core courses required for the MA with Internship and Graduate

Diploma. We added another course last year (ETEC 673 Consulting Skills for Educational Technologists) that meets the same educational need but also addresses other skills requirements identified by the professional association that recognizes our programs and offers experience credit towards its professional certification to graduates of our program. Project Management (ETEC 672) remains an elective.

- o ETEC 680 Global Perspectives in e-Learning. Deleted a course that has not been offered in more than five years and whose key points are already integrated into other courses in the curriculum.
- o Removal of outdated exclusion notes that affects the following courses: ETEC 640, ETEC 641, ETEC 650, ETEC 651, ETEC 652, ETEC 671, ETEC 672, ETEC 681. The exclusion notes referred to the courses that were replaced by the new ones nearly a decade ago. At this point, no students who would have taken the prior courses are going through the program and the exclusion notes are no longer relevant.
- o Deletion of 500-numbers for all Graduate Diploma courses. Many students who start in one of our programs (such as the Graduate Diploma) move to another program (such as the MA Internship). 600-level course numbers now apply to both programs. The removal of the 500-level course numbers removes confusion among students. The difference in the two programs is not rooted in a difference in expectations on our part. Rather, this program is intended to address differences in student need. For example, it is common that students who complete the MA in Educational Studies or Applied Linguistics (also in our department) seek to build a technology profile. They do not need a full master's degree (they have one) but do want to become fully versed in the field. The Graduate Diploma affords that. That using a single number for the courses and cross-listing them also simplifies administration of the program is a welcome bonus.

Courses affected: ETEC 507, 513, 521, 535, 536, 537, 540, 541, 550, 551, 552, 560, 562, 565, 566, 569, 571, 572, 573, 576, 580, 582, 591, 593.

**Note:** This change has no impact on course content, which remains the same.

- o Addition of exclusion notes to all 600-level courses regarding their former 500-level equivalents.

There are no resource implications to these changes. The curriculum change will not lead to a change in the number of courses or programs, or in the number of sections needed.



**PROGRAM CHANGE:** MA in Educational Technology

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** MA in ETEC  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

Editorial                       Requirements                       Regulations                       Program Deletion                       New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>Educational Technology MA</b></p> <p><b>Admission Requirements</b></p> <ul style="list-style-type: none"> <li>• Bachelor's degree with at least a major or the equivalent in any subject.</li> <li>• Average of at least a B in the major or equivalent.</li> <li>• Students from the Diploma in Instructional Technology (who have not graduated from the Diploma) may apply for admission with advanced standing.</li> <li>• <b>Proficiency in English.</b> Applicants whose primary language is not English must demonstrate that their knowledge of English is sufficient to pursue graduate studies in their chosen field. Please refer to the Graduate Admission page for further information on the Language Proficiency requirements and exemptions.</li> </ul> <p><b>Additional Admission Requirements</b></p> <ul style="list-style-type: none"> <li>• Students from the Instructional Technology Graduate Diploma may transfer a maximum of 15 credits. An interview may be required.</li> </ul> <p><b>Degree Requirements</b></p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Please see the Education Courses page for course descriptions.</p> <p><b>Educational Technology MA</b></p>	<p><b>Educational Technology MA</b></p> <p><b>Admission Requirements</b></p> <ul style="list-style-type: none"> <li>• Bachelor's degree with at least a major or the equivalent in any subject.</li> <li>• Average of at least a B in the major or equivalent.</li> <li>• Students from the Diploma in Instructional Technology (who have not graduated from the Diploma) may apply for admission with advanced standing.</li> <li>• <b>Proficiency in English.</b> Applicants whose primary language is not English must demonstrate that their knowledge of English is sufficient to pursue graduate studies in their chosen field. Please refer to the Graduate Admission page for further information on the Language Proficiency requirements and exemptions.</li> </ul> <p><b>Additional Admission Requirements</b></p> <ul style="list-style-type: none"> <li>• Students from the Instructional Technology Graduate Diploma may transfer a maximum of 15 credits. An interview may be required.</li> </ul> <p><b>Degree Requirements</b></p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Please see the Education Courses page for course descriptions.</p> <p><b>Educational Technology MA</b></p>

45 credits chosen from:  
Educational Technology MA with Thesis  
Educational Technology MA with Internship

### **Educational Technology MA with Thesis**

Note: The individual course of study is decided in consultation with the student's academic advisor, although certain courses are required of all students.

#### **12 credits of Core Courses:**

ETEC 613 - Learning Theories (3 credits)  
ETEC 640 - Research Methods I (3 credits)  
ETEC 641 - Research Methods II (3 credits)  
ETEC 650 - Fundamentals of Instructional Design (3 credits)

**15 credits of Elective Courses. In addition to the courses listed below, students may be permitted to register for up to two elective courses (6 credits) offered in other graduate programs. In all such cases, prior permission of the Graduate Program Director is required.**

ETEC 607 - Philosophical Issues in Educational Research (3 credits)  
~~ETEC 621 - Educational Cybernetics (3 credits)~~  
~~ETEC 635 - Principles of Educational Message Design (3 credits)~~  
ETEC 636 - Evaluation in Education and Training (3 credits)  
ETEC 637 - Educational Gaming and Modelling (3 credits)  
ETEC 652 - Knowledge Management (3 credits)  
ETEC 660 - Introduction to Educational Computing (3 credits)  
ETEC 662 - Social Technologies and the Sociocultural Aspects of Learning (3 credits)  
ETEC 665 - Introduction to Digital Media in Education (3 credits)  
ETEC 666 - Contemporary Use of Simulation in Training and Education (3 credits)  
ETEC 669 - Designing and Developing Interactive Instruction (3 credits)  
ETEC 676 - Human Resources Development (3 credits)  
~~ETEC 680 - Global Perspectives in E-Learning (3 credits)~~  
ETEC 681 - Fundamentals of Distance Education (3 credits)  
ETEC 690 - Field Experience ~~(for Option A Thesis/Thesis-Equivalent only)~~ (3 credits)  
ETEC 691 - Advanced Readings and Research in Educational Technology I (3 credits)  
ETEC 692 - Advanced Readings and Research in Educational Technology II (3 credits)  
ETEC 693 - Special Issues in Educational Technology (3 credits)

#### **18 credits Thesis (Area I) or Thesis-Equivalent (Area II)**

ETEC 795 - Thesis Proposal (3 credits)  
ETEC 796 - Thesis or Thesis-Equivalent (15 credits)

This option is divided into two areas: Area I (Research and Development of Educational Technology) and Area II (Production and Evaluation of Educational Materials).

Thesis (Area I): Students must complete a written thesis proposal, a thesis and an oral defence.

45 credits chosen from:  
Educational Technology MA with Thesis  
Educational Technology MA with Internship

### **Educational Technology MA with Thesis**

Note: The individual course of study is decided in consultation with the student's academic advisor, although certain courses are required of all students.

#### **12 credits of Core Courses**

ETEC 613 - Learning Theories (3 credits)  
ETEC 640 - Research Methods I (3 credits)  
ETEC 641 - Research Methods II (3 credits)  
ETEC 650 - Fundamentals of Instructional Design (3 credits)

**15 credits of Elective Courses. In addition to the courses listed below, students may be permitted to register for up to two elective courses (6 credits) offered in other graduate programs. In all such cases, prior permission of the Graduate Program Director is required**

ETEC 607 - Philosophical Issues in Educational Research (3 credits)  
ETEC 634 - Communicating Instructional Content (3 credits)  
ETEC 636 - Evaluation in Education and Training (3 credits)  
ETEC 637 - Educational Gaming and Modelling (3 credits)  
ETEC 651 - Fundamentals of Human Performance Technology (3 credits)  
ETEC 652 - Knowledge Management (3 credits)  
ETEC 660 - Introduction to Educational Computing (3 credits)  
ETEC 662 - Social Technologies and the Sociocultural Aspects of Learning (3 credits)  
ETEC 665 - Introduction to Digital Media in Education (3 credits)  
ETEC 666 - Contemporary Use of Simulation in Training and Education (3 credits)  
ETEC 669 - Designing and Developing Interactive Instruction (3 credits)  
ETEC 672 - Project Management (3 credits)  
ETEC 676 - Human Resources Development (3 credits)  
ETEC 681 - Fundamentals of Distance Education (3 credits)  
ETEC 690 - Field Experience (3 credits)  
ETEC 691 - Advanced Readings and Research in Educational Technology I (3 credits)  
ETEC 692 - Advanced Readings and Research in Educational Technology II (3 credits)  
ETEC 693 - Special Issues in Educational Technology (3 credits)

#### **18 credits Thesis (Area I) or Thesis-Equivalent (Area II)**

ETEC 795 - Thesis Proposal (3 credits)  
ETEC 796 - Thesis or Thesis-Equivalent (15 credits)

This option is divided into two areas: Area I (Research and Development of Educational Technology) and Area II (Production and Evaluation of Educational Materials).

Thesis (Area I): Students must complete a written thesis proposal, a thesis and an oral defence.

Thesis-Equivalent (Area II): Students must complete a written thesis- equivalent proposal, a thesis-equivalent and an oral defence. ~~Students are required to produce educational materials to achieve specific objectives (e.g., an educational television production or a computer-based instructional program) and their evaluation.~~

~~Please see the ETEC 795 and ETEC 796 course descriptions for details.~~

### **Educational Technology MA with Internship**

Note: The individual course of study is decided in consultation with the student's academic advisor, although certain courses are required of all students.

#### **~~15~~ credits of Core Courses**

ETEC 613 - Learning Theories (3 credits)  
ETEC 640 - Research Methods I (3 credits)  
ETEC 650 - Fundamentals of Instructional Design (3 credits)  
ETEC 651 - Fundamentals of Human Performance Technology (3 credits)  
ETEC 671 - Administering Educational Technology Groups (3 credits)  
~~ETEC 672 - Project Management (3 credits)~~  
ETEC 673 - Consulting Skills for Educational Technologists (3 credits)

**12 credits minimum of Elective Courses. In addition to the courses listed below, students may be permitted to register for up to two elective courses (6 credits) offered in other graduate programs. In all such cases, prior permission of the Graduate Program Director is required.**

ETEC 607 - Philosophical Issues in Educational Research (3 credits)  
~~ETEC 621 - Educational Cybernetics (3 credits)~~  
~~ETEC 635 - Principles of Educational Message Design (3 credits)~~  
ETEC 636 - Evaluation in Education and Training (3 credits)  
ETEC 637 - Educational Gaming and Modelling (3 credits)  
ETEC 652 - Knowledge Management (3 credits)  
ETEC 660 - Introduction to Educational Computing (3 credits)  
ETEC 662 - Social Technologies and the Sociocultural Aspects of Learning (3 credits)  
ETEC 665 - Introduction to Digital Media in Education (3 credits)  
ETEC 666 - Contemporary Use of Simulation in Training and Education (3 credits)  
ETEC 669 - Designing and Developing Interactive Instruction (3 credits)  
ETEC 676 - Human Resources Development (3 credits)  
~~ETEC 680 - Global Perspectives in E-Learning (3 credits)~~  
ETEC 681 - Fundamentals of Distance Education (3 credits)  
ETEC 690 - Field Experience ~~(for Option A-Thesis/Thesis-Equivalent only)~~ (3 credits)  
ETEC 691 - Advanced Readings and Research in Educational Technology I (3 credits)  
ETEC 692 - Advanced Readings and Research in Educational Technology II (3 credits)  
ETEC 693 - Special Issues in Educational Technology (3 credits)

#### **18 credits Internship and Internship Report:**

ETEC 791 - Internship (15 credits)  
ETEC 792 - Internship Report (3 credits)

Thesis-Equivalent (Area II): Students must complete a written thesis- equivalent proposal, a thesis-equivalent and an oral defence.

### **Educational Technology MA with Internship**

Note: The individual course of study is decided in consultation with the student's academic advisor, although certain courses are required of all students.

#### **12 credits of Core Courses**

ETEC 613 - Learning Theories (3 credits)  
ETEC 640 - Research Methods I (3 credits)  
ETEC 650 - Fundamentals of Instructional Design (3 credits)  
ETEC 651 - Fundamentals of Human Performance Technology (3 credits)

#### **3 additional credits of Core Courses chosen from:**

ETEC 671 - Administering Educational Technology Groups (3 credits)  
ETEC 673 - Consulting Skills for Educational Technologists (3 credits)

**12 credits minimum of Elective Courses. In addition to the courses listed below, students may be permitted to register for up to two elective courses (6 credits) offered in other graduate programs. In all such cases, prior permission of the Graduate Program Director is required.**

ETEC 607 - Philosophical Issues in Educational Research (3 credits)  
[ETEC 634 - Communicating Instructional Content \(3 credits\)](#)  
ETEC 636 - Evaluation in Education and Training (3 credits)  
ETEC 637 - Educational Gaming and Modelling (3 credits)  
ETEC 652 - Knowledge Management (3 credits)  
ETEC 660 - Introduction to Educational Computing (3 credits)  
ETEC 662 - Social Technologies and the Sociocultural Aspects of Learning (3 credits)  
ETEC 665 - Introduction to Digital Media in Education (3 credits)  
ETEC 666 - Contemporary Use of Simulation in Training and Education (3 credits)  
ETEC 669 - Designing and Developing Interactive Instruction (3 credits)  
[ETEC 672 - Project Management \(3 credits\)](#)  
ETEC 676 - Human Resources Development (3 credits)  
ETEC 681 - Fundamentals of Distance Education (3 credits)  
ETEC 690 - Field Experience  
ETEC 691 - Advanced Readings and Research in Educational Technology I (3 credits)  
ETEC 692 - Advanced Readings and Research in Educational Technology II (3 credits)  
ETEC 693 - Special Issues in Educational Technology (3 credits)

#### **18 credits Internship and Internship Report:**

ETEC 791 - Internship (15 credits)  
ETEC 792 - Internship Report (3 credits)

#### **Additional Degree Requirements**

### Additional Degree Requirements

The individual course of study is decided in consultation with the student's academic advisor, although certain courses are required of all students.

**Cognate Courses.** ~~Graduate s~~tudents in educational technology may be permitted to register for up to two elective courses (6 credits) offered in other graduate programs. In all such cases, ~~prior permission of~~ the Graduate Program Director ~~is required~~.

### Academic Regulations

1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.
2. **Residence.** The minimum residence requirement is one year (3 terms) of full-time study, or the equivalent in part-time study.
3. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements.
4. **Graduation Requirement.** In order to graduate, students must have a cumulative GPA of at least 2.70.

The individual course of study is decided in consultation with the student's academic advisor, although certain courses are required of all students.

**Cognate Courses.** Students in educational technology programs may be permitted to register for up to two elective courses (6 credits) offered in other graduate programs. In all such cases, the Graduate Program Director must approve the courses before registration.

### Academic Regulations

1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.
2. **Residence.** The minimum residence requirement is one year (3 terms) of full-time study, or the equivalent in part-time study.
3. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements.
4. **Graduation Requirement.** In order to graduate, students must have a cumulative GPA of at least 2.70.

### Rationale:

1. The Project Management (ETEC 672) course is removed from the list of options in the MA with Internship core course listing because we have added another course last year's curriculum that meets the same educational need and is popular with students (ETEC 673 Consulting Skills for Educational Technologists). We do not want to remove the Project Management course from our curriculum entirely, however, as we might offer it in the future as an elective (it is therefore now listed under the elective courses).
2. The ETEC 690 title is to indicate the course is open to both Diploma and MA-Thesis Option students (for those unfamiliar with our program, we have a different option for the MA-internship option).
3. ETEC 621, 635, 680 are removed from the MA with Thesis and MA with Internship elective courses. ETEC 621 and 680 have not been offered in more than five years and ETEC 635 is replaced by a new course (ETEC 634) that better meets student needs.
4. ETEC 651 is a requirement for the Graduate Diploma in Instructional Technology and MA in Educational Technology (Internship Stream) programs. But it is not a requirement for the MA in Educational Technology (Thesis option). As students may wish to take it as an elective, we are adding the course to the elective course listing.

Resource Implications:

None.

**PROGRAM CHANGE:** Diploma in Instructional Technology

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in Instructional Technology  
**Degree:** Diploma  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>Instructional Technology Graduate Diploma</b></p> <p><b>Admission Requirements</b></p> <ul style="list-style-type: none"> <li>• Bachelor's degree with at least a major or the equivalent in any subject.</li> <li>• <b>Proficiency in English.</b> Applicants whose primary language is not English must demonstrate that their knowledge of English is sufficient to pursue graduate studies in their chosen field. Please refer to the Graduate Admission page for further information on the Language Proficiency requirements and exemptions.</li> </ul> <p><b>Additional Admission Requirements</b></p> <p>The program is open to full-time and part-time students without preference. An interview may be required.</p>	<p><b>Instructional Technology Graduate Diploma</b></p> <p><b>Admission Requirements</b></p> <ul style="list-style-type: none"> <li>• Bachelor's degree with at least a major or the equivalent in any subject.</li> <li>• <b>Proficiency in English.</b> Applicants whose primary language is not English must demonstrate that their knowledge of English is sufficient to pursue graduate studies in their chosen field. Please refer to the Graduate Admission page for further information on the Language Proficiency requirements and exemptions.</li> </ul> <p><b>Additional Admission Requirements</b></p> <p>The program is open to full-time and part-time students without preference. An interview may be required.</p>

## Degree Requirements

Fully-qualified candidates are required to complete a minimum of 30 credits.

Please see the Education Courses page for course descriptions.

### Instructional Technology Graduate Diploma (30 credits)

Note: Research papers, essays, examinations or preparation of audio-visual materials may be required as part of the work for individual courses.

#### 9 credits of Required Courses

- EETC 513 - Learning Theories (3 credits)
- EETC 550 - Fundamentals of Instructional Design (3 credits)
- EETC 551 - Fundamentals of Human Performance Technology (3 credits)

#### 3 additional credits of Required Courses chosen from:

- EETC 571 - Administering Educational Technology Groups (3 credits)
- ~~EETC 572 - Project Management (3 credits)~~
- EETC 573 - Consulting Skills for Educational Technologists (3 credits)

#### 18 credits of Elective Courses

- EETC 507 - Philosophical Issues in Educational Research (3 credits)
- ~~EETC 521 - Educational Cybernetics (3 credits)~~
- ~~EETC 535 - Principles of Educational Message Design (3 credits)~~
- EETC 536 - Evaluation in Education and Training (3 credits)
- EETC 537 - Educational Gaming and Modelling (3 credits)
- EETC 540 - Research Methods I (3 credits)
- EETC 541 - Research Methods II (3 credits)
- EETC 552 - Knowledge Management (3 credits)
- EETC 560 - Introduction to Educational Computing (3 credits)
- EETC 562 - Social Technologies and the Sociocultural Aspects of Learning (3 credits)
- EETC 565 - Introduction to Digital Media in Education (3 credits)
- EETC 566 - Contemporary Use of Simulation in Training and Education (3 credits)
- EETC 569 - Designing and Developing Interactive Instruction (3 credits)
- EETC 576 - Human Resources Development (3 credits)
- ~~EETC 580 - Global Perspectives in E-Learning (3 credits)~~
- EETC 581 - Fundamentals of Distance Education (3 credits)
- EETC 590 - Field Experience (3 credits)
- EETC 593 - Special Issues in Educational Technology (3 credits)

## Degree Requirements

Fully-qualified candidates are required to complete a minimum of 30 credits.

Please see the Education Courses page for course descriptions.

### Instructional Technology Graduate Diploma (30 credits)

Note: Research papers, essays, examinations or preparation of audio-visual materials may be required as part of the work for individual courses.

#### 9 credits of Required Courses:

- EETC 613 - Learning Theories (3 credits)
- EETC 650 - Fundamentals of Instructional Design (3 credits)
- EETC 651 - Fundamentals of Human Performance Technology (3 credits)

#### 3 additional credits of Required Courses chosen from:

- EETC 671 - Administering Educational Technology Groups (3 credits)
- EETC 673 - Consulting Skills for Educational Technologists (3 credits)

#### 18 credits of Elective Courses chosen from:

- EETC 607 - Philosophical Issues in Educational Research (3 credits)
- [EETC 634 - Communicating Instructional Content \(3 credits\)](#)
- EETC 636 - Evaluation in Education and Training (3 credits)
- EETC 637 - Educational Gaming and Modelling (3 credits)
- EETC 640 - Research Methods I (3 credits)
- EETC 641 - Research Methods II (3 credits)
- EETC 652 - Knowledge Management (3 credits)
- EETC 660 - Introduction to Educational Computing (3 credits)
- EETC 662 - Social Technologies and the Sociocultural Aspects of Learning (3 credits)
- EETC 665 - Introduction to Digital Media in Education (3 credits)
- EETC 666 - Contemporary Use of Simulation in Training and Education (3 credits)
- EETC 669 - Designing and Developing Interactive Instruction (3 credits)
- [EETC 672 - Project Management \(3 credits\)](#)
- EETC 676 - Human Resources Development (3 credits)
- EETC 681 - Fundamentals of Distance Education (3 credits)
- EETC 690 - Field Experience (3 credits)
- EETC 693 - Special Issues in Educational Technology (3 credits)

## Additional Degree Requirements

**Language Competency.** French or other language requirements for students undertaking a field experience are determined and assessed by the hosting organization. It is the student's responsibility to attain the competency level required.

## Academic Regulations

1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.
2. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements.
3. **Graduation Requirement.** To graduate, students must have completed all course requirements with a cumulative GPA of at least 2.70.

## Additional Degree Requirements

**Language Competency.** French or other language requirements for students undertaking a field experience are determined and assessed by the hosting organization. It is the student's responsibility to attain the competency level required.

## Academic Regulations

1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.
2. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements.
3. **Graduation Requirement.** To graduate, students must have completed all course requirements with a cumulative GPA of at least 2.70.

### Rationale:

1. 500-level courses are deleted as 600-level courses will be used by students in both the MA in ETEC and DIT programs.
2. The Project Management (ETEC 572/672) course is removed from the list of required course options because we have added another course last year that meets the same educational need and is popular with students (ETEC 673 Consulting Skills for Educational Technologists). We do not want to remove the Project Management course from our curriculum entirely, however, as we might offer it in the future as an elective.
3. ETEC 521/621 is deleted. The core systems theory is covered in two core courses, ETEC 650 Fundamentals of Instructional Design and ETEC 651 Fundamentals of Human Performance Technology.
4. ETEC 535/635 is deleted. The course has been replaced with a new elective that focuses better on students' needs.
5. ETEC 580/680 is deleted. Much of the material is already covered in other courses.
6. There is a correction to a misspelling in the title of ETEC 566/666.
7. Outdated exclusion notes are removed from the following courses: ETEC 540/640, ETEC 541/641, ETEC 550/650, ETEC 551/651, ETEC 552/652, ETEC 571/671, ETEC 572/672, ETEC 581/681.



Resource Implications:

None.



Resource Implications:

None.

Other Programs within which course is listed:

None.



**COURSE CHANGE:** ETEC 513      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT  
**Degree:** Diploma  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><b><del>ETEC 513 Learning Theories (3.00 credits)</del></b>  <del><i>Description: The primary goal of the course is for students to develop a critical understanding of classic and contemporary theories of learning, such as behaviourism, cognitivism, neo-cognitivism, and socio-constructivism as they inform instructional practice. Secondary course goals include enhancing students' abilities to: a) read and evaluate the primary literature in the area; b) present and write within the discipline; c) evaluate applications of theory to practice; and d) collaborate professionally including via computer conferencing.</i></del>  <del><i>Component(s): Lecture.</i></del></p>	
<p><b>Rationale:</b>                      ETEC 513 is removed from the DIT program and replaced by ETEC 613. See cover memo for more detail.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	









**COURSE CHANGE:** ETEC 537      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT  
**Degree:** Diploma  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                   Editorial                               New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 537 Educational Gaming and Modelling (3.00 credits)</b>  <del>Component(s): Laboratory; Lecture.</del></p>	
<p>Rationale:                      ETEC 537 is removed from the DIT program and replaced by ETEC 637. See cover memo for more detail.</p>	
<p>Resource Implications:                      None.</p>	
<p>Other Programs within which course is listed:                      None.</p>	







**COURSE CHANGE:** ETEC 551      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT  
**Degree:** Diploma  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><del><b>ETEC 551 Fundamentals of Human Performance Technology (3.00 credits)</b></del>  <del><i>Prerequisite/corequisite:</i> The following course must be completed previously: ETEC 550.</del>  <del><i>Description:</i> Building on the base of instructional design, this course introduces human performance technology (HPT). HPT is a set of principles and methods for identifying and solving problems that cannot be solved through instructional programs alone. Working on a real-world project, students design a variety of non-instructional interventions.</del>  <del><i>Component(s):</i> Laboratory; Lecture.</del>  <del><i>Notes:</i></del></p> <ul style="list-style-type: none"> <li><del>Students who have received credit for ETEC 512/712 may not take this course for credit.</del></li> </ul>	
<p><b>Rationale:</b>                      ETEC 551 is removed from the DIT program and replaced by ETEC 651. See cover memo for more detail.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	



**COURSE CHANGE:** ETEC 560      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT  
**Degree:** Diploma  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                 Editorial                               New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 560 Introduction to Educational Computing (3.00 credits)</b>  <del>Component(s): Lecture.</del></p>	
<p>Rationale:                      ETEC 560 is removed from the DIT program and replaced by ETEC 660. See cover memo for more detail.</p>	
<p>Resource Implications:                      None.</p>	
<p>Other Programs within which course is listed:                      None.</p>	

**COURSE CHANGE:** ETEC 562      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT  
**Degree:** Diploma  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                                       Credit Value                                       Prerequisite  
 Course Description                       Editorial                                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><del>ETEC 562 Social Technologies and the Sociocultural Aspects of Learning (3.00 credits)</del>  <del>Component(s): Lecture.</del></p>	
<p>Rationale:                      ETEC 562 is removed from the DIT program and replaced by ETEC 662. See cover memo for more detail.</p>	
<p>Resource Implications:                      None.</p>	
<p>Other Programs within which course is listed:                      None.</p>	





**COURSE CHANGE:** ETEC 566      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT  
**Degree:** Diploma  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                   Editorial                               New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><del>ETEC 566 Contemporary Use of Simulation in Training and Education (3.00 credits)</del>                      Component(s):</p>	
<p>Rationale:                      ETEC 566 is removed from the DIT program and replaced by ETEC 666. See cover memo for more detail.</p>	
<p>Resource Implications:                      None.</p>	
<p>Other Programs within which course is listed:                       None.</p>	





**COURSE CHANGE:** ETEC 572      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT  
**Degree:** Diploma  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><b><del>ETEC 572 Project Management (3.00 credits)</del></b>  <del><i>Description:</i> This course focuses on project management and its application to the fields of education and training. Special attention is made on the different components of a project, but reviews of project management as a discipline, a process and a system are also undertaken. Following the established methodology proposed by national and international project management organizations, this course introduces the processes, skills, techniques and software tools required to effectively manage a project. Specific educational examples and cases of real-life projects are included in the course to describe how project management techniques can be used in education and training.</del>  <del><i>Component(s):</i></del>  <del><i>Notes:</i></del></p> <ul style="list-style-type: none"> <li><del>Students who have received credit for ETEC 594/704 may not take this course for credit.</del></li> </ul>	
<p><b>Rationale:</b>                      ETEC 572 is removed from the DIT program and replaced by ETEC 672. See cover memo for more detail.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	

**COURSE CHANGE:** ETEC 573      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT  
**Degree:** Diploma  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><del><b>ETEC 573 Consulting Skills for Educational Technologists (3.00 credits)</b></del>  <del><i>Prerequisite/corequisite:</i> The following course must be completed previously: ETEC 550.</del>  <del><i>Description:</i> This course prepares educational technologists to adopt the consultative approach that is central to the profession. Specifically, this course develops the key competencies needed in consultative work in schools, higher education, workplace learning groups and non-profit organizations. These competencies include building awareness of the client organization, supporting clients in making effective choices, developing agreements with clients that include the scope, schedule and budget of projects, managing project communications and changes throughout a project, and interacting effectively with clients.</del>  <del><i>Component(s):</i> Lecture.</del>  <del><i>Notes:</i></del></p> <ul style="list-style-type: none"> <li><del>Students who have received credit for ETEC 673 or for this topic under an ETEC 593/693 number may not take this course for credit.</del></li> </ul>	

**Rationale:**  
 ETEC 573 is removed from the DIT program and replaced by ETEC 673. See cover memo for more detail.  
 Note to calendar editor: ETEC 673 currently excludes ETEC 573 and so no changes are required for ETEC 673.

**Resource Implications:**  
 None.

**Other Programs within which course is listed:**  
 None.

**COURSE CHANGE:** ETEC 576      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT  
**Degree:** Diploma  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><del>ETEC 576 Human Resources Development (3.00 credits)</del>  <del>Component(s): Lecture.</del></p>	
<p>Rationale:                      ETEC 576 is removed from the DIT program and replaced by ETEC 676. See cover memo for more detail.</p>	
<p>Resource Implications:                      None.</p>	
<p>Other Programs within which course is listed:                      None.</p>	











**COURSE CHANGE:** ETEC 607      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title   | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: cross-listing and note added |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 607 Philosophical Issues in Educational Research (3.00 credits)</b></p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes :</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ADIP 501 or ESTU 601 or ETEC 507 may not take this course for credit.</li> </ul>	<p><b>ETEC 607 Philosophical Issues in Educational Research (3.00 credits)</b></p> <p><i>Description:</i> <a href="#">There are a number of important philosophical questions that lie behind the everyday practice of education research. The questions include: What does it mean to say that research in education is "scientific"? Is science (and, by extension, educational research) really value neutral and objective? What kinds of education research should count as legitimate? In the first part of the course, various definitions of science, for example, those of Karl Popper and Thomas Kuhn, and some influential critiques of the scientific enterprise are examined. In the second part of the course, some of the ongoing debates about appropriate research methods in education are analyzed.</a></p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li><a href="#">This course is cross-listed with ESTU 601 and ADIP 501.</a></li> <li>Students who have received credit for ADIP 501 or ESTU 601 or ETEC 507 may not take this course for credit.</li> </ul>

**Rationale:**  
 EDUC 507 is removed from the DIT program and replaced with ETEC 607. The new course description is transferred from ETEC 507 to ETEC 607 which will now be used throughout both the DIT and MA ETEC programs. This course is cross-listed as ESTU 601 Philosophical Issues in Educational Research, from the MA program in Educational Studies. Note that an exclusion note exists on that course number.

The cross-listing with ESTU 601 and ADIP 501 are now also added to the notes and reflected in the reciprocal courses in this dossier. The prime is ESTU 601. Although GCC suggested adjusting the course description for clarity, this could not be done since the course belongs to the Education Studies program and the update would need to be initiated by them. The course description remains as is.

Resource Implications:

None.

Other Programs within which course is listed:

None.

**COURSE CHANGE:** ETEC 613      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify: exclusion note

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 613 Learning Theories (3.00 credits)</b></p> <p><i>Description:</i> The primary goal of the course is for students to develop a critical understanding of classic and contemporary theories of learning, such as behaviourism, cognitivism, neo-cognitivism, and socio-constructivism as they inform instructional practice. Secondary course goals include enhancing students' abilities to: a) read and evaluate the primary literature in the area; b) present and write within the discipline; c) evaluate applications of theory to practice; and d) collaborate professionally including via computer conferencing.</p> <p><i>Component(s):</i> Lecture.</p>	<p><b>ETEC 613 Learning Theories (3.00 credits)</b></p> <p><i>Description:</i> The primary goal of the course is for students to develop a critical understanding of classic and contemporary theories of learning, such as behaviourism, cognitivism, neo-cognitivism, and socio-constructivism as they inform instructional practice. Secondary course goals include enhancing students' abilities to: a) read and evaluate the primary literature in the area; b) present and write within the discipline; c) evaluate applications of theory to practice; and d) collaborate professionally including via computer conferencing.</p> <p><i>Component(s):</i> Lecture.</p> <p><u>Notes :</u></p> <ul style="list-style-type: none"> <li>• <a href="#">Students who have received credit for ETEC 513 may not take this course for credit.</a></li> </ul>

**Rationale:**  
 ETEC 513 is removed from the DIT program and replaced by ETEC 613. An exclusion note is therefore added. See cover memo for more detail.

**Resource Implications:**  
 None.

**Other Programs within which course is listed:**  
 None.



**COURSE CHANGE:** ETEC 634      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** MA in ETEC, Diploma in IT  
**Degree:** MA, Diploma  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b><u><a href="#">ETEC 634 Communicating Instructional Content (3.00 credits)</a></u></b></p> <p><i><u><a href="#">Description:</a></u></i> <u><a href="#">This course develops the professional instructional writing skills needed by educational technologists. Specifically, it emphasizes basic instructional writing skills and how to adjust messages for particular audiences and media, and different genres (formats) of instructional materials.</a></u></p> <p><i><u><a href="#">Component(s):</a></u></i> <u><a href="#">Lecture.</a></u></p> <p><i><u><a href="#">Notes:</a></u></i></p> <ul style="list-style-type: none"> <li>• <u><a href="#">Students who have received credit for ETEC 535/635 may not take this course for credit.</a></u></li> <li>• <u><a href="#">Students who have received credit for this topic under an ETEC 593/693 number may not take this course for credit.</a></u></li> </ul>

**Rationale:**  
 Deletion of ETEC 535/635 to be replaced with a new course that better meets student needs (ETEC 634 Communicating Instructional Content), previously offered under ETEC 593/693 under special topics. A genre refers to a class of communication product, such as a self-study course, online help, and test. The term format is better known among our students (most of whom have not studied either communications, rhetoric, or English and, therefore, would not have been exposed to the concept of genre). The term also matches our teaching.

**Enrolments:**  
 Summer 2021 ETEC 593 (5) ETEC 693 (13) total (18/20)  
 Summer 2020 ETEC 593 (7) ETEC 693 (13) total (20/20)



Summer 2019 ETEC 593 (2) ETEC 693 (12) total (14/20)

Resource Implications:

None. This new course replaces an existing course. This course will be taught as part of the regular course allotment.

Other Programs within which course is listed:

None.

**COURSE CHANGE:** ETEC 635      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** MA in ETEC  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><del>ETEC 635 Principles of Educational Message Design (3.00 credits)</del>  <del>Component(s): Lecture.</del></p>	
<p>Rationale:                      ETEC 535/635 is removed and replaced by a new course that better meets student needs (ETEC 634 Communicating Instructional Content).</p>	
<p>Resource Implications:                      None.</p>	
<p>Other Programs within which course is listed:                      None.</p>	

**COURSE CHANGE:** ETEC 636      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 636 Evaluation in Education and Training (3.00 credits)</b></p> <p><i>Component(s):</i> Lecture.</p>	<p><b>ETEC 636 Evaluation in Education and Training (3.00 credits)</b></p> <p><i>Description:</i> <a href="#">This course prepares students to evaluate people, products, and programs. Students explore both the theory and practice of formative evaluation (to foster ongoing development and improvement) and summative evaluation (to assess whether the object being evaluated met the stated goals).</a></p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i> <a href="#">Students who have received credit for ETEC 536 may not take this course for credit.</a></p>
<p><b>Rationale:</b>                      ETEC 536 is removed from the DIT program and replaced with ETEC 636. An exclusion for this course is therefore added. A course description is added at the request of SGS.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	

**COURSE CHANGE:** ETEC 637      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 637 Educational Gaming and Modelling (3.00 credits)</b></p> <p><i>Component(s):</i> Laboratory; Lecture.</p>	<p><b>ETEC 637 Educational Gaming and Modelling (3.00 credits)</b></p> <p><u><i>Description:</i> This course examines the potential of games and modelling in educational settings. Students explore the concepts and theories underlying the use of games in teaching and their other instructional contexts, including the use of games to motivate learners. To do so, students design educational games and models, such as board games, role-playing and video games.</u></p> <p><i>Component(s):</i> Laboratory; Lecture.</p> <p><u><i>Notes:</i> Students who have received credit for ETEC 537 may not take this course for credit.</u></p>
<p><b>Rationale:</b>                      ETEC 537 is removed from the DIT program and replaced with ETEC 637. An exclusion for this course is therefore added. A course description is added at the request of SGS.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	

**COURSE CHANGE:** ETEC 640      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** MA ETEC  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                                       Credit Value                                       Prerequisite  
 Course Description                       Editorial                                       New Course  
 Course Deletion                       Other - Specify: exclusion

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 640 Research Methods I (3.00 credits)</b></p> <p><i>Description:</i> This course provides an introduction to research methodologies germane to the field of educational technology. Students acquire competencies in analyzing, synthesizing and evaluating empirical research that employ quantitative, qualitative and mixed methodologies. Special emphasis is placed on acquiring skills to critique and review literature in educational technology.</p> <p><i>Component(s):</i> Laboratory; Lecture.</p> <p><i>Notes :</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <del>548/648</del> may not take this course for credit.</li> </ul>	<p><b>ETEC 640 Research Methods I (3.00 credits)</b></p> <p><i>Description:</i> This course provides an introduction to research methodologies germane to the field of educational technology. Students acquire competencies in analyzing, synthesizing and evaluating empirical research that employ quantitative, qualitative and mixed methodologies. Special emphasis is placed on acquiring skills to critique and review literature in educational technology.</p> <p><i>Component(s):</i> Laboratory; Lecture.</p> <p><i>Notes :</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <del>548/648</del> may not take this course for credit.</li> </ul>
<p><b>Rationale:</b>                      Outdated exclusion note for 548/648 is removed and replaced with deleted cross-listing for ETEC 540.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	

**COURSE CHANGE:** ETEC 641      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** MA ETEC  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |  |                                       |                                       |
|--|--|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                          | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                             | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 641 Research Methods II (3.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: ETEC 640.</p> <p><i>Description:</i> <del>The principal aims of the course are to enable students to evaluate the statistical information provided in reports of empirical research in the social sciences and use statistics in small scale studies. Emphasis is placed upon the logic of statistical tests, the assumptions underlying their use, and the interpretation of the results. The course also includes basic elements of data analysis and synthesis in research employing qualitative methodologies.</del></p> <p><i>Component(s):</i> Laboratory; Lecture.</p> <p><i>Notes:</i> Students who have received credit for ETEC <del>548/648</del> may not take this course for credit.</p>	<p><b>ETEC 641 Research Methods II (3.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: ETEC 640.</p> <p><i>Description:</i> <u>This course extends students' research competencies and prepares them to conduct basic (thesis) and applied research (such as thesis-equivalents, needs assessments and evaluations) and analyze resulting data. It specifically explores how to justify a study, and uses methods like surveys, interviews, focus groups, case studies, and experiments. This course also explores how to complete an application for research ethics approval and why those approvals are necessary as well as software that can assist with data collection and analysis. The modular approach of this course lets students tailor their learning to their own reseach interests.</u></p> <p><i>Component(s):</i> Laboratory; Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• <u>This course is cross-listed with APLI 641.</u></li> <li>• Students who have received credit for ETEC <u>541 or APLI 641</u> may not take this course for credit.</li> </ul>
<p><b>Rationale:</b>                      Outdated exclusion notes are removed and replaced with ETEC 541 (removed from the DIT program). APLI 641 is added to the notes as it is cross-listed with this course. The course description is updated to provide a more broad explanation of course content/requirements.</p>	

This course description specifically identifies both basic and applied research. Part of that is the nature of the field; educational technology is an applied field and a significant percentage of the research in the field is applied. One of our top journals actually has two parts (each with separate editorial boards): one for basic research, one for applied. But we wouldn't include this distinction if it weren't central to our program. Working professionals in the field seeking a degree make up a large part of our student body. They are not eligible for internships under our requirements and the thought of conducting a basic research study is off-putting enough to most that they would not consider applying. By specifically mentioning applied research and suggesting some of the forms it takes—forms that will be familiar to our prospective students—that could help alleviate the concern. In addition, we have other students already in the program who might feel more comfortable choosing the thesis option if they realize they could conduct an applied study. Although these mentions in the course description, alone, won't address these issues, they will play a role in supporting us in a broader effort to build comfort with research among our students.

Resource Implications:

None.

Other Programs within which course is listed:

None.

**COURSE CHANGE:** ETEC 650      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 650 Fundamentals of Instructional Design (3.00 credits)</b></p> <p><i>Description:</i> This course introduces students to instructional design, which refers to both the systematic process for preparing learning materials as well as to the theories and principles that guide that work. Working on a real-world project, students directly engage in the process and prepare an instructional program.</p> <p><i>Component(s):</i> Laboratory; Lecture.</p> <p><i>Notes :</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <del>512/712</del> may not take this course for credit.</li> </ul>	<p><b>ETEC 650 Fundamentals of Instructional Design (3.00 credits)</b></p> <p><i>Description:</i> This course introduces students to instructional design, which refers to both the systematic process for preparing learning materials as well as to the theories and principles that guide that work. Working on a real-world project, students directly engage in the process and prepare an instructional program.</p> <p><i>Component(s):</i> Laboratory; Lecture.</p> <p><i>Notes :</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <del>512/712</del> may not take this course for credit.</li> </ul>
<p><b>Rationale:</b>                      Outdated exclusion notes are removed and replaced with ETEC 550 (removed from the DIT program).</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	



**COURSE CHANGE:** ETEC 651      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify: exclusion note

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 651 Fundamentals of Human Performance Technology (3.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: ETEC 650.</p> <p><i>Description:</i> Building on the base of instructional design, this course introduces human performance technology (HPT). HPT is a set of principles and methods for identifying and solving problems that cannot be solved through instructional programs alone. Working on a real-world project, students design a variety of non-instructional interventions.</p> <p><i>Component(s):</i> Laboratory; Lecture.</p> <p><i>Notes :</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <del>542/742</del> may not take this course for credit.</li> </ul>	<p><b>ETEC 651 Fundamentals of Human Performance Technology (3.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: ETEC 650.</p> <p><i>Description:</i> Building on the base of instructional design, this course introduces human performance technology (HPT). HPT is a set of principles and methods for identifying and solving problems that cannot be solved through instructional programs alone. Working on a real-world project, students design a variety of non-instructional interventions.</p> <p><i>Component(s):</i> Laboratory; Lecture.</p> <p><i>Notes :</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <a href="#">551</a> may not take this course for credit.</li> </ul>
<p><b>Rationale:</b>                      Outdated exclusion notes are removed and replaced with ETEC 651 (removed from the DIT program). The core systems theory is covered in two core courses, ETEC 650 Fundamentals of Instructional Design and ETEC 651 Fundamentals of Human Performance Technology.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	

**COURSE CHANGE:** ETEC 652      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 652 Knowledge Management (3.00 credits)</b></p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <del>567/667</del> may not take this course for credit.</li> </ul>	<p><b>ETEC 652 Knowledge Management (3.00 credits)</b></p> <p><i>Description:</i> <a href="#">Knowledge management is about how organizations ensure that the right knowledge is available to the right individuals at the right time. This course explores that subject. Topics may include the life cycle of knowledge (creation, dissemination, utilization, evaluation); links to related areas of study such as the learning organization, the agile organization, the virtual organization, taxonomy development and classification; and technologies used to manage knowledge and institutional content, such as document management and content management, and advanced technologies for search and retrieval.</a></p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <a href="#">552</a> may not take this course for credit.</li> </ul>
<p><b>Rationale:</b>                      Outdated exclusion notes are removed and replaced with ETEC 552 (removed from the DIT program). A course description is added at the request of SGS.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	



**COURSE CHANGE:** ETEC 660      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 660 Introduction to Educational Computing (3.00 credits)</b></p> <p><i>Component(s):</i> Lecture.</p>	<p><b>ETEC 660 Introduction to Educational Computing (3.00 credits)</b></p> <p><u><i>Description:</i></u> <a href="#">This course explores current trends in software applications used in (1) schools, colleges and university-based educational environments and (2) industrial and business settings. Topics may include a brief history of computer applications in education, applications of learning theory and cognitive science to the design of learning technologies, online learning design issues and strategies, learning technology standards and meta-data tagging, open-source learning technologies, learning content management systems and learning management systems and content management strategies, mobile learning and blended learning strategies. To apply what they have learned, students complete problem-solving activities and case studies, and provide written critiques of current literature in the field.</a></p> <p><i>Component(s):</i> Lecture.</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> <li><a href="#">Students who have received credit for ETEC 560 may not take this course for credit.</a></li> </ul>
<p><b>Rationale:</b>                      ETEC 560 is removed from the DIT program and replaced with ETEC 660. An exclusion note is therefore added. A course description is added at the request of SGS.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p>Other Programs within which course is listed:</p>	

None.

**COURSE CHANGE:** ETEC 662      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 662 Social Technologies and the Sociocultural Aspects of Learning (3.00 credits)</b></p> <p><i>Component(s):</i> Lecture.</p>	<p><b>ETEC 662 Social Technologies and the Sociocultural Aspects of Learning (3.00 credits)</b></p> <p><i>Description:</i> <a href="#">This course explores how digital technologies with social affordances have affected the ways people learn, live, work and play. Topics may include the potential of social technologies for learning; the theoretical and conceptual underpinnings of social learning in online communities including those rooted in cognitive psychology and sociology; and applications of these technologies, such as working with distributed teams and digital habitats in which niche online communities thrive.</a></p> <p><i>Component(s):</i> Lecture.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li><a href="#">Students who have received credit for ETEC 562 may not take this course for credit.</a></li> </ul>

**Rationale:**  
 ETEC 562 is removed from the DIT program and replaced with ETEC 662. An exclusion note is therefore added. A course description is added at the request of SGS.

**Resource Implications:**  
 None.

**Other Programs within which course is listed:**  
 None.

**COURSE CHANGE:** ETEC 665      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 665 Introduction to Digital Media in Education (3.00 credits)</b></p> <p><i>Component(s):</i> Laboratory; Lecture.</p>	<p><b>ETEC 665 Introduction to Digital Media in Education (3.00 credits)</b></p> <p><u><i>Description:</i></u> <a href="#">This course focuses on the fundamental, conceptual, and technical aspects of design for instructional materials, whether intended for delivery on computers, mobile devices or other digital or print-based means. In this course, students learn to use the graphic design and authoring software used to produce basic learning programs and other instructional materials.</a></p> <p><i>Component(s):</i> Laboratory; Lecture.</p> <p><u><i>Notes:</i></u></p> <ul style="list-style-type: none"> <li><a href="#">Students who have received credit for ETEC 562 may not take this course for credit.</a></li> </ul>

**Rationale:**  
 ETEC 565 is removed from the DIT program and replaced with ETEC 665.

**Resource Implications:**  
 None.

**Other Programs within which course is listed:**  
 None.

**COURSE CHANGE:** ETEC 666      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 666 Contemporary Use of Simulation in Training and Education (3.00 credits)</b></p> <p><i>Component(s):</i></p>	<p><b>ETEC 666 Contemporary Use of Simulation in Training and Education (3.00 credits)</b></p> <p><i>Description:</i> <a href="#">Simulations are models of reality that allow people to interact in immersive, controlled and safe environments which make them ideal (though complex) instructional tools. This course explores the development and use of simulations in education and training. Topics may include theoretical foundations of simulations, such as underlying educational theories, the nature of simulations, and their classification; and the process and methodologies for developing educational simulations. This course also provides students with opportunities to use specialized software to plan and create a simple educational simulation.</a></p> <p><i>Component(s):</i></p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li><a href="#">Students who have received credit for ETEC 566 may not take this course for credit.</a></li> </ul>
<p><b>Rationale:</b>                      ETEC 566 is removed from the DIT program and replaced with ETEC 666. An exclusion note is therefore added. A course description is added at the request of SGS.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	





**COURSE CHANGE:** ETEC 669      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 669 Designing and Developing Interactive Instruction (3.00 credits)</b></p> <p><i>Component(s):</i> Laboratory; Lecture.</p>	<p><b>ETEC 669 Designing and Developing Interactive Instruction (3.00 credits)</b></p> <p><u><i>Description:</i></u> <a href="#">Learning experience design focuses on how users go through instructional materials. This course explores advanced principles of learning experience, user experience, and user interface design as informed by the learning sciences, instructional design, and design thinking. It does so within the context of planning, designing, and developing moderately complex digital learning programs and materials, to be delivered on computers, mobile devices or by other digital means. In this course, students learn to use graphic design software, authoring software, and learning and content management systems employed in producing these materials.</a></p> <p><i>Component(s):</i> Laboratory; Lecture.</p> <p><u><i>Notes:</i></u></p> <ul style="list-style-type: none"> <li><a href="#">Students who have received credit for ETEC 569 may not take this course for credit.</a></li> </ul>
<p><b>Rationale:</b>                      ETEC 569 is removed from the DIT program and replaced with ETEC 669. An exclusion note is therefore added. A course description is added at the request of SGS.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	



**COURSE CHANGE:** ETEC 671      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                                       Credit Value                                       Prerequisite  
 Course Description                       Editorial     New Course  
 Course Deletion                       Other - Specify: exclusion note

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 671 Administering Educational Technology Groups (3.00 credits)</b></p> <p><i>Description:</i> This course prepares students to integrate into the real-world practice of educational technology and to eventually assume leadership positions in organizations. Through readings, experiential learning activities, and other assignments, this course introduces students to the basic themes of administering educational technology groups: (a) business management—successfully competing for work and resources needed to complete it; (b) project management—planning work and overseeing its progress; and (c) people management—establishing and managing expectations of, and relationships with, members of the group.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes :</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <del>591/704</del> may not take this course for credit.</li> </ul>	<p><b>ETEC 671 Administering Educational Technology Groups (3.00 credits)</b></p> <p><i>Description:</i> This course prepares students to integrate into the real-world practice of educational technology and to eventually assume leadership positions in organizations. Through readings, experiential learning activities, and other assignments, this course introduces students to the basic themes of administering educational technology groups: (a) business management—successfully competing for work and resources needed to complete it; (b) project management—planning work and overseeing its progress; and (c) people management—establishing and managing expectations of, and relationships with, members of the group.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes :</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <u>571</u> may not take this course for credit.</li> </ul>
<p><b>Rationale:</b>                      Outdated exclusion notes are removed and replaced with ETEC 571 (removed from the DIT program).</p>	
<p><b>Resource Implications:</b>                      None.</p>	

Other Programs within which course is listed:

None.

**COURSE CHANGE:** ETEC 672      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                                       Credit Value                       Prerequisite  
 Course Description                       Editorial                                       New Course  
 Course Deletion                       Other - Specify: exclusion note

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 672 Project Management (3.00 credits)</b></p> <p><i>Description:</i> This course focuses on project management <del>and its application to the fields of education and training. Special attention is made on the different components of a project, but reviews of</del> project management as a discipline, a process and a system <del>are also undertaken.</del> Following the <del>established</del> methodology <del>proposed</del> by national and international project management organizations, this course introduces the processes, skills, techniques and software tools required to effectively manage <del>a</del> project. <del>Specific educational examples and cases of real-life projects are included in the course to describe how</del> project management techniques <del>can be used in</del> education <del>and training.</del></p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <del>594/704</del> may not take this course for credit.</li> </ul>	<p><b>ETEC 672 Project Management (3.00 credits)</b></p> <p><i>Description:</i> This course focuses on <u>the application of</u> project management <u>methodologies in</u> education and training, <u>especially online learning and systems implementation projects.</u> <u>This course specifically explores</u> project management as a discipline, a process and a system. Following the methodology <u>established</u> by national and international project management organizations, this course introduces the processes, skills, techniques and software tools required to effectively manage projects. <u>Examples of online learning, systems implementation and similar types of projects in education and training contexts illustrate the application of</u> project management techniques in educational <u>technology.</u></p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <u>572</u> may not take this course for credit.</li> </ul>
<p><b>Rationale:</b>                      Outdated exclusion notes are removed and replaced with ETEC 571 (removed from the DIT program). The course description is modified to provide a more broad explanation of course content/requirements.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	



**COURSE CHANGE:** ETEC 676      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 676 Human Resources Development (3.00 credits)</b></p> <p><i>Component(s):</i> Lecture.</p>	<p><b>ETEC 676 Human Resources Development (3.00 credits)</b></p> <p><u><i>Description:</i></u> <a href="#">Human Resources is a function in organizations that manages relationships with workers. This course examines both divisions of the field: Human Resources Management, which addresses labour planning, performance management, labour relations, and compensation and benefits; and Human Resources Development, which addresses career planning, succession planning, organization development, and training and development. Through case studies and other approaches, this course addresses topics such as strategic human resources, human capital theory, organizational learning, competencies, employee engagement, performance appraisal, development, onboarding, and the impact of the Fourth Industrial Revolution on relationships between employers and workers.</a></p> <p><i>Component(s):</i> Lecture.</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> <li><a href="#">Students who have received credit for ETEC 576 may not take this course for credit.</a></li> </ul>

**Rationale:**  
 ETEC 576 is removed from the DIT program and replaced with ETEC 676. An exclusion for this course is therefore added. A course description is added at the request of SGS.

**Resource Implications:**  
 None.

**Other Programs within which course is listed:**  
 None.







**COURSE CHANGE:** ETEC 681      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 681 Fundamentals of Distance Education (3.00 credits)</b></p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes :</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for ETEC <del>592/702</del> may not take this course for credit.</li> </ul>	<p><b>ETEC 681 Fundamentals of Distance Education (3.00 credits)</b></p> <p><u><i>Description:</i> Distance education refers to the administration and teaching methods, and related technology for teaching students who are not physically in the same location as the instructor. This course prepares students to make informed decisions about the strategies and technologies to employ in a distance education context. Specifically, this course reviews the theoretical, organizational, instructional, and technical aspects of distance education as well as the major issues in designing and implementing remote instructional programs.</u></p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes :</i> Students who have received credit for ETEC <u>581</u> may not take this course for credit.</p>
<p><b>Rationale:</b> Outdated exclusion notes are removed and replaced with ETEC 581 (removed from the DIT program). A course description is added at the request of SGS.</p>	
<p><b>Resource Implications:</b> None.</p>	
<p><b>Other Programs within which course is listed:</b> None.</p>	

**COURSE CHANGE:** ETEC 690      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |  |
|--|---|---------------------------------------|--|
| <input type="checkbox"/> Course Number                 | <input checked="" type="checkbox"/> Course Title                    | <input type="checkbox"/> Credit Value | <input checked="" type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |  |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |  |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 690 Field Experience (<del>for Option A Thesis/Thesis-Equivalent only</del>) (3.00 credits)</b></p> <p><i>Component(s):</i> Practicum/Internship/Work Term</p>	<p><b>ETEC 690 Field Experience (3.00 credits)</b></p> <p><u><i>Prerequisite:</i> Students in the thesis option of the Master's degree and the Graduate Diploma in Instructional Technology may enrol in this course. Furthermore, students must have completed all core courses of the program before starting this field experience.</u></p> <p><u><i>Description:</i> This course provides students with the opportunity to participate in a supervised field experience (placement) of 135 hours: a short internship. Placements occur in industry, higher education, government organizations, NGOs, and schools and involve responsibilities such as designing and developing instructional materials, producing these materials, needs assessment, supporting technology integration into teaching, or other types of participation in projects. Students must submit a brief reflection report after completing the work responsibilities of the placement.</u></p> <p><i>Component(s):</i> Practicum/Internship/Work Term</p> <p><u><i>Notes:</i></u></p> <ul style="list-style-type: none"> <li><u>Students who have received credit for ETEC 590 may not take this course for credit.</u></li> </ul>

**Rationale:**  
 ETEC 590 is removed from the DIT program and replaced with ETEC 690. An exclusion note is therefore added. A course description is added at the request of SGS.

- With the deletion of the 590 number (covering the field experience for Graduate Diploma students), the course title needed to be inclusive of both MA-Thesis and Graduate Diploma Students. We could have added the words “Graduate Diploma” but that would have made the title extremely long. We opted for something shorter.
- About the internship itself: This field experience (internship) is 135 hours to correspond with the hours associated with the 3 academic credits awarded. (Similarly, the 675 hours associated with the other internship in our program is associated with the number of hours associated with the 15 academic credits awarded.) Normally, the internships are paid. There are some exceptions: United Nations agencies (like ICAO, IATA, UNESCO and UNITAR (United Nations Institute on Training and Research)) do not pay interns; some students want to perform internships at nonprofits and NGOs that cannot afford to pay. These cover fewer than 5% of all internships.

Resource Implications:

None.

Other Programs within which course is listed:

None.









None.

**COURSE CHANGE:** ETEC 693      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** Diploma in IT, MA ETEC  
**Degree:** Diploma, MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title                               | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial                                  | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input checked="" type="checkbox"/> Other - Specify: exclusion note |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 693 Special Issues in Educational Technology (3.00 credits)</b></p> <p><i>Component(s):</i> Lecture.</p>	<p><b>ETEC 693 Special Issues in Educational Technology (3.00 credits)</b></p> <p><u><i>Description:</i></u> <a href="#">This course provides students with an opportunity to explore emerging issues in the field of educational technology and other special topics. Topics may include emerging technologies, evolving practices, socio-economic issues, and theoretical perspectives.</a></p> <p><i>Component(s):</i> Lecture.</p> <p><u><i>Notes:</i></u></p> <ul style="list-style-type: none"> <li><a href="#">Students who have received credit for ETEC 593 may not take this course for credit.</a></li> </ul>
<p><b>Rationale:</b>                      ETEC 593 is removed from the DIT program and replaced with ETEC 693. An exclusion note is therefore added. A course description is added at the request of SGS.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p>Other Programs within which course is listed:</p>	

None.



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Resource Implications:  
None.

Other Programs within which course is listed:  
None.

**COURSE CHANGE:** ETEC 796      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** Arts and Science  
**Department:** Education  
**Program:** MA ETEC  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** Summer 2021

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                   Editorial                               New Course  
 Course Deletion                       Other - Specify: component change

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>ETEC 796 Thesis or Thesis-Equivalent (15 credits)</b></p> <p><b>Component(s):</b> Thesis Research</p>	<p><b>ETEC 796 Thesis or Thesis-Equivalent (15.00 credits)</b></p> <p><u><a href="#">Prerequisite: Students must have an approved proposal and an approval from the Research Ethics Board (REB).</a></u></p> <p><u><a href="#">Description: Under the supervision of their thesis supervisor, students in this course complete the thesis or thesis equivalent according to the methodology approved in the proposal. This includes collecting and analyzing data, and writing the results and conclusions. The completed project has an oral defence, in which the student presents their work to the supervisory committee for approval.</a></u></p> <p><b>Component(s):</b> Thesis Research (<u><a href="#">or Thesis Equivalent</a></u>)</p>
<p><b>Rationale:</b> A course description is added at the request of SGS.</p>	
<p><b>Resource Implications:</b> None.</p>	
<p><b>Other Programs within which course is listed:</b> None.</p>	

# Sample Course Outline

## Communicating Instructional Content (ETEC 634)

### About the Course

This course develops the professional instructional writing skills needed by educational technologists. It emphasizes basic instructional writing skills and how to adjust messages for particular audiences and media, and different genres (formats) of instructional materials.

Specifically, in this course, students learn:

- Basic principles of learner-based writing
- How to transform existing written material for different audiences, such as executives, school-aged students, professionals, specialized labor, and the general public
- How to write for different media, including scripts and similar narration for video and podcasts and text-based material for presentation in print, online, and mobile devices
- How to strengthen text with visuals and effective page and screen design.

This course is important because, as an instructional designer, your ultimate goal is to produce the most effective, readable, and usable materials for your learners. To do so, you'll need to understand how to structure and organize learner-centric materials as well as how to explain material in plain and concise language. No one writes a perfect first draft, so you'll also learn how to review and edit material, and how to use a style guide to facilitate consistency with related materials developed by others.

### Objectives

**Main Objective:** After completing this course, students will be able to clearly and concisely communicate instructional content so that it achieves the objectives established for it.

**Supporting Objectives:** In support of that objective, students will be able to:

- Describe the role of clear, concise, writing in creating engaging and effective learning experiences.
- Develop instructional content aligned with objectives
  - Determine the type of content to develop suggested by its associated objective
  - Employ tactics for writing content that draws people into a learning experience and maintains that attention.

- Use visual communication techniques to clearly and concisely communicate content
- Apply screen and page design techniques to facilitate readability of materials
- Provide feedback to learners on their performance on activities and assessments so that they can strengthen their performance in the future
- Develop clear instructions for instructional activities so that learners can perform them with minimal additional assistance
- Prepare guidance for instructors so they can knowledgeably facilitate the material
- Prepare the same materials for different audiences
  - Describe the role of Learner-Centered Design in communicating instructional content
  - Apply learner personas when making decisions about content to include and how to present it, including situations when content is re-worked for a different group of learners
  - Apply use cases or scenarios when making decisions about the presentation of content, including situations when content is re-worked for a different group of learners
- Define style guidelines to ensure the consistency of material.
  - Describe the roles of style guides and templates in ensuring consistency
  - Apply style guides when conducting developmental and copyedits
  - Describe the processes used to establish style guidelines and templates
  - Prepare templates to ensure visual, design, and editorial consistency
- Link specific communication choices to broader principles of learning, instruction, and learning experience design

## **Texts**

Primary Textbook	Shank, P. (2017). <i>Write and Organize for Deeper Learning: 28 evidence-based and easy-to-apply tactics that will make your instruction better for learning.</i>
Other Materials	<ul style="list-style-type: none"> <li>● Carliner, S. (2021.) <i>Communicating Instructional Content.</i> Montreal, QC: Concordia University Open Press.</li> <li>● Carliner, S. (2021.) <i>Communicating Instructional Content — with Style.</i> Montreal, QC: Concordia University Open Press.</li> <li>● Clark, R. C., &amp; Clark, R. E. (2016). <i>E-Learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning.</i> Hoboken, NJ: John Wiley &amp; Sons.</li> </ul>



	<ul style="list-style-type: none"> <li>• Sellnow, D. D. &amp; Kaufmann, R. Chapter 14. Instructional Communication and the Online Learning Environment: Then, Now, and Next. In Houser, M. L., &amp; Hosek, A. M. (Eds.). (2018). <i>Handbook of Instructional Communication: Rhetorical and Relational Perspectives</i> (2nd ed.). New York, NY: Routledge.</li> <li>• See References in this Course Outline</li> <li>• Other readings will be provided as needed and our learning evolves</li> </ul>
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**Assignments**

Assignment	Contribution to grade
Revision for Clearer Communication. Given a unit of self-study instruction (provided to you and developed by someone else and about 10 minutes of instruction), revise it according to the principles taught in this course.	20%
Preparing the Next Unit. Given objectives, develop a new unit of self-study instruction (approximately another 10 minutes) that builds on the one you revised.  Also develop a template to ensure that the two units are consistent.	30%
Adjusting a Unit of Instruction. Rework the two units of instruction prepared in the previous assignments for presentation as classroom instruction and for a different audience.	25%
Documenting style guidelines. Based on the previous three assignments, identify aspects that need to be consistent, including (but not limited to): formatting, instructions, headings, terminology, and typography.	10%
Design log. For each assignment, describe at least five key design choices you made and identify the principles of communication, instructional design, educational psychology, and learning experience design that guided your decision making.	15%

**Additional Resources**

The University offers many services that can help students. Please refer to the list below and make good use of these services if you have need for any of them, to help you achieve success with your academic goals.

- Concordia Library Citation and Style Guides: <https://library.concordia.ca/help/citing/>
- Student Success Centre: <http://www.concordia.ca/students/success.html>
- Counselling and Psychological Services: <http://www.concordia.ca/students/counselling.html>
- Health Services: <http://www.concordia.ca/students/health.html>
- Financial Aid and Awards: <http://www.concordia.ca/offices/faao.html>
- Concordia Student Union (Housing and Job Resource Center): <https://www.csu.qc.ca/services/hojo/>
- Academic Integrity: <http://www.concordia.ca/conduct/academic-integrity.html>
- Access Centre for Students with Disabilities: <http://www.concordia.ca/students/accessibility.html>
- Dean of Students Office: <http://www.concordia.ca/offices/dean-students.html>
- International Students Office: <http://www.concordia.ca/students/international.html>
- Student Hub: <http://www.concordia.ca/students.html>
- Concordia Counseling and Development offers career services, psychological services, student learning services, etc. <http://cdev.concordia.ca/>

**SCHOOL OF GRADUATE STUDIES**

**MEMO TO:** Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning

**FROM:** Rachel Berger, Associate Dean, Academic Programs and Development  
School of Graduate Studies

**DATE:** October 28, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (ARTH-17)  
(CALENDAR – 2022/2023)  
DEPARTMENT OF ART HISTORY  
FACULTY OF FINE ARTS**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Fine Arts Faculty Council.

The Department of Art History is proposing to delete existing and create new seminars at the MA level as well as changes to several course titles and descriptions in an effort to more accurately represent current content, to better reflect its pedagogical and research orientations, and to address EDI and decolonizing strategies. Additionally, knowledge of the French language is no longer a program requirement.

The GCC approved the curriculum changes as is. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.

cc: E. C. Paterson, Associate Dean, Academic Affairs, Faculty of Fine Arts  
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs



**FACULTY OF FINE ARTS**

## INTERNAL MEMORANDUM

**TO:** Dr. Rachel Berger, Chair, Graduate Curriculum Committee

**FROM:** Dr. Annie Gérin, Dean, Faculty of Fine Arts

**CC:** Dr. Elaine Paterson, AD, Academic Programs and Pedagogy, Faculty of Fine Arts

**DATE:** September 17, 2021

**RE:** Curriculum Dossier for the Department of Art History, ARTH-17

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As Dean of the Faculty of Fine Arts, I fully support the curriculum changes proposed in ARTH-17. The dossier was reviewed and approved unanimously by the Fine Arts Faculty Council at its virtual meeting on September 10, 2021.

There are no resource implications.

A handwritten signature in blue ink, appearing to read "Annie Gérin".

Annie Gérin, PhD  
Dean, Faculty of Fine Arts  
[Annie.gerin@concordia.ca](mailto:Annie.gerin@concordia.ca)



## FACULTY OF FINE ARTS

### Internal Memorandum

**To:** Annie Gérin, Dean, Faculty of Fine Arts  
**From:** Elaine Paterson, Associate Dean, Academic Programs and Pedagogy  
**Date:** May 10, 2021  
**Re:** Curriculum dossier for the Department of Art History, ARTH-17

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The Faculty of Fine Arts Curriculum Committee has reviewed and approved the ARTH-17 curriculum dossier from the Department of Art History on May 7, 2021. We hereby submit this dossier for review by the Faculty Council on September 10, 2021.

This document proposes the deletion of existing and creation of new seminars at the MA level. Course titles and descriptions are also updated. These changes will more accurately represent the content currently offered, better reflect the pedagogical and research orientations of the curriculum and strengthen the program.

There are no resource implications.

With thanks for your consideration.

A handwritten signature in blue ink, appearing to read "E. Paterson".

Elaine Paterson, PhD  
Associate Dean, Academic Programs and Pedagogy  
Faculty of Fine Arts  
[elaine.paterson@concordia.ca](mailto:elaine.paterson@concordia.ca)

**INTERNAL MEMORANDUM**

**TO: Dr Elaine Cheasley Paterson, Associate Dean, Academic Programs and Pedagogy, Faculty of Fine Arts**

**FROM: Dr Johanne Sloan, Chair and Professor, Department of Art History**

**DATE: April 26, 2021**

**SUBJECT: Changes to titles and descriptions of courses in MA program, ARTH-17**

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Dear Associate Dean Paterson (Elaine),

As Chair of the Department of Art History and of our Curriculum Committee, I am pleased to propose a series of changes to the course titles and descriptions in our MA program, as well as a change to the French-language requirement. These proposed changes were presented at our most recent Department Council Meeting (April 9, 2021) and Council unanimously agreed to move these changes forward.

The implementation date for the proposed changes is Fall 2022.

What began as a decision to revise and substitute a few new courses turned into a more extensive review of all the program's outdated titles and descriptions. What must be emphasized is that these new titles are meant to more accurately represent the course content that already exists in the program. This is to say that professors have in recent years tended to propose special topics for courses that had fairly generic titles, whereas now we will have course titles explicitly devoted to topics such as design studies; gender & sexuality; social justice, etc.

The changes we are proposing are intended to strengthen the existing program. We are indeed proud of our MA program, which is extremely dynamic and remains well-regarded across the country. The program admits a cohort of approximately 16-17 students per year; students take seminars taught by full-time professors, and develop a thesis project by working closely with their thesis supervisor. With the exception of changes to the French-language requirement, the fundamental structure of the MA program will remain unchanged through this process. It is important to note that there are no resource implications to these modifications.

**Changes to titles and descriptions of MA courses.** There are a number of reasons we have undertaken these changes, which I will outline below.

1. Moving beyond a Canadian-centric focus. It is important to know that the MA in Art History at Concordia University was historically focused on Canadian art. In fact, the MA program was groundbreaking at its origins in the 1970s, as we were the first MA program to showcase the study of Canadian art. Today, however, Canadian art can be studied in a number of programs across the country, and our mandate has shifted. While we remain committed to teaching Canadian art and art history, today we consider it essential to put Canadian art in conversation with international, transnational, and diasporic artists and scholars. We have therefore eliminated the references to “Canadian” or “North American” in the course titles, to enable this greater breadth.
2. The research and pedagogical orientation of our program has shifted. What has made our MA program so successful is that students know they’re coming to study with professors who are conducting cutting-edge research. Our professors develop seminars that correspond to their own current research interests, while engaging with important intellectual issues and debates. The new titles more accurately represent the art-historical knowledge we want to impart and share with our graduate students. These changes are especially important as we have welcomed new Tenure-Track professors into the department in recent years (In the past 3 years: Dr. May Chew, Dr. Michelle McGeough, Dr. Joana Joachim).
3. EDI and decolonizing mandates: The revised course offerings more explicitly reflect the commitment our department has made to re-think our pedagogical approach and curriculum in accordance with matters of Equity, Diversity and Inclusion. Our professors have previously taught seminars that focus on race and ethnicity, queer studies, and social justice, for instance. While the discussion about EDI is necessarily an ongoing one, the range of new course titles will make our commitment to this reorientation more evident. The interest in decolonizing the university overlaps with these concerns, but is more closely tied to questions of Indigenous knowledge; our department has two Indigenous art historians, which means that Indigenous art, culture, and knowledge are positioned as being central to the MA program.
4. The revised titles demonstrate a shift away from medium-specificity (i.e. courses on painting or sculpture) to instead place a greater emphasis on thematic and theoretical approaches to art history.
5. Recruitment: These course titles and descriptions will make the thematic and theoretical orientation of the MA program more obvious to students interested in the program. At the present time, we tend to direct prospective students to lists of currently-taught or archived seminars so that they can better understand who we are and what we do. Because the new list of courses will more accurately reflect the program’s mandate, it is sure to help with the recruitment of new graduate students. It should also be noted that there is currently a great deal of interest, at the undergraduate level, in courses related to gender and sexuality; histories of design; and religion and spirituality.

6. Harmonization of language: Some of the changes to titles and descriptions are minor, but are being undertaken so that there is consistency across all the program's course titles and descriptions.

**Removal of French-language requirement:** We have decided to remove the French-language requirement (along with the French test itself) from the list of MA program requirements.

The reasons for this are several: Our MA program is no longer narrowly focused on Canadian art and architecture, while a knowledge of Canada's official two languages is not always needed. The knowledge of French might not be necessary to students working on Inuit art history, or Pakistani art history, for instance. Many of our students (whether out of province or international) are fluent in a language other than English, and it seems excessive to ask them to master French too if that language is unrelated to their thesis. Should a student's thesis research require them to have knowledge of French, or of another ancient or modern language, we will encourage our students to study that language, and we'll also ask them to include these linguistic parameters in their thesis proposal, which gets assessed by the Graduate Program Committee. It should be noted that other comparable programs within Canada, notably McGill University's MA in Art History, do not require knowledge of French, nor of any other second language.

Sincerely,

Dr Johanne Sloan  
Chair and Professor  
Department of Art History  
Concordia University



**PROGRAM CHANGE:** Changes to degree requirements

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>Degree Requirements</b></p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Please see the Art History Courses page for course descriptions.</p> <p><b>Art History MA (45 credits)</b></p> <p>6 credits of Required Courses:                      ARTH 654 Annotated Review of Sources and Documents (3.00)                      ARTH 655 Thesis Seminar (3.00)</p> <p>15 credits of seminars selected in consultation with the graduate program director or the student's supervisor. Exceptionally, and with the approval of the Graduate Program Director, students may register for one of the following options:                      a graduate seminar (3 credits) in another discipline or at another Quebec university, an internship or an independent study.</p> <p>24 credits:                      ARTH 656 Thesis (24.00)</p> <p><b>Additional Degree Requirements</b></p> <ul style="list-style-type: none"> <li><del>Language Requirement. Reading knowledge of English and French is mandatory. Students are required to pass an examination in their second language, either French or English, prior to graduation.</del></li> </ul>	<p><b>Degree Requirements</b></p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Please see the Art History Courses page for course descriptions.</p> <p><b>Art History MA (45 credits)</b></p> <p>6 credits of Required Courses:                      ARTH 654 Annotated Review of Sources and Documents (3.00)                      ARTH 655 Thesis Seminar (3.00)</p> <p>15 credits of seminars selected in consultation with the graduate program director or the student's supervisor. Exceptionally, and with the approval of the Graduate Program Director, students may register for one of the following options:                      a graduate seminar (3 credits) in another discipline or at another Quebec university, an internship or an independent study.</p> <p>24 credits:                      ARTH 656 Thesis (24.00)</p>
<p>Rationale:</p>	

We have decided to remove the French-language requirement (along with the French reading exam itself) from the MA program degree requirements.

The reasons for this are several: Our MA program is no longer narrowly focused on Canadian art and architecture, while a knowledge of Canada's official two languages is not always needed. The knowledge of French might not be necessary to students working on Inuit art history, or Pakistani art history, for instance. Many of our students (whether out of province or international) are fluent in a language other than English, and it seems excessive to ask them to master French too if that language is unrelated to their thesis. Should a student's thesis research require knowledge of French, or of another ancient or modern language, we will encourage our students to study that language, and also ask them to include these linguistic parameters in their thesis proposal, which gets assessed by the Graduate Program Committee. It should be noted that other comparable programs within Canada, notably McGill University's MA in Art History, do not require knowledge of French, nor of any other second language.

**Resource Implications:**

There are no resource implications.

**COURSE CHANGE:** ARTH 610      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><del>ARTH 610 Selected Issues in North American Art and Architectural History (3 credits)                      An examination of selected issues in the production of or writing about the visual arts in North America.</del></p>	
<p>Rationale:                      The program no longer focuses so narrowly on Canadian/North American topics, nor does this course title adequately represent faculty members' breadth of research and pedagogical expertise.</p>	
<p>Resource Implications:                      There are no resource implications.</p>	
<p>Other Programs within which course is listed:                       None.</p>	



**COURSE CHANGE:** ARTH 612      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><del><b>ARTH 612 Contextualizing North American Sculpture: Topics in History, Theory and Practice (3 credits)</b></del>  <del>An examination of selected topics in the production of or writing about sculpture in North America.</del></p>	
<p><b>Rationale:</b>                  This course has only been taught once in the last ten years and does not adequately represent the MA program, which no longer focuses so narrowly on Canadian/North American topics, nor faculty members' breadth of research and pedagogical expertise. Furthermore, we are proposing new courses that rely less on medium-specificity, in favour of thematic and theoretical approaches to art history.</p>	
<p><b>Resource Implications:</b>                  There are no resource implications.</p>	
<p><b>Other Programs within which course is listed:</b>                   None.</p>	









**COURSE CHANGE:** ARTH 621      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><del><b>ARTH 621 Collecting and Patronage in Canada</b> (3 credits)                      Investigations related to how and for whom Canadian art has been commissioned and collected.</del></p>	
<p>Rationale:                      This course has only been taught once in the last ten years (2010-2020), and the topic no longer corresponds to the research interests of either faculty or students. We are creating new courses that take thematic and theoretical approaches to art history.</p>	
<p>Resource Implications:                      There are no resource implications.</p>	
<p>Other Programs within which course is listed:                       None.</p>	





**COURSE CHANGE:** ARTH 633      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p><del>ARTH 633 Creative and Critical Literature in Art History (3 credits)                      Aspects of the relationship between art and text, such as artists' books, the impact of critical writing on art practice, etc.</del></p>	
<p>Rationale:                      The particular language and concepts used in the title and description no longer accurately represent the research and theoretical orientation of the program. We are proposing many new courses that will do so.</p>	
<p>Resource Implications:                      There are no resource implications.</p>	
<p>Other Programs within which course is listed:                       None.</p>	

























**COURSE CHANGE:** ARTH 656      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2020

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** Art History MA

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input type="checkbox"/> Other - Specify: |                                       |                                       |

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>ARTH 656 Thesis (24 credits)</b></p> <p><b>Description:</b> Each student submits a thesis of 13,000 - 15,000 words (excluding notes, bibliography and other supporting materials), prepared under the supervision of a tenured or tenure-track professor in the Department of Art History who examines the thesis along with <del>two other scholars.</del></p> <p><b>Component(s):</b> Thesis Research</p>	<p><b>ARTH 656 Thesis (24 credits)</b></p> <p><b>Description:</b> Each student submits a thesis of 13,000 - 15,000 words (excluding notes, bibliography and other supporting materials), prepared under the supervision of a tenured or tenure-track professor in the Department of Art History who examines the thesis along with <u>one other professor.</u></p> <p><b>Component(s):</b> Thesis Research</p>
<p><b>Rationale:</b>                      We are updating the requirement of the thesis examination per the School of Graduate Studies' recent change to the composition of the committee, which has been revised to two members (supervisor and one examiner).</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p>Other Programs within which course is listed:</p>	



**COURSE CHANGE:** ARTH 660      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>ARTH 660 The Social Contexts of Art and Architecture</b> (3 credits)                      This seminar explores the social contexts of selected artistic/architectural themes, movements, and periods.</p>
<p>Rationale:                      This new course on social contexts reflects the research and pedagogical interests of the department as a whole, across multiple periods and areas of study, and emphasizes thematic and theoretical approaches to art history, rather than medium specificity or geo-political categories (i.e. "North American" art).</p>	
<p>Resource Implications:                      There are no resource implications.</p>	
<p>Other Programs within which course is listed:                       None.</p>	

**COURSE CHANGE:** ARTH 661      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
	<b>ARTH 661 Art History and Black Studies</b> (3 credits) This seminar considers art and art history from Black Studies perspectives.
<b>Rationale:</b> This new course on Black Studies corresponds to the research and pedagogical interests of our faculty as well as many graduate students. Furthermore, it reflects the program's commitment to a less Eurocentric curriculum, by incorporating a diverse range of positions and areas of research. This is in line with University-wide mandates such as Indigenous Directions and the Black Perspectives Office to decolonize the curriculum and integrate Equity, Diversity, and Inclusion (EDI).	
<b>Resource Implications:</b> There are no resource implications.	
<b>Other Programs within which course is listed:</b>  None.	

**COURSE CHANGE:** ARTH 662      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>ARTH 662 Gender and Sexuality in Art and Architecture</b> (3 credits)                      This seminar explores aspects of gender and sexuality in relation to histories of art and architecture.</p>
<p><b>Rationale:</b>                      This new course on gender and sexuality corresponds to the research and pedagogical interests of our faculty as well as many graduate students. Insofar as this seminar will often address 2sLGBTQ topics, it is in line with University-wide mandates to address Equity, Diversity, and Inclusion (EDI) in every way possible. Furthermore, this MA seminar echoes demonstrated interest in these topics from students at the undergraduate-level. Examples highly-enrolled courses that explore themes of gender and sexuality include ARTH 392 in Fall 2016, ARTH 357 in Winter 2017, ARTH 498 in Winter 2017, ARTH 392 in Fall 2017, ARTH 392 in Winter 2018, ARTH 358 in Fall 2018, ARTH 498 in Fall 2018, ARTH 357 in Winter 2019, ARTH 392 in Winter 2020, ARTH 392 in Fall 2020, ARTH 357 in Winter 2021, and ARTH 368 in Winter 2021.</p>	
<p><b>Resource Implications:</b>                      There are no resource implications.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	

**COURSE CHANGE:** ARTH 663      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>ARTH 663 Art History and Social Justice</b> (3 credits)                      This seminar investigates how questions of social justice intersect with art and visual culture.</p>
<p><b>Rationale:</b>                      This proposed seminar accurately reflects the research and pedagogical orientation of the program, and of the department as a whole, which in the past two years put forward requests for research chairs in “Art and Social Justice” and “Art History and Racial Justice.” The category of Social Justice also potentially encompasses environmental justice and health justice. Furthermore, the topics covered by this course are in line with University-wide mandates such as Indigenous Directions and the Black Perspectives Office to decolonize the curriculum and integrate Equity, Diversity, and Inclusion (EDI).</p>	
<p><b>Resource Implications:</b>                      There are no resource implications.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	

**COURSE CHANGE:** ARTH 664      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>ARTH 664 Visual Culture</b> (3 credits)                      This seminar is concerned with aspects of visual culture, including theories of visuality and various modes of visual production.</p>
<p>Rationale:                      “Visual Culture” and “Material Culture” were previously united in a single course, ARTH 641. As there is sufficient interest in both of these areas, ARTH 641 will now cover Material Culture only, while this new course will address Visual Culture.</p>	
<p>Resource Implications:                      There are no resource implications.</p>	
<p>Other Programs within which course is listed:                       None.</p>	

**COURSE CHANGE:** ARTH 665      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>ARTH 665 Histories and Theories of Design</b> (3 credits)                      This seminar explores histories and theories of design.</p>
<p><b>Rationale:</b>                      This new seminar reflects the research and pedagogical interests of our faculty, and clearly indicates the extent to which design has become an essential part of an art historical education. Students at the undergraduate and graduate levels have demonstrated a strong interest in design. Many MA students in recent cohorts have chosen research topics related to design for their thesis. At the undergraduate-level, the following courses that deal with design were well-enrolled: ARTH 498 in Winter 2017, ARTH 379 in Winter 2018, ARTH 498 in Fall 2018, ARTH 357 in Winter 2019, and ARTH 357 Winter 2021.</p>	
<p><b>Resource Implications:</b>                      There are no resource implications.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	

**COURSE CHANGE:** ARTH 667      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>ARTH 667 Art History, Religion and Spirituality</b> (3 credits)                      This seminar considers the formative role of spirituality and religious practices on art making and architectural practice.</p>
<p><b>Rationale:</b>                      This new course on spirituality and religion reflects the research orientation of the department's faculty and students. Examples highly-enrolled undergraduate courses that deal with spirituality and religion include ARTH 369 in Fall 2016, ARTH 362 in Winter 2017, ARTH 362 Winter 2018, ARTH 400 Winter 2018, ARTH 369 Fall 2018, ARTH 400 Fall 2019, ARTH 369 Fall 2020, and ARTH 362 Winter 2021.</p>	
<p><b>Resource Implications:</b>                      There are no resource implications.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	

**COURSE CHANGE:** ARTH 668      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Fall 2022

**Faculty/School:** Fine Arts  
**Department:** Art History  
**Program:** Art History MA Program  
**Degree:** MA  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>ARTH 668 Theories and Methodologies in Art History</b> (3 credits)                      This seminar addresses various methodological approaches and theories relevant to art history.</p>
<p><b>Rationale:</b>                      The addition of a methodology course at the MA-level reflects the needs of the program as well as the interests of students and faculty members in the theoretical and methodological foundations of the discipline. Currently, we offer methodology courses at the undergraduate level, ARTH 300, and at the doctorate level, ARTH 809 and ARTH 810, so this master's-level course will ensure consistency across our programs.</p>	
<p><b>Resource Implications:</b>                      There are no resource implications.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	



## **ARTH 660 – Social Contexts of Art and Architecture** (Abridged syllabus)

### **PREREQUISITES**

Enrolment in the Art History MA program.

### **COURSE DESCRIPTION**

This seminar investigates some of the many ways that forms of art and architecture are conjoined to social contexts. This methodological orientation is embedded in the discipline of art history: the first words of Michael Baxandall’s book about Early Modern Italy are “A fifteenth-century painting is the deposit of a social relationship,” while the social history of art is now recognized as one of art history’s foundational methodology. Art historians focused on contemporary art have further developed modes of research and analysis that connect art’s production, reception, circulation and display to social relationships and environments. This seminar will explore such questions through selected themes, examples, or special topics.

### **LEARNING OUTCOMES**

- Students will be introduced to a range of artists, art historians, and theorists who have critically engaged with the topic.
- In the seminar context, students learn to express themselves orally, and also learn to discuss and debate respectfully.
- Students learn to summarize, synthesize, and compare the books and articles they read.
- Students learn how to develop research projects, through multiple forms of research: annotated bibliographies of primary and secondary sources; consultation of in-person or digital archives; ethically-responsible interviewing, etc.
- Students have the opportunity to work with fellow students in group-work, which contributes to the fruitful exchange of ideas and insights.
- In this seminar (and indeed throughout the MA program), students develop and enhance their writing skills – through short assignments as well as through more developed research essays.
- Students might also have the opportunity to translate the seminar’s research findings into displays and exhibitions – notably using the department’s vitrine exhibition space.

### **EVALUATION**

Course grades are based on in-class participation, short assignments and presentations, final research paper and presentations. (Approximate breakdown below.)

Group presentation on course readings	10%
Short assignment	20%
Final research project: oral presentation and paper	50%
Participation in all aspects of seminar	20%

## **ARTH 661 – Art History and Black Studies** (Abridged syllabus)

### **PREREQUISITES**

Enrolment in the Art History MA program.

### **COURSE DESCRIPTION**

This seminar addresses the intersection of Art History and Black Studies, focusing on contributions by Black artists, scholars, theoreticians and other cultural practitioners. Each iteration of the seminar will explore selected themes, historical movements and periods, or special topics. Students will gain a historical perspective about how the field of art history, along with cognate fields of art criticism, curating, and museology, actively marginalized Black art histories for so long. This critical perspective will entail an immersion in critical race studies and decolonial methodologies. At the same time, the seminar will focus on the important and groundbreaking work of Black artists and scholars, and students will have the opportunity to contribute to the growing research field of Black art histories.

### **LEARNING OUTCOMES**

- Students will be introduced to a range of artists, art historians, and theorists who have critically engaged with the topic.
- In the seminar context, students learn to express themselves orally, and also learn to discuss and debate respectfully.
- Students learn to summarize, synthesize, and compare the books and articles they read.
- Students learn how to develop research projects, through multiple forms of research: annotated bibliographies of primary and secondary sources; consultation of in-person or digital archives; ethically-responsible interviewing, etc.
- Students have the opportunity to work with fellow students in group-work, which contributes to the fruitful exchange of ideas and insights.
- In this seminar (and indeed throughout the MA program), students develop and enhance their writing skills – through short assignments as well as through more developed research essays.
- Students might also have the opportunity to translate the seminar’s research findings into displays and exhibitions – notably using the department’s vitrine exhibition space.

### **EVALUATION**

Course grades are based on in-class participation, short assignments and presentations, final research paper and presentations. (Approximate breakdown below.)

Group presentation on course readings	10%
Short assignment	20%
Final research project: oral presentation and paper	50%
Participation in all aspects of seminar	20%

# **ARTH 662 Gender and Sexuality in Art and Architecture** (Abridged syllabus)

## **PREREQUISITES**

Enrolment in the Art History MA program.

## **COURSE DESCRIPTION**

This seminar investigates some of the many ways gender and sexuality inform and are informed by artistic and architectural production. Gender and sexuality have, in past several decades, transformed and informed the development of the discipline of art history. The relationship between cultural production and gender and sexuality are complex, often fraught, multifaceted and varied. The course's historiographical and methodological orientation will allow students to work through some of the key threads and currents that have helped shape art history through the specific lenses of feminist and queer theories. This seminar will explore such questions through selected themes, examples or special topics.

## **LEARNING OUTCOMES**

- Students will be introduced to a range of artists, art historians, and theorists who have critically engaged with the topic.
- In the seminar context, students learn to express themselves orally, and also learn to discuss and debate respectfully.
- Students learn to summarize, synthesize, and compare the books and articles they read.
- Students learn how to develop research projects, through multiple forms of research: annotated bibliographies of primary and secondary sources; consultation of in-person or digital archives; ethically-responsible interviewing, etc.
- Students have the opportunity to work with fellow students in group-work, which contributes to the fruitful exchange of ideas and insights.
- In this seminar (and indeed throughout the MA program), students develop and enhance their writing skills – through short assignments as well as through more developed research essays.
- Students might also have the opportunity to translate the seminar's research findings into displays and exhibitions – notably using the department's vitrine exhibition space.

## **EVALUATION**

Course grades are based on in-class participation, short assignments and presentations, final research paper and presentations. (Approximate breakdown below.)

Group presentation on course readings	10%
Short assignment	20%
Final research project: oral presentation and paper	50%
Participation in all aspects of seminar	20%

## **ARTH 663 – Art History and Social Justice** (Abridged syllabus)

### **PREREQUISITES**

Enrolment in the Art History MA program.

### **COURSE DESCRIPTION**

The intersection of art and social justice has become integral to art history as it is practiced in the 21<sup>st</sup> century. The modernist argument that art should occupy an autonomous cultural sphere has been replaced by an understanding that art crystallizes social relations and encounters, that visual representation is inherently political, and that art-historical knowledge contributes to necessary debate and contestation in the public sphere. As the category of social justice is very broad, the seminar will inevitably bring a focused attention to particular historical examples, issues, and case studies. The special topics for this course might address one or more of the following areas: climate/environmental militancy; urban politics; community insurgency; migrant/refugee rights; decolonizing actions; resistance and activism related to race, ethnicity, gender, sexuality, and disability.

### **LEARNING OUTCOMES**

- Students will be introduced to a range of artists, art historians, and theorists who have critically engaged with the topic.
- In the seminar context, students learn to express themselves orally, and also learn to discuss and debate respectfully.
- Students learn to summarize, synthesize, and compare the books and articles they read.
- Students learn how to develop research projects, through multiple forms of research: annotated bibliographies of primary and secondary sources; consultation of in-person or digital archives; ethically-responsible interviewing, etc.
- Students have the opportunity to work with fellow students in group-work, which contributes to the fruitful exchange of ideas and insights.
- In this seminar (and indeed throughout the MA program), students develop and enhance their writing skills – through short assignments as well as through more developed research essays.
- Students might also have the opportunity to translate the seminar’s research findings into displays and exhibitions – notably using the department’s vitrine exhibition space.

### **EVALUATION**

Course grades are based on in-class participation, short assignments and presentations, final research paper and presentations. (Approximate breakdown below.)

Group presentation on course readings	10%
Short assignment	20%
Final research project: oral presentation and paper	50%
Participation in all aspects of seminar	20%

## **ARTH 664 – Visual Culture** (Abridged syllabus)

### **PREREQUISITES**

Enrolment in the Art History MA program.

### **COURSE DESCRIPTION**

“Visual Culture” has become a distinct branch of art history, for a number of reasons. Visual culture points to an expansion of our objects of study, beyond conventionally-understood works of fine art; art historians are now confident about studying popular imagery, vernacular photography, fashion illustration, comics, digital productions, and many other forms of visual representation. The question of visual culture also pertains to the history of visual technologies and visual media, each one having distinct modalities and properties which can be studied and compared. The field of visual culture also encompasses a wide range of theories related to visibility, perception, and spectatorship, as well as the circulation and reception of images.

### **LEARNING OUTCOMES**

- Students will be introduced to a range of artists, art historians, and theorists who have critically engaged with the topic.
- In the seminar context, students learn to express themselves orally, and also learn to discuss and debate respectfully.
- Students learn to summarize, synthesize, and compare the books and articles they read.
- Students learn how to develop research projects, through multiple forms of research: annotated bibliographies of primary and secondary sources; consultation of in-person or digital archives; ethically-responsible interviewing, etc.
- Students have the opportunity to work with fellow students in group-work, which contributes to the fruitful exchange of ideas and insights.
- In this seminar (and indeed throughout the MA program), students develop and enhance their writing skills – through short assignments as well as through more developed research essays.
- Students might also have the opportunity to translate the seminar’s research findings into displays and exhibitions – notably using the department’s vitrine exhibition space.

### **EVALUATION**

Course grades are based on in-class participation, short assignments and presentations, final research paper and presentations. (Approximate breakdown below.)

Group presentation on course readings	10%
Short assignment	20%
Final research project: oral presentation and paper	50%
Participation in all aspects of seminar	20%

## ARTH 665 Histories and Theories of Design

(Abridged syllabus)

### PREREQUISITES

Enrolment in the Art History MA program.

### COURSE DESCRIPTION

This seminar addresses the histories and theories of design either or both within historical and contemporary contexts. The focus of the course will be to expose students to the leading theorists, historians and scholars who have helped to shape and define the discipline since its inception in the post-WWI period. Each iteration of the seminar will explore selected directional themes, historical movements and periods or special topics. Students will gain a historical perspective about how the field of design history intersects with many other cognate fields such as art history, material culture studies, gender, race and sexuality studies, economics and political science, social history, curating and museology, among others. The course aims at providing a critical perspective that challenges traditional histories, methodologies and theories. By focusing on important and ground-breaking scholarship and case studies, and students will have the opportunity to contribute to this young but growing research field.

### LEARNING OUTCOMES

- Students will be introduced to a range of artists, art historians, and theorists who have critically engaged with the topic.
- In the seminar context, students learn to express themselves orally, and also learn to discuss and debate respectfully.
- Students learn to summarize, synthesize, and compare the books and articles they read.
- Students learn how to develop research projects, through multiple forms of research: annotated bibliographies of primary and secondary sources; consultation of in-person or digital archives; ethically-responsible interviewing, etc.
- Students have the opportunity to work with fellow students in group-work, which contributes to the fruitful exchange of ideas and insights.
- In this seminar (and indeed throughout the MA program), students develop and enhance their writing skills – through short assignments as well as through more developed research essays.
- Students might also have the opportunity to translate the seminar’s research findings into displays and exhibitions – notably using the department’s vitrine exhibition space.

### EVALUATION

Course grades are based on in-class participation, short assignments and presentations, final research paper and presentations. (Approximate breakdown below.)

Group presentation on course readings	10%
Short assignment	20%

Final research project: oral presentation and paper  
Participation in all aspects of seminar

50%  
20%

## **ARTH 667 – Art History, Religion and Spirituality** (Abridged syllabus)

### **PREREQUISITES**

Enrolment in the Art History MA program.

### **COURSE DESCRIPTION**

This seminar considers the many ways that art and architecture have been mobilized by different religious traditions (such as Judaism, Christianity, and Islam) at different times and places in history, including in our contemporary moment. It is also open to the study of the role of Indigenous spiritualities and traditional belief systems around the world on art and place making and of various new religious movements around the globe. While the seminar may be comparative, the seminar instructor could choose to focus on specific groups or time periods. Possible areas of study include the relationship of art, architecture and ritual and liturgical practices; public and private spaces of worship; the ways that artists and theoreticians have interpreted religious texts, and traditional stories in different ways; religious art and architecture in diasporic contexts; religious imagery and the competing claims of iconophiles and iconoclasts; the complex intersections of art, religion, philosophy and science; the interactions of influential religious groups with artists as well as various private patrons and political sponsors; the formative role of spirituality in modern art; the religious dimension of social justice movements, etc. Relevant methodological approaches considered in this seminar would include theological and religious studies, anthropology, sensory studies, social history, etc.

### **LEARNING OUTCOMES**

- Students will be introduced to a range of artists, art historians, theologians, and theorists who have critically engaged with the topic.
- In the seminar context, students learn to express themselves orally, and also learn to discuss and debate respectfully.
- Students learn to summarize, synthesize, and compare the books and articles they read.
- Students learn how to develop research projects, through multiple forms of research: annotated bibliographies of primary and secondary sources; consultation of in-person or digital archives; ethically-responsible interviewing, etc.
- Students have the opportunity to work with fellow students in group-work, which contributes to the fruitful exchange of ideas and insights.
- In this seminar (and indeed throughout the MA program), students develop and enhance their writing skills – through short assignments as well as through more developed research essays.
- Students might also have the opportunity to translate the seminar’s research findings into displays and exhibitions – notably using the department’s vitrine exhibition space.

### **EVALUATION**

Course grades are based on in-class participation, short assignments and presentations, final research paper and presentations. (Approximate breakdown below.)



Group presentation on course readings	10%
Short assignment	20%
Final research project: oral presentation and paper	50%
Participation in all aspects of seminar	20%

## **ARTH 668 – Theories and Methodologies in Art History** (Abridged syllabus)

### **PREREQUISITES**

Enrolment in the Art History MA program.

### **COURSE DESCRIPTION**

This course addresses some of the theories and methodologies which have been foundational for the discipline of art history. It was because of a radicalization of the discipline in the late 20<sup>th</sup> century (what was then called the “new art history”) that feminism, social history, and post-colonial critique became crucial methodologies and theoretical orientations for generations of art historians. At the same time, other art historians were emphasizing the relevance of semiotics, psychoanalysis, or poststructuralism – as intellectual frameworks for art historical research. This was only the beginning, however, of what has become an on-going process. Some scholars have refined and reinvented the older approaches: decolonizing methodologies have largely supplanted post-colonial methodologies, for instance. Newer theoretical formations – affect theory, eco-critical theory, new materialism, etc. – have also had an important impact on the field. Students will be introduced to primary sources and art historical scholarship, in order to analyze, evaluate, and compare a range of methods and theories.

### **LEARNING OUTCOMES**

- Students will be introduced to a range of artists, art historians, and theorists who have critically engaged with the topic.
- In the seminar context, students learn to express themselves orally, and also learn to discuss and debate respectfully.
- Students learn to summarize, synthesize, and compare the books and articles they read.
- Students learn how to develop research projects, through multiple forms of research: annotated bibliographies of primary and secondary sources; consultation of in-person or digital archives; ethically-responsible interviewing, etc.
- Students have the opportunity to work with fellow students in group-work, which contributes to the fruitful exchange of ideas and insights.
- In this seminar (and indeed throughout the MA program), students develop and enhance their writing skills – through short assignments as well as through more developed research essays.
- Students might also have the opportunity to translate the seminar’s research findings into displays and exhibitions – notably using the department’s vitrine exhibition space.

### **EVALUATION**

Course grades are based on in-class participation, short assignments and presentations, final research paper and presentations. (Approximate breakdown below.)

Group presentation on course readings

10%

Short assignment	20%
Final research project: oral presentation and paper	50%
Participation in all aspects of seminar	20%

**SCHOOL OF GRADUATE STUDIES**

**MEMO TO:** Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning

**FROM:** Rachel Berger, Associate Dean, Academic Programs and Development  
School of Graduate Studies

**DATE:** September 30, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (JMSB-20)  
(CALENDAR – 2021/2022)  
MSc in MANAGEMENT, MSc in MARKETING, MSc DECISION SCIENCES  
AND MANAGEMENT INFORMATION (BUSINESS ANALYTICS AND  
TECHNOLOGY MANAGEMENT) option  
JOHN MOLSON SCHOOL OF BUSINESS**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Council of the John Molson School of Business (JMSB).

JMSB is proposing to add the MSc Management, MSc Marketing and MSc Decision Sciences and Management Information (Business Analytics and Technology Management) option to their list of degree programs eligible for entry into the Institute for Co-operative Education.

The GCC approved the proposed curriculum changes as is. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.

cc: S. Betton, Associate Dean, Professional Graduate Programs, John Molson School of Business  
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs

**To:** Rachel Berger, Associate Dean, Academic Programs and Development  
Chair, Graduate Curriculum Committee

**Cc:** Gina Beltran, Developer, Graduate Academic Programs

**From:** Anne-Marie Croteau, Dean, John Molson School of Business

**Date:** August 10, 2021

**Subject:** Proposed addition of the Graduate Co-operative option to the Masters of Science in  
Management, Marketing and Decision Sciences and Management Information Systems  
Option (*Business Analytics and Technology Management*) (**JMSB-20**)

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Recently, Senate approved the inclusion of a work-integrated learning option for research graduate programs. This dossier presents the addition of three additional programs to the graduate co-operative program:

- Master of Science in Management
- Master of Science in Marketing
- Master of Science, Decision Sciences and Management Information option (*Business Analytics and Technology Management*)

The Graduate Program Director will act as the Co-op Academic Director for their programs to work with the Institute on admission criteria, work-term sequencing and grading the Work-Term reports. The growth & workload will be carefully monitored. The Institute of Co-operative Education and the Faculty will collaborate in setting quotas per year for entry.

On May 14, 2021, the JMSB Faculty Council approved this dossier.

Thank you for considering the proposed program changes in the next Graduate Curriculum Committee.

**INTERNAL MEMORANDUM**

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**To:** Anne-Marie Croteau, Dean, John Molson School of Business

**From:** Sandra Betton, Associate Dean, Professional Graduate Program,  
Chair of the Faculty Academic Program Committee, JMSB

**Date:** April 30, 2021

**Subject:** Proposed addition of the Graduate Co-operative option to the Masters of Science  
in Management, Marketing and Business Analytics and Technology Management  
(JMSB-20)

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On February 19, 2021, Senate approved the inclusion of the graduate co-operative program option for some of the master's level programs at John Molson School of Business. This proposal includes three additional programs: MSc Management, MSc Marketing and MSc Business Analytics and Technology Management.

The JMSB Faculty Academic Programs Committee approved these changes on April 16, 2021.

I kindly request to submit this proposal during the next meeting of the JMSB Faculty Council.

Thank you.

**Office of the Associate Dean  
Research & Research Programs**

**I N T E R N A L   M E M O R A N D U M**

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**To:** Sandra Betton, Associate Dean Professional Graduate Programs

**From:** Kathleen Boies, Associate Dean Research & Research Programs

**Date:** March 25, 2021

**Re:** **Proposed changes to the Master of Science, Management, Marketing and Business Analytics and Technology Management**

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Dear Sandra,

I respectfully request that the proposed changes be submitted to the next Faculty Academic Programs Committee meeting.

Following the approval by Senate of the inclusion of a work-integrated learning option (graduate coop program) for some of the master's level programs at JMSB, we wish to include three additional programs to the list of those that may benefit from this option: MSc Management, MSc Marketing and MSc Business Analytics and Technology Management.

**PROGRAM CHANGE:** JMSB Co-op for MSc programs Step 2

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** John Molson School of Business  
**Program:** Management, Marketing, Business Analytics & Technology Management  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>The current text is taken from JMSB-19.</b></p> <p><b>Work-Integrated Learning Options</b></p> <p>The Graduate Co-op program is a structured internship program offered through the Institute for Co-operative Education. Students registered in a master's program at the John Molson School of Business are eligible to participate in the Co-op program. Please see the section of the Graduate Calendar for the Institute for Co-operative Education general guidelines and the web site of the Institute for Co-operative Education (<a href="http://concordia.ca/academics/co-op">concordia.ca/academics/co-op</a>) for information regarding membership.</p> <p><b>Admission Criteria</b></p> <p>In addition to the general requirements for entrance into the Institute for Co-operative Education, JMSB has these additional requirements:</p> <ul style="list-style-type: none"> <li>• Students apply to the Graduate Co-op Program in the first term of their academic program. Some programs may require the completion of a minimum number of credits prior to the work term.</li> <li>• Students must maintain a cumulative GPA of 3.30 or better throughout their studies. Some programs may have different GPA standards or additional</li> </ul>	<p><b>The current text is taken from JMSB-19.</b></p> <p><b>Work-Integrated Learning Options</b></p> <p>The Graduate Co-op program is a structured internship program offered through the Institute for Co-operative Education. Students registered in a master's program at the John Molson School of Business are eligible to participate in the Co-op program. Please see the section of the Graduate Calendar for the Institute for Co-operative Education general guidelines and the web site of the Institute for Co-operative Education (<a href="http://concordia.ca/academics/co-op">concordia.ca/academics/co-op</a>) for information regarding membership.</p> <p><b>Admission Criteria</b></p> <p>In addition to the general requirements for entrance into the Institute for Co-operative Education, JMSB has these additional requirements:</p> <ul style="list-style-type: none"> <li>• Students apply to the Graduate Co-op Program in the first term of their academic program. Some programs may require the completion of a minimum number of credits prior to the work term.</li> <li>• Students must maintain a cumulative GPA of 3.30 or better throughout their studies. Some programs may have different GPA standards or additional</li> </ul>



admission requirements.

- Students in a thesis program require approval from their Graduate Program Director.
- Students complete one work term (four months).
- Students are not permitted to complete a co-op work term in the last term of their program of study. They must return after their co-op for a minimum of one term of course work.

#### **Current Programs**

Currently, students within the following degree programs are eligible to apply for entry into the Institute for Co-operative Education:

- Master of Business Administration (MBA)
- Master of Business Administration - Investment Management Option (GIIM MBA)
- Master of Science in Finance (MSc in Finance)
- Master of Supply Chain Management (MSCM)

#### **Additional Program Requirements**

Master of Business Administration (MBA)

- Students accepted into the Co-op must have completed 24 credits.

Master of Business Administration - Investment Management Option (GIIM MBA)

- Students accepted into the Co-op must be registered as full-time, have completed 19.5 credits, maintain a cumulative GPA of 3.0 or better and must be approved by the Director of the program.
- In special cases, students may complete a second term with the permission of

admission requirements.

- Students in a thesis program require approval from their Graduate Program Director.
- Students complete one work term (four months).
- Students are not permitted to complete a co-op work term in the last term of their program of study. They must return after their co-op for a minimum of one term of course work.

#### **Current Programs**

Currently, students within the following degree programs are eligible to apply for entry into the Institute for Co-operative Education:

- Master of Business Administration (MBA)
- Master of Business Administration - Investment Management Option (GIIM MBA)
- Master of Science in Finance (MSc in Finance)
- [Master of Science in Management \(MSc in Management\)](#)
- [Master of Science in Marketing \(MSc in Marketing\)](#)
- [Master of Science in Business Analytics and Technology Management \(MSc in BATM\)](#)
- Master of Supply Chain Management (MSCM)

#### **Additional Program Requirements**

Master of Business Administration (MBA)

- Students accepted into the Co-op must have completed 24 credits.

Master of Business Administration - Investment Management Option (GIIM MBA)

- the Program Director and the Institute for Co-operative Education.
- Students must return to full-time study for their last term.

- Students accepted into the Co-op must be registered as full-time, have completed 19.5 credits, maintain a cumulative GPA of 3.0 or better and must be approved by the Director of the program.
- In special cases, students may complete a second term with the permission of the Program Director and the Institute for Co-operative Education.
- Students must return to full-time study for their last term.

**Rationale:**

Following the approval by Senate of the inclusion of a work-integrated learning option (graduate coop program) for some of the master's level programs at JMSB, we wish to include three additional programs to the list of those that may benefit from this option: MSc Management, MSc Marketing and MSc Business Analytics and Technology Management.

**Resource Implications:**

The growth & workload will be carefully monitored. The Institute and Faculty will collaborate in setting quotas per year for entry.

The Graduate Program Director will act as the Co-op Academic Director for their programs to work with the Institute on admission criteria, work-term sequencing and grading the Work-Term reports.

The Institute will also be required to hire resources to facilitate business development, student work-term coaching, administration (including admission to the Institute, changing program/plan information, enrolling in the appropriate work-term course) and professional development resources. This structure currently exists within the Institute and will be adjusted as the program growth requires.



To: Dr. Sandra Betton, Chair, Faculty Academic Program Programs Committee (JMSB)

Date: October 20th 2021

Object: Letter of support for the addition work-integrated options MSc Management, MSc Marketing and MSc Decision Sciences and Management Information (Business Analytics and Technology Management)

Dear Dr. Betton,

It is with great pleasure that I write this letter to support for the proposed addition of work-integrated options to graduate programs at JMSB. These new options will be for the MSc Management, MSc Marketing and MSc Decision Sciences and Management Information (Business Analytics and Technology Management) of JMSB and will be administered by the Institute of Co-operative Education.

The Institute for Co-operative Education will coordinate with each department to promote and manage these internships to achieve the experiential goals of the faculty and the university.

Please feel free to contact me if you have any questions.

Regards,

A handwritten signature in blue ink that reads "Claude Martel".

**Claude Martel, Ph. D.**  
Director of Institute for Co-operative  
Education Concordia University  
1550 De Maisonneuve West, suite 430

**From:** Gina Beltran <[gina.beltran@concordia.ca](mailto:gina.beltran@concordia.ca)>  
**Sent:** September 17, 2020 2:39 PM  
**To:** Kathleen Boies <[kathleen.boies@concordia.ca](mailto:kathleen.boies@concordia.ca)>  
**Cc:** Sandra Betton <[sandra.betton@concordia.ca](mailto:sandra.betton@concordia.ca)>; Brad Nelson <[brad.nelson@concordia.ca](mailto:brad.nelson@concordia.ca)>  
**Subject:** JMSB co-op options

Hi Kathleen,

I am following up on JMSB's co-op options.

As you know, the proposals for the Finance MSc and the MSCM have been sent to the Ministry. Both proposals have undergone a preliminary review and everything seems to be moving smoothly.

In light of these proposals, I had a conversation with the Ministry and they informed us that they are open to considering all research master's co-op proposals and none of these will be deregulated. This is contrary to what the Ministry had communicated in 2019 and the reason why the JMSB-19 dossier (attached) had been halted before APC. Brad and Sandra Gabriele agreed that we would send the Finance MSc and MSCM proposals to the Ministry to test their openness to research co-op options and if these were approved, JMSB-19 would then be moved onto APC and Senate.

Given the Ministry's reassured openness to review co-op options, we would like to suggest:

1. Presenting JMSB-19 at APC (the upcoming document deadline is September 22 and the meeting will be held on October 13)
2. Once JMSB-19 is approved by Senate, preparing the proposals for the Marketing and Management MSCs co-op options to be sent to the Ministry for approval

These actions will ensure we follow the correct curriculum proposal and avoid repeating the unfortunate situation of MSCs students no longer being eligible for co-op placements.

Please let us know your thoughts.

Thanks,

Gina

**SCHOOL OF GRADUATE STUDIES**

**MEMO TO:** Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning

**FROM:** Rachel Berger, Associate Dean, Academic Programs and Development  
School of Graduate Studies

**DATE:** September 30, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (MSCA-21)  
(CALENDAR – 2021/2022)  
MSc in MANAGEMENT  
JOHN MOLSON SCHOOL OF BUSINESS**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Council of the John Molson School of Business (JMSB).

JMSB is proposing to divide the current MSCA 699 Research Thesis (21 credits) into two different courses: MSCA 694 (Thesis Proposal – 3 credits) and MSCA 695 (Thesis – 18 credits), convert an elective course into a required course (MSCA 654), and add three new courses (MSCA 650, MSCA 653 and MSCA 658) which replace three deleted elective courses (MSCA 641, MSCA 644 and MSCA 649).

The GCC approved the proposed curriculum changes with minor modifications. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.

cc: S. Betton, Associate Dean, Professional Graduate Programs, John Molson School of Business  
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs



**To:** Rachel Berger, Associate Dean, Academic Programs and Development  
Chair, Graduate Curriculum Committee

**Cc:** Gina Beltran, Developer, Graduate Academic Programs

**From:** Anne-Marie Croteau, Dean, John Molson School of Business

**Date:** August 10, 2021

**Subject:** Proposed changes to the Master of Science in Management - Stage 2 (MSCA-21)

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The Master of Science in Management underwent a major curriculum revision. The proposed modifications were presented in two stages because some of the changes required a delay in implementation. On February 19, 2021, Senate approved the first set of revisions. Here are the new proposed changes:

- Conversion of an elective course into a core (MSCA 654)
- Split of the 21-credit thesis (MSCA 699) into a three-credit proposal (MSCA 694) and an 18-credit thesis (MSCA 695)
- Deletion of three elective courses (MSCA 641, MSCA 644 and MSCA 649) replaced by three new courses (MSCA 650, MSCA 653 and MSCA 658)

The number of credits for the program remains unchanged. The department possesses sufficient expertise to cover all these revisions; therefore, there are no resources implications.

The JMSB Faculty Council approved this dossier on May 14, 2021.

I respectfully request to submit the proposed program change to the upcoming Graduate Curriculum Committee.

**INTERNAL MEMORANDUM**

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**To:** Anne-Marie Croteau, Dean, John Molson School of Business

**From:** Sandra Betton, Associate Dean, Professional Graduate Program,  
Chair of the Faculty Academic Program Committee, JMSB

**Date:** April 30, 2021

**Subject:** Proposed changes to the Master of Science in Management - Stage 2  
(MSCA-21)

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On February 19, 2021, Senate approved the first set of changes to the Master of Science in Management. To complete the review of the program, the proposed document includes the conversion of an elective course into a core; the split of the 21-credit thesis into a three-credit proposal and an 18 credits thesis and the deletion of three elective courses replaced by three new courses. The thesis credit re-distribution recognizes the importance of the thesis proposal in the process and formalizes it. The number of credits for the program remains unchanged.

The JMSB Faculty Academic Programs Committee approved these changes on April 16, 2021 unanimously.

I respectfully request to submit this proposal during the next meeting of the JMSB Faculty Council.

Thank you.

**Office of the Associate Dean  
Research & Research Programs**

**I N T E R N A L   M E M O R A N D U M**

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**To:** Sandra Betton, Associate Dean Professional Graduate Programs  
**From:** Kathleen Boies, Associate Dean Research & Research Programs  
**Date:** March 26, 2021  
**Re:** **Proposed changes to the Master of Science in Management—Stage 2 Changes**

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Dear Sandra,

The first set of changes to the curriculum of the MSc Management was approved by Senate in February 2021. We are now requesting approval for the Stage 2 changes. The Department of Management had approved both Stage 1 and Stage 2 changes at once.

The attached document provides a summary of the proposed Stage 2 changes.

I respectfully request that the proposed changes be submitted to the next Faculty Academic Programs Committee meeting.



# MSc Management—Curriculum Revision Proposal

The MSc in Management had a major curriculum revision that received Senate approval in February 2021. In our meetings in 2019-2020, there were some additional revisions discussed that required a delay in implementation. We now propose these additional revisions.

1. Rationale for revising the program	Page 1
2. Program requirements & schedule	Page 2
3. Calendar descriptions	Page 3
4. Resource implications	Page 5
5. Full course list (proposed)	Page 5
6. Appendices: Learning goals; One-page descriptions of new courses	Page 6

## 1. Rationale for revising the program

The MSc in Management has existed since 1989 and our February 2021 revisions addressed several issues that had arisen over the 30-plus years. These included the extent to which students felt prepared for careers in non-academic settings. Moreover, there were uneven expectations regarding thesis requirements and longer time to completion than recommended. Our last revisions addressed many of these issues; this revision addresses the remaining needs:

1. Interviews with our alumni conducted in 2019 told us that, while the degree helps them to get jobs, they would have benefitted greatly from more applied skills in their course work. Skills related to the consulting process were highly desired.
2. While most of the interviewees were happy with their supervision and their thesis research, time to completion rates suggested the need for a curriculum flow that moves students towards completion.

**REVISION PROCESS:** In September through November 2019, we created a curriculum revision committee chaired by Linda Dyer in her role as Graduate Program Director. Professors Asma Fattoum-Guedri, Rajshree Prakash and Seth Spain joined as committee members. Sarah Rahimi was the MSc student representative. Also present at all committee meetings were Frederica Martin (Advisor, Office of the Associate Dean) and Malcolm MacPhail (Head Educational Technologist, Centre for Instructional Technology).

Many of the committee's recommendations are now Senate approved. This document deals with some remaining recommendations. Thus, this is **Part 2 of the document that was approved at the Management Department meeting of 5<sup>th</sup> June 2020.**

## 2. Program requirements – *Proposed changes are italicized*

### **Degree Requirements**

Fully-qualified candidates are required to complete a minimum of 45 credits and any mandatory workshops.

In the first year of the program, candidates are required to complete a minimum of 24 credits and any mandatory professional development workshops.

### **15 credits – Core Courses**

[ONE CURRENT ELECTIVE, MSCA 654, BECOMES A CORE COURSE]

MSCA 603 - Applied Data Analysis (3 credits)

MSCA 616 - Research Methodology - Management (3 credits)

***MSCA 654 - Seminar in Consulting (3 credits)***

MSCA 655 - Professional Development (0 credit)

MSCA 656 - Individual and Group Behaviour in Organizations (3 credits)

MSCA 657 - Organizations and Strategy (3 credits)

### **9 credits – Elective Management Seminars**

*[3 NEW ELECTIVES ADDED; 3 ELECTIVES REMOVED]*

Each year a selection of specialized seminars will be offered on a rotating basis.

***MSCA 658 Seminar in Advanced Topics in Organizational Behaviour (3 credits)***

***MSCA 653 Seminar in Advanced Topics in Strategy (3 credits)***

***MSCA 650 Advanced Analytic Techniques (3 credits)***

~~*MSCA 641 Seminar in Staffing and Career Management (3 credits)*~~

MSCA 643 Seminar in Motivation, Evaluation and Rewards (3 credits)

~~*MSCA 644 Seminar in Meso-Organizational Behaviour (3 credits)*~~

MSCA 646 Seminar in Leadership (3 credits)

MSCA 648 Seminar in International Management (3 credits)

~~*MSCA 649 Seminar in Comparative Corporate Governance (3 credits)*~~

MSCA 651 Seminar in Entrepreneurship across Contexts (3 credits)

MSCA 652 Seminar in Special Topics in Management (3 credits)

Upon approval of the Graduate Program Director and the instructor, up to six credits may include the following:

- Seminars in any other JMSB MSc program.
- PhD seminar in Management (ADMI 810-819 and ADMI 850-859).
- Cognate graduate seminars offered by other departments within the university.

### **21 credits – Thesis**

*[PROPOSAL GETS 3 CREDIT VALUE, THESIS VALUE REDUCED BY 3 CREDITS]*

***MSCA 694 – Thesis Proposal (3 credits)***

***MSCA 695 - Research Thesis (18 credits)***

## Program schedule

Fall—Term 1	Winter—Term 2	Summer—Term 3	Fall—Term 4	Winter—Term 5
MSCA 656: Individual and Group Behaviour in Organizations	MSCA 603: Applied Data Analysis	MSCA 694: Thesis Proposal	Thesis work— data collection and analysis	MSCA 695 Thesis defence
MSCA 657: Organizations and Strategy	MSCA 654: Consulting	Professional skills workshops	Professional skills workshops	Professional skills workshops
MSCA 616: Research Methodology	Management elective* or cognate seminar			
Management elective* or cognate seminar	Management elective* or cognate seminar			

*\*Note: Electives will be offered on a rotating basis. Students might wish to wait and take an elective that is offered in their Term 4 (or even their Term 5) depending on their interests.*

## 3. CALENDAR DESCRIPTIONS

### CORE & REQUIRED COURSES

#### **MSCA 654 Seminar in Consulting** (3 credits)

This course focuses on the management consulting profession and process. The course provides important concepts in the toolkit of the management consultant involved who is involved in analytical as well as change implementation projects. Students examine the five phases of a consulting project from entry to conclusion, as well as the core skills required to operate and succeed as an external or internal management consultant. Classroom scenarios and interactions with consultants and clients in the field allow students to practice the core skills. The course concludes by reflecting on the role of internal consultants and management consulting as a career choice.

#### **MSCA 694: Thesis Proposal** (3 credits)

Students propose a selected research topic under the supervision of a thesis advisor. The written proposal outlines the thesis topic, its conceptual framework, potential contributions, proposed methodology and completion timeline.

#### **MSCA 695 Research Thesis** (18 credits)

Pre-requisite: MSCA 694

An independent research-based investigation on a topic outlined in the thesis proposal that takes the form of a written thesis.

## **ELECTIVES**

### **MSCA 658 Advanced Topics in Organizational Behaviour (3 credits)**

Pre-requisite: MSCA 656 or permission of the instructor

This seminar is designed to present and discuss important developments in the field of organizational behaviour. An in-depth knowledge of key topics such as teamwork, employee health, the work-life interface, leadership, decision making, and other aspects of workplace relationships are the focus. Students are expected to demonstrate mastery of relevant concepts, theories, and empirical findings in organizational behaviour. By critiquing the variety of research designs and measures used to study a given concept, and by analyzing the contexts in which recent studies have been conducted, students will develop the ability to propose research of conceptual and practical significance.

### **MSCA 653 Advanced Topics in Strategy (3 credits)**

Pre-requisite: MSCA 657 or permission of the instructor

This seminar is designed to present and discuss important developments in the field of strategy and organization theory. An in-depth knowledge of key topics such as corporate social responsibility, internationalization, entrepreneurship, family business, non-market strategies, networks, and other aspects of business management are the focus. Students are expected to demonstrate mastery of relevant concepts, theories, and empirical findings in strategy. By critiquing the variety of research designs and measures used to study a given concept, and by analyzing the contexts in which recent studies have been conducted, students will acquire an ability to propose research of conceptual and practical significance.

### **MSCA 650: Advanced Analytic Techniques (3 credits)**

Prerequisite: MSCA 603

This course equips students with the skills to evaluate and conduct quasi-experimental research designs in applied management settings. Topics covered include popular techniques such as multiple regression, fixed effects, difference in differences, instrumental variables, and regression discontinuity. The course will have an applied orientation and will focus on discussing the basic intuition behind these methods, as well as their relative strengths and weaknesses, rather than on analyzing statistical properties of estimators. The course will also give students hands-on experience working with and analyzing “Big Data” using the statistical software package Stata. As a result, students will learn to critically evaluate and develop applied management research.

## 4. RESOURCE IMPLICATIONS OF THE PROGRAM

There is sufficient expertise in the department to cover all these revisions. The core consulting course is currently offered as an elective and at least 5 faculty members are qualified to teach it.

The addition of three new electives is balanced by the removal of three electives.

For the proposed seminar, *Advanced Topics in Organizational Behaviour*, at least 6 full-time faculty members are qualified, and for *Advanced Topics in Strategy*, at least 9 full-time faculty members are qualified. The department is confident that the needs can be covered.

In total, there is no change in the number of courses offered in the program.

## 5. MSc MANAGEMENT—FULL COURSE LIST (after approvals)

<b>MSCA</b>		
<b>603</b>	Applied Data Analysis	CORE
<b>616</b>	Research Methodology - Management	CORE
<b>654*</b>	Consulting	CORE
<b>656</b>	Individual and Group Behaviour in Organizations	CORE
<b>657</b>	Organizations and Strategy	CORE
<b>643</b>	Seminar in Motivation, Evaluation and Rewards	ELECTIVE
<b>646</b>	Seminar in Leadership	ELECTIVE
<b>648</b>	Seminar in International Management	ELECTIVE
<b>650*</b>	Advanced Analytic Techniques	ELECTIVE
<b>651</b>	Seminar in Entrepreneurship across Contexts	ELECTIVE
<b>652</b>	Seminar in Special Topics in Management	ELECTIVE
<b>653*</b>	Advanced Topics in Strategy	ELECTIVE
<b>658*</b>	Advanced Topics in Organizational Behaviour	ELECTIVE
<b>655</b>	Professional Development	REQUIRED
<b>694*</b>	Thesis proposal	REQUIRED
<b>695*</b>	Research thesis	REQUIRED

\*Proposed revisions in this proposal

## APPENDIX 1: Program Learning Goals and Objectives

<p>1. Demonstrate specialized knowledge in the field of study</p>	<p>1.1 Explain core concepts in the area of specialization</p> <p>1.2 Summarize recent research advances in the area of specialization</p> <p>1.3 Critique existing and recent research advances in the area of specialization</p> <p>1.4 Generate research questions of conceptual and practical significance</p>
<p>2. Describe fundamental micro and macro management concepts</p>	<p>2.1 Describe fundamental concepts of organizational behaviour/human resource management (e.g., motivation, selection, training, rewards)</p> <p>2.2 Describe fundamental concepts of organizational theory (e.g., structure, environment, culture)</p> <p>2.3 Describe fundamental concepts of strategy and entrepreneurship (e.g., competitive advantage, ownership structures, venture creation, business growth, internationalization, strategic alliances, corporate governance)</p>
<p>3. Identify the appropriate methods to analyse and address research problems</p>	<p>3.1 Apply appropriate research method(s) effectively to research problem(s).</p> <p>3.2 Identify the appropriate research methodology for research in the area of specialization</p> <p>3.3 Assess the use of core analytical techniques for research in the area of specialization.</p> <p>3.4 Apply analytical skills appropriately in the area of specialization (may include the use of software and databases).</p> <p>3.5 Demonstrate ability to follow ethical guidelines when collecting data or analyzing data.</p>
<p>4. Communicate knowledge and research evidence orally and in writing</p>	<p><i>Communicate knowledge and research evidence orally</i></p> <p>4.1.1 Clearly convey key components of the project orally</p> <p>4.1.2 Use appropriate data visualisation</p> <p>4.1.3 Effectively respond to questions</p> <p>4.1.4 Clearly state the implications of the project for research</p> <p><i>Communicate knowledge and research evidence in writing</i></p> <p>4.2.1 Convey coherently all components of the project in writing</p> <p>4.2.2 Incorporate and respond to supervisor's feedback effectively.</p> <p>4.2.3 Use appropriate vocabulary and grammar</p> <p>4.2.4 Use citations and quotes appropriately</p> <p>4.2.5 Use appropriate formatting principles (e.g., tables, graphs, exhibits)</p>
<p>5. Explain research implications as they apply to sustainability and social impact</p>	<p>5.1 Describe how research outcomes might affect stakeholders such as managers, consumers, employees, broader society</p> <p>5.2 Develop recommendations based on research findings that could benefit stakeholders.</p> <p>5.3 Address issues related to social responsibility and/or the social impact of their research recommendations.</p> <p>5.4 Address the extent to which research results may apply to other populations (e.g. countries, gender, organization type).</p>

**PROGRAM CHANGE:** Changes to Requirements

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Management  
**Program:** Management MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2020/2021) calendar	Proposed Text																						
<p><b>Degree Requirements</b></p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>In the first year of the program, candidates are strongly encouraged to complete a minimum of 24 credits and MSCA 655.</p> <p>Please see the MSCA Courses section for course descriptions.</p> <p><b>45 Management MSc</b></p> <p><b>12 Credits of Core Courses:</b></p> <table border="0"> <tr> <td>MSCA 603 Applied Data Analysis</td> <td>3.00</td> </tr> <tr> <td>MSCA 616 Research Methodology - Management</td> <td>3.00</td> </tr> <tr> <td>MSCA 655 Professional Development</td> <td>0.00</td> </tr> <tr> <td>MSCA 656 Individual and Group Behaviour in Organizations</td> <td>3.00</td> </tr> <tr> <td>MSCA 657 Organizations and Strategy</td> <td>3.00</td> </tr> </table> <p><b>12 Credits of Elective Management MSc Seminar</b>  <i>Upon approval of the Graduate Program Director and the instructor, up to six credits of electives may include the following:</i>                      -Seminars in any other John Molson School of Business MSc program                      -PhD Seminars in Management and PhD Seminars in Business Policy and</p>	MSCA 603 Applied Data Analysis	3.00	MSCA 616 Research Methodology - Management	3.00	MSCA 655 Professional Development	0.00	MSCA 656 Individual and Group Behaviour in Organizations	3.00	MSCA 657 Organizations and Strategy	3.00	<p><b>Degree Requirements</b></p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>In the first year of the program, candidates are strongly encouraged to complete a minimum of 24 credits and MSCA 655.</p> <p>Please see the MSCA Courses section for course descriptions.</p> <p><b>45 Management MSc</b></p> <p><b>15 Credits of Core Courses:</b></p> <table border="0"> <tr> <td>MSCA 603 Applied Data Analysis</td> <td>3.00</td> </tr> <tr> <td>MSCA 616 Research Methodology - Management</td> <td>3.00</td> </tr> <tr> <td><a href="#">MSCA 654 Consulting</a></td> <td><a href="#">3.00</a></td> </tr> <tr> <td>MSCA 655 Professional Development</td> <td>0.00</td> </tr> <tr> <td>MSCA 656 Individual and Group Behaviour in Organizations</td> <td>3.00</td> </tr> <tr> <td>MSCA 657 Organizations and Strategy</td> <td>3.00</td> </tr> </table> <p><b>9 Credits of Elective Management MSc Seminar</b>  <i>Upon approval of the Graduate Program Director and the instructor, up to six credits of electives may include the following:</i>                      -Seminars in any other John Molson School of Business MSc program</p>	MSCA 603 Applied Data Analysis	3.00	MSCA 616 Research Methodology - Management	3.00	<a href="#">MSCA 654 Consulting</a>	<a href="#">3.00</a>	MSCA 655 Professional Development	0.00	MSCA 656 Individual and Group Behaviour in Organizations	3.00	MSCA 657 Organizations and Strategy	3.00
MSCA 603 Applied Data Analysis	3.00																						
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<a href="#">MSCA 654 Consulting</a>	<a href="#">3.00</a>																						
MSCA 655 Professional Development	0.00																						
MSCA 656 Individual and Group Behaviour in Organizations	3.00																						
MSCA 657 Organizations and Strategy	3.00																						

Strategy  
 -Cognate graduate seminars offered by other departments within the university.

21 ~~MSCA-699 Research Thesis~~ 21.00

**Elective Management MSc Seminars**

*Each year a selection of specialized seminars will be offered on a rotating basis from those listed below.*

~~MSCA-641 Seminar in Staffing and Career Management~~ 3.00

MSCA 643 Seminar in Motivation, Evaluation and Rewards 3.00

~~MSCA-644 Seminar in Meso-Organizational Behaviour~~ 3.00

MSCA 646 Seminar in Leadership 3.00

MSCA 648 Seminar in International Management 3.00

~~MSCA-649 Seminar in Comparative Corporate Governance~~ 3.00

MSCA 651 Seminar in Entrepreneurship across Contexts 3.00

MSCA 652 Seminar in Special Topics in Management 3.00

~~MSCA-654 Seminar in Consulting~~ 3.00

-PhD Seminars in Management and PhD Seminars in Business Policy and Strategy  
 -Cognate graduate seminars offered by other departments within the university.

3 MSCA 694 Thesis Proposal 3.00  
credits

18 MSCA 695 Research Thesis 18.00  
credits

**Elective Management MSc Seminars**

*Each year a selection of specialized seminars will be offered on a rotating basis from those listed below.*

MSCA 643 Seminar in Motivation, Evaluation and Rewards 3.00

MSCA 646 Seminar in Leadership 3.00

MSCA 648 Seminar in International Management 3.00

MSCA 650 Advanced Analytic Techniques 3.00

MSCA 651 Seminar in Entrepreneurship across Contexts 3.00

MSCA 652 Seminar in Special Topics in Management 3.00

MSCA 653 Advanced Topics in Strategy 3.00

MSCA 658 Advanced Topics in Organizational Behaviour 3.00

**Rationale:**

The MSc in Management had a major curriculum revision that received Senate approval in February 2021. In our meetings in 2019-2020, there were some additional revisions discussed that required a delay in implementation.

This document deals with some remaining recommendations. Thus, this is Part 2 of the document that was approved at the Management Department meeting of 5<sup>th</sup> June 2020.

**Resource Implications:**

There is sufficient expertise in the department to cover all these revisions. The core consulting course is currently offered as an elective and at least 5 faculty members are qualified to teach it.

The addition of three new electives is balanced by the removal of three electives.

For the proposed seminar, *Advanced Topics in Organizational Behaviour*, at least 6 full-time faculty members are qualified, and for *Advanced Topics in Strategy*, at least 9 full-time



faculty members are qualified. The department is confident that the needs can be covered.  
In total, there is no change in the number of courses offered in the program.

**COURSE CHANGE:** MSCA 641      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** 09 2022

**Faculty/School:** John Molson School of Business  
**Department:** John Molson School of Business  
**Program:** Management MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2021/2022) calendar	Proposed Text
<p><b><del>MSCA-641 Seminar in Staffing and Career Management (3 credits)</del></b></p> <p><del>Description: This seminar provides an overview of theory, research, and applications in the fields of staffing and career management. We discuss the processes of getting job applicants into organizations and of retaining them and moving them through the ranks once they are there. Specific topics to be explored include organizational context and staffing strategy, legal issues, internal and external recruitment processes, selection methods, promotions and employee training. Emphasis is placed on scholarly reviews of the evidence, analysis of primary research articles, and the application of science-based practice to the processes of staffing and career management.</del></p> <p><del>Component(s): Seminar</del></p>	
<p><b>Rationale:</b>                      MSCA 641 is part of three elective courses that will be replaced within the context of this program's revision. The program is adding 3 new electives in the area of organizational behaviour, strategy and analytics.</p>	
<p><b>Resource Implications:</b>                      none</p>	
<p><b>Other Programs within which course is listed:</b></p>	





**COURSE CHANGE:** MSCA 649      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** 09 2022

**Faculty/School:** John Molson School of Business  
**Department:** John Molson School of Business  
**Program:** Management MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2021/2022) calendar	Proposed Text
<p><del><b>MSCA-649 Seminar in Comparative Corporate Governance (3 credits)</b></del></p> <p><del>Description: Corporate governance, defined broadly, is the study of power and influence over decision making within the corporation. Comparative corporate governance examines how institutions in different social and economic contexts influence this relationship and its consequences for the ownership, management, and strategic competitiveness of firms. In this seminar we address questions such as: How is corporate governance practised in different countries? Why are corporate governance practices similar or different across countries? Can we identify international best practices of corporate governance? To what extent are corporate governance best practices transferable across international contexts? How do different systems of corporate governance embody different economic, social, and political trade-offs among corporate stakeholders? We approach the questions from managerial, economic, legal, political, sociological and cultural perspectives. Using both conceptual and empirical studies, we also focus on a range of substantial issues, including corporate governance in family firms and in emerging market business groups.</del></p> <p><del>Component(s): Seminar</del></p> <p><del>Notes:</del></p> <p><del>Students who have received credit for this topic under a MSCA-652 number may not take this course for credit.</del></p>	
<p><b>Rationale:</b>                      MSCA 649 is part of three elective courses that will be replaced within the context of this program's revision. The program is adding 3 new electives in the area of organizational behaviour, strategy and analytics.</p>	
<p><b>Resource Implications:</b>                      none</p>	

Other Programs within which course is listed:

**COURSE CHANGE:** MSCA 650      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year: 2022/2023**  
**Implementation Month/Year: September 2022**

**Faculty/School:** John Molson School of Business  
**Department:** Management  
**Program:** Management MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>MSCA 650 Advanced Analytic Techniques (3.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: MSCA 603.</p> <p><i>Description:</i> This course equips students with the skills to evaluate and conduct quasi-experimental research designs in applied management settings. Topics covered include popular techniques such as multiple regression, fixed effects, difference in differences, instrumental variables, and regression discontinuity. The course has an applied orientation and will focus on discussing the basic intuition behind these methods, as well as their relative strengths and weaknesses, rather than on analyzing statistical properties of estimators. The course also gives students hands-on experience working with and analyzing "Big Data" using the statistical software package Stata. As a result, students learn to critically evaluate and develop applied management research.</p> <p><i>Component(s):</i> Seminar</p>

**Rationale:**  
 The MSc in Management had a major curriculum revision that received Senate approval in February 2021. In our meetings in 2019-2020, there were some additional revisions discussed that required a delay in implementation.  
 This document deals with some remaining recommendations. Thus, this is Part 2 of the document that was approved at the Management Department meeting of 5<sup>th</sup> June 2020.

**Resource Implications:**  
 None.

**Other Programs within which course is listed:**  
 None.

**COURSE CHANGE:** MSCA 653      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Management  
**Program:** Management MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>MSCA 653 Advanced Topics in Strategy (3.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: MSCA 657. If prerequisites are not satisfied, permission of the instructor is required.</p> <p><i>Description:</i> This seminar is designed to present and discuss important developments in the field of strategy and organization theory. An in-depth knowledge of key topics such as corporate social responsibility, internationalization, entrepreneurship, family business, non-market strategies, networks, and other aspects of business management are the focus. Students are expected to demonstrate mastery of relevant concepts, theories, and empirical findings in strategy. By critiquing the variety of research designs and measures used to study a given concept, and by analyzing the contexts in which recent studies have been conducted, students acquire an ability to propose research of conceptual and practical significance.</p> <p><i>Component(s):</i> Seminar</p>

**Rationale:**  
The MSc in Management had a major curriculum revision that received Senate approval in February 2021. In our meetings in 2019-2020, there were some additional revisions discussed that required a delay in implementation.  
This document deals with some remaining recommendations. Thus, this is Part 2 of the document that was approved at the Management Department meeting of 5<sup>th</sup> June 2020.

**Resource Implications:**  
None. For the proposed seminar, *Advanced Topics in Strategy*, at least 9 full-time faculty members are qualified. The department is confident that the needs can be covered.

**Other Programs within which course is listed:**  
None.





**COURSE CHANGE:** MSCA 654      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Management  
**Program:** Management MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- |  |  |                                       |                                       |
|--|--|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input checked="" type="checkbox"/> Course Title | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial               | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input type="checkbox"/> Other - Specify:        |                                       |                                       |

<b>Present Text (from 2020/2021) calendar</b>	<b>Proposed Text</b>
<p><b>MSCA 654 <del>Seminar in</del> Consulting (3.00 credits)</b></p> <p><i>Description:</i> This course focuses on the management consulting profession and process. The course is structured around three parallel streams and provides important concepts and ideas for the tool-kit of the management consultant involved in analytical as well as change implementation projects. The first stream of the course examines the consulting process, i.e. the five phases of a consulting project from entry to termination. The second stream focuses on core consulting skills, i.e. the skills required to operate and succeed as a management consultant. These skills are essential for any type of consulting engagement, whether one works as an external or internal consultant, and whether the client in a private sector, public, or non-profit organization. The third stream is a real world consulting project that students conduct in teams with a client firm in order to apply the tools and skills discussed in class. The course concludes by reflecting on the role of internal consultants and management consulting as a career choice.</p> <p><i>Component(s):</i> Seminar</p>	<p><b>MSCA 654 Consulting (3.00 credits)</b></p> <p><i>Description:</i> This course focuses on the management consulting profession and process. The course is structured around three parallel streams and provides important concepts and ideas for the tool-kit of the management consultant involved in analytical as well as change implementation projects. The first stream of the course examines the consulting process, i.e. the five phases of a consulting project from entry to termination. The second stream focuses on core consulting skills, i.e. the skills required to operate and succeed as a management consultant. These skills are essential for any type of consulting engagement, whether one works as an external or internal consultant, and whether the client in a private sector, public, or non-profit organization. The third stream is a real world consulting project that students conduct in teams with a client firm in order to apply the tools and skills discussed in class. The course concludes by reflecting on the role of internal consultants and management consulting as a career choice.</p> <p><i>Component(s):</i> Seminar</p>
<p><b>Rationale:</b> Since Consulting is now a required course, the words "Seminar in" are removed to emphasize this change.</p>	
<p><b>Resource Implications:</b> None.</p>	
<p><b>Other Programs within which course is listed:</b>  None.</p>	

**COURSE CHANGE:** MSCA 658      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Management  
**Program:** Management MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

<b>Present Text (from 2020/2021) calendar</b>	<b>Proposed Text</b>
	<p><b>MSCA 658 Advanced Topics in Organizational Behaviour (3.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: MSCA 656. If prerequisites are not satisfied, permission of the instructor is required.</p> <p><i>Description:</i> This seminar is designed to present and discuss important developments in the field of organizational behaviour. An in-depth knowledge of key topics such as teamwork, employee health, the work-life interface, leadership, decision making, and other aspects of workplace relationships are the focus. Students are expected to demonstrate mastery of relevant concepts, theories, and empirical findings in organizational behaviour. By critiquing the variety of research designs and measures used to study a given concept, and by analyzing the contexts in which recent studies have been conducted, students develop the ability to propose research of conceptual and practical significance.</p> <p><i>Component(s):</i> Seminar</p>
<p><b>Rationale:</b> The MSc in Management had a major curriculum revision that received Senate approval in February 2021. In our meetings in 2019-2020, there were some additional revisions discussed that required a delay in implementation. This document deals with some remaining recommendations. Thus, this is Part 2 of the document that was approved at the Management Department meeting of 5<sup>th</sup> June 2020.</p>	
<p><b>Resource Implications:</b> None. For the proposed seminar, <i>Advanced Topics in Organizational Behaviour</i>, at least 6 full-time faculty members are qualified. The department is confident that the needs can be covered.</p>	
<p><b>Other Programs within which course is listed:</b> None.</p>	



**COURSE CHANGE:** MSCA 694      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Management  
**Program:** Management MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number       Course Title       Credit Value       Prerequisite  
 Course Description       Editorial       New Course  
 Course Deletion       Other - Specify: Addition of this course to the program

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>MSCA 694 Thesis Proposal (3.00 credits)</b></p> <p><i>Description:</i> Students propose a selected research topic under the supervision of a thesis advisor. The written proposal outlines the thesis topic, its conceptual framework, potential contributions, proposed methodology and completion timeline.</p> <p><i>Component(s):</i> Thesis Research.</p>

**Rationale:**  
 The program wishes to split the 21-credit thesis into a 3-credit proposal and 18-credit thesis, to formally recognize the proposal as a way to ensure that students structure their project early on, in close collaboration with their supervisor.

**Resource Implications:**  
 None.

**Other Programs within which course is listed:**  
 MSc DS/MIS (BATM) & MSc Marketing

**COURSE CHANGE:** MSCA 695      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Management  
**Program:** Management MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number       Course Title       Credit Value       Prerequisite  
 Course Description       Editorial       New Course  
 Course Deletion       Other - Specify: Addition of this course to the program

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>MSCA 695 Research Thesis (18.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: MSCA 694.</p> <p><i>Description:</i> The written thesis requirements include the completion of an independent research-based investigation on a topic outlined in the thesis proposal.</p> <p><i>Component(s):</i> Thesis Research.</p>
<p><b>Rationale:</b>                      The program wishes to split the 21-credit thesis into a 3-credit proposal and 18-credit thesis, to recognize the importance of the proposal in this process and formalize it.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      MSc DS/MIS (BATM) &amp; MSc Marketing</p>	

**COURSE CHANGE:** MSCA 699      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** 09 2022

**Faculty/School:** John Molson School of Business  
**Department:** John Molson School of Business  
**Program:** Management MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify:

Present Text (from 2021/2022) calendar	Proposed Text
<p><del><b>MSCA-699 Research Thesis (21 credits)</b></del></p> <p><del>Description: The MSc thesis is intended to provide candidates with an opportunity to carry out an in-depth investigation in a particular area of interest and to make a contribution to knowledge in the area. It is expected that the thesis will include a comprehensive and critical synthesis of the relevant literature and will also embody either a theoretical contribution to knowledge, a rigorous empirical investigation or both. A Thesis Committee consists of a faculty member from the department as supervisor and two other faculty members. An Examining Committee consists of the Thesis Committee and a Thesis Examination Chair appointed by the Associate Dean, Research and Research Programs in accordance with the thesis regulations specified in the relevant section of this calendar.</del></p> <p><del>Component(s): Thesis Research</del></p>	
<p>Rationale:                      MSCA 699 needs to be deleted because it's being replaced by two courses: three-credit proposal (MSCA 694) and an 18-credit thesis (MSCA 695).</p>	
<p>Resource Implications:                      none</p>	
<p>Other Programs within which course is listed:</p>	

## APPENDIX 2 - MSCA 694: Thesis Proposal (3 credits)

### Supervisor Selection

In March of Term 2, students will be required to link up with a thesis supervisor. Students will complete and submit the link-up form, signed by the supervisor and at least one committee member. The Graduate Program Director, in consultation with the MSc Management committee and departmental colleagues, will assign a supervisor to each student who has not linked up by the end of March.

In April, a thesis workshop, to be attended by students and supervisors, will be scheduled. Invited presenters will give sessions on a selection of the following topics: Library search & data bases; Writing a literature review; Avoiding plagiarism; Ethics review process; Funding your thesis data collection; Time management skills & productivity; Making an oral presentation. Supervisors and students complete the *Supervisor/Student Expectations* form.

Students spend the summer months writing their research proposals and have the option of attending a two-day “writing retreat” in mid-summer. It is expected that the thesis proposal will be completed and defended by late August / early September.

### Thesis Proposal & Defence (3 credits)

The thesis proposal presents research questions or hypotheses and summarizes the theoretical basis of the research with reference to the relevant literature. The planned method is presented and justified, including a proposed sample, research design and preliminary measures. Ethical considerations are addressed if the research involves human participants. Finally, analytic techniques are described, as well as the conceptual and practical significance of the expected findings. The typical proposal is 8-10 pages in length.

Supervisors provide support and feedback during the development of the proposal. In August or September of Term 4 (fall term), the student makes an oral presentation to the supervisor and committee members. Developmental feedback is provided, and the outcome of the defence (satisfactory / unsatisfactory) is communicated to the Graduate Program Director & Program Assistant.

### Learning Goals addressed in thesis proposal:

<b>4.1 - 4.2</b>	Communicate knowledge and research evidence effectively
<b>1.1 – 1.4</b>	Demonstrate specialized knowledge in the field of thesis research
<b>3.1 – 3.5</b>	Identify appropriate methods to analyze and address research problems
<b>5.1</b>	Explain research implications as they apply to responsible management, sustainability, and social impact



## APPENDIX 3 - MSCA 658: Advanced topics in Organizational Behaviour (3 credits)

**Course Description** This seminar is designed to present and discuss important developments in the field of organizational behaviour. An in-depth knowledge of key topics such as teamwork, employee health, the work-life interface, leadership, decision making, or other aspects of workplace relationships are the focus. Students are expected to demonstrate mastery of relevant concepts, theories, and empirical findings in organizational behaviour. By critiquing the variety of research designs and measures used to study a given concept, and by analyzing the contexts in which recent studies have been conducted, students will develop the ability to propose research of conceptual and practical significance.

### Course learning objectives

- Demonstrate specialized knowledge in specific sub-fields of OB [LG 1.2]
- Critically assess reports of research in specific sub-fields of OB. [LG 1.2, 1.3]
- Propose a research project that can advance knowledge and solve a specific organizational problem [LG 1.4, 3.2, 5.1]
- Use effective oral and writing skills to present ideas about a topic. [LG 4.1, 4.2]

	1. Overview of course topics—meet the professors
Module 1 topic	2.
	3.
	4.
	5.
Module 2 topic	6.
	7.
	8.
	9.
Module 3 topic	10.
	11.
	12.
	13. Last session of module 3 + course wrap-up

## APPENDIX 4 - MSCA 653: Advanced topics in Strategy (3 credits)

**Course Description** This seminar is designed to present and discuss important developments in the field of strategy and organization theory. An in-depth knowledge of key topics such as corporate social responsibility, internationalization, entrepreneurship, family business, non-market strategies, networks, and other aspects of business management are the focus. Students are expected to demonstrate mastery of relevant concepts, theories, and empirical findings in strategy. By critiquing the variety of research designs and measures used to study a given concept, and by analyzing the contexts in which recent studies have been conducted, students will acquire an ability to propose research of conceptual and practical significance.

### Course learning objectives

- Demonstrate specialized knowledge in specific sub-fields of Strategy [LG 1.2]
- Critically assess reports of research in specific sub-fields of Strategy. [LG 1.2, 1.3]
- Propose a research project that can advance knowledge and solve a specific organizational problem [LG 1.4, 3.2, 5.1]
- Use effective oral and writing skills to present ideas about a topic. [LG 4.1, 4.2]

	1. Overview of course topics—meet the professors
Module 1 topic	2.
	3.
	4.
	5.
Module 2 topic	6.
	7.
	8.
	9.
Module 3 topic	10.
	11.
	12.
	13. Last session of module 3 + course wrap-up

## APPENDIX 5 - MSCA 650: Advanced Analytic Techniques (3 credits)

**Course Description** The purpose of this course is to equip students with the skills to evaluate and conduct quasi-experimental research designs in applied management settings. Topics covered include popular econometric techniques such as multiple regression, fixed effects, difference in differences, instrumental variables, and regression discontinuity. The course will have an applied orientation and will focus on discussing the basic intuition behind these methods, as well as their relative strengths and weaknesses, rather than on analyzing statistical properties of estimators. The course will also give students hands-on experience working with and analyzing “Big Data” using the statistical software package, Stata. As a result, students will learn to critically evaluate and develop applied management research.

### Course learning objectives

- Explain the strengths and weakness of various quasi-experimental research designs. Identify the best quasi-experimental research designs to answer specific research questions. **[LG 3.1]**
- Choose appropriate econometric techniques for specific quasi-experimental research designs. **[LG 3.3]**
- Critically evaluate published applied management research. **[LG 3.1, 3.3]**
- Use the statistical software package, Stata. Conduct statistical analyses using real-world data from published papers. **[LG 3.3]**
- Design and describe a novel applied management research study. **[LG 3.1, 3.5]**
- Develop an ability to manage large archival data sets (“Big Data”). **[LG 3.3]**

### Assessment

- Critical review of published quantitative paper (Individual or group)
- Computer exercises based on real-world data from published quantitative papers (Individual or group homework assignments)
- Replication of published quantitative paper results (Individual)
- Research proposal (Individual)
- Class participation (Individual)

**SCHOOL OF GRADUATE STUDIES**

**MEMO TO:** Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning

**FROM:** Rachel Berger, Associate Dean, Academic Programs and Development  
School of Graduate Studies

**DATE:** September 30, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (MSCA-22)  
(CALENDAR – 2021/2022)  
MSc in MARKETING  
JOHN MOLSON SCHOOL OF BUSINESS**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Council of the John Molson School of Business (JMSB).

JMSB is proposing to divide the current MSCA 699 Research Thesis (21 credits) into two different courses: MSCA 694 (Thesis Proposal – 3 credits) and MSCA 695 (Thesis – 18 credits), add two new required courses (MSCA 678 and MSCA 679), update the course title, description and number of MSCA 615, and add course descriptions to electives that were previously lacking. A professional development requirement (MSCA 655) has also been added.

The GCC approved the proposed curriculum changes with minor modifications. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.

cc: S. Betton, Associate Dean, Professional Graduate Programs, John Molson School of Business  
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs



**To:** Rachel Berger, Associate Dean, Academic Programs and Development  
Chair, Graduate Curriculum Committee

**Cc:** Gina Beltran, Developer, Graduate Academic Programs

**From:** Anne-Marie Croteau, Dean, John Molson School of Business

**Date:** August 10, 2021

**Subject:** Proposed changes to the Master of Science in Marketing - Stage 1 (MSCA-22)

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The Department of Marketing approved a curriculum revision to its Master of Science in Management on February 26, 2021. The implementation process will take place in two stages over two years. This dossier includes the following changes:

- Addition of two new core courses (MSCA 678 and MSCA 679).
- Update to the course title, description and number of MSCA 615 with Marketing-specific content.
- Addition of the course descriptions to the elective courses currently listed in the calendar.
- Addition of a professional development requirement (MSCA 655)
- Split of the 21-credit thesis (MSCA 699) into a three-credit proposal (MSCA 694) and an 18-credit thesis (MSCA 695)

Even though credits amounts have been redistributed (core, electives, proposal and thesis), the total amount of credits for the program remains unchanged.

There are no resource implications, as the two new core courses have been offered yearly as electives, and GradProSkills offers all workshops necessary to satisfy the professional development requirement.

The JMSB Faculty Council approved this dossier on May 14, 2021.

I kindly request to submit this proposal to the coming Graduate Curriculum Committee meeting.

## INTERNAL MEMORANDUM

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**To:** Anne-Marie Croteau, Dean, John Molson School of Business

**From:** Sandra Betton, Associate Dean, Professional Graduate Program,  
Chair of the Faculty Academic Program Committee, JMSB

**Date:** April 30, 2021

**Subject:** Proposed changes to the Master of Science in Marketing – Stage One  
(MSCA-22)

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The Master of Science in Marketing Program has completed a curriculum revision. The implementation of these changes will take place in two stages over two years. This document only concerns the first set of changes. It includes an updated methods course with a new name and number, the addition of two core courses, a professional development requirement, the split of the 21-credit thesis into a three-credit proposal and an 18-credit thesis. The thesis credit redistribution recognizes the importance of the thesis proposal in the process and formalizes it. Elective courses now will have course descriptions in the calendar.

The JMSB Faculty Academic Programs Committee unanimously approved these changes on April 16, 2021.

I respectfully request to submit this proposal during the next meeting of the JMSB Faculty Council.

Thank you.

**Office of the Associate Dean  
Research & Research Programs**

**I N T E R N A L   M E M O R A N D U M**

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**To:** Sandra Betton, Associate Dean Professional Graduate Programs  
**From:** Kathleen Boies, Associate Dean Research & Research Programs  
**Date:** March 26, 2021  
**Re:** **Proposed changes to the Master of Science in Marketing**

---

Dear Sandra,

I respectfully request that the proposed changes be submitted to the next Faculty Academic Programs Committee meeting.

In Winter 2019, a curriculum revision committee was created. The mandate of the revision committee included the creation of goals and objectives, learning experiences and assessment plans for the MSc in Marketing program. The revisions were developed in the context of a) the market for our graduates, b) the offerings of other universities, c) the specific areas of expertise residing in the management department, and d) input from our alumni.

The attached document provides a summary of the proposed changes.

Please note that we are proposing to implement the changes outlined in the proposal in two phases, over two years. You will therefore find the full proposal containing all the changes as approved by the department, and the Provotrack documents only for the first set of changes. This is done in order to harmonize the changes in the various MSc programs, which are all undergoing important curriculum revisions. Specifically, for the Master of Science in Marketing, we are proposing to implement the changes according to the following schedule:

Year 1:

- Add two core courses (two new courses): MSCA678 and MSCA679 (going from 6 credits required to 12 credits required)
- Add descriptions to each of the electives already listed in the calendar
- Add professional development requirement (MSCA655)
- Update the description, course title, and course number for MSCA615 to reflect Marketing-specific content
- Split the 21-credit thesis into a 3-credit proposal and 18-credit thesis (now MSCA694 and MSCA695)

Year 2:

- Add MSCA603 as an acceptable substitute for MSCA602

I respectfully request that the proposed changes be submitted to the next Faculty Academic Programs Committee meeting.

## Internal Memorandum

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To: Dr. Kathleen Boies, Associate Dean, Research and Research Programs  
From: Dr. Darlene Walsh, Chair and Associate Professor of Marketing  
CC: Dr. Onur Bodur, Graduate Program Director in Marketing  
Date: March 29, 2021  
Subject: MSc Program in Marketing

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Dear Dr. Boies,

During our February 26, 2021 department meeting, Dr. Onur Bodur presented the MSc in Marketing Curriculum Revision Proposal to members of the Marketing Department. Following a discussion, Dr. Bodur proposed a motion to approve the proposed curriculum changes to the MSc Program in Marketing, seconded by Dr. Gad Saad. The outcome of the vote was nineteen (19) in favor, zero (0) opposed and two (2) abstentions. Accordingly, the motion passed.

In the following department meeting held on March 26, 2021, Dr. Onur Bodur presented descriptions for the MSc elective courses in Marketing for departmental approval. Following a discussion with members of the Marketing department, Dr. Bodur proposed a motion to approve the proposed course descriptions, seconded by Dr. Lea Katsanis. The outcome of the vote was eighteen (18) in favor, zero (0) opposed and zero (0) abstentions. As a result, the motion passed.

The proposed changes to the curriculum, as well as the proposed descriptions of the elective courses, are presented in the attached documents.

Please let me know if you have any questions.



**MSc Marketing  
Proposal for Curriculum Change**

Revised, April 8, 2021

MSc Marketing  
Curriculum Revision Proposal

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\*See additional files.

## 1. RATIONALE FOR CURRICULUM REVISION

The MSc Program in Marketing has been offered at Concordia University since 1989. Previously offered as the *MSc in Administration* degree with three concentrations, the program was restructured in 2014 and split into three separate degree designations: *MSc in Finance*, *MSc in Management*, and *MSc in Marketing*. However, the curriculum has remained mostly unchanged. The program is designed to train specialists to perform high-level analytical thinking, data-based decision-making and develop rigorous research skills. Currently, a majority of our graduates get industry jobs upon graduation. The program also serves as a conduit to PhD Programs at John Molson School of Business and elsewhere.

In 2017 the Program Appraisal Committee prepared a report and strongly recommended a curriculum revision. Pertinent to this revision, the PAC pointed out several weaknesses of the current program:

- Niche research expertise does not always correspond to students' broader professional needs
- Not enough applied content in some courses
- Moderate satisfaction with core courses
- Cross-listing of PhD and MSc courses affect in-class pedagogy
- Uneven expectations regarding thesis requirements across students and faculty
- Longer time to completion than recommended

As a part of the PAC process, on March 9, 2020, two external evaluators also submitted a report on MSc and PhD programs and recommended that “a curriculum revision be undertaken to streamline courses in the PhD and MSc programs and sequence them to optimize learning outcomes and course availability.” Our new program structure follows their recommendations.

A curriculum revision will ensure that the program regains its value proposition so that it can attract high-quality students. This will not only allow the program to deliver the best quality of education but also will ensure its financial sustainability over time. Exit surveys with alumni indicate that the program could benefit more in addressing the students' industry career objectives in coursework, particularly in terms of a better connection to the problems they face in the business world. A heavy focus on academic research, despite a small minority of students moving to academic careers after the completion of the program (confirmed by CMS data), also is of concern. The curriculum will benefit from a redesign that places proportionate emphasis on the large proportion of students who aim to work in non-academic settings while keeping the strong analytical and research focus (which makes its unique strength). Maintaining this focus will ensure it remains competitive in a market of mostly generalized programs for industry-focus students as well as providing a stepping stone for a small number, but still important, of PhD-oriented students. Long time-to-completion rates also suggest the curriculum could benefit from having a stronger core structure that moves students towards timely completion. Upon reviewing competing programs, this is also substantiated: all other research-focused programs have a more structured curriculum with a higher number of core courses.

## 2. REVISION PROCESS

To ensure that the whole department was well represented on this important task, a committee with diversity (rank, research interests, and current involvement in the program) was established in Winter 2019. The curriculum committee consisted of the following members: Zeynep Arsel (*Program Director, ex officio*), Onur Bodur (*On sabbatical between January-July, 2020*), SunAh Kim, Jooseop Lim, Michèle Paulin (*On sabbatical between January-July, 2020*), Caroline Roux, Mrugank Thakor. Leading the process were Frederica Martin and Malcolm MacPhail.

The committee also invited Darlene Walsh (Marketing Department Chair), Kathleen Boies (Associate Dean, Research and Research Programs), and Angela Usas (Manager, Assessment and Accreditation) in meetings pertaining to resources, staffing, and assessment. The committee met multiple times between April 23, 2019 and February 5, 2020. The curriculum committee took a break while other programs (BTM, Finance, Management) completed the first stage of curriculum revision. This directive was to ensure that there were synergies and consistencies across the programs.

As of July 1, 2020, Zeynep Arsel resigned from GPD, MSc Marketing and Onur Bodur started as the new GPD. Onur Bodur, Kathleen Boies and Darlene Walsh met to review the draft of the curriculum changes and the direction for the curriculum review changes. A new MSc program committee was established (Drs. Pierre-Yann Dolbec, SunAh Kim, Michel Laroche) as of July 1, 2020 and Dr. Bodur acted as the chair of the new MSc program committee. The MSc program committee met multiple times in 2020-2021 academic year. A special departmental meeting was organized and the MSc Program committee presented the state of changes to the department on November 18, 2020 and sought further feedback. Based on the department's input, MSc program committee met multiple times and finalized the curriculum changes. The committee agreed on voting on a final curriculum option via secret ballot and minor modifications to the curriculum to in light of department's feedback. The option that is presented in this version was agreed upon by majority vote. On February 26, 2021, the final version was presented to the department and approved at the department level by majority vote.

Overall, the Msc program committee lasted one to two hours, and minutes were taken except for the initial launch meeting, where the committee was informed of its mandate and provided data and documentation. Decisions were made through deliberation, revisions, and further discussion. The resulting curriculum is a collective output of the committee members and marketing department's feedback, with attention paid to resource requirements, rules and regulations set for graduate programs by the Ministry of Education, and requirements of the accrediting agencies.

### 3. PROGRAM COMPETENCY GOALS AND OBJECTIVES

Defining the program goals was the first step in the revision process that required MSc curriculum revision committee to discuss and brainstorm options. The program goals below reflect multiple revisions and include changes that were recommended for assessment and accreditation purposes, as well as keeping goals consistent across all MSc programs (Revised on April 18, 2019).

Goals	Objectives
1. Identify and apply relevant theories and/or concepts to Marketing contexts	1.1 : Explain core theories in Marketing relevant to the research topic 1.2 : Describe substantive advances in Marketing relevant to the research topic 1.3: Identify a research problem and formulate a research question(s) with rationale(s)
2. Use appropriate research methods effectively to solve a problem	2.1 Identify the appropriate research methodology for research in the area of specialization 2.2 Apply appropriate research method(s) effectively to the research problem(s). 2.3 Apply analytical skills appropriately in the area of specialization (may include the use of software and databases). 2.4 Demonstrate ability to follow ethical guidelines when collecting data and/or analyzing data. 2.5 Describe how research outcomes might affect stakeholders such as managers, consumers, employees, and the broader society 2.6 Develop recommendations that could benefit stakeholders using research findings.
3. Plan a research project from conception to completion	3.1 : Outline and effectively implement the steps involved for the completion of the project 3.2: Identify the resources required to complete the project
4. Communicate knowledge and research evidence orally and in writing	<u>Communicate knowledge and research evidence in an oral presentation</u> 4.1.1 Clearly convey key components of the project orally 4.1.2 Use appropriate data visualisation 4.1.3 Effectively respond to questions 4.1.4 Clearly state the implications of the project for research and/or practice <u>Communicate knowledge and research evidence in writing</u>

	<p>4.2.1 Convey all components of the project in writing coherently</p> <p>4.2.2 Incorporate and respond to supervisor’s feedback effectively.</p> <p>4.2.3 Use appropriate vocabulary and grammar</p> <p>4.2.4 Use citations and quotes appropriately</p> <p>4.2.5 Format properly (e.g., tables, graphs, exhibits).</p>
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**4. CHANGES TO PROGRAM DESCRIPTION AND REQUIREMENTS**

***(4a) Admission Requirements***

Applicants must submit transcripts, proof of satisfactory performance on the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE) completed within the previous five (5) years, three (3) letters of recommendation with the Academic Assessment forms, and a statement of purpose. Please note that the GMAT is preferred to the GRE.

Bachelor’s degree with high academic standing serves as a prerequisite for the program. To be eligible for admission, applicants must have maintained at least a B average in their final two years and have obtained a Grade Point Average (GPA) of at least 3.00 on a 4.30 scale, or the equivalent, from an accredited university.

Applicants with insufficient prior training in their expected area of specialization may be required to take prerequisite courses in addition to the required coursework in the graduate program. The specific courses to be taken are determined by the Program Director depending upon the student’s background and area of specialization.

Applicants whose primary language is not English must demonstrate that their knowledge of English is sufficient to pursue graduate studies in their chosen field. Please refer to the Graduate Admission page for further information on the Language Proficiency requirements and exemptions.

The program is open to both full-time and part-time students.

## **(4b) Degree requirements**

Students are required to complete a minimum of 45 credits.

### (1) Core courses (12 credits)

MSCA 618: Research Methods (3 credits)

MSCA 678: Marketing Research Foundations (3 credits)

MSCA 679: Marketing Theory (3 credits)

AND

MSCA 602: Applied Linear Statistical Models (3 credits)

Or

MSCA 603 Applied Data Analysis (3 credits)

### (2) Elective courses (12 credits)

A rotating set of electives will be offered by the department. Additionally, students can take electives from the PhD program or other MSc programs with prior approval of the GPD.

### (3) Thesis Proposal (3 credits, MSCA 694)

### (4) Research Thesis (18 credits, MSCA 695)

### (5) Professional Development (0 credits, MSCA 655)

Students are required to complete at least three workshops before the end of Semester 3 and are encouraged to take more courses for professional development. The minimum three workshops can be related to improving “success in graduate school,” “digital skills,” or “career building”. Some sample topics include (but not limited to):

- Business research essentials
- Writing a literature review
- Editing principles for graduate students
- Library skills and resources
- How to prepare data for publication
- Build Your ePortfolio
- Beginner’s Guide to the R Programming language
- Data mining with an eye on algorithmic bias
- Networking essentials
- Optimizing LinkedIn

**(4c) Program Schedule**

**Program Schedule Version**

Fall – Term 1	Winter – Term 2
Courses	Courses
MSCA 618: Research Methods (3 credits) MSCA 678: Marketing Research Foundations (3 credits) MSCA 679: Marketing Theory (3 credits) + MSCA 602: Applied Linear Statistical Models (3 credits) – DS&MIS Or MSCA 603 Applied Data Analysis (3 credits)	+ 12 credits of electives from <ul style="list-style-type: none"> <li>• MSc Marketing Courses (see electives)</li> </ul> Or with GPD approval from: <ul style="list-style-type: none"> <li>• Other MSc courses from JMSB</li> <li>• Cognate courses from other MSc and MA programs</li> <li>• PhD in Marketing Elective Seminars</li> </ul>
Milestones	Milestones
Supervisor search should begin as soon as possible	Students should link up with a supervisor and establish a thesis committee by the end of February

Summer – Term 3	Fall – Term 4	Winter – Term 5
Courses		
MSCA 655 Professional Development (0 credits) MSCA 694 Thesis Proposa (3 credits)	Thesis work – data collection and analysis	MSCA 695 – Research Thesis (18 credits)
Milestones	Milestones	Milestones
Thesis Proposal Research Ethics Approval & Research Funding (if applicable)	Data collection should be completed by December for Spring Graduation	Thesis work – writing Thesis defense Graduation



#### **(4d) List of Courses**

##### Core Courses:

- MSCA 602 Applied Linear Statistical Models (3 credits)  
Or
  - MSCA 603 Applied Data Analysis (3 credits)
- AND
- MSCA 618 Research Methods (3 credits)
  - MSCA 678 Marketing Research Foundations (3 credits)
  - MSCA 679 Marketing Theory (3 credits)

##### Electives:

Each year a selection of specialized seminars will be offered on a rotating basis from those listed below.

- MSCA 662 Seminar in Qualitative Research (3 credits)
- MSCA 663 Seminar in Consumer Research Methods (3 credits)
- MSCA 665 Seminar in Marketing Communications (3 credits)
- MSCA 667 Seminar in Consumer Psychology and Decision Making (3 credits)
- MSCA 668 Seminar in Innovation and Marketing (3 credits)
- MSCA 669 Seminar in Pricing Management (3 credits)
- MSCA 671 Seminar in Relationship Marketing Strategy (3 credits)
- MSCA 672 Seminar in Special Topics in Marketing (3 credits)
- MSCA 673 Seminar in Segmentation and Positioning in Marketing (3 credits)
- MSCA 674 Seminar in Meaning and Management of Brands (3 credits)
- MSCA 675 Seminar in Retailing (3 credits)
- MSCA 677 Seminar in Sustainability in Marketing (3 credits)

##### Research and Thesis:

- MSCA 694 Thesis Proposal (3 credits)
  - MSCA 695 Research Thesis (18 credits)
- 
- MSCA 655 Professional Development (0 credits)

Table 1.: Current and Proposed Programme Requirements

Current Requirements	Proposed Requirements
<p>Required (6 credits) :</p> <ul style="list-style-type: none"> <li>• MSCA 615: Research Methodology – Administrative Science (3 credits)</li> <li>• MSCA 602: Applied Linear Statistical Models (3 credits)</li> </ul>	<p>Required (12 credits):</p> <ul style="list-style-type: none"> <li>• MSCA 618: Research Methods (3 credits)</li> <li>• MSCA 678: Marketing Research Foundations (3 credits)</li> <li>• MSCA 679: Marketing Theory (3 credits)</li> </ul> <p>AND</p> <ul style="list-style-type: none"> <li>• MSCA 602: Applied Linear Statistical Models (3 credits)</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• MSCA 603: Applied Data Analysis</li> </ul>
<p>Electives (18 credits) :</p> <ul style="list-style-type: none"> <li>• MSCA 662 Seminar in Qualitative Research (3 credits)</li> <li>• MSCA 663 Seminar in Consumer Research Methods (3 credits)</li> <li>• MSCA 665 Seminar in Marketing Communications (3 credits)</li> <li>• MSCA 667 Seminar in Consumer Psychology and Decision Making (3 credits)</li> <li>• MSCA 668 Seminar in Innovation and Marketing (3 credits)</li> <li>• MSCA 669 Seminar in Pricing Management (3 credits)</li> <li>• MSCA 671 Seminar in Relationship Marketing Strategy (3 credits)</li> <li>• MSCA 672 Seminar in Special Topics in Marketing (3 credits)</li> <li>• MSCA 673 Seminar in Segmentation and Positioning in Marketing (3 credits)</li> <li>• MSCA 674 Seminar in Meaning and Management of Brands (3 credits)</li> <li>• MSCA 675 Seminar in Retailing (3 credits)</li> <li>• MSCA 677 Seminar in Sustainability in Marketing (3 credits)</li> </ul>	<p>Electives (12 credits):</p> <ul style="list-style-type: none"> <li>• MSCA 662 Seminar in Qualitative Research (3 credits)</li> <li>• MSCA 663 Seminar in Consumer Research Methods (3 credits)</li> <li>• MSCA 665 Seminar in Marketing Communications (3 credits)</li> <li>• MSCA 667 Seminar in Consumer Psychology and Decision Making (3 credits)</li> <li>• MSCA 668 Seminar in Innovation and Marketing (3 credits)</li> <li>• MSCA 669 Seminar in Pricing Management (3 credits)</li> <li>• MSCA 671 Seminar in Relationship Marketing Strategy (3 credits)</li> <li>• MSCA 672 Seminar in Special Topics in Marketing (3 credits)</li> <li>• MSCA 673 Seminar in Segmentation and Positioning in Marketing (3 credits)</li> <li>• MSCA 674 Seminar in Meaning and Management of Brands (3 credits)</li> <li>• MSCA 675 Seminar in Retailing (3 credits)</li> <li>• MSCA 677 Seminar in Sustainability in Marketing (3 credits)</li> </ul>
<p>N/A</p>	<p>MSCA 655 Professional Development (0 credits)</p>
<p>MSCA 699 Thesis (21 credits)</p>	<p>MSCA 694 Thesis Proposal (3 credits) MSCA 695 Research Thesis (18 credits)</p>

## **5. PROPOSED CALENDAR DESCRIPTIONS**

### **MSCA 618: Research Methods (3 credits)**

This course introduces students to core methods in marketing and consumer research. The course exposes students to experimental, quantitative, and qualitative research methods and motivates students to understand why and when each methodology is more suitable to use, how to conduct research based on each methodological approach, and how it is applied in marketing practice with regards to generating managerial insights and making strategic decisions. Students formulate research problems, identify appropriate method(s) for addressing research problems, design a research project, and understand how to collect and analyze data with integrity.

### **MSCA 678: Marketing Research Foundations (3 credits)**

This seminar focuses on how marketing research supports complex decisions that benefit multiple stakeholders. Students gain skills to articulate real-world marketing problems into marketing research questions, identify and critically assess managerial, conceptual, and ethical implications of a marketing research project. Topics such as translating research questions to hypotheses, sampling principles, measurement, ethical guidelines in research and best practices are covered.

### **MSCA 679: Marketing Theory (3 credits)**

This course introduces students to essential theories and frameworks in significant substantive areas of marketing. As a foundational course, this course provides students with the groundwork knowledge and analytical skills that are necessary for more specialized courses. Another course objective is to introduce students to key expertise topics within the marketing department to facilitate their supervision selection. Specifically, students critically engage with areas that constitute diverse expertise within the marketing department while getting a big-picture view of the discipline.

### **MSCA 662 Seminar in Qualitative Research (3 credits)**

This course familiarizes students with the philosophy and method of qualitative research. It cultivates skills to develop relevant and feasible research questions and carry out tasks to tackle these questions. Beyond scholarly research, the course also covers applied uses of qualitative methods. Topics such as research ethics in qualitative methods, research project management, online data, presenting research findings, data collection aids, and multi-method inquiry are covered.

### **MSCA 663 Seminar in Consumer Research Methods (3 credits)**

This seminar provides in-depth understanding of research methods used in consumer research. The course improves skills to evaluate and use these methods in addressing

academic and applied research questions. Factors important for decisions in research process, such as measurement, sampling, analyses, interpretation, communication, ethics, and implications for affected stakeholders are covered.

### **MSCA 665 Seminar in Marketing Communications (3 credits)**

The seminar focuses on the communication process between a company and its markets or other publics. In particular, it looks at how specific theories and theoretical frameworks can be used to answer specific questions related to marketing communications. Selected theories, findings, hypotheses and techniques from several disciplines are studied and evaluated in the context of developing a marketing communications program. Emphasis is given to mass communications rather than to personal communications.

### **MSCA 667 Seminar in Consumer Psychology and Decision Making (3 credits)**

This course explores key theoretical frameworks of consumer psychology and behavioral decision using an interdisciplinary lens. Topics such as behavioral decision theory, hot cognition, evolutionary consumption, consumer wellbeing, and cross-cultural versus human universals in consumer behaviour are covered. Students also: 1) gain an understanding of the multitude of ways that data can be collected and analyzed when conducting consumer research; 2) Learn the theoretical, methodological, and epistemological metrics by which good science is judged, and sound scientific explanations are constructed.

### **MSCA 668 Seminar in Innovation and Marketing (3 credits)**

This course provides an overview of the marketing literature on innovation and the marketing of innovations. The course covers topics such as the creation, diffusion, management, and marketing of innovation. Students develop academic and strategic understanding of the process of innovation, and learn how to contextualize the role of innovation in building a firm's competitive advantage, and in society more broadly.

### **MSCA 669 Seminar in Pricing Management (3 credits)**

This course focuses on pricing strategies and the literature on behavioural responses to pricing cues. It covers topics such as price presentation, different kinds of price promotion, price partitioning and bundling. The course provides students with an understanding of the issues involved in setting prices as well as the psychology underlying consumers' perceptions of price and value.

### **MSCA 671 Seminar in Relationship Marketing Strategy (3 credits)**

This course introduces different perspectives to strategic relationship marketing. Students develop critical thinking skills about the complexities of interdisciplinary research. Topics such as design, enhancement, co-creation of service experience, service logic, service systems, and ethics are covered. Students also enhance their communication skills, and understanding of deontology practices, and the societal responsibility of teaching and researching.

### **MSCA 672 Seminar in Special Topics in Marketing (3 credits)**

Special topics in marketing are covered. The specific course description is made available prior to the registration period.

### **MSCA 673 Seminar in Segmentation and Positioning in Marketing (3 credits)**

This course focuses on statistical models that researchers use in segmentation and positioning strategies in marketing. Students are exposed to various models (e.g., principal component analysis, factor analysis, correspondence analysis, internal and external analysis of preferences, conjoint analysis, discrete choice models and various types of cluster analysis) with hands-on data analysis through assignments.

### **MSCA 674 Seminar in Meaning and Management of Brands (3 credits)**

This specialized M.Sc. seminar in marketing introduces students to academic research in the domain of branding. Students develop theoretical knowledge and critical evaluation skills allowing them to pursue research, managerial, or consulting careers that touch upon brand management issues.

### **MSCA 675 Seminar in Retailing (3 credits)**

This specialized M.Sc. seminar in marketing introduces students to academic research in the domain of retailing. Students develop theoretical knowledge and critical evaluation skills allowing them to pursue research, managerial, or consulting careers that touches upon retailing issues.

### **MSCA 677 Seminar in Sustainability in Marketing (3 credits)**

This course provides an overview of marketing literature on sustainability and corporate social responsibility. The focus is on the impact of marketing decisions and consumer behaviour on consumer and public welfare, firm performance. The course coverage encompasses broad societal concerns, such as environmental, social, and consumer outcomes of consumption. The course provides an overview of literature and helps students develop fundamental understanding of the research in sustainability and social responsibility in marketing.

### **MSCA 694 – Thesis proposal – (3 credits)**

Students propose a selected research topic under the supervision of a thesis advisor. The written proposal outlines the thesis topic, its conceptual framework, potential contributions, proposed methodology and completion timeline.

### **MSCA 695 - Research Thesis – (18 credits)**

Pre-req: MSCA 694

An independent research-based investigation on a topic outlined in the thesis proposal that takes the form of a written thesis.

## 6. CURRICULUM MAP

Competencies	MSCA 678 Marketing Research Foundations	MSCA 618 Research Methods	MSCA 679 Marketing Theory	MSCA 602 App. Lin. Statistical Models	Electives	MSCA 694 Thesis Proposal	MSCA 695 Res. Thesis
1. Identify and apply relevant theories and/or concepts to Marketing contexts							
1.1 Explain core theories in Marketing relevant to the research topic			I		R	M	M
1.2 Describe substantive advances in Marketing relevant to the research topic			I		R	M	M
1.3 Identify a research problem and formulate a research question(s) with rationale(s)	I / R	R/M	R		R	M	M
2. Use appropriate research methods effectively to solve a problem							
2.1 Identify the appropriate research methodology for research in the area of specialization	I	R		R	R / M	M	M
2.2. Apply appropriate research method(s) effectively to the research problem(s).	I	R/M			R	R	M
2.3 Apply analytical skills appropriately in the area of specialization (may include the use of software and databases).		I		R	R / M	R	M
2.4 Demonstrate ability to follow ethical guidelines when collecting data and/or analyzing data.	I / R	I / R		R	R / M	R / M	M
2.5 Describe how research outcomes might affect stakeholders	I	R	R / M	R	R / M	R / M	M

I= Introduced  
R= Reinforced  
M= Mastered

such as managers, consumers, employees, and the broader society.							
2.6 Develop recommendations that could benefit stakeholders using research findings.	I	I / R	R	R	R / M	R / M	M
3. Plan a research project from conception to completion							
3.1 Outline and effectively implement the steps involved for the completion of the project	I	I / R		I / R	R	R / M	M
3.2 Identify the resources required to complete the project	I	I / R			R	R / M	M
4. Communicate knowledge and research evidence orally and in writing							
4.1.1 Clearly convey key components of the project orally	I	I / R			R	R	M
4.1.2 Use appropriate data visualisation	I	I / R					M
4.1.3 Effectively respond to questions	I	R	R	R	R	R / M	M
4.1.4 Clearly state the implications of the project for research and/or for practice	I		R	R	R	R / M	M
4.2.1 Coherently convey all components of the project in writing	I	I/R	R	R	R / M	R / M	M
4.2.2 Use appropriate vocabulary and grammar	I	R	R	R	R / M	R / M	M
4.2.3 Use citations and quotes appropriately	I	R	R	R	R / M	R / M	M
4.2.4 Use appropriate formatting principles (e.g. tables, graphs, and exhibits).	I	R	R	R	R / M	R / M	M

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## 7. RESOURCES

There is sufficient expertise in the department to cover all core courses and electives proposed. The table below lists the proposed core courses, and the minimum number of faculty members qualified to teach them. The electives are not listed as there is more flexibility in the offering and, therefore, the department is confident that the needs can be covered.

Under the old curriculum, MSCA 602 and MSCA 615 were the only two core courses. We are keeping the first course (taught by the Department of Supply Chain and Business Technology Management) and, renaming and revising the contents of the second course ( which will become MSCA 618).

In addition, we add 2 new core courses that will be taught by Marketing faculty members: Marketing Theory, Research Foundations.

In total, 4 courses were added as core courses.

Course Code	Course Title	Credits	Full-time Faculty Member
MSCA 602	Applied Linear Statistical Models	3	Offered by DS&MIS
MSCA 618	Research Methods	3	2 qualified for qualitative, 3 for quantitative, and at least 5 for causal research
MSCA 679	Marketing Theory	3	At least 5 qualified
MSCA 678	Research Foundations	3	At least 5 qualified



**Consolidated View of Proposed Changes - MSCA-22 – Marketing**

<b>Course</b>	<b>New number title &amp; descript. to indicate MNGT Specific</b>	<b>Course Addition to Program</b>	<b>Course Removal from Program</b>	<b>Addition/ change of course description to the calendar</b>	<b>Addition/ Change of note</b>	<b>Addition of Credit Value to the calendar</b>
MSCA 602						
MSCA 615			X			
MSCA 618	X					
MSCA 655		X*				
MSCA 662				X	X**	
MSCA 663				X	X**	
MSCA 665				X		
MSCA 667				X	X**	
MSCA 668				X		
MSCA 669				X	X**	
MSCA 671				X	X**	
MSCA 672				X	X**	
MSCA 673				X	X**	
MSCA 674				X	X**	
MSCA 675				X	X**	
MSCA 677				X	X**	
MSCA 695		X*				
MSCA 694		X*				
MSCA 699			X			

\*New course for the program, but already existing in other programs.

\*\* Note existing in the calendar but within another section

**PROGRAM CHANGE:** Admission Requirements Change

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>Marketing MSc</b></p> <p><b>Admission Requirements</b></p> <ul style="list-style-type: none"> <li>• Bachelor's degree with high academic standing serves as a prerequisite for the program. To be eligible for admission, applicants must have maintained at least a B average in their final two years and have obtained a Grade Point Average (GPA) of at least 3.00 on a 4.30 scale, or the equivalent, from an accredited university.</li> <li>• Applicants must submit proof of satisfactory performance on the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE) completed within the previous five years, three letters of recommendation with the Academic Assessment forms, and a short statement of purpose. (Please note that the GMAT is preferred to the GRE).</li> <li>• <b>Proficiency in English.</b> Applicants whose primary language is not English must demonstrate that their knowledge of English is sufficient to pursue graduate studies in their chosen field. Please refer to the Graduate Admission page for further information on the Language Proficiency requirements and exemptions.</li> <li>• <del>Concordia Comprehensive ESL Placement Test (ConCEPT). Applicants who have been admitted by a program and whose test results fall within the range requiring a language placement test are required to write the Concordia Comprehensive ESL Placement Test (ConCEPT).</del></li> </ul>	<p><b>Marketing MSc</b></p> <p><b>Admission Requirements</b></p> <ul style="list-style-type: none"> <li>• Bachelor's degree with high academic standing serves as a prerequisite for the program. To be eligible for admission, applicants must have maintained at least a B average in their final two years and have obtained a Grade Point Average (GPA) of at least 3.00 on a 4.30 scale, or the equivalent, from an accredited university.</li> <li>• <a href="#">Applicants with insufficient prior training in their expected area of specialization may be required to take prerequisite courses in addition to the required coursework in the graduate program. The specific courses to be taken are determined by the Program Director depending upon the student's background and area of specialization.</a></li> <li>• Applicants must submit <a href="#">transcripts</a>, proof of satisfactory performance on the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE) completed within the previous five years, three letters of recommendation with the Academic Assessment forms, and a short statement of purpose. (Please note that the GMAT is preferred to the GRE).</li> <li>• <b>Proficiency in English.</b> Applicants whose primary language is not English must demonstrate that their knowledge of English is sufficient to pursue graduate studies in their chosen field. Please refer to the Graduate Admission page for further information on the Language Proficiency requirements and exemptions.</li> </ul> <p><a href="#">The program is open to both full-time and part-time students.</a></p>

Resource Implications:

None.

Rationale:

The requirement for applicants with insufficient training in their area of specialization is added to maintain consistency with other MSc programs.

**PROGRAM CHANGE:** Degree Requirements Change

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2020/2021) calendar	Proposed Text																					
<p><b>Degree Requirements</b></p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>In the first year of the program, candidates are required to complete a minimum of 24 credits.</p> <p>Please see the MSCA Courses section for course descriptions.</p> <p><b>45 MSc Marketing</b></p> <p><del>6 Credits of <i>Required</i> Courses</del></p> <table border="0"> <tr> <td>MSCA 602</td> <td>Applied Linear Statistical Models</td> <td>3.00</td> </tr> <tr> <td><del>MSCA 615</del></td> <td><del>Research Methodology – Administrative Sciences</del></td> <td><del>3.00</del></td> </tr> </table> <p><b>18 Credits of Marketing MSc Seminars</b></p> <p><del>Upon approval of the Department MSc Finance Advisor and the instructor, up to six credits of electives may include the following:</del>  <del>– Seminars in any other John Molson School of Business MSc program;</del>  <del>– PhD Seminar in Marketing</del></p>	MSCA 602	Applied Linear Statistical Models	3.00	<del>MSCA 615</del>	<del>Research Methodology – Administrative Sciences</del>	<del>3.00</del>	<p><b>Degree Requirements</b></p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>In the first year of the program, candidates are required to complete a minimum of 24 credits <a href="#">and MSCA 655</a>.</p> <p>Please see the MSCA Courses section for course descriptions.</p> <p><b>45 MSc Marketing</b></p> <p><a href="#">12</a> Credits of <a href="#">Core</a> Courses</p> <table border="0"> <tr> <td>MSCA 602</td> <td>Applied Linear Statistical Models</td> <td>3.00</td> </tr> <tr> <td><a href="#">MSCA 618</a></td> <td><a href="#">Research Methods</a></td> <td><a href="#">3.00</a></td> </tr> <tr> <td><a href="#">MSCA 655</a></td> <td><a href="#">Professional Development</a></td> <td><a href="#">0.00</a></td> </tr> <tr> <td><a href="#">MSCA 678</a></td> <td><a href="#">Marketing Research Foundations</a></td> <td><a href="#">3.00</a></td> </tr> <tr> <td><a href="#">MSCA 679</a></td> <td><a href="#">Marketing Theory</a></td> <td><a href="#">3.00</a></td> </tr> </table> <p><a href="#">12</a> Credits of <a href="#">Elective</a> Marketing MSc Seminars</p>	MSCA 602	Applied Linear Statistical Models	3.00	<a href="#">MSCA 618</a>	<a href="#">Research Methods</a>	<a href="#">3.00</a>	<a href="#">MSCA 655</a>	<a href="#">Professional Development</a>	<a href="#">0.00</a>	<a href="#">MSCA 678</a>	<a href="#">Marketing Research Foundations</a>	<a href="#">3.00</a>	<a href="#">MSCA 679</a>	<a href="#">Marketing Theory</a>	<a href="#">3.00</a>
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<a href="#">MSCA 679</a>	<a href="#">Marketing Theory</a>	<a href="#">3.00</a>																				

~~Cognate graduate seminars offered by other departments within the university.~~

21 MSCA 699 Research Thesis 21.00

### Marketing MSc Seminars

Each year a selection of specialized seminars will be offered on a rotating basis from those listed below.

MSCA 662	Seminar in Qualitative Research
MSCA 663	Seminar in Consumer Research Methods
MSCA 665	Seminar in Marketing Communications
MSCA 667	Seminar in Consumer Psychology and Decision Making
MSCA 668	Seminar in Innovation and Marketing
MSCA 669	Seminar in Pricing Management
MSCA 671	Seminar in Relationships Marketing Strategy
MSCA 672	Seminar in Special Topics in Marketing
MSCA 673	Seminar in Segmentation and Positioning in Marketing
MSCA 674	Seminar in Meaning and Management of Brands
MSCA 675	Seminar in Retailing
MSCA 677	Seminar in Sustainability in Marketing

A rotating set of electives will be offered by the department. Additionally, students can take electives from the PhD program or other MSc programs with prior approval of the Graduate Program Director.

3 MSCA 694 Thesis Proposal 3.00  
credits

18 MSCA 695 Research Thesis 18.00  
credits

### Marketing MSc Seminars

Each year a selection of specialized seminars will be offered on a rotating basis from those listed below.

MSCA 662	Seminar in Qualitative Research
MSCA 663	Seminar in Consumer Research Methods
MSCA 665	Seminar in Marketing Communications
MSCA 667	Seminar in Consumer Psychology and Decision Making
MSCA 668	Seminar in Innovation and Marketing
MSCA 669	Seminar in Pricing Management
MSCA 671	Seminar in Relationships Marketing Strategy
MSCA 672	Seminar in Special Topics in Marketing
MSCA 673	Seminar in Segmentation and Positioning in Marketing
MSCA 674	Seminar in Meaning and Management of Brands
MSCA 675	Seminar in Retailing
MSCA 677	Seminar in Sustainability in Marketing

#### Rationale:

- In order to encourage steady progress in their thesis work, students will be required to register for a minimum of three workshops of the type currently offered by Grad ProSkills. The

Resource Implications:

- These courses were already offered yearly as electives and students were very strongly encouraged to take them.
- For professional development: no resource implications, as this will fall under the GPD's mandate

Graduate Program Director ensures that this requirement has been met.

- The structure has changed and there is now a Graduate Program Director for each MSc program.
- The list of elective seminars has been included here as part of the degree requirements, as it is in other programs.
- Electives now all have calendar descriptions. The list has been moved under Degree Requirements as it is in other programs and the notes have been moved under their corresponding course descriptions.
- The program wishes to split the 21-credit thesis into a 3-credit proposal and 18-credit thesis, to formally recognize the proposal as a way to ensure that students structure their projects early on, in close collaboration with their supervisor

**PROGRAM CHANGE:** Academic Regulations Change

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2021

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>Academic Regulations</b></p> <ol style="list-style-type: none"> <li>1. <b>Academic Standing.</b> Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.</li> <li>2. <b>Residence.</b> <del>In accordance with standard university policy, the minimum residence requirement for this master's degree is three terms of full-time study, or the equivalent in part-time study. This requirement must be met regardless of the amount of graduate work previously completed in any other program or at any other university.</del></li> <li>3. <b>Time Limit.</b> Please refer to the Academic Regulation page for further details regarding the Time Limit requirements.</li> <li>4. <b>Credit Load: Full-time Students.</b> <del>The normal course load for full-time students is 12 credits in each of the terms in the first year and the 21-credit thesis in the second year.</del></li> <li>5. <b>Credit Load: Part-time Students.</b> <del>The maximum course load for part-time students is 9 credits per calendar year. The 21-credit thesis should take one year to 18 months to complete.</del></li> <li>6. <b>Course Reduction.</b> <del>In exceptional circumstances, students may be granted permission to reduce their course load below the normal specified above while remaining in good standing.</del></li> <li>7. <b>Program and Course Withdrawal.</b> <del>Students who wish to apply for withdrawal from an MSc program must do so in writing at the office of the Associate Dean, Research and Research Programs. Students may drop a course up to the end of the course change period. This is normally about two weeks after classes begin (see Academic Calendar). In addition to the regulations which appear in the Graduate Registration section of the Graduate Calendar, students enrolled in an MSc program will be required to observe the following rules.</del></li> <li>8. <b>Graduation Requirement.</b> In order to graduate, students must have a minimum cumulative GPA of 2.70.</li> </ol>	<p><b>Academic Regulations</b></p> <ol style="list-style-type: none"> <li>1. <b>Academic Standing.</b> Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.</li> <li>2. <b>Residence.</b> The minimum residence requirement for this master's degree is three terms of full-time study, or the equivalent in part-time study.</li> <li>3. <b>Time Limit.</b> Please refer to the Academic Regulation page for further details regarding the Time Limit requirements (<a href="https://www.concordia.ca/academics/graduate/calendar/current/academic-regulations.html">https://www.concordia.ca/academics/graduate/calendar/current/academic-regulations.html</a>)</li> <li>4. <b>Graduation Requirement.</b> In order to graduate, students must have a minimum cumulative GPA of 2.70.</li> </ol>

Rationale: For consistency with the other MSc programs.	
Resource Implications: None.	



**COURSE CHANGE:** MSCA 618      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

<b>Present Text (from 2020/2021) calendar</b>	<b>Proposed Text</b>
	<p><b>MSCA 618 Research Methods (3.00 credits)</b></p> <p><i>Description:</i> This course introduces students to core methods in marketing and consumer research. The course exposes students to experimental, quantitative, and qualitative research methods and motivates students to understand why and when each methodology is more suitable to use, how to conduct research based on each methodological approach, and how it is applied in marketing practice with regards to generating managerial insights and making strategic decisions. Students formulate research problems, identify appropriate method(s) for addressing research problems, design a research project, and understand how to collect and analyze data with integrity.</p> <p><i>Component(s):</i> Seminar.</p>
<p><b>Rationale:</b> This is a core course for Marketing MSc students. It introduces students to core research methods. As a result of the revision of the marketing curriculum and addition of other courses, this course now presents multiple methodological approaches that can be taken to address marketing research questions in basic and applied research. Students gain skills to address the same or similar marketing research questions from the lens of alternate methodological approaches. The links to application and practice are highlighted.</p>	
<p><b>Resource Implications:</b> None. This is a revised content. The course is already offered by Marketing Department. (It will take the place of MSCA 615-Research Methodology-Administrative Sciences that has been removed from this program).</p>	
<p><b>Other Programs within which course is listed:</b>  None.</p>	



**COURSE CHANGE:** MSCA 663      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input type="checkbox"/> Other - Specify: |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>MSCA 663 Seminar in Consumer Research Methods (3.00 credits)</b></p> <p>Component(s): Seminar</p> <p><i>Note(s): Students who have received credit for the Seminar in Consumer Research Methodology under a MSCA 672 number may not take MSCA 663 for credit.</i></p>	<p><b>MSCA 663 Seminar in Consumer Research Methods (3.00 credits)</b></p> <p><u><a href="#">Description: This seminar provides in-depth understanding of research methods used in consumer research. The course improves skills to evaluate and use these methods in addressing academic and applied research questions. Factors important for decisions in research process, such as measurement, sampling, analyses, interpretation, communication, ethics, and implications for affected stakeholders are covered.</a></u></p> <p>Component(s): Seminar</p> <p><i>Note(s): Students who have received credit for the Seminar in Consumer Research Methodology under a MSCA 672 number may not take MSCA 663 for credit.</i></p>
<p><b>Rationale:</b> The course description was added to the calendar.</p>	
<p><b>Resource Implications:</b> None.</p>	
<p><b>Other Programs within which course is listed:</b> None.</p>	





None.







**COURSE CHANGE:** MSCA 671      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input type="checkbox"/> Other - Specify: |                                       |                                       |

<b>Present Text (from 2020/2021) calendar</b>	<b>Proposed Text</b>
<p><b>MSCA 671 Seminar in Relationship Marketing Strategy (3.00 credits)</b></p> <p>Component(s): Seminar</p> <p><i>Note(s):</i> Students who have received credit for the Seminar in Relationship Marketing Strategy under a MSCA 672 number may not take MSCA 671 for credit.</p>	<p><b>MSCA 671 Seminar in Relationship Marketing Strategy (3.00 credits)</b></p> <p><u><i>Description:</i> This course introduces different perspectives to strategic relationship marketing. Students develop critical thinking skills about the complexities of interdisciplinary research. Topics such as design, enhancement, co-creation of service experience, service logic, service systems, and ethics are covered. Students also enhance their communication skills, and understanding of deontology practices, and the societal responsibility of teaching and researching.</u></p> <p>Component(s): Seminar</p> <p><i>Note(s):</i> Students who have received credit for the Seminar in Relationship Marketing Strategy under a MSCA 672 number may not take MSCA 671 for credit.</p>
<p><b>Rationale:</b> The course description was added to the calendar.</p>	
<p><b>Resource Implications:</b> None.</p>	
<p><b>Other Programs within which course is listed:</b> None.</p>	

**COURSE CHANGE:** MSCA 672      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input type="checkbox"/> Other - Specify: |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>MSCA 672 Seminar in Special Topics in Marketing (3.00 credits)</b></p> <p>Component(s): Seminar</p> <p><i>Note(s):</i> Subject matter will vary from term to term and students may take more than one of these courses, provided that course content has changed.</p>	<p><b>MSCA 672 Seminar in Special Topics in Marketing (3.00 credits)</b></p> <p><u><a href="#">Description: Special topics in marketing are covered. The specific course description is made available prior to the registration period.</a></u></p> <p>Component(s): Seminar</p> <p><i>Note(s):</i> Subject matter will vary from term to term and students may take more than one of these courses, provided that course content has changed.</p>
<p>Rationale: The course description was added to the calendar.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed:  None.</p>	

**COURSE CHANGE:** MSCA 673      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input type="checkbox"/> Other - Specify: |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>MSCA 673 Seminar in Segmentation and Positioning Marketing (3.00 credits)</b></p> <p>Component(s): Seminar</p> <p><i>Note(s): Students who have received credit for the Seminar in Segmentation and Positioning in Marketing may not take MSCA 673 for credit.</i></p>	<p><b>MSCA 673 Seminar in Segmentation and Positioning Marketing (3.00 credits)</b></p> <p><u><i>Description:</i> This course focuses on statistical models that researchers use in segmentation and positioning strategies in marketing. Students are exposed to various models (e.g., principal component analysis, factor analysis, correspondence analysis, internal and external analysis of preferences, conjoint analysis, discrete choice models and various types of cluster analysis) with hands-on data analysis through assignments.</u></p> <p>Component(s): Seminar</p> <p><i>Note(s): Students who have received credit for the Seminar in Segmentation and Positioning in Marketing may not take MSCA 673 for credit.</i></p>
<p><b>Rationale:</b> The course description was added to the calendar.</p>	
<p><b>Resource Implications:</b> None.</p>	
<p><b>Other Programs within which course is listed:</b> None.</p>	

**COURSE CHANGE:** MSCA 674      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input type="checkbox"/> Other - Specify: |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>MSCA 674 Seminar in Meaning and Management of Brands (3.00 credits)</b></p> <p>Component(s): Seminar</p> <p><i>Note(s): Students who have received credit for the Seminar in Brand Management under a MSCA 672 number may not take MSCA 674 for credit.</i></p>	<p><b>MSCA 674 Seminar in Meaning and Management of Brands (3.00 credits)</b></p> <p><u><a href="#">Description: This specialized MSc seminar in marketing introduces students to academic research in the domain of branding. Students develop theoretical knowledge and critical evaluation skills allowing them to pursue research, managerial, or consulting careers that touch upon brand management issues.</a></u></p> <p>Component(s): Seminar</p> <p><i>Note(s): Students who have received credit for the Seminar in Brand Management under a MSCA 672 number may not take MSCA 674 for credit.</i></p>
<p><b>Rationale:</b> The course description was added to the calendar.</p>	
<p><b>Resource Implications:</b> None.</p>	
<p><b>Other Programs within which course is listed:</b> None.</p>	

**COURSE CHANGE:** MSCA 675      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input type="checkbox"/> Other - Specify: |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>MSCA 675 Seminar in Retailing (3.00 credits)</b></p> <p>Component(s): Seminar</p> <p><i>Note(s): Students who have received credit for the Seminar in Research in Retailing under a MSCA 672 number may not take MSCA 675 for cred</i></p>	<p><b>MSCA 675 Seminar in Retailing (3.00 credits)</b></p> <p><u><a href="#">Description: This specialized M.Sc. seminar in marketing introduces students to academic research in the domain of retailing. Students develop theoretical knowledge and critical evaluation skills allowing them to pursue research, managerial, or consulting careers that touches upon retailing issues.</a></u></p> <p>Component(s): Seminar</p> <p><i>Note(s): Students who have received credit for the Seminar in Research in Retailing under a MSCA 672 number may not take MSCA 675 for credit.</i></p>
<p><b>Rationale:</b> The course description was added to the calendar.</p>	
<p><b>Resource Implications:</b> None.</p>	
<p><b>Other Programs within which course is listed:</b> None.</p>	

**COURSE CHANGE:** MSCA 677      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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|--|---|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number                 | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input type="checkbox"/> Other - Specify: |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>MSCA 677 Seminar in Sustainability in Marketing (3.00 credits)</b></p> <p>Component(s): Seminar</p> <p><i>Note(s):</i> Students who have received credit for the Seminar in Sustainability in Marketing under a MSCA 672 number may not take MSCA 677 for credit.</p>	<p><b>MSCA 677 Seminar in Sustainability in Marketing (3.00 credits)</b></p> <p><u><i>Description:</i> This course provides an overview of marketing literature on sustainability and corporate social responsibility. The focus is on the impact of marketing decisions and consumer behaviour on consumer and public welfare and firm performance. The course covers broad societal concerns, such as environmental, social, and consumer outcomes of consumption. The course provides an overview of literature and helps students develop fundamental understanding of the research in sustainability and social responsibility in marketing.</u></p> <p>Component(s): Seminar</p> <p><i>Note(s):</i> Students who have received credit for the Seminar in Sustainability in Marketing under a MSCA 672 number may not take MSCA 677 for credit.</p>
<p>Rationale: The course description was added to the calendar.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

**COURSE CHANGE:** MSCA 678      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year: 2022/2023**  
**Implementation Month/Year: September 2022**

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

<b>Present Text (from 2020/2021) calendar</b>	<b>Proposed Text</b>
	<p><b>MSCA 678 Marketing Research Foundations (3.00 credits)</b></p> <p><i>Description:</i> This seminar focuses on how marketing research supports complex decisions that benefit multiple stakeholders. Students gain skills to articulate real-world marketing problems into marketing research questions, identify and critically assess managerial, conceptual, and ethical implications of a marketing research project. Topics such as translating research questions to hypotheses, sampling principles, measurement, ethical guidelines in research and best practices are covered.</p> <p>Component(s): Seminar</p>
<p><b>Rationale:</b>                      This is a new core course for Marketing MSc students. It trains students develop research questions and research designs to address practical marketing problems or opportunities. In this sense, it helps students gain skills in future professional careers to initiate and design This is a new core course for Marketing MSc students. It trains students develop research questions and research designs to address practical marketing problems or opportunities. In this sense, it helps students gain skills in future professional careers to initiate and design research projects..</p>	
<p><b>Resource Implications:</b>                      This course is taught by Marketing department. There are 5 or more qualified faculty members to teach the course.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	

**COURSE CHANGE:** MSCA 679      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>MSCA 679 Marketing Theory (3.00 credits)</b></p> <p><i>Description:</i> This course introduces students to essential theories and frameworks in significant substantive areas of marketing. As a foundational course, this course provides students with the groundwork knowledge and analytical skills that are necessary for more specialized courses. Another course objective is to introduce students to key expertise topics within the marketing department to facilitate their supervision selection. Specifically, students critically engage with areas that constitute diverse expertise within the marketing department while getting a big-picture view of the discipline.</p> <p>Component(s): Seminar</p>
<p><b>Rationale:</b> This course serves as a core course for Marketing MSc students. It introduces students to most relevant and established theories and models in marketing. It trains students apply or extend marketing theories and models in their current research projects (thesis) and future professional careers.</p>	
<p><b>Resource Implications:</b> This course is taught by Marketing department. There are 5 or more qualified faculty members to teach the course.</p>	
<p><b>Other Programs within which course is listed:</b></p> <p>None.</p>	



**COURSE CHANGE:** MSCA 694      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number       Course Title       Credit Value       Prerequisite  
 Course Description       Editorial       New Course  
 Course Deletion       Other - Specify: Addition of this course to this program

<b>Present Text (from 2020/2021) calendar</b>	<b>Proposed Text</b>
	<p><b>MSCA 694 Thesis Proposal (3.00 credits)</b></p> <p><i>Description:</i> Students propose a selected research topic under the supervision of a thesis advisor. The written proposal outlines the thesis topic, its conceptual framework, potential contributions, proposed methodology and completion timeline.</p> <p>Component(s): Thesis Research</p>
<p><b>Rationale:</b> The program wishes to split the 21-credit thesis into a 3-credit proposal and 18-credit thesis, to formally recognize the proposal as a way to ensure that students structure their projects early on, in close collaboration with their supervisor.</p>	
<p><b>Resource Implications:</b> None.</p>	
<p><b>Other Programs within which course is listed:</b>  MSc DIS/MIS (BATM), MSc Management</p>	

**COURSE CHANGE:** MSCA 695      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** John Molson School of Business  
**Department:** Marketing  
**Program:** Marketing MSc  
**Degree:** Master of/Magisteriate in Science  
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

- Course Number       Course Title       Credit Value       Prerequisite  
 Course Description       Editorial       New Course  
 Course Deletion       Other - Specify: Addition of this course to this program

Present Text (from 2020/2021) calendar	Proposed Text
	<p><b>MSCA 695 Research Thesis (18.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: MSCA 694.</p> <p><i>Description:</i> The written thesis requirements include the completion of an independent research-based investigation on a topic outlined in the thesis proposal.</p> <p>Component(s): Thesis Research</p>

**Rationale:**  
 The program wishes to split the 21-credit thesis into a 3-credit proposal and 18-credit thesis, to formally recognize the proposal as a way to ensure that students structure their projects early on, in close collaboration with their supervisor.

**Resource Implications:**  
 None.

**Other Programs within which course is listed:**  
 MSc DIS/MIS (BATM); MSc Management

## 8. APPENDICES

### ***(8a) Appendix A: One-Page Course Descriptions***

#### **MSCA 678: Marketing Research Foundations**

This seminar focuses on how marketing research supports complex decisions that benefit multiple stakeholders. Students gain skills to articulate real-world marketing problems into marketing research questions, identify and critically assess managerial, conceptual, and ethical implications of a marketing research project. Topics such as translating research questions to hypotheses, sampling principles, measurement, ethical guidelines in research and best practices are covered.

#### **General Learning Objectives**

- Translate real-world marketing problems to research questions
- Explain various marketing research methods to support ethical decision making
- Identify appropriate research method(s) effectively
- Demonstrate understanding of ethical, measurement, and sampling principles in research
- Apply appropriate research method(s) effectively to problem(s) in a given context

#### **Specific Learning Objectives**

- Translate real-world marketing problems to research questions
- Develop skills and competence to review the literature
- Identify and communicate the contributions of a research project
- Introduce the value and use of different research methods in marketing research
- Understand and apply ethical principles
- Critically assess research limitations and develop future extensions
- Understand measurement principles
- Understand sampling principles
- Use findings for better decision making for individuals, organizations, and/or society

#### **Course Pedagogy**

A combination of lectures, group projects, and written assignments will be used to achieve the learning objectives. A hands-on application will be incorporated to ensure that students grasp the material and experience the different research approaches learned. The course will be taught by either one instructor familiar with the topics or by multiple instructors.

#### **Topics Covered**

Although topics covered are presented as 2 modules, however, they can be combined or taught in a different order.

*Module 1:* Research contribution and epistemology, Understanding the context: Use of literature review and secondary data, Developing research questions, Overview of research methods

*Module 2:* Components of a research proposal, Developing hypotheses, Measurement principles, Sampling decisions, Ethics in conducting research

**Prerequisites:** None

## **MSCA 679: Marketing Theory**

This course introduces students to essential theories and frameworks in significant substantive areas of marketing. As a foundational course, this course provides students with the groundwork knowledge and analytical skills that are necessary for more specialized courses. Another course objective is to introduce students to key expertise topics within the marketing department to facilitate their supervision selection. Specifically, students critically engage with areas that constitute diverse expertise within the marketing department while getting a big-picture view of the discipline.

### **Course Pedagogy**

The course will employ a hybrid model, mixing lectures with seminar-style presentations by the marketing department's faculty. Course materials will be a mix of academic articles, practitioner-oriented articles (HBR, Business Horizons), cases, and select book chapters. Faculty will also be presenting insights from their own work in order to familiarize students with their expertise, as well as the most up-to-date advances in marketing and marketing research.

The course should be ideally team-taught in order to cover a diverse range of topics. Course deliverable will be weekly (or bi-weekly) assignments from each individual instructor. The final assessment of the course will be the aggregation of these assignments' scores.

### **Learning Objectives**

- Demonstrate knowledge of core theories and substantive advances in marketing

### **Examples of Topics Covered**

- Behavioral foundations of consumer research
- Sociocultural foundations of consumer research
- Pricing and sales promotion
- Product and product innovation
- Branding
- Services marketing and experiential marketing
- Retailing and sensory marketing
- Promotion
- Marketing channels
- Social Responsibility and Sustainability in Marketing
- Business ethics

**Prerequisites:** None

***(8b) Appendix B: Letter of Support from GradPro Skills***

March 22, 2021

Kathleen Boies

Associate Dean, Research and Research Programs  
John Molson School of Business

Concordia University

**Object: Letter of support to incorporate professional development workshops into the curriculum of the Master of Science in Marketing**

Dear Dr. Boies,

GradProSkills is pleased to collaborate with the John Molson School of Business to incorporate professional development workshops as a non-credited degree requirement for the Marketing MSc.

Following multiple discussions, we are committed to increasing access and relevance to professional development workshops to students registered in the JMSB programs mentioned above as of September 2021. These workshops will optimize the students' graduate school experience and equip them to realize their professional and academic goals. Workshop topics would teach professional skills by grounding them in the academic research environment. Some examples may include project managing one's thesis, building a constructive relationship with one's supervisor, writing a literature review, conducting research ethically, and adopting digital tools to conduct data analysis and communicate effectively.

GradProSkills will coordinate with each department to select and offer the professional development workshops that best align with the program's learning objectives and pedagogical goals. We believe that this initiative leads the way in recognizing the professional needs of graduate students as part of their graduate education and constitutes an important step in helping students succeed in their careers of choice.

Please do not hesitate to contact me if you have any questions. Regards,



---

Kristy Clarke

Manager, Academic Programs and Development  
School of Graduate Studies

**Masters Marketing Research 2014**

Jan. 01, 2014 - Dec. 31, 2014

There are 21 postings available with the current filters applied.

**Active Selections**

Full year 2014 AND Nationwide AND ( ( Education : Master's degree (specified) ) AND ( Program of study : Marketing Research (specified) ) )

<b>TITLE</b>	<b>EMPLOYER</b>	<b>LOCATION</b>
Manager, Marketing Research & Marketing Services	Parmalat Canada	TORONTO, ON
Director Market Research	Scotiabank	TORONTO, ON
Manager, Marketing Research	Sobeys	MISSISSAUGA, ON
Business Analyst - Market Research	Greenwich Associates	TORONTO, ON
Manager Shopper Insights	N/A	TORONTO, ON
Manager Of Market Research	N/A	TORONTO, ON
Manager Of Market Research	N/A	TORONTO, ON
Market Research Manager	N/A	TORONTO, ON
Manager, Market Research	Ontario Lottery and Gaming Corporation	SAULT STE. MARIE, ON
Manager - Innovation & Offer Development	Irving Oil Corporation	SAINT JOHN, NB
Research & Insights Manager	Irving Oil Corporation	SAINT JOHN, NB
Hootsuite User Researcher	N/A	VANCOUVER, BC
User Researcher	Hootsuite Media	VANCOUVER, BC
Manager Shopper Insights	Ontario Lottery and Gaming Corporation	SAULT STE. MARIE, ON
Pricing Manager	Reliance Protectron Security Services	LAVAL, QC
Pricing Manager	Reliance Protectron Security Services	BOUCHERVILLE, QC
Manager, Pricing	Reliance Protectron Security Services	MONTREAL, QC
Senior Manager, Marketing Research	TD Bank	TORONTO, ON
Director - Strategic Research	GoodLife Fitness	TORONTO, ON
Director - Strategic Research	CGI Group	TORONTO, ON
Director - Strategic Research	Visa	TORONTO, ON

## Masters Marketing Research 2015

Jan. 01, 2015 - Dec. 31, 2015

There are 3 postings available with the current filters applied.

### Active Selections

Full year 2015 AND Nationwide AND ( ( Education : Master's degree (specified) ) AND ( Program of study : Marketing Research (specified) ) )

TITLE	EMPLOYER	LOCATION
Consumer Insights Associate	General Mills	MISSISSAUGA, ON
Manager Category Development & Sales Analyst	World Kitchen Incorporated	OAKVILLE, ON
Director Of Market Research	Gfk Incorporated	OTTAWA, ON



## Masters Marketing Research 2016

Jan. 01, 2016 - Dec. 31, 2016

There are 7 postings available with the current filters applied.

### Active Selections

Full year 2016 AND Nationwide AND ( ( Education : Master's degree (specified) ) AND ( Program of study : Marketing Research (specified) ) )

TITLE	EMPLOYER	LOCATION
Corporate Accountant	General Mills	MISSISSAUGA, ON
Manager, Voice Of The Customer, British	McKesson Corporation	RICHMOND, BC
Description - Manager, Voice Of The Customer, British	McKesson Corporation	RICHMOND, BC
Senior Manager, Strategy And Insights Marketing, Consumer, Shopper - Danone	Danone	BOUCHERVILLE, QC
Business Intelligence Analyst	Adt Canada Inc	MONTREAL, QC
Business Intelligence Analyst	Reliance Protectron Security Services	MONTREAL, QC
Manager Shopper Insight	Ontario Lottery and Gaming Corporation	TORONTO, ON

## Masters Marketing Research 2017

Jan. 01, 2017 - Dec. 31, 2017

There are 9 postings available with the current filters applied.

### Active Selections

Full year 2017 AND Nationwide AND ( ( Education : Master's degree (specified) ) AND ( Program of study : Marketing Research (specified) ) )

TITLE	EMPLOYER	LOCATION
Product Manager, Specialty Products	Biovail Corporation	MISSISSAUGA, ON
Senior Analyst, Customer Segmentation	TD Bank	TORONTO, ON
Supplies Business Driver Analytics - Market Share Analyst	Hewlett-Packard	VANCOUVER, BC
Senior Manager, Strategy And Insights Marketing, Consumer, Shopper - Danone	Danone	BOUCHERVILLE, QC
User Researcher	Hootsuite Media	VANCOUVER, BC
Research Manager, Igaming	Ontario Lottery and Gaming Corporation	TORONTO, ON
Research Analyst	Research Now	TORONTO, ON
Intrusion Market And Business Intelligence	Johnson Controls Incorporated	VAUGHAN, ON
Intrusion Market And Business Intelligence Senior Manager	Johnson Controls Incorporated	VAUGHAN, ON

**Masters Marketing Research last 12 months**

Apr. 01, 2018 - Mar. 31, 2019

There are 14 postings available with the current filters applied.

**Active Selections**

Last 12 months AND Nationwide AND ( ( Education : Master's degree (specified) ) AND ( Program of study : Marketing Research (specified) ) )

<b>TITLE</b>	<b>EMPLOYER</b>	<b>LOCATION</b>
Global Insights Analytics Lead	Clorox Company	BRAMPTON, ON
Global Insights Analytics Lead 9092	Clorox Company	BRAMPTON, ON
Marketing Analyst	Cascades	SAINT-BRUNO, QC
Senior Advisor Client Research And Experience Design	Banque Nationale Du Canada	MONTREAL, QC
E - Business Analyst	Ply Gem Canada	BRANTFORD, ON
Leader, Consumer & Market Insights And Foresight	Nestle USA Incorporated	TORONTO, ON
Research Analyst	Watrhub Inc	TORONTO, ON
Data Analyst	Watrhub Inc	TORONTO, ON
Senior User Researcher	Hootsuite Media	VANCOUVER, BC
Strategy & Insights Marketing Lead - Danone	Danone	MISSISSAUGA, ON
Account Development Manager	General Mills	MISSISSAUGA, ON
Director, Campaign Analytics	Shaw Communications Incorporated	TORONTO, ON
Director, Campaign Analytics	Shaw Satellite G P	TORONTO, ON
Customer Experience Specialist Renewable Contract	Bmw	TORONTO, ON

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Memorial University					
Faculty of Business Administration - Memorial					
Master of Science (MSc) in Management					
ADMISSION	FUNDING	STRUCTURE			
		General management	Human resource management/OB	Information systems	Operations management
<p>A Graduate Management Admissions Test (<u>GMAT</u>) score of at least 600.</p> <p>A Graduate Records Examinations (<u>GRE</u>) score of at least 302 will be accepted in lieu of GMAT scores</p>	<p>Each student will normally receive baseline funding (through the School of Graduate Studies) of approximately \$4,000 per year.</p>	<p>9901 – Approaches to Management Research</p> <p>9923 – Foundations in Organization Theory</p> <p>9927 – Current Issues in Organization Theory</p> <p><b>One of :</b></p> <p>8103 – Statistical Applications in Management</p> <p>9903 – Quantitative Methods in Management Research</p> <p>9904 – Qualitative Methods in Management Research</p> <p><b>2 electives</b> chosen from other graduate course(s) approved by the student's</p>	<p>9901 – Approaches to Management Research</p> <p>9920 – Foundations in Organizational Behaviour</p> <p>9921 – Foundations in Human Resources Management</p> <p>9924 – Current Issues in Organizational Behaviour</p> <p>9925 – Current Issues in Human Resources Management</p> <p><b>One of:</b></p> <p>8103 – Statistical Applications in Management</p> <p>9903 – Quantitative Methods in Management Research</p> <p>9904 – Qualitative Methods in Management Research</p>	<p>9901 – Approaches to Management Research</p> <p><b>One of:</b></p> <p>9903 – Quantitative Methods in Management Research</p> <p>9902 – Modelling Methods in Management Research</p> <p>9903 – Quantitative Methods in Management Research</p> <p>9904 – Qualitative Methods in Management Research</p> <p><b>Two of:</b></p> <p>9911 – Data and Process Models in Information Systems Development</p>	<p>9901 – Approaches to Management Research</p> <p>9910 – Optimization</p> <p><b>One of :</b></p> <p>8103 – Statistical Applications in Management</p> <p>9902 – Modelling Methods in Management Research</p> <p>9903 – Quantitative Methods in Management Research</p> <p>9904 – Qualitative Methods in Management Research</p> <p><b>One of:</b></p> <p>9912 – Probabilistic Models</p> <p>9914 – Supply Chains: Models and</p>

		supervisor	Research	<p>9913 – Human-Computer Interaction and Decision Support Systems</p> <p>9915 – Electronic Commerce</p> <p>9918 – Special Topics in Information Systems</p> <p><b>Two</b> other graduate courses approved by the student's supervisor</p>	<p>Management</p> <p>9917 – Special Topics in Operations Management</p> <p><b>Two</b> other graduate courses approved by the student's supervisor</p>
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<b>Memorial University</b>		
<b>Faculty of Business Administration - Memorial</b>		
<b>Masters of Employment Relations (MER)</b>		
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE</b>
<p>Applicants to the MER program must have successfully completed an undergraduate course in statistics, microeconomics, and one of organizational behaviour, sociology of work or labour history from an institution recognized by Senate, normally with a minimum grade of 70% in each course.</p> <p>Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) highly recommended but not required.</p>	N/A	<p>Memorial’s MER offers a joint degree program that features perspectives from both the faculties of business and humanities and social sciences.</p> <p><b>Term 1 (Fall)</b></p> <ul style="list-style-type: none"> <li>• <b>3 required courses from the following sub-groups (Table II):</b> Business (BUSI) Employment Relations (EMRE) Humanities and Social Sciences (ECON, HIST, SOCI, PSYC)</li> <li>• <b>1 elective from following sub-groups (Table III):</b> Labour-Management Relations Human Resource Management Labour Market &amp; Social Policy Analysis</li> <li>• <b>Employment Relations 6010 - Research Seminar in Employment Relations 1: Quantitative methods</b></li> </ul> <p><b>Term II (Winter)</b></p> <ul style="list-style-type: none"> <li>• Three required courses from Table II</li> <li>• One elective from Table III</li> <li>• Employment Relations 6020 Research Seminar in Employment Relations II: Qualitative Methods</li> </ul> <p><b>Term III (Spring)</b></p> <ul style="list-style-type: none"> <li>• Employment Relations 6040 Research Seminar in Employment Relations III: Applied Research Project</li> <li>• Either one elective from Table III or if required courses are remaining, one required course from Table II</li> </ul>

University of New Brunswick		
Faculty of Business Administration - UNB		
Master in Quantitative Investment Management		
ADMISSION	FUNDING	STRUCTURE
<p><b>Undergraduate degree:</b> bachelor's degree from a recognized university. Preference will be given to applicants with degrees in mathematics, statistics, computer science, science, engineering, business or economics</p> <p><b>Minimum grade:</b> B (3.0/4.3) or 70%</p> <p><b>Quantitative proficiency:</b> Minimum GMAT of 600 or equivalent GRE result and strong, recognized quantitative background</p> <p><b>Computer programming skills</b> are preferred</p> <p><b>Pre-requisite course:</b> Successful completion of a university-</p>	<p>Entrance awards, ranging from \$3,000 to \$10,000, will be granted to MQIM students based on academic merit. All applicants will be automatically considered for an entrance award when their application is reviewed for admission. No separate application is required.</p>	<p>This <b>one-year program runs from August to July</b> and consists of 24 credit hours of course work, 6 credit hours for a capstone project and two mandatory non-credit <a href="#">professional development modules</a>. Courses are taught by financial experts from both the investment industry and UNB faculty.</p> <p><b>Summer 1: August to September (3 weeks)</b></p> <ul style="list-style-type: none"> <li>• Pre-term Boot Camp (non-credit)</li> </ul> <p><b>Term 1: September to December (13 weeks)</b></p> <ul style="list-style-type: none"> <li>• Financial Data Analysis (3ch)</li> <li>• Introduction to Financial Derivatives (3ch)</li> <li>• Quantitative Portfolio Investment Management (3ch)</li> <li>• One elective (3ch)</li> <li>• Professional Development I (non-credit)</li> </ul> <p><b>Term 2: January to April (13 weeks)</b></p> <ul style="list-style-type: none"> <li>• Introduction to Fixed Income Securities and Interest Rate Derivatives (3ch)</li> <li>• Financial and Portfolio Risk Management (3ch)</li> <li>• Algorithmic Trading (3ch)</li> <li>• One elective (3ch)</li> <li>• Professional Development II (non credit)</li> </ul> <p><b>Summer 2 • May to June (6 weeks)</b></p> <ul style="list-style-type: none"> <li>• Capstone project (6ch)</li> <li>• Pre-term boot camp</li> </ul> <p>Our three-week Boot Camp provides you with basic knowledge of coding in high-level computer language, financial databases, quantitative methods, financial markets, corporate finance and accounting.</p>

level economics course		<p><b>Capstone project</b> Your MQIM program ends with an experiential exercise in which you demonstrate, apply and integrate the knowledge gained throughout your course work under the supervision of a faculty member in either a research paper or internship.</p> <p><b>Leadership and communication skills</b> In addition to the coursework, the fall and winter terms of the Master in Quantitative Investment program will include weekly professional development sessions. These hands-on training sessions will help you develop leadership skills and will include sessions on the following:</p> <ul style="list-style-type: none"> <li>• Ethics</li> <li>• Strategic career development</li> <li>• Public speaking and presentation skills</li> <li>• Certifications (Bloomberg, Excel, or other industry related software)</li> </ul> <p>The modules will also invite experts to share their knowledge about what to expect as a quantitative analyst.</p>
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<b>Université Laval</b>				
<b>Faculté des sciences de l'administration - ULaval</b>				
<b>MSc Research (with thesis)</b>				
<b>Options include:</b> accounting, international management, finance, management, marketing, operations & systems de decision, système d'information organisationnels.				
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE</b>		
<p><b>Grade et discipline</b> Être titulaire d'un baccalauréat en administration ou dans un domaine connexe.</p> <p><b>Résultats scolaires</b> Une moyenne correspondant à 3,5 sur 4,33 au 1er cycle est requise (80% ou l'équivalent selon le système de notation) pour le candidat sans expérience professionnelle.</p> <p><b>Projet et direction de recherche</b> Lors de la demande d'admission, le candidat est responsable de proposer son champ et son projet de recherche.</p> <p>La Direction de programme pourra vous accompagner dans la</p>	<p><b>Bourses d'admission de 3 000\$</b>  Elles sont remises en 2 versements à tout étudiant admis à la M. Sc. recherche en sciences de l'administration.</p> <p><b>Prime de 4 000\$</b> Elle est accordée lorsque l'étudiant dépose son mémoire en 24 mois ou moins.</p>	<b>Finance</b>	<b>Management</b>	<b>Marketing</b>
		<p>Marché des capitaux et gestion de portefeuille <b>3 crédits</b></p> <p>Produits dérivés <b>3 crédits</b></p> <p>Théorie financière <b>3 crédits</b></p> <p>Économétrie financière II <b>3 crédits</b></p> <p>Réussir 9 crédits de cours, de niveau 6000 ou 7000, avec l'approbation de la direction de programme, à l'exception de <u><a href="#">GSF-6038</a></u>. (Venture Capital)</p> <p>Activité de recherche - mémoire <b>13 crédits</b></p> <p>Activité de recherche - mémoire <b>23 crédits</b></p> <p>Activité de recherche -</p>	<p>Introduction aux méthodes de recherche qualitative en gestion <b>3 crédits</b></p> <p>Introduction aux méthodes de recherche quantitative en gestion <b>3 crédits</b></p> <p><b>6 à 9 crédits parmi liste de 15 cours</b></p> <p>Réussir 6 à 9 crédits, de niveau 6000 ou 7000, avec l'approbation de la direction de programme.</p> <p>Activité de recherche - mémoire <b>13 crédits</b></p> <p>Activité de recherche - mémoire <b>23 crédits</b></p> <p>Activité de recherche - mémoire <b>39 crédits</b></p> <p>Activité de recherche - mémoire <b>49 crédits</b></p>	<p>Introduction aux méthodes de recherche qualitative en gestion <b>3 crédits</b></p> <p>Introduction aux méthodes de recherche quantitative en gestion <b>3 crédits</b></p> <p>Méthodologie et éthique <b>3 crédits</b></p> <p><b>6 à 12 crédits parmi :</b> <u><a href="#">MRK-6082</a></u>, <u><a href="#">MRK-6088</a></u>, <u><a href="#">MRK-6091</a></u>, MRK 6092</p> <p>Réussir 0 à 6 crédits de cours, de niveau 6000 ou 7000, avec l'approbation de la direction de programme.</p> <p>Activité de recherche - mémoire <b>13 crédits</b></p> <p>Activité de recherche - mémoire <b>23 crédits</b></p>

recherche d'un professeur ayant l'expertise pour vous encadrer.		mémoire <b>39 crédits</b>  Activité de recherche - mémoire <b>49 crédits</b>		Activité de recherche - mémoire <b>39 crédits</b>  Activité de recherche - mémoire <b>49 crédits</b>
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<b>Université Laval</b>				
<b>Faculté des sciences de l'administration - ULaval</b>				
<b>MSc professionnelle</b>				
<b>Options include:</b> Développement des personnes et des organisations; finance ; Gestion des technologies de l'information; Gestion du développement international et de l'action humanitaire; Ingénierie financière; Logistique et analytique; Marketing analytique; Prise de décision immobilière				
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE</b>		
<p><b>Grade et discipline</b> Être titulaire d'un baccalauréat en administration, en sciences sociales ou dans un domaine connexe.</p> <p><b>Résultats scolaires</b> Une moyenne correspondant à 3,22 sur 4,33 au 1er cycle est requise (75% ou l'équivalent selon le système de notation).</p> <p>Le candidat dont la moyenne se situe entre 2,8 et 3,21 ou l'équivalent peut également soumettre sa candidature. Toutefois, l'admission n'est pas automatique. Après une analyse des antécédents scolaires et professionnels, la</p>	N/A	<p>Développement des personnes et des organisations*</p>	<p>Finance</p>	<p>Marketing analytique</p>
		<p>Diagnostic et conduite du changement organisationnel (3 crédits)</p> <p>Consultation dans les organisations (3 crédits)</p> <p>Habilités personnelles de gestion (3 crédits)</p> <p>Leadership (3 crédits)</p> <p>Développer sa réflexion stratégique (3 crédits)</p> <p>Identité professionnelle et gestion de carrière (3 crédits)</p> <p>Gestion des ressources humaines : pratiques et stratégies (3 crédits)</p> <p>Interventions en développement organisationnel (3 crédits)</p> <p>Intervention en milieu</p>	<p>Principes et économie de l'assurance (3 crédits)</p> <p>Marché des capitaux et gestion de portefeuille (4 crédits)</p> <p>Préparation au projet, à l'essai et au mémoire (3 crédits)</p> <p>Produits dérivés (4 crédits)</p> <p>Théorie financière (4 crédits)</p> <p>Économétrie financière I (3 crédits)</p> <p>Économétrie financière II (3 crédits)</p> <p><b>12 crédits parmi :</b> Essai 12 crédits (12 crédits) Stage d'intégration en finance (12 crédits)</p> <p><b>3 crédits parmi:</b> Investissement et financement immobiliers (3 crédits)</p> <p>Gestion et mesure des risques en immobilier (3 crédits)</p>	<p>Analytiques Web (3 crédits)</p> <p>Psychologie du consommateur (3 crédits)</p> <p>e-Marketing et gestion de la relation client (CRM) (3 crédits)</p> <p>Méthodes quantitatives en marketing (3 crédits)</p> <p>Méthodes qualitatives en marketing (3 crédits)</p> <p><b>12 crédits parmi :</b> Essai (12 crédits)</p> <p>Stage d'intégration en marketing analytique (12 crédits)</p> <p><b>15-18 crédits parmi une liste de 15 cours</b></p>



direction de programme peut prononcer une offre d'admission ou refuser la candidature.		professionnel (9 crédits)  <b>12 crédits parmi les groupes de cours suivants:</b> Gestion de talent Santé organisationnelle Gestion des enjeux stratégiques	Économie urbaine et marchés immobiliers (3 crédits)  <b>3-6 crédits parmi liste de 26 cours</b>	
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\*En cours de formation, vous pourrez demander à être membre étudiant de l'Ordre des conseillers en ressources humaines agréées (CRHA). Les diplômés de la maîtrise pourront aussi bénéficier de certains avantages pour accéder à l'examen de l'Ordre des CRHA. Le fait d'avoir 30 crédits de cours, spécifiques aux Ressources Humaines, vous aidera à l'obtention de ce titre professionnel.

**Certains cours à distance:** peut être en partie suivi à distance, ce qui vous aidera à concilier les études avec les autres sphères de votre vie.

**Certains cours en mode hybride:** une formule très flexible qui combine les avantages de l'enseignement en classe et par Internet. Les rencontres en classe sont une fois par mois ou toutes les deux semaines selon la pédagogie du cours.

**Temps complet ou partiel:** c'est vous qui décidez de votre rythme de progression dans le programme.

Université Sherbrooke				
École de gestion - USherbrooke				
Maîtrise en administration – cheminement type recherche				
6 concentrations : comptabilité, finance, gestion du commerce électronique, intervention et changement organisationnel, marketing, stratégie de l'intelligence d'affaires				
ADMISSION	FUNDING	STRUCTURE		
<p>Détenir un grade de 1<sup>er</sup> cycle en administration ou l'équivalent. Avoir obtenu une moyenne cumulative d'au moins 2,7 dans un système où la note maximale est de 4,3 ou avoir obtenu des résultats scolaires jugés équivalents.</p> <p>Concentration en finance<sup>o</sup>: les études de 1<sup>er</sup> cycle doivent inclure une concentration en finance ou l'équivalent.</p> <p>Concentration en intervention et changement organisationnel : la candidate ou le candidat dont les études de 1<sup>er</sup> cycle incluent une concentration en management, en gestion des ressources humaines</p>	<p>Bourses d'études</p> <p>Plusieurs programmes de bourses sont spécifiques au programme M.Sc. Finance.</p> <ul style="list-style-type: none"> <li>Bourses du CFA Institute : 10 bourses qui couvrent les frais d'inscription et de l'examen CFA de niveau I.</li> <li>Bourses de la Fondation Desjardins</li> </ul>	<p>Finance</p> <p>Profil : Gestion financière des entreprises</p> <p><b>Fall :</b></p> <p>ADM 891 - Activités de recherche I (3 cr.)</p> <p>FEC 810 – Fondements théoriques de la finance (3 cr.)</p> <p>FEC 822 – Analyse des décisions financières (3 cr.)</p> <p>FEC 840 – Théorie de portefeuille (3 cr.)</p> <p>FEC 860 – Séminaire de recherche appliquée (3 cr.)</p> <p>MQG 800 - Statistiques avancées (3 cr.)</p> <p><b>Winter :</b></p> <ul style="list-style-type: none"> <li>ADM 892 - Activités de recherche II (3 cr.)</li> <li>FEC 857* - Gouvernance et gestion des risques d'une organisation (3 cr.)</li> <li>FEC 874* -</li> </ul>	<p>Marketing</p> <p><b>Fall:</b></p> <p>ADM 891 - Activités de recherche I (3 cr.)</p> <p>MAR 832 - Marketing et sciences du comportement (3 cr.)</p> <p>MAR 862 - Méthodes de recherche en marketing (3 cr.)</p> <p>MAR 873* - Gestion de la marque (3 cr.)</p> <p>MAR 877 - Nouvelles tendances en théorie marketing (3 cr.)</p> <p>MQG 800 - Statistiques avancées (3 cr.)</p> <p>(*) cours à option</p> <p><b>Winter :</b></p> <p>ADM 892 - Activités de recherche II (3 cr.)</p>	<p>Intervention et changement organisationnel</p> <p><b>Fall :</b></p> <ul style="list-style-type: none"> <li>ICO 099 – Réussir à la M.Sc. ICO (2 cr.)</li> <li>ICO 811 – Fondements en changement organisationnel (3 cr.)</li> <li>ICO 812* – Habiletés d'intervention (3 cr.)</li> <li>ICO 817 – Méthodes de recherche et de diagnostic (3 cr.)</li> <li>ICO 821* – Stratégies de mobilisation (3 cr.)</li> <li>MQG 810 – Traitement statistique des données (3 cr.)</li> </ul> <p>(*) elective</p> <p><b>Winter :</b></p> <ul style="list-style-type: none"> <li>ADM 891 - Activités de recherche I (3 cr.)</li> <li>ADM 892 - Activités de recherche II (3 cr.)</li> <li>ICO 810* – Mesures de</li> </ul>

<p>ou en relations industrielles sera privilégié.</p> <p>Concentration en marketing : les études de 1<sup>er</sup> cycle doivent inclure une concentration en marketing ou l'équivalent.</p>		<p>Évaluation des entreprises (3 cr.)</p> <ul style="list-style-type: none"> <li>• FEC 876* - Gestion financière stratégique (3 cr.)</li> <li>• FEC 878* - Analyse approfondie de l'information et des décisions financières (3 cr.)</li> <li>• FIS 802* - Transfert d'entreprise et fiscalité (3 cr.)</li> </ul> <p>(* ) elective</p> <p><b>Summer:</b></p> <ul style="list-style-type: none"> <li>• ADM 893 - Activités de recherche III (3 cr.)</li> <li>• FEC 873* – Lectures dirigées en gestion financière (3 cr.)</li> <li>• MEM 800 Mémoire (15 cr.)</li> </ul> <p>(* ) elective</p>	<p>MAR 823* - Gestion de l'innovation de produit (3 cr.)</p> <p>MAR 836* - Consultation et méthodes qualitatives (3 cr.)</p> <p>MAR 851* – Contrôle d'efficacité en marketing (3 cr.)</p> <p>MAR 876* - Marketing vert (3 cr.)</p> <p>MQG 802 - Modèles statistiques multivariés (3 cr.)</p> <p>(* ) elective</p> <p>Summer :</p> <p>ADM 893 - Activités de recherche III (3 cr.)</p> <p>MAR 837* – Marketing stratégique (3 cr.)</p> <p>MAR 815* - Modèles d'aide à la décision en marketing (3 cr.)</p> <p>MEM 800 – Mémoire (15 cr.)</p> <p>(* ) elective</p>	<p>performance organisationnelle (3 cr.)</p> <ul style="list-style-type: none"> <li>• ICO 815* – Séminaire de GRH (3 cr.)</li> <li>• ICO 841* – Habiletés de formation (3 cr.)</li> <li>• ICO 861* – Interventions en développement organisationnel (3 cr.)</li> <li>• INS 754* – Intrapreneuriat et innovation dans les organisations (3 cr.)</li> </ul> <p>(* ) elective</p> <p><b>Summer :</b></p> <ul style="list-style-type: none"> <li>• ADM 893 - Activités de recherche III (3 cr.)</li> <li>• ICO 805* - Gestion des connaissances dans l'économie du savoir (3 cr.)</li> <li>• ICO 813* - Analyse de processus et gestion de projet (3 cr.)</li> <li>• MEM 800 - Mémoire (15 cr.)</li> </ul> <p>(* ) elective</p>
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Université Sherbrooke				
École de gestion - USherbrooke				
Maîtrise en administration – cheminement type recherche				
6 concentrations : comptabilité, finance, gestion du commerce électronique, intervention et changement organisationnel, marketing, stratégie de l'intelligence d'affaires				
ADMISSION	FUNDING	STRUCTURE		
<p>Détenir un grade de 1<sup>er</sup> cycle en administration ou l'équivalent. Avoir obtenu une moyenne cumulative d'au moins 2,7 dans un système où la note maximale est de 4,3 ou avoir obtenu des résultats scolaires jugés équivalents.</p> <p>Concentration en finance<sup>o</sup>: les études de 1<sup>er</sup> cycle doivent inclure une concentration en finance ou l'équivalent.</p> <p>Concentration en intervention et changement organisationnel : la candidate ou le candidat dont les études de 1<sup>er</sup> cycle incluent une concentration en</p>	<p>Bourses d'études</p> <p>Plusieurs programmes de bourses sont spécifiques au programme M.Sc. Finance.</p> <ul style="list-style-type: none"> <li>Bourses du CFA Institute : 10 bourses qui couvrent les frais d'inscription et de l'examen CFA de niveau I.</li> <li>Bourses de la Fondation Desjardins</li> </ul>	<p>Finance</p> <p>Profil : Gestion financière des entreprises</p> <p><b>Fall :</b></p> <p>ADM 891 - Activités de recherche I (3 cr.)</p> <p>FEC 810 – Fondements théoriques de la finance (3 cr.)</p> <p>FEC 822 – Analyse des décisions financières (3 cr.)</p> <p>FEC 840 – Théorie de portefeuille (3 cr.)</p> <p>FEC 860 – Séminaire de recherche appliquée (3 cr.)</p> <p>MQG 800 - Statistiques avancées (3 cr.)</p> <p><b>Winter :</b></p> <p>ADM 892 - Activités de recherche II (3 cr.)</p>	<p>Marketing</p> <p><b>Fall:</b></p> <p>ADM 891 - Activités de recherche I (3 cr.)</p> <p>MAR 832 - Marketing et sciences du comportement (3 cr.)</p> <p>MAR 862 - Méthodes de recherche en marketing (3 cr.)</p> <p>MAR 873* - Gestion de la marque (3 cr.)</p> <p>MAR 877 - Nouvelles tendances en théorie marketing (3 cr.)</p> <p>MQG 800 - Statistiques avancées (3 cr.)</p> <p><b>Winter :</b></p> <p>ADM 892 - Activités de recherche II (3 cr.)</p>	<p>Intervention et changement organisationnel</p> <p><b>Fall :</b></p> <p>ICO 099 – Réussir à la M.Sc. ICO (2 cr.)</p> <p>ICO 811 – Fondements en changement organisationnel (3 cr.)</p> <p>ICO 812* – Habiletés d'intervention (3 cr.)</p> <p>ICO 817 – Méthodes de recherche et de diagnostic (3 cr.)</p> <p>ICO 821* – Stratégies de mobilisation (3 cr.)</p> <p>MQG 810 – Traitement statistique des données (3 cr.)</p> <p><b>Winter :</b></p> <p>ADM 891 - Activités de recherche I (3 cr.)</p>

<p>management, en gestion des ressources humaines ou en relations industrielles sera privilégié.</p> <p>Concentration en marketing : les études de 1<sup>er</sup> cycle doivent inclure une concentration en marketing ou l'équivalent.</p>		<p>FEC 857* - Gouvernance et gestion des risques d'une organisation (3 cr.)</p> <p>FEC 874* - Évaluation des entreprises (3 cr.)</p> <p>FEC 876* - Gestion financière stratégique (3 cr.)</p> <p>FEC 878* - Analyse approfondie de l'information et des décisions financières (3 cr.)</p> <p>FIS 802* - Transfert d'entreprise et fiscalité (3 cr.)</p> <p><b>Summer:</b> ADM 893 - Activités de recherche III (3 cr.)</p> <p>FEC 873* – Lectures dirigées en gestion financière (3 cr.) MEM 800 Mémoire (15 cr.)</p> <p>(*) electives</p>	<p>MAR 823* - Gestion de l'innovation de produit (3 cr.)</p> <p>MAR 836* - Consultation et méthodes qualitatives (3 cr.)</p> <p>MAR 851* – Contrôle d'efficacité en marketing (3 cr.)</p> <p>MAR 876* - Marketing vert (3 cr.)</p> <p>MQG 802 - Modèles statistiques multivariés (3 cr.)</p> <p><b>Summer :</b> ADM 893 - Activités de recherche III (3 cr.)</p> <p>MAR 837* – Marketing stratégique (3 cr.)</p> <p>MAR 815* - Modèles d'aide à la décision en marketing (3 cr.)</p> <p>MEM 800 – Mémoire (15 cr.)</p> <p>(*) electives</p>	<p>ADM 892 - Activités de recherche II (3 cr.)</p> <p>ICO 810* – Mesures de performance organisationnelle (3 cr.)</p> <p>ICO 815* – Séminaire de GRH (3 cr.)</p> <p>ICO 841* – Habiletés de formation (3 cr.)</p> <p>ICO 861* – Interventions en développement organisationnel (3 cr.)</p> <p>INS 754* – Intrapreneuriat et innovation dans les organisations (3 cr.)</p> <p><b>Summer :</b> ADM 893 - Activités de recherche III (3 cr.)</p> <p>ICO 805* - Gestion des connaissances dans l'économie du savoir (3 cr.)</p> <p>ICO 813* - Analyse de processus et gestion de projet (3 cr.)</p> <p>MEM 800 - Mémoire (15 cr.)</p>
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Université Sherbrooke				
École de gestion - USherbrooke				
Maîtrise en administration – cheminement type cours				
6 concentrations : communication marketing, finance, gestion du commerce électronique, gestion internationale, gouvernance, audit et sécurité des technologies de l'information, intervention et changement organisationnel, management public, marketing, sciences comptables, stratégie de l'intelligence d'affaires.				
ADMISSION	FUNDING	STRUCTURE		
<p>Détenir un grade de 1<sup>er</sup> cycle en administration ou l'équivalent. Avoir obtenu une moyenne cumulative d'au moins 2,7 dans un système où la note maximale est de 4,3 ou avoir obtenu des résultats scolaires jugés équivalents.</p> <p>Concentration en finance°: les études de 1<sup>er</sup> cycle doivent inclure une concentration en finance ou l'équivalent.</p> <p>Concentration en intervention et changement organisationnel : la candidate ou le candidat dont les études de 1<sup>er</sup> cycle incluent une</p>	<p>Bourses d'études</p> <p>Plusieurs programmes de bourses sont spécifiques au programme M.Sc. Finance.</p> <ul style="list-style-type: none"> <li>• Bourses du CFA Institute : 10 bourses qui couvrent les frais d'inscription et de l'examen CFA de niveau I.</li> <li>• Bourses de la Fondation Desjardins</li> </ul>	<p>Finance</p> <p>Profil : <b>Gestion financière des entreprises</b></p>	Marketing	Intervention et changement organisationnel
		<p><b>Fall :</b></p> <p>FEC 810 – Fondements théoriques de la finance (3 cr.)</p> <p>FEC 822 – Analyse des décisions financières (3 cr.)</p> <p>FEC 840 – Théorie de portefeuille (3 cr.)</p> <p>FEC 860 – Séminaire de recherche appliquée (3 cr.)</p> <p>MQG 800 - Statistiques avancées (3 cr.)</p> <p><b>Winter :</b></p> <p>FEC 857 - Gouvernance et gestion des risques d'une organisation (3 cr.)</p> <p>FEC 874 - Évaluation des</p>	<p><b>Fall:</b></p> <p>MAR 832 - Marketing et sciences du comportement (3 cr.)</p> <p>MAR 862 - Méthodes de recherche en marketing (3 cr.)</p> <p>MAR 873 - Gestion de la marque (3 cr.)</p> <p>MAR 877 - Nouvelles tendances en théorie marketing (3 cr.)</p> <p>MQG 800 - Statistiques avancées (3 cr.)</p> <p><b>Winter :</b></p> <p>MAR 823 - Gestion de l'innovation de produit (3</p>	<p><b>Fall :</b></p> <p>ICO 099 – Réussir à la M.Sc. ICO (2 cr.)</p> <p>ICO 811 – Fondements en changement organisationnel (3 cr.)</p> <p>ICO 812* – Habiletés d'intervention (3 cr.)</p> <p>ICO 817 – Méthodes de recherche et de diagnostic (3 cr.)</p> <p>ICO 821 – Stratégies de mobilisation (3 cr.)</p> <p>MQG 810 – Traitement statistique des données (3 cr.)</p> <p><b>Winter :</b></p>

<p>concentration en management, en gestion des ressources humaines ou en relations industrielles sera privilégié.</p> <p>Concentration en marketing : les études de 1<sup>er</sup> cycle doivent inclure une concentration en marketing ou l'équivalent.</p>		<p>entreprises (3 cr.)</p> <p>FEC 876 - Gestion financière stratégique ( 3 cr.)</p> <p>FEC 878 - Analyse approfondie de l'information et des décisions financières (3 cr.)</p> <p>FIS 802 - Transfert d'entreprise et fiscalité (3 cr.)</p> <p><b>Summer:</b></p> <p>ADM 810 - Intervention dans le milieu (3 cr.)*</p> <p>ESS 880 - Essai (6 cr.)**</p> <p>FEC 873 – Lectures dirigées en gestion financière (3 cr.)</p> <p>FEC 879 - Risques opérationnels et contrôle de gestion</p>	<p>cr.)</p> <p>MAR 836 - Consultation et méthodes qualitatives (3 cr.)</p> <p>MAR 851 – Contrôle d'efficacité en marketing (3 cr.)</p> <p>MAR 876 - Marketing vert (3 cr.)</p> <p>MQG 802 - Modèles statistiques multivariés (3 cr.)</p> <p><b>Summer :</b></p> <p>ADM 810 - Intervention dans le milieu (3 cr.)</p> <p>ESS 880 - Essai (6 cr.)</p> <p>MAR 837 – Marketing stratégique (3 cr.)</p> <p>MAR 815 - Modèles d'aide à la décision en marketing (3 cr.)</p>	<p>ICO 810 – Mesures de performance organisationnelle (3 cr.)</p> <p>ICO 815 – Séminaire de GRH (3 cr.)</p> <p>ICO 841 – Habilités de formation (3 cr.)</p> <p>ICO 861 – Interventions en développement organisationnel (3 cr.)</p> <p>INS 754 – Intrapreneuriat et innovation dans les organisations (3 cr.)</p> <p><b>Summer :</b></p> <p>ADM 810 - Intervention dans le milieu (3 cr.)</p> <p>ESS 880 - Essai (6 cr.)</p> <p>ICO 805 - Gestion des connaissances dans l'économie du savoir (3 cr.)</p> <p>ICO 813 - Analyse de processus et gestion de projet (3 cr.)</p>
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\*ADM810 - Intervention dans le milieu

**Cible(s) de formation**

Appliquer de façon concrète et pratique certains éléments théoriques; acquérir ou développer certaines habiletés nécessaires pour intervenir efficacement en entreprise, particulièrement au niveau de la communication, de la collecte et de l'analyse de données, etc.; vivre l'expérience d'une relation étroite avec une entreprise et démontrer un comportement professionnel dans l'exercice d'un mandat précis.

**Contenu**

Variable en fonction de la concentration de l'étudiante ou de l'étudiant. L'intervention doit comporter un travail de nature professionnelle et être supervisée par une professeure ou un professeur du département concerné.

**\*\*ESS880 - Essai****Cible(s) de formation**

Planifier, rédiger et présenter un rapport sur un sujet pertinent au domaine de la concentration d'études.

**Contenu**

Proposition de travail, recherche d'information pertinente, rédaction du rapport et d'un sommaire exécutif, présentation orale. *Sans que cela soit une obligation, cet essai est l'aboutissement de l'activité ADM 810 Intervention dans le milieu.*



UQAM		
ESG		
Maîtrise par cumul		
ADMISSION	FUNDING	STRUCTURE
<p>L'étudiant qui termine le DESS en gestion et désire poursuivre un cheminement pour l'octroi de la maîtrise en administration doit faire approuver son cheminement à la direction du programme de l'École des sciences de la gestion en complétant le formulaire approprié et ce, après avoir obtenu une réponse positive à l'admission de son programme court de 2e cycle. Ainsi, l'étudiant sera assuré de l'acceptation de son cheminement et informé des exigences particulières à rencontrer pour l'octroi du grade.</p>	N/A	<ul style="list-style-type: none"> <li>• DESS en gestion (24 credits) – (equivalent to grad diploma)</li> <li>+</li> <li>• Programme court (15 credits) – (equivalent to grad certificate)</li> <li>+</li> <li>• Activité d'intégration (3 credits) – (project) :</li> </ul> <p>Dans le cadre de la réalisation d'un projet personnel, l'objectif de ce cours est d'amener les étudiants à intégrer un ensemble significatif des connaissances et des habiletés développées au cours de leur cheminement d'études menant au grade de maître en administration (M. Adm.).</p> <p>Les différentes phases du projet, incluant le dépôt de la proposition, la planification et la réalisation du projet, la rédaction et la présentation du rapport d'activité favoriseront l'arrimage des connaissances acquises durant la période de formation et le transfert des acquis dans un projet personnel. Elles permettront également à l'étudiant d'améliorer ses propres capacités d'actualiser de manière concrète ses connaissances théoriques et pratiques autant déclaratives (quoi, qu'est-ce), procédurales (comment faire) que contextuelles (quand, pourquoi).</p>

<b>UQAM</b>				
<b>ESG</b>				
<b>Maîtrise ès sciences de la gestion (MSc) - thesis</b>				
<b>6 specializations : gestion internationale, management, marketing, ressources humaines, responsabilité sociale et environnementale, stratégie</b>				
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE</b>		
Le candidat doit être titulaire d'un baccalauréat en administration (ou l'équivalent) obtenu avec une moyenne cumulative d'au moins 3,2 sur 4,3 (ou l'équivalent).  Tout candidat doit aussi avoir une formation de base dans le champ où il entend se spécialiser, formation qui pourra, au besoin, être acquise par la voie de cours d'appoint ou d'une propédeutique.	Les bourses du Vice-décanat à la recherche sont offertes aux étudiants de deuxième cycle de l'ESG UQAM, inscrits dans un profil mémoire (cours de 21 ou 24 crédits).  (5 per year)	<b>Management</b>	<b>Marketing</b>	<b>HR</b>
		Management : théorie et application (3 cr)  Management de l'innovation (3 cr)  Séminaire de méthodologie en management (3 cr)  Créativité et management (3 cr)  6 credits of electives  Projet de mémoire (3 cr)  Mémoire (21 crédits)	Méthodologie de la recherche en marketing (3 cr)  Comportement du consommateur (3 cr)  Stratégie de marketing (3 cr)  Analyse de données multivariées (3 cr)  6 credits of electives  Projet de mémoire (3 cr)  Mémoire (21 crédits)	Gestion stratégiques des ressources humaines et des stratégies de travail (3 credits)  Méthodologie de la recherche en GRH (3 credits)  12 credits of electives  Projet de mémoire (3 cr)  Mémoire (21 crédits)

Tant complet seulement pour le profil mémoire

Pour les étudiants qui bénéficient de la passerelle avec le baccalauréat, la durée des études pourrait être réduite selon le nombre de cours reconnus (maximum : trois cours ou neuf crédits).

<b>UQAM</b>				
<b>ESG</b>				
<b>Maîtrise ès sciences de la gestion (MSc) – Projet dirigé</b>				
<b>6 specializations : gestion internationale, management, marketing, ressources humaines, responsabilité sociale et environnementale, stratégie</b>				
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE</b>		
<p>Le candidat doit être titulaire d'un baccalauréat en administration (ou l'équivalent) obtenu avec une moyenne cumulative d'au moins 3,2 sur 4,3 (ou l'équivalent).</p> <p>Tout candidat doit aussi avoir une formation de base dans le champ où il entend se spécialiser, formation qui pourra, au besoin, être acquise par la voie de cours d'appoint ou d'une propédeutique.</p>	N/A	<b>Management</b>	<b>Marketing</b>	<b>HR</b>
		<p>Management : théorie et application (3 cr)</p> <p>Management de l'innovation (3 cr)</p> <p>Séminaire de méthodologie en management (3 cr)</p> <p>Créativité et management (3 cr)</p> <p>15 credits of electives</p> <p>One among the following :</p> <p>Essai (12 cr)*</p> <p>Stage une organisation (12 cr)**</p> <p>Plan d'intervention (12 cr)***</p>	<p>Méthodologie de la recherche en marketing (3 cr)</p> <p>Comportement du consommateur (3 cr)</p> <p>Stratégie de marketing (3 cr)</p> <p>Analyse de données multivariées (3 cr)</p> <p>15 credits of electives</p> <p>One among the following :</p> <p>Essai (12 cr)*</p> <p>Stage une organisation (12 cr)**</p> <p>Plan d'intervention (12 cr)***</p>	<p>Gestion stratégiques des ressources humaines et des stratégies de travail (3 credits)</p> <p>Méthodologie de la recherche en GRH (3 credits)</p> <p>Diagnostic en GRH</p> <p>18 credits of electives</p> <p>One among the following :</p> <p>Essai (12 cr)*</p> <p>Stage une organisation (12 cr)**</p> <p>Plan d'intervention (12 cr)***</p>

- **Stage dans une organisation:**

Un mandat spécifique doit être réalisé par l'étudiant qui prendra un rôle actif au sein de l'organisation où il effectue son stage. Ce mandat doit permettre la réalisation d'une intervention mettant à contribution des connaissances théoriques et pratiques. L'étudiant devra soumettre un rapport de stage présentant notamment le mandat confié ainsi que les notions théoriques et les méthodes de collecte et d'analyse des données utilisées pour réaliser le mandat. L'étudiant devra aussi présenter une analyse de l'expérience (auto-analyse critique des compétences acquises et analyse des enjeux pour l'organisation). L'étudiant trouvera le lieu du stage dans un secteur correspondant à ses intérêts. Le stage, d'une durée minimale de 420 heures (au moins 3 mois), peut être rémunéré ou non, selon l'entente conclue avec le milieu d'accueil. Le stage doit être dirigé par un professeur et approuvé par la direction du programme.

- **Projet d'intervention**

Cette activité a comme objectif l'approfondissement des connaissances dans le champ de spécialisation de l'étudiant par une mise en pratique en milieu de travail des notions acquises et des compétences développées dans le programme. Elle prend la forme d'une intervention/consultation auprès d'un organisme extérieur à l'UQAM. Le projet doit être approuvé par la direction du programme. Il sera dirigé à la fois par un professeur du département concerné et un superviseur au sein de l'organisme extérieur. Il reviendra à l'étudiant d'identifier et d'intéresser un professeur à agir comme superviseur. L'étudiant devra également trouver la firme cliente et le mandat pour réaliser son projet. Un rapport final qui inclura des notions théoriques, méthodologiques et critiques sera effectué à la fin du mandat. Le projet pourrait également faire l'objet d'une présentation orale devant le client et le directeur du projet.

- **Essai**

Cette activité a comme objectif de permettre à l'étudiant de réaliser un projet d'approfondissement des connaissances portant sur une facette particulière de son domaine de spécialisation. Il s'agit d'un ensemble intégré d'activités d'analyse, de synthèse et/ou de recherche conduisant à un rapport écrit. Une présentation orale formelle pourrait aussi être exigée. Cette activité devra être réalisée sur une période de deux trimestres consécutifs. Le projet doit être approuvé par la direction du programme. Il sera effectué sous la supervision immédiate d'un professeur régulier du département concerné par la spécialisation de l'étudiant. Il reviendra à l'étudiant d'identifier et d'intéresser ce professeur à agir comme superviseur de son essai. Contenu variable à être validé avec le directeur de recherche.

McGill		
Desautels		
Master of Management in Finance (MMF)		
ADMISSION	FUNDING	STRUCTURE
<p>Applicants are eligible to apply to the MMF program if they have a bachelor's degree and proven quantitative skills.</p> <p>All applicants—except those with a graduate or undergraduate degree from any Canadian University—must complete the GMAT or GRE.</p>	<p>MMF students at the Desautels Faculty of Management are considered for scholarships upon acceptance. If you are one of our most outstanding candidates, you may be awarded one of our growing portfolio of scholarships.</p>	<p>Module 1 : FINE 678 Financial Economics (3 Credits) FINE 680 Investments (3 Credits)</p> <p>Module 2: FINE 679 Corporate Finance Theory (3 Credits) FINE 681 International Capital Markets (3 Credits)</p> <p>Module 3: ACCT 604 Financial Statements 1 (3 Credits) FINE 682 Derivatives (3 Credits)</p> <p>Module 4: FINE 684 Fixed Income Analysis (3 credits) FINE 683 Advanced Corporate Finance (3 credits)</p> <p>Module 5: FINE 685 Market Risk Management (3 credits) FINE 688 Mergers and Acquisitions (3 credits)</p> <p>Module 6: FINE 673 Finance Fundamentals (3 credits)</p> <p>FINE 689 Integrative Finance Project <b>12 Credits</b></p> <p>Students fulfill this requirement in three overlapping stages:</p> <p><b>Desautels Capital Management Inc.</b> (August to July): Upon entry into the program, students join <u>Desautels Capital Management (DCM)</u> as analysts. DCM is a licensed and regulated asset management firm, with an independent board of directors and</p>

		<p>external investors. As analysts, students are responsible for a particular sector, identifying investment opportunities, and pitching them to colleagues. In addition, students are responsible for dealing with regulatory issues, compliance, trading and execution, back office settlement, preparation and filing of financial statements, and communication with clients.</p> <p><b>Professional Seminar Series</b> (August to March): Seminars will be held regularly to expose students to current issues and practices in financial markets. The seminars will be given by professionals from various industries, e.g. hedge funds, pension funds, tax/legal accountants, etc., and will provide unique networking opportunities.</p> <p><b>Final Project</b> (February to July): Students will work on a finance topic of their choice under the supervision of a faculty member. Throughout the project, students will have the opportunity to think independently and creatively about an important financial topic, apply their quantitative skills, and ultimately showcase marketable skillsets in an area of their interest.</p>
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<b>McGill</b>		
<b>Desautels</b>		
<b>Master of Management in Analytics (MMA)</b>		
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE</b>
<p>Applicants are eligible to apply to the MMA program if they have a bachelor's degree and proven quantitative skills.</p> <p>All applicants—except those with a graduate or undergraduate degree from any Canadian University—must complete the GMAT or GRE.</p>	<p>MMF students at the Desautels Faculty of Management are considered for scholarships upon acceptance. If you are one of our most outstanding candidates, you may be awarded one of our growing portfolio of scholarships.</p>	<p><b>Module 1 (Core 21 credits):</b></p> <ul style="list-style-type: none"> <li>• ORGB 660 Managing Data Analytics Teams (1.5 credits)</li> <li>• INSY 660 Coding Foundations for Analytics (3 credits)</li> <li>• MGSC 660 Mathematical and Statistical Foundations for Analytics (3 credits)</li> <li>• INSY 661 Database and Distributed Systems for Analytics (3 credits)</li> <li>• MGSC 661 Multivariate Statistical Analysis (3 credits)</li> <li>• INSY 662 Data Mining and Visualization (3 credits)</li> <li>• MGSC 662 Decision Analytics (3 credits)</li> <li>• ORGB 661 Ethical Leadership and Leading Change (1.5 credits)</li> </ul> <p><b>Module 2 (Electives 15 credits): choice of ten 1.5 credit-courses</b></p> <p><b>Module 3 (Experiential 9 credits):</b></p> <ul style="list-style-type: none"> <li>• BUSA 684 Analytics Study Trip (3 credits)</li> <li>• BUSA 693 Management Analytics Capstone (6 credits)</li> </ul>

**BUSA 684 Analytics Study Trip (3 credits)**

This course aims to expose students to state-of-art organisational practices in the ever-evolving field of analytics through the experience of visiting a location with a high density of analytics-related organizations (e.g., Silicon Valley, New York, Austin, Texas). Students will be required to study such practices in depth, complete a project related to organizational practice in analytics, and write a reflection paper. The course will be delivered through a combination of company visits, guest lectures of top-level executives, as well as daily student reflections.

**BUSA 693 Management Analytics Capstone (6 credits)**

The capstone project is based on real-life projects that require the use of descriptive and predictive analytics methodologies and skills. The course instructors engage with private or public sector partners to plan the real-life projects, each requiring the students to handle big data prior to the beginning of the semester. The objective of this course is to integrate the formal knowledge acquired in various courses with the demands of a complex real-world problem.

HEC				
Maîtrise en gestion (MSc) - thesis				
20 specializations : Affaires internationales ; Analyse d'affaires – technologies d'information ; Analytique d'affaires ; Commerce électronique ; Comptabilité-Contrôle-Audit ; Développement organisationnel ; Économie appliquée, Économie financière et appliquée ; Entrepreneuriat – Intrapreneuriat-Innovation ; Expérience utilisateur dans un contexte d'affaires ; Finance ; Gestion d'opérations ; Gestion des ressources humaines ; Gestion en contexte d'innovations sociales ; Ingénierie financière ; Intelligence d'affaires ; Logistique internationale ; Management ; Marketing ; Stratégie				
ADMISSION	FUNDING	STRUCTURE		
		Finance	Marketing	Management
<p>Être titulaire d'un baccalauréat en administration des affaires (B.A.A.), d'un diplôme de 1<sup>er</sup> cycle dans un domaine connexe ou d'un diplôme jugé équivalent par la direction du programme, avec une moyenne d'au moins 3,0 sur 4,3, ou la moyenne de votre université d'origine pour l'admission à un programme de 2<sup>e</sup> cycle, si celle-ci est plus élevée.</p> <p>TAGE MAGE (résultat compétitif : 300 et plus)</p> <p>GMAT (résultat compétitif : 630 et plus)</p> <p>GRE (résultats équivalents à ceux du GMAT)</p>	<p>Bourses d'admission, d'une valeur de <b>2 000 \$ à 4 000 \$</b>, sont accordées par la direction du programme de maîtrise ès sciences en gestion aux meilleurs candidats admis sur la base de l'excellence de leur dossier d'admission.</p>	<p><b>Mandatory:</b></p> <ol style="list-style-type: none"> <li>Topics in Corporate Finance</li> <li>Capital Market Theory</li> <li>Derivative Securities I</li> <li>Financial Econometrics</li> <li>Comparative Perspectives on Business Organisations</li> </ol> <p><b>Electives :</b></p> <ul style="list-style-type: none"> <li>0 to 3 credits from Bloc 1</li> <li>3 to 6 credits from Bloc 2</li> <li>0 to 3 credits from Bloc 3</li> <li>3 credits chosen within all MSc or PhD programs</li> </ul> <p><b>24 credits</b></p> <ul style="list-style-type: none"> <li>Thesis</li> <li>Préparation à la réalisation du</li> </ul>	<p><b>Mandatory :</b></p> <ul style="list-style-type: none"> <li>Méthodologie de la recherche quantitative en marketing</li> <li>Méthodologie de la recherche qualitative en marketing</li> <li>Regards croisés sur l'entreprise</li> </ul> <p><b>Electives :</b></p> <p>12 crédits parmi :</p> <ul style="list-style-type: none"> <li>Profil – recherche, analyse, conseil</li> <li>Profil – gestion du marketing</li> <li>3 credits chosen within all MSc or PhD programs</li> </ul> <p><b>24 credits</b></p> <ul style="list-style-type: none"> <li>Thesis</li> <li>Préparation à la réalisation du mémoire</li> </ul>	<p><b>Mandatory:</b></p> <ul style="list-style-type: none"> <li>Approches interdisciplinaires dans l'étude des problèmes humains de la gestion</li> <li>Management: théories et pratiques</li> <li>Introduction à la recherche empirique en management</li> <li>Regards croisés sur l'entreprise</li> </ul> <p><b>Electives :</b></p> <ul style="list-style-type: none"> <li>Bloc 1 : pratiques – 3 à 9 crédits parmi 11 cours</li> <li>Bloc 2 : contextes – 0 à 6 crédits parmi 8 cours</li> <li>3 credits chosen within all MSc or PhD programs</li> </ul> <p><b>24 credits</b></p>



		mémoire <ul style="list-style-type: none"> <li>• Atelier de recherche</li> <li>• Éthique de la recherche en gestion</li> </ul>	<ul style="list-style-type: none"> <li>• Atelier de recherche</li> <li>• Éthique de la recherche en gestion</li> </ul>	<ul style="list-style-type: none"> <li>• Thésis</li> <li>• Préparation à la réalisation du mémoire</li> <li>• Atelier de recherche Éthique de la recherche en gestion</li> </ul>
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#### COURS DE PRÉPARATION À LA SPÉCIALISATION Finance

- Mathématiques appliquées I
- Options et contrats à terme
- Introduction à l'économétrie

#### COURS DE PRÉPARATION À LA SPÉCIALISATION Marketing

- Comportement du consommateur
- Consumer Behavior
- Mandat recherche marketing

#### ACTIVITÉS FORTEMENT RECOMMANDÉES pour tous les programmes avec mémoire

- Formation documentaire
- Comment citer ses sources

HEC

**Maîtrise en gestion (MSc) – projet dirigé**

**20 specializations :** Affaires internationales ; Analyse d'affaires – technologies d'information ; Analytique d'affaires ; Commerce électronique ; Comptabilité-Contrôle-Audit ; Développement organisationnel ; Économie appliquée, Économie financière et appliquée ; Entrepreneuriat – Intrapreneuriat-Innovation ; Expérience utilisateur dans un contexte d'affaires ; Finance ; Gestion d'opérations ; Gestion des ressources humaines ; Gestion en contexte d'innovations sociales ; Ingénierie financière ; Intelligence d'affaires ; Logistique internationale ; Management ; Marketing ; Stratégie

ADMISSION	FUNDING	STRUCTURE		
		Finance	Marketing	Management
<p>Être titulaire d'un baccalauréat en administration des affaires (B.A.A.), d'un diplôme de 1<sup>er</sup> cycle dans un domaine connexe ou d'un diplôme jugé équivalent par la direction du programme, avec une moyenne d'au moins 3,0 sur 4,3, ou la moyenne de votre université d'origine pour l'admission à un programme de 2<sup>e</sup> cycle, si celle-ci est plus élevée.</p> <p>TAGE MAGE (résultat compétitif : 300 et plus)</p> <p>GMAT (résultat compétitif : 630 et plus)</p> <p>GRE (résultats équivalents à</p>	<p>Bourses d'admission, d'une valeur <b>de 2 000 \$ à 4 000 \$</b>, sont accordées par la direction du programme de maîtrise ès sciences en gestion aux meilleurs candidats admis sur la base de l'excellence de leur dossier d'admission.</p>	<p><b>Mandatory:</b></p> <ol style="list-style-type: none"> <li>6. Topics in Corporate Finance</li> <li>7. Capital Market Theory</li> <li>8. Derivative Securities I</li> <li>9. Financial Econometrics</li> <li>10. Comparative Perspectives on Business Organisations</li> </ol> <p><b>Electives :</b></p> <ul style="list-style-type: none"> <li>• 15 credits from Bloc 1, Bloc 2 or Bloc 3</li> <li>• 3 credits chosen within all MSc or PhD programs</li> <li>• 9 credits : Supervised project*</li> </ul>	<p><b>Mandatory :</b></p> <ul style="list-style-type: none"> <li>• Méthodologie de la recherche quantitative en marketing</li> <li>• Méthodologie de la recherche qualitative en marketing</li> <li>• Regards croisés sur l'entreprise</li> </ul> <p><b>Electives :</b></p> <p>27 crédits parmi :</p> <ul style="list-style-type: none"> <li>• Profil – recherche, analyse, conseil</li> <li>• Profil – gestion du marketing</li> <li>• 3 credits chosen within all MSc or PhD programs</li> <li>• 9 credits : Supervised project*</li> </ul>	<p><b>Mandatory:</b></p> <ul style="list-style-type: none"> <li>• Approches interdisciplinaires dans l'étude des problèmes humains de la gestion</li> <li>• La consultation en gestion</li> <li>• Management: théories et pratiques</li> <li>• Introduction à la recherche empirique en management</li> <li>• Regards croisés sur l'entreprise</li> </ul> <p><b>Electives :</b></p> <ul style="list-style-type: none"> <li>• Bloc 1 : pratiques – 9 à 18 crédits parmi 11 cours</li> <li>• Bloc 2 : contextes – 3 à 12 crédits parmi 8</li> </ul>

ceux du GMAT)				cours <ul style="list-style-type: none"> <li>• 3 credits chosen within all MSc or PhD programs</li> <li>• 9 credits : Supervised project*</li> </ul>
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\*Document synthèse :

[http://www.hec.ca/etudiants/mon-programme/maitrises/documents/Guide\\_PS\\_Nature\\_et\\_exigences\\_fra.pdf](http://www.hec.ca/etudiants/mon-programme/maitrises/documents/Guide_PS_Nature_et_exigences_fra.pdf)

Supervised projects can be done in an organization or at the university. There are 5 types of projects:

- In an organization: mandate d'intervention
- In the university:
  - o Writing a case study
  - o Research project
  - o Avis d'expert
  - o Project entrepreneurial

HEC		
Maîtrise en management et développement durable Maîtrise en management des entreprises culturelles ; Master of management in international arts management (IM)		
ADMISSION	FUNDING	STRUCTURE
<p>Être titulaire d'un baccalauréat en administration des affaires (B.A.A.), d'un diplôme de 1<sup>er</sup> cycle dans un domaine connexe ou d'un diplôme jugé équivalent par la direction du programme, avec une moyenne d'au moins 3,0 sur 4,3, ou la moyenne de votre université d'origine pour l'admission à un programme de 2<sup>e</sup> cycle, si celle-ci est plus élevée.</p>	<p><b>Bourses TD de recherche en environnement, développement durable et économie circulaire</b> Grâce à un généreux don de la Banque TD, l'Institut EDDEC organise un concours de bourses annuel en environnement, développement durable et économie circulaire.</p> <ul style="list-style-type: none"> <li>• <b>Montant :</b> <ul style="list-style-type: none"> <li>○ deuxième cycle : deux bourses de 7 000 \$</li> </ul> </li> </ul> <p><b>Bourse Famille Diane et Jean-Pierre Gagné</b> La bourse d'entrepreneuriat de la Famille Gagné a pour objectif de récompenser les étudiants présentant le meilleur plan d'affaires qui s'inscrit dans un esprit de développement durable. Le montant de la bourse pourrait ainsi permettre au récipiendaire de démarrer son entreprise.</p> <p><b>Montant :</b> 1 bourse de 10 000 \$ <b>Cycles :</b> 1er, 2e cycle et 3e cycle <b>Spécialisations :</b> Toutes</p>	<p>9 CRÉDITS</p> <ul style="list-style-type: none"> <li>- Développement durable et gestion : enjeux et pratiques</li> <li>- Gestion des opérations et développement durable</li> <li>- Analyse économique des enjeux environnementaux</li> </ul> <p>Electives 18 À 24 CRÉDITS</p> <ul style="list-style-type: none"> <li>- Approche marketing et enjeux de développement durable</li> <li>- Réglementation et enjeux en énergie</li> <li>- Responsabilité sociale des entreprises</li> <li>- Stage supervisé en gestion et développement durable</li> <li>- Modèles de gestion en innovation sociale</li> <li>- La chaîne de valeur de l'énergie</li> <li>- Développement durable et performance financière</li> <li>- Design stratégique de produits et services durables (UdeM)</li> </ul> <p>COURS AU CHOIX 0 À 6 CRÉDITS Cours d'un microprogramme de 2<sup>e</sup> cycle, d'un autre D.E.S.S., d'un campus international ou d'un programme de 2<sup>e</sup> cycle à HEC Montréal ou à l'UdeM autorisés par les directeurs concernés selon la liste de cours proposés.</p> <p>COURS D'INTÉGRATION 12 CRÉDITS</p> <ul style="list-style-type: none"> <li>• Séminaire d'intégration en développement durable</li> <li>• Gestion du changement stratégique</li> <li>• Projet d'intégration*</li> </ul>

\*Projet d'intégration : Projet d'intégration de fin de programme, en entreprise ou à l'université. Le projet d'intégration est un exposé écrit individuel dans le cadre d'une activité d'intégration à la fin du programme. Il correspond à six crédits et doit être réussi à l'intérieur de deux trimestres. L'étudiant a le choix d'effectuer un projet en entreprise, avec un superviseur de l'organisation, ou à l'université, avec son directeur de projet. Le projet doit permettre à l'étudiant d'approfondir et d'intégrer les connaissances acquises dans les cours, et donc être en lien direct avec la spécialisation de la maîtrise.

University of Ottawa		
Telfer School of Business		
Master of Science (MSc) in Management		
ADMISSION	FUNDING	STRUCTURE
<ul style="list-style-type: none"> <li>A four-year bachelor's (honours) degree in management (BCom), health sciences, life sciences, medicine, nursing, computer science, economics, social sciences, engineering, mathematics or a related field, or its equivalent. Non-business applicants must have a foundation in management (equivalent to a minor in business) and may be asked to complete prerequisite courses as a condition of admission;</li> <li>Minimum admission average of B+ (75%) calculated in accordance with the Graduate Studies guidelines;</li> <li>A competitive score in the Graduate Management Admission Test (GMAT). The GRE test is also accepted</li> </ul>	<p><b>Telfer Admission Scholarship</b> MSc Program (no application required) Scholarships for \$5,000 The applicant must be registered as a full-time student (foreign, Canadian citizen or permanent resident) in the MSc in Management program; outstanding potential based on the review of candidate research interest and motivation.</p> <p><b>Telfer School Research Grant (SMRG)</b> The value of the grant is a maximum of \$4,000 for a duration of up to 1.5 years. The applicant must be registered as full-time student in a research-based graduate program offered by the Telfer School of Management and be supervised by a member of the Telfer faculty. The research must lead to a thesis. RAships &amp; TAsships.</p>	<p>Specializations in: innovation management; entrepreneurship, &amp; finance</p> <p><b>Term 1 - Minimum of 3 courses (9 units):</b></p> <ul style="list-style-type: none"> <li>MGT 5100 Research Design Methodologies and the Conduct of Research (3 units)</li> <li>MGT 5300 Foundations of Management Theory (3 units)</li> <li>Elective (3 units)</li> </ul> <p><b>Term 2 - Minimum of 3 courses (9 units):</b></p> <ul style="list-style-type: none"> <li>MGT 5101 Multivariate Research Methods (3 units) <b>OR</b> MGT 5102 Qualitative Research Methods (3 units)</li> <li>Elective(s) (3 to 6 units)</li> <li>Thesis proposal in progress</li> </ul> <p><b>Term 3</b></p> <ul style="list-style-type: none"> <li>Optional research practicum (3 units) <b>OR</b> Elective</li> <li>Thesis proposal completed and approved</li> <li>Data collection</li> </ul> <p><b>Terms 4, 5, &amp; 6:</b> research and thesis defense</p> <p><b>MGT 6991 Management Research Seminar Series (MRSS) – compulsory every term until the student has attended the required total of 6 seminars</b></p>

<b>Queen's University</b>				
<b>Smith School of Business</b>				
<b>Master of Science in Management</b>				
Areas of specialization: Accounting; Analytics; Business Economics; Finance; International Business; Management Information Systems; Marketing; Organizational Behaviour; Strategy				
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE:</b> These are 12-month programs beginning in September.		
<p>1. A four year undergraduate degree with a B+ (77%) average.</p> <p>2. A mandatory GMAT test score in the 85th percentile (approximately 640), or a GRE test score of 160 Verbal Reasoning and 163 Quantitative Reasoning. In certain cases, lower test scores can be compensated for by excellence in other application areas.</p>	<p>Our MSc students receive generous funding of \$20,000. This funding is allocated from several sources, a portion of which is made up from your involvement in teaching assistantship/research assistantship employment. The majority of MSc students supplement their formal funding from the School with research and/or teaching assistantships. Graduate students are allowed to work up to an average of 10 hours week.</p>	<b>Finance</b>	<b>Marketing</b>	<b>OB</b>
		<ul style="list-style-type: none"> <li>• Introduction to Research Methodology (MGMT 801) (1,5)</li> <li>• Capital Markets, Theory and Empirics (MGMT 821) (3)</li> <li>• Microeconomic Theory (ECON 810) or Advanced Microeconomic Theory (ECON 811) (3)</li> <li>• Quantitative Methods (ECON 852) (3)</li> </ul> <p><b>Winter:</b></p> <ul style="list-style-type: none"> <li>• Econometric Methods (MGMT 890) (3)</li> <li>• Financial Economics (MGMT 923) (3)</li> <li>• Corporate Finance, Theory and Empirics (MGMT 822) (3)</li> </ul> <p><b>Summer:</b></p> <ul style="list-style-type: none"> <li>• Major Research Project (MGMT 898)</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Research Methodology (MGMT 801) (1,5)</li> <li>• Experimental Research Method Design (MGMT 803) (1,5)</li> <li>• Statistics I (MGMT 800) (3)</li> <li>• Marketing Strategy &amp; Management I(1,5)</li> <li>• Research Development I (MGMT 847) (3)</li> <li>• Consumer Behaviour I (1,5)</li> </ul> <p><b>Winter:</b></p> <ul style="list-style-type: none"> <li>• Survey Research Method Design (MGMT 804) (1,5)</li> <li>• Qualitative Research Method Design (MGMT 802) (1,5)</li> <li>• Consumer Culture Theory I (1,5)</li> <li>• Quantitative Models for Marketing I (MGMT 945) (1,5)</li> </ul> <p><b>Summer:</b></p> <ul style="list-style-type: none"> <li>• Major Research Project (MGMT 898)</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Research Methodology (MGMT 801) (1,5)</li> <li>• Experimental Research Method Design (MGMT 803) (1,5)</li> <li>• Statistics I (MGMT 800) (3)</li> <li>• Foundations of Research in Organizational Behaviour (3)</li> <li>• Seminar in Micro-Organizational Behaviour (3)</li> </ul> <p><b>Winter:</b></p> <ul style="list-style-type: none"> <li>• Survey Research Method Design (MGMT 804) (1,5)</li> <li>• Qualitative Research Method Design (MGMT 802) (1,5)</li> <li>• Seminar in Meso-Organizational Behaviour (3)</li> <li>• Advanced Topics in Organization Theory (3)</li> </ul> <p><b>Summer:</b></p> <ul style="list-style-type: none"> <li>• Major Research Project (MGMT 898)</li> </ul>

Queen's University		
Smith School of Business		
Master of Science in Management in Artificial Intelligence		
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE:</b> A 12-month program starting in September while you work. Classes on Tuesday evenings and alternate Saturdays at Smith Toronto in downtown Toronto. Plus two one-week residential sessions at Goodes Hall in Kingston.
<p>To be considered for admission to the Queen's Master of Management in Artificial Intelligence program, applicants must have an undergraduate degree from an accredited university in one of the following subjects: Mathematics, Business, Computer Science, Economics, Engineering or Science.</p> <p>A GMAT score of 650 or above. This requirement may be waived for exceptional candidates.</p> <p>Typically, a minimum of 2 years relevant work experience. Exceptional applicants without work experience may be considered.</p>	<p><b>Program Fees</b>  Domestic students: \$59,900  International students: \$79,900</p>	<p><b>Courses:</b></p> <ul style="list-style-type: none"> <li>• High-Performance Teams</li> <li>• Introduction to Management (MMAI 801)</li> <li>• Mathematics and Development Techniques for AI (MMAI 863)</li> <li>• Machine Learning and AI Technology (MMAI 869)</li> <li>• Analytical Decision Making (MMAI 861)</li> <li>• Natural Language Processing (MMAI 891)</li> <li>• Deep Learning (MMAI 894)</li> <li>• Agile Project Management for AI (MMAI 844)</li> <li>• AI Ethics and Policy (MMAI 803)</li> <li>• AI Innovation &amp; Entrepreneurship (MMAI 890)</li> <li>• AI in Marketing (MMAI 831)</li> <li>• AI in Finance (MMAI 823)</li> <li>• AI Strategy &amp; Change (MMAI 804)</li> <li>• Reinforcement Learning and Application (MMAI 845)</li> <li>• AI Capstone Project (MMAI 847)</li> </ul>

Queen's University		
Smith School of Business		
Master of Science in Management Innovation and Entrepreneurship		
ADMISSION	FUNDING	STRUCTURE: A 12 month program starting in September, individualized to meet your needs. You may complete the program at Queen's or in your home city. Offered in partnership with Queen's Faculty of Engineering and Applied Science.
<p>The admissions committee is looking for:</p> <ul style="list-style-type: none"> <li>• <b>Great Communication Skills</b></li> <li>• <b>Proven ability to execute</b></li> <li>• <b>Passion for change</b></li> </ul> <p><i>The above skills will be reviewed in your statement of purpose, video essay, reference and/or interview.</i></p> <p><b>Undergraduate Degree</b> - Successful candidates will have an undergraduate degree in any discipline, from an accredited university with good academic standing.</p> <p><b>Work Experience</b> - While prior full-time work experience is not required for the program, those interested in focusing on the corporate innovation stream should have a minimum of 2 years relevant work experience.</p>	<p>Domestic fees: <b>\$32,500</b> International: <b>\$46,575</b></p>	<p>The program provides two project paths – one for entrepreneurs and one for corporate/organizational innovators.</p> <p><b>Entrepreneur Project Path</b></p> <ul style="list-style-type: none"> <li>• <b>Option 1:</b> Start up or scale up your own venture</li> <li>• <b>Option 2:</b> Placement with a fast-rising startup organization</li> </ul> <p><b>Innovation Project Path</b></p> <p><b>Option 1:</b> Complete a project with your current employer, providing great benefit for both you and your organization</p> <p><b>Option 2:</b> Placement with an innovative organization</p> <p><b>Intensive Boot Camp Style Sessions at Smith</b> The program includes three on-campus sessions. There is a 2 week session in September (at the beginning of the program), a one week session in December, and one week in May. During these sessions you will complete six courses, each with corresponding readings and assignments.</p> <p><b>Boot camp 1 courses:</b></p> <ul style="list-style-type: none"> <li>• Creating Ventures</li> <li>• Systems and Design Thinking</li> <li>• Marketing and Selling the New Venture</li> </ul>



		<p>For the balance of Phase 1, there will be online workshops, seminars and entrepreneurial speakers. These sessions will be recorded and posted on the program portal.</p> <p>You will also complete the ideation stage, opportunity analysis and decision stage with the support of your Innovation Coach. Once you have chosen the best opportunity for your project path, you will begin work on your Industry Research Project with the expertise of an industry advisor.</p> <p><b>Boot camp 2 courses:</b></p> <ul style="list-style-type: none"> <li>• Managing Technology and Innovation</li> <li>• Innovation in Practice</li> </ul> <p>For the balance of Phase 2, there will continue to be online workshops, seminars, entrepreneurial speakers and virtual team assignments. You will also work with your coach to complete your Individual Research Project and continue to work on your Innovation Project.</p> <p><b>Boot camp 3 courses:</b></p> <ul style="list-style-type: none"> <li>• Financing the New Venture</li> <li>• Bringing it all together</li> </ul> <p>During the third boot camp, those on the Entrepreneur Project Path will have the opportunity to make their Pitch Presentation.</p> <p>Those on the Corporate Innovation Path will present their Innovation Project to the MMIE Program leadership and representatives from their organization or corporation.</p> <p>The balance of Phase 3 is dedicated to refinement and execution. Working with your mentor, you will bring your Innovation Project to fruition.</p>
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<b>Ryerson University</b>		
<b>Ted Roger's School of Management</b>		
<b>Master of Science in Management</b>		
<p>Areas of specialization: Accounting; Entrepreneurship and Strategy; Finance; Global Management Studies; Health Services Management; Hospitality and Tourism Management; Human Resources Management &amp; Organizational Behaviour; Information Technology Management; Law and Business; Marketing; Real Estate Management; Retail Management</p>		
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE:</b> These are 16-month programs beginning in September.
<p><b>BBA &amp; BComm Degrees:</b> Completion of a Business Administration, Bachelor of Commerce or equivalent business degree from a recognized institution may exempt you from foundation courses.</p> <p><b>Other Bachelor Degrees:</b> Completion of a four-year bachelor degree from a recognized institution. Foundation business courses may be required; exemptions are based on previous courses taken during your undergraduate degree.</p> <p><b>Minimum B Average:</b> 73% or above average in the final 2 years of university study, including post-graduate university programs.</p> <p><b>A GMAT / GRE is not a requirement for this program</b></p>	<p><b><i>Ted Rogers Graduate Entrance Scholarship</i></b> The criteria for a Ted Rogers Graduate Entrance Scholarship is based solely on academic excellence.</p> <p><b><i>Ted Rogers Graduate Entrance Award</i></b> The criteria for a Ted Rogers Graduate Entrance Award include academic excellence, extracurricular/community involvement, and financial need.</p> <p><b>Ryerson Graduate Fellowship (RGF) – \$10,000</b> The criteria for a Ryerson Graduate Fellowship is based solely on academic excellence for full time domestic students who have achieved a minimum of a B average in your last two years of study.</p>	<ul style="list-style-type: none"> <li>• Foundation courses, if required (up to 5 credits)</li> <li>• Term 1 (Fall) - 1 core course + 2 electives (3 credits)</li> <li>• Term 2 (Winter) - 1 core courses + 2 elective (3 credits) + Research Seminar</li> <li>• Term 3 to 4 (Spring - Fall) - Thesis (5 credits)</li> <li>• Total credits required to graduate (11 credits)</li> </ul> <p><b>Core courses:</b></p> <p>Applied research methods I (1 cr)</p> <ul style="list-style-type: none"> <li>• Applied Research Methods I Students are introduced to quantitative and qualitative research techniques, with particular emphasis on their application to the field of management.</li> </ul> <p>Applied research methods II (1 cr)</p> <ul style="list-style-type: none"> <li>• In this course, students will refine their research question, develop expertise in the specific methodology to be used for their thesis research, and will develop a research proposal.</li> </ul> <p><b>Research seminar:</b> The purpose of the research seminar course will be to expose students to research in the Ted Rogers School of Management in order to inform their understanding of management research questions and the paradigmatic approaches and methodologies employed to address them.</p>

Ryerson University		
Ted Roger's School of Management		
Master of Health Administration (Community Care)		
ADMISSION	FUNDING	STRUCTURE: 16-months program
<ul style="list-style-type: none"> <li>• Completion of a four-year undergraduate degree in a related discipline from an accredited institution. Acceptable degrees are from clinical professions (e.g., nursing), science, social sciences and/or management, and <u>must include an undergraduate course in statistics.</u></li> <li>• Minimum grade point average (GPA) of 3.00/4.33 (B) or equivalent in the last two years of study.</li> <li>• Minimum two years work experience in health care. Preference will be given to those currently employed in organizations delivering or coordinating health-care services in the community.</li> </ul>	?	<p><b>There are five core courses:</b></p> <ol style="list-style-type: none"> <li>1. <i>Comparative Health Care Policy</i></li> <li>2. <i>Strategy in the Home and Community Care Sector</i></li> <li>3. <i>Management in Home and Community Care</i></li> <li>4. <i>Information Technology for Home and Community Care</i></li> <li>5. <i>Performance in Home and Community Care</i></li> </ol> <p><b>Students have the choice of taking:</b></p> <p>Capstone A: <i>Solving a Community Care Problem</i> and <b>1 Elective</b> (selected from an approved course list and offered by other Ryerson graduate programs such as the Master of Nursing, MBA, or MScM). This project will be conducted in cooperation with providers and/or coordinators of community care.</p> <p>or</p> <p>Capstone B: <i>Major Research Paper (MRP)</i> and <i>Research and Communication for Managers</i> (in place of an elective). The MRP is an applied research report for a health services provider-partner in the community that is completed by an individual student.</p>

University of Toronto		
Rotman		
Master of Management Analytics		
ADMISSION	FUNDING	STRUCTURE: 9-months full-time
<p><b>Undergraduate Degree:</b> Four-year degree in a relevant degree such as, but not limited to, Computer Science, Statistics, Mathematics, Engineering, Physical Science, Economics or Commerce. Minimum B average required across courses in the final year but most students admitted will have a considerably higher GPA</p> <p><b>Quantitative Proficiency:</b> Evidence of a high level of proficiency (a GPA of at least 3.0) in quantitative subjects such as Calculus, Linear Algebra, and Statistics or Econometrics is required.</p> <p><b>Computational Proficiency:</b> Demonstrated proficiency in computer programming. This may be demonstrated through a minimum B average in one or more courses in Computer Science or in courses relying extensively on computer programming.</p>	<p>?</p>	<p><b>Introduction - 4 weeks</b></p> <ul style="list-style-type: none"> <li>• Analytics in Management</li> <li>• Data-based Management Decisions</li> <li>• Bootcamps (SAS/SQL, R, Python)</li> </ul> <p><b>Analytical tools &amp; techniques - 13 weeks</b></p> <ul style="list-style-type: none"> <li>• Structuring and Visualizing Data for Analytics</li> <li>• Modeling Tools for Predictive Analytics</li> <li>• Big Data Analytics</li> <li>• Tools for Probabilistic Models and Prescriptive Analytics</li> <li>• Analytics Colloquia</li> <li>• Management Analytics Practicum</li> </ul> <p><b>Managerial uses of analytics - 13 weeks</b></p> <ul style="list-style-type: none"> <li>• Improving Customer Value with Analytics</li> <li>• Analytics for Marketing Strategy</li> <li>• Analytic Insights Using Accounting and Financial Data</li> <li>• Optimizing Supply Chain Management and Logistics</li> <li>• Analytics Colloquia</li> <li>• Management Analytics Practicum</li> </ul>

University of Toronto		
Rotman		
Master of Finance (MFin)		
ADMISSION	FUNDING	STRUCTURE: 20-months program; Classes take place Wednesday evenings and alternating Saturdays (full days).
<p><b>Work Experience</b> Minimum of two years of work experience in finance or a finance-related field strongly recommended. On average applicants have five years of work experience.</p> <p><b>Undergraduate Degree</b> A minimum GPA of 3.0 or a mid-B average in the final year of a bachelor's degree from a recognized university</p> <p><b>GMAT / GRE Score</b> A GMAT or GRE score must be submitted, unless you hold one of the following: CFA Level II; OR UFE or CFE through the CA designation ; OR Candidates who graduated from the University of Toronto with high distinction ; Professional designation in Engineering (P.Eng) or Actuarial Science (ACIA or FCIA)</p>		<p><b>First Year</b></p> <p>Fall Term (September – December) RSM 4310 – Foundations of Finance RSM 4216 – Financial Reporting and Financial Statement Analysis RSM 4317 – Analysis of Fixed Income Markets Derivatives Review and Assessment (online)</p> <p>Winter/Spring Term (January – April) RSM 4319 – Forecasting Risk and Opportunities for Financial Securities RSM 4220 – Advanced Accounting Topics for Finance RSM 4322 – Applications of Derivatives Products</p> <p>Summer Term (April – June) RSM 4315 - Investment Banking and Corporate Valuation RSM 4113 – Macro Economics for Finance Professionals</p> <p><b>Second Year</b></p> <p>Fall Term (September – December) RSM 4314 – Risk Management and Financial Institutions Innovations in Finance RSM 4323 – Investments RSM 4318 – Applied Portfolio Management (1st Half)</p> <p>Winter/Spring Term (January – April) RSM 4318 – Applied Portfolio Management (2nd Half) / Capstone</p>

University of Toronto		
Rotman		
Master of Financial Risk Management		
ADMISSION	FUNDING	STRUCTURE: 8-months program
<p><b>Undergraduate Degree:</b> Minimum B average required across courses in the final year but most students admitted will have a considerably higher GPA</p> <p><b>Quantitative Proficiency:</b> Evidence of a high level of proficiency in quantitative subjects such as Calculus, Linear Algebra, Statistics and Econometrics is required</p> <p><b>Prerequisite Courses:</b> Foundations of Finance, Financial Accounting, Financial Derivatives, Investments</p>	<p>Domestic Student Fee: \$44,280 International Student Fee: \$61,880</p> <p><b>GRI Entrance Awards</b> ranging from <b>\$2,500 to \$15,000</b> are available. You will be considered automatically for an entrance award when your application is reviewed for admission.</p>	<p>September to November, five courses</p> <ul style="list-style-type: none"> <li>• Market Risk</li> <li>• Financial Markets, Risk and Institutions</li> <li>• Regulation of Financial Institutions</li> <li>• Operational Risk</li> <li>• Probabilistic Modeling for Risk-Informed Decisions</li> </ul> <p>December to January: Risk Management Project*</p> <p>February to April, five courses:</p> <ul style="list-style-type: none"> <li>• Credit Risk</li> <li>• Macroeconomics for Financial Risk Management Professionals</li> <li>• Derivative Models for Risk Management</li> <li>• Advanced Investments</li> <li>• Risk Management for Pension Funds and Insurance Companies</li> </ul> <p>*During the two-month project, you will be taken out of the classroom and into industry where you will work alongside practicing risk management professionals. The project suggestions come from industry and focus on topics that are relevant to them. Every student is guaranteed a project. Typically projects are conducted in teams of two.</p> <p><b>Self-Development Lab (SDL)</b> Sessions in small groups help to develop your communication, professional and interpersonal skills. The feedback-based learning style allows you to improve your skills immediately and serves to complement your theoretical learning in the classroom.</p>

York University		
Schulich		
Master of Management (MMgt): 12 months – September entry only		
ADMISSION	FUNDING	STRUCTURE:
<p>An undergraduate degree from a recognized post-secondary institution, <b>in a non-business field of study</b>, with a minimum B+ average in the last two full years (or equivalent) of academic work.</p> <p>Work Experience is not required. Applicants <b>may not</b> have more than two years of full-time work experience.</p> <p>Applicants are <b>NOT</b> required to take the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE).</p>	<p>Domestic fees: \$29,800</p> <p>International students: \$54,100</p>	<p><b>Term 1 - Fall</b>  <a href="#">MSTM 5000 3.00</a> BUSINESS COMMUNICATION AND TEAM DYNAMICS  <a href="#">MSTM 5050 3.00</a> BUSINESS AND SUSTAINABILITY  <a href="#">MSTM 5030 3.00</a> APPLIED MACROECONOMICS  <a href="#">ACTG 5100 3.00</a> FINANCIAL ACCOUNTING FOR MANAGERS  <a href="#">MSTM 5060 3.00</a> MANAGERIAL DECISION ANALYSIS</p> <p><b>Term 2 - Winter</b>  <a href="#">ORGS 5100 3.00</a> ORGANIZATIONAL BEHAVIOUR  <a href="#">MSTM 5300 3.00</a> STRATEGIC THINKING  <a href="#">MSTM 5220 3.00</a> MANAGERIAL FINANCE  <a href="#">MKTG 5200 3.00</a> MARKETING MANAGEMENT  <a href="#">MSTM 5210 3.00</a> DESIGN AND MANAGEMENT OF ORGANIZATIONAL PROCESSES</p> <p><b>Term 3 - Summer</b>  <a href="#">MSTM 5260 3.00</a> MANAGERIAL ACCOUNTING  <a href="#">MSTM 6000 3.00</a> ENTERPRISE CONSULTING PROJECT            + Three 6000 level electives (9.00 credits) chosen from a limited list of electives selected annually by the Program Committee from among approved Schulich MBA electives</p>

In addition to the curriculum requirements outlined below, the MMgt program is preceded by the following mandatory pre-start program:

- Satisfactory completion of online course modules in Accounting, Economics, Mathematics and Finance by [AnyPrep.com](#).
- Satisfactory completion of Schulich's [Flying Start](#) program, a series of on-campus prep modules that provide foundational instruction in core areas such as Quantitative Methods, Accounting, Finance and Case Analysis. Flying Start offerings and requirements are subject to change, and will be communicated to students well before the start of term.

York University		
Schulich		
Master of Finance (MF)		
ADMISSION	FUNDING	STRUCTURE: 12 months – August entry only
<p>An undergraduate degree from a recognized post-secondary institution with a minimum B+ average in the last two full years (or equivalent) of academic work.</p> <p>Prerequisite courses in Calculus (I &amp; II), Economics (Micro &amp; Macro) and Statistics taken at the undergraduate level.</p> <p>Graduate Management Admission Test (<a href="#">GMAT</a>) or Graduate Record Examination (<a href="#">GRE</a>)</p> <p>Post degree work experience is recommended but not required</p>	<p>Domestic fees: \$59,800</p> <p>International students: \$76,400</p>	<p><b>August</b>  <a href="#">MFIN 5100 3.00</a> CAPITAL MARKETS</p> <p><b>Fall</b>  <a href="#">ACTG 6130 3.00</a> INTERMEDIATE FINANCIAL ACCOUNTING FOR FINANCE MAJORS  <a href="#">FINE 6310 3.00</a> ECONOMETRICS OF FINANCIAL MARKETS  <a href="#">MFIN 5000 0.00</a> RESEARCH SEMINAR SERIES  <a href="#">MFIN 5050 0.00</a> PROFESSIONAL SEMINAR SERIES  <a href="#">MFIN 5200 3.00</a> FINANCIAL MANAGEMENT AND VALUATION  <a href="#">MFIN 5600 3.00</a> INSTITUTIONAL WEALTH MANAGEMENT</p> <p><b>Winter</b>  <a href="#">MFIN 5000 0.00</a> RESEARCH SEMINAR SERIES  <a href="#">MFIN 5050 0.00</a> PROFESSIONAL SEMINAR SERIES  <a href="#">FINE 6800 3.00</a> OPTIONS, FUTURES &amp; OTHER DERIVATIVE SECURITIES</p> <p><b>Summer</b>  <a href="#">MFIN 5500 3.00</a> ANALYSIS STRUCTURED PRODUCTS USING EXCEL  <a href="#">MFIN 5700 1.50</a> CORPORATE GOVERNANCE AND SECURITIES LAW  <a href="#">MFIN 5800 3.00</a> FINANCIAL RISK MANAGEMENT  <a href="#">MFIN 5900 1.50</a> ETHICAL DECISION-MAKING FOR FINANCE PROFESSIONALS</p> <p><b>Stream Options</b>  To complete the following streams, students must complete the following additional courses (listed per term).</p> <p><b>Capital Markets</b>  <b>Winter</b>  <a href="#">MFIN 5300 3.00</a> INVESTMENT BANKING</p>



		<p> <a href="#">MFIN 5400 3.00</a> FIXED INCOME SECURITIES  <a href="#">ENTR 6910 3.00</a> VENTURE CAPITAL AND PRIVATE EQUITY  <b>Summer</b>  <a href="#">FINE 6600 3.00</a> CORPORATE FINANCIAL ANALYSIS </p> <p> <b>Financial Risk Management</b>  <b>Winter</b>  <a href="#">MATH 6910 3.00</a> STOCHASTIC CALCULUS IN FINANCE  <a href="#">FINE 6600 3.00</a> CORPORATE FINANCIAL ANALYSIS  <a href="#">FNEN 6850 3.00</a> FIXED INCOME SECURITIES </p> <p> <b>Summer</b>  <a href="#">FNEN 6820 3.00</a> ADVANCED DERIVATIVE SECURITIES </p>
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Along with required core courses, students will concurrently take a pair of Research Seminar Series courses (MFIN 5000 and MFIN 5050) during the Fall and Winter terms.

York University		
Schulich		
Master of Management (MMKG)		
ADMISSION	FUNDING	STRUCTURE: 12 months
<p>An undergraduate degree from a recognized post-secondary institution, with a minimum B+ average in the last two full years (or equivalent) of academic work.</p> <p>Work Experience is not required, but strong internships or prior work experience is recommended.</p> <p>Applicants are NOT required to take the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE).</p>	<p>Domestic fees: \$39,960</p> <p>International students: \$76,400</p>	<p><b>Term 1 (Fall)</b></p> <p><a href="#">MSTM 5000 3.00</a> BUSINESS COMMUNICATION AND TEAM DYNAMICS</p> <p><a href="#">MGMT 5100 3.00</a> BUSINESS DECISION MAKING</p> <p><a href="#">MKTG 5200 3.00</a> MARKETING MANAGEMENT</p> <p><a href="#">MKTG 6050 3.00</a> MARKETING RESEARCH</p> <p><a href="#">MKTG 6560 3.00</a> DIGITAL MARKETING STRATEGY</p> <p><b>Term 2 (Winter)</b></p> <p><a href="#">ACTG 5200 3.00</a> FINANCIAL DECISIONS FOR MANAGERS</p> <p><a href="#">MKTG 6000 3.00</a> MARKETING FIELD PROJECT 1: STRATEGY</p> <p><a href="#">MKTG 6140 3.00</a> CONSUMER INSIGHTS</p> <p><a href="#">MKTG 6230 3.00</a> NEW TOPICS IN DIGITAL MARKETING</p> <p><a href="#">MKTG 6370 3.00</a> MARKETING ANALYTICS</p> <p><b>Term 3 (Summer)</b></p> <p><a href="#">MGMT 6810 3.00</a> CREATIVITY &amp; INNOVATION: TECHNIQUES FOR A RAPIDLY CHANGING WORLD</p> <p><a href="#">MKTG 6001 3.00</a> MARKETING FIELD PROJECT 2: IMPLEMENTATION</p> <p><a href="#">MKTG 6550 3.00</a> BRAND MANAGEMENT</p> <p><a href="#">MKTG 6570 3.00</a> STRATEGIC PROFESSIONAL SELLING</p>

Mandatory pre-start program: Satisfactory completion of online course modules in Accounting, Finance and Statistics by [AnyPrep.com](http://AnyPrep.com).

Schulich also offers the following Masters:

Master of Accounting (MAcc)

Master of Business Analysis (MBAN)

Master of Real Estate and Infrastructure (MREI)

Master in Supply Chain Management (MSCM)

<b>Brock University</b>			
<b>Goodman</b>			
<b>Master of Science in Management</b>			
Areas of specialization: Accounting; Finance; Operations & Information Systems Management; Marketing; Organization Studies			
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE:</b> 2 years, full-time	
<p>Four year bachelor's degree (Canadian equivalent) from an accredited university</p> <p>B+/First Class/78 per cent academic average in last two years of undergraduate study (Canadian equivalent)</p> <p>Minimum GMAT score of at least 550 or a minimum GRE score in the 60th percentile</p>	<p>Estimated Total Program Funding Package:</p> <p>Canadians, total per program (5 terms): \$28,652</p> <p>International students, total per program (5 terms): \$39,485</p>	<b>Finance Stream</b>	<b>Marketing</b>
		<p><b>Fall (Term 1)</b></p> <ul style="list-style-type: none"> <li>MSCM 5P03 Empirical Finance I</li> <li>MSCM 5N01 Research Seminar I</li> <li>MSCM 5P41 Theory of Capital Markets</li> <li>1 half credit graduate elective (normally ECON 5P03: Econometrics)</li> </ul> <p><b>Winter (Term 2)</b></p> <ul style="list-style-type: none"> <li>MSCM 5P04 Empirical Finance II</li> <li>MSCM 5N02 Research Seminar II</li> <li>Two of 6 courses</li> </ul> <p><b>Summer (Term 3)</b></p> <ul style="list-style-type: none"> <li>MSCM 5P90 Thesis Research Proposal</li> </ul> <p><b>Fall (Term 4)</b></p> <ul style="list-style-type: none"> <li>MSCM 5F90 Thesis in Management</li> <li>MSCM 5N03 Research Seminar III</li> </ul> <p><b>Winter (Term 5)</b></p> <ul style="list-style-type: none"> <li>MSCM 5F90 Thesis in Management</li> <li>MSCM 5N04 Research Seminar IV</li> </ul>	<p><b>Fall (Term 1)</b></p> <ul style="list-style-type: none"> <li>MSCM 5P01 Research Methodology I</li> <li>MSCM 5N01 Research Seminar I</li> <li>MSCM 5P61 Current Issues in Marketing Theory</li> <li>One of 6 courses</li> </ul> <p><b>Winter (Term 2)</b></p> <ul style="list-style-type: none"> <li>MSCM 5P02 Research Methodology II</li> <li>MSCM 5N02 Research Seminar II</li> <li>MSCM 5P62 Consumer Behaviour and Behavioural Decision Theory</li> <li>1 half credit graduate elective</li> </ul> <p><b>Summer (Term 3)</b></p> <ul style="list-style-type: none"> <li>MSCM 5P90 Thesis Research Proposal</li> </ul> <p><b>Fall (Term 4)</b></p> <ul style="list-style-type: none"> <li>MSCM 5F90 Thesis in Management</li> <li>MSCM 5N03 Research Seminar III</li> </ul> <p><b>Winter (Term 5)</b></p> <ul style="list-style-type: none"> <li>MSCM 5F90 Thesis in Management</li> <li>MSCM 5N04 Research Seminar IV</li> </ul>

<b>Brock University</b>		
<b>Goodman</b>		
<b>Master of Accounting (MAcc)</b>		
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE:</b> Brock's MAcc CPA Pathway will allow you to complete all the required courses and modules for the CPA designation. Upon graduation from the proposed MAcc CPA Pathway, graduates will proceed directly to the CFE.
<p>Four year Goodman bachelor's degree in Accounting (BAcc) or an approved four year bachelor's degree completed in Accounting, in Canada, that fulfills the equivalent CPA Ontario 51 credit hour prerequisites</p> <p>Minimum 75 per cent academic average in the last two years of undergraduate degree</p> <p>Minimum 75 per cent academic average in key accounting prerequisite courses (with no grade below 60)</p>	<p>Total estimated costs for domestic students: \$13,117 (with co-op)</p> <p>For international students: \$30,925 (with co-op)</p>	<p><b>Winter (Term 1)</b></p> <ul style="list-style-type: none"> <li>MAcc 5P21 Strategic Performance Management CPA Elective Module: Performance Management</li> <li>MAcc 5P41 Advanced Topics in Tax CPA Elective Module: Tax Required for Public Accounting Candidates</li> <li>MAcc 5P71 Advanced Topics in Assurance CPA Elective Module: Assurance Required for Public Accounting Candidates</li> <li>MAcc 5P91 Advanced Topics in Corporate Finance CPA Elective Module: Finance 1 Elective Pick from available MBA options</li> </ul> <p><b>Spring (Term 2)</b></p> <ul style="list-style-type: none"> <li>MAcc 5P51 REA Modeling and XBRL for Financial Reporting</li> <li>MAcc 5P61 Corporate Governance</li> <li>MAcc 5P11 Integration and Team Management CPA Capstone 1: Integration</li> <li>MAcc 5P12 Integration and Analysis CPA Capstone 2: Examination Preparation 1 Elective Pick from available MBA options</li> </ul> <p><b>Optional 4 month co-op work term starting in Fall (Term 3)</b></p>

<b>University of Guelph</b>			
<b>College of Business and Economics - Guelph</b>			
<b>Master of Management</b>			
Areas of specialization: Accounting; Management Research			
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE</b>	
<p>Applicants must have completed a four-year honours undergraduate degree with a minimum 2nd class (70%) (or its equivalent), from a recognized postsecondary institution</p> <p>The GRE or GMAT is <b>not</b> a requirement for the MA Management program or Accounting stream</p> <p>For the Accounting stream, applicants must have completed the required <a href="#">CPA Preparatory Courses</a></p>	<p>?</p> <p>N/A</p>	<b>Accounting</b>	<b>Management Research – length 4 terms</b>
		<p>Students are required to take 8 courses (4.0 credits) plus the major research project (1.0 credit).</p> <ul style="list-style-type: none"> <li>• ACCT*6100 [0.50] Integrated Cases I</li> <li>• ACCT*6200 [0.50] Integrated Cases II</li> <li>• ACCT*6300 [0.50] Taxation</li> <li>• ACCT*6400 [0.50] Performance Management</li> <li>• ACCT*6500 [0.50] Assurance</li> <li>• ACCT*6600 [0.50] Financial Management</li> <li>• Other courses from the Department of Management with permission from the Graduate Program Coordinator.</li> </ul> <p><b>Restricted Electives</b></p> <ul style="list-style-type: none"> <li>• One quantitative research methods course (0.5 credits) with permission <b>OR</b></li> <li>• One qualitative research methods course (0.5 credits) with permission</li> <li>• MGMT 6500 [1.00] Major Research Project</li> </ul>	<p>Students are required to take 8 courses (4.0 credits) plus the major research project (1.0 credit).</p> <ul style="list-style-type: none"> <li>• MGMT*6100 [0.50] Evidence Based Management Research</li> <li>• MGMT*6200 [0.50] Leadership Assessment and Development Fields Management Research</li> <li>• MGMT*6300 [0.50] Business Consulting</li> <li>• MGMT*6400 [0.50] Project Management</li> <li>• BUS*6800 [0.50] Readings in Leadership I</li> <li>• BUS*6810 [0.50] Readings in Leadership II</li> <li>• BUS*6820 [0.50] Readings in Management</li> <li>• BUS*6840 [0.50] Foundational Theories of Management</li> </ul> <p><b>Restricted Electives</b></p> <ul style="list-style-type: none"> <li>• One quantitative research methods course (0.5 credits) with permission <b>OR</b></li> <li>• One qualitative research methods course (0.5 credits) with permission</li> <li>• MGMT 6500 [1.00] Major Research Project</li> </ul>

University of Guelph																													
College of Business and Economics - Guelph																													
MSc Marketing and Consumer Studies																													
ADMISSION	FUNDING	STRUCTURE: 2 fields (marketing & consumer studies)																											
<ul style="list-style-type: none"> <li>A four-year honours degree program (or equivalent)</li> <li>At least a B average in the final two years of your undergraduate program</li> <li>An academic background in consumer studies, the social sciences or humanities, or business programs such as marketing, finance, or real estate</li> <li>Acceptable GRE (minimum requirement 60th percentile) or GMAT scores (minimum requirement 600)</li> </ul>	?	<p>The departmental core is required of all graduate students in the Department of Marketing and Consumer Studies. It contains a minimum of 6 half credits (3.0 full credits) in total, and enrolment in the marketing and consumer studies department seminar (<u>MCS*6950</u>) for each semester of full-time graduate study. The program consists of:</p> <p>FALL SEMESTER:</p> <table> <tr> <td><u>MCS*6000</u></td> <td>[0.50]</td> <td>Consumption Behaviour Theory I</td> </tr> <tr> <td><u>MCS*6050</u></td> <td>[0.50]</td> <td>Research Methods in Marketing and Consumer Studies</td> </tr> <tr> <td><u>MCS*6100</u></td> <td>[0.50]</td> <td>Marketing Theory</td> </tr> <tr> <td><u>MCS*6950</u></td> <td>[0.00]</td> <td>Marketing &amp; Consumer Studies Seminar</td> </tr> </table> <p>WINTER SEMESTER:</p> <table> <tr> <td><u>MCS*6060</u></td> <td>[0.50]</td> <td>Multivariate Research Methods</td> </tr> <tr> <td><u>MCS*6080</u></td> <td>[0.50]</td> <td>Qualitative Research Methods</td> </tr> <tr> <td><u>MCS*6950</u></td> <td>[0.00]</td> <td>Marketing &amp; Consumer Studies Seminar</td> </tr> </table> <p>* 1 of the following restricted electives</p> <p><b>Electives</b></p> <table> <tr> <td><u>MCS*6010</u></td> <td>[0.50]</td> <td>Consumption Behaviour Theory II</td> </tr> <tr> <td><u>MCS*6120</u></td> <td>[0.50]</td> <td>Marketing Management</td> </tr> </table>	<u>MCS*6000</u>	[0.50]	Consumption Behaviour Theory I	<u>MCS*6050</u>	[0.50]	Research Methods in Marketing and Consumer Studies	<u>MCS*6100</u>	[0.50]	Marketing Theory	<u>MCS*6950</u>	[0.00]	Marketing & Consumer Studies Seminar	<u>MCS*6060</u>	[0.50]	Multivariate Research Methods	<u>MCS*6080</u>	[0.50]	Qualitative Research Methods	<u>MCS*6950</u>	[0.00]	Marketing & Consumer Studies Seminar	<u>MCS*6010</u>	[0.50]	Consumption Behaviour Theory II	<u>MCS*6120</u>	[0.50]	Marketing Management
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University of Waterloo		
School of Accounting and Finance - Waterloo		
Master of Taxation		
ADMISSION	FUNDING	STRUCTURE: full-time or part-time - program offered in downtown Toronto
<p>A four-year honours undergraduate degree or equivalent with a B (75%) minimum overall average. International students must have a four-year honours undergraduate degree or equivalent with a B (75%) minimum overall average from one of the recognized universities listed on the International Association of Universities web site.</p> <p>A three-year degree, or equivalent, with at least a B (75%) average, 8 years of Canadian tax-related work experience showing career advancement and a Graduate Management Admission Test (GMAT) score of at least 550, or an equivalent Graduate Record Examination (GRE) score using Educational Testing Service (ETS)'s Graduate Record Examinations (GRE) Comparison Table for Business Schools.</p>	<p><b>Entrance Scholarship</b> is awarded to a limited number of incoming full-time students whose past achievements demonstrate academic excellence. <b>\$3,500</b></p> <p><b>Awards at graduation</b> While in the program, those students who excel among their peers have the opportunity to be recognized through awards of distinction presented to winning candidates at graduation. <a href="#">Donald and Geraldine Beam Award</a> <a href="#">Canadian Tax Foundation Scholar Award</a> <a href="#">Canadian Tax Foundation National Conference Award</a></p>	<p><b>Term 1 - September to December</b> TAX 619 <a href="#">Taxation of Corporations</a> 0.5 TAX 620 <a href="#">Introduction to Business Structuring</a> 0.5 TAX 616 <a href="#">Tax Research &amp; Statutory Interpretation</a> 0.5 TAX 614 <a href="#">An Introduction to the Accounting for Income Taxes</a> 0.5</p> <p><b>Work term - January to April</b></p> <p><b>Term 2 - May to August</b> TAX 627 <a href="#">International Tax I</a> 0.5 TAX 625 <a href="#">Tax Policy</a> 0.5 TAX 628 <a href="#">Tax Planning for the Owner-Manager and Executive</a> 0.5 TAX 629 <a href="#">Tax Risk Management</a> 0.5</p> <p><b>Work term - September to December</b></p> <p><b>Term 3 - January to April</b> TAX 637 <a href="#">International Tax II</a> 0.5 TAX 638 <a href="#">Master's Research Paper</a> 0.5 TAX 636 <a href="#">Estate &amp; Retirement Planning</a> 0.5 TAX 626 <a href="#">Business Structuring</a> 0.5</p> <p>As a full-time Master of Taxation (MTax) student, you have the opportunity to spend two terms during the program working in a tax environment. The level of pay during these practice terms will depend on market forces at the time and the experience of the particular student.</p>

University of Waterloo		
School of Accounting and Finance - Waterloo		
Master of Quantitative Finance (MQF)		
ADMISSION	FUNDING	STRUCTURE: Thesis or Research paper option
<p>GMAT and/or GRE scores are not required since we have our own entrance test.</p> <p>We expect our students to have a solid background in mathematics. At the minimum this will include at least the following:</p> <ul style="list-style-type: none"> <li>• Three undergraduate courses in calculus and one course in real analysis</li> <li>• Two undergraduate courses in algebra</li> <li>• Two introductory courses in statistics and probability plus two advanced courses</li> </ul> <p>We recommend a working knowledge of at least one programming language. In the program we provide a series of professional workshops to learn different operating systems and different programming environments such as Excel, VBA, C++, Matlab, etc. In their course work students typically use R, Matlab and C++.</p>	<p>The program does not provide financial support to students.</p>	<p>The Master of Quantitative Finance (MQF) program focuses on the fundamental disciplines of mathematics, statistics, econometrics, computer science and finance.</p> <p>The internship is an optional component in the program. However the Program Coordinator provides assistance to students in networking with companies in the financial industry.</p> <p><b>Thesis option:</b> Four courses including Finance 1 and 2 and two other courses selected in consultation with their faculty advisor + Thesis</p> <p><b>Research paper option:</b> <b>First term</b> Finance 1: Foundations of Finance. STAT 901: Theory of Probability 1 STAT 850: Estimation and Hypothesis Testing</p> <p><b>Second term</b> Finance 2: Asset Pricing, Theory and Practice STAT 902: Theory of Probability 2 Elective Course</p> <p><b>Third term</b> Possible internship in the financial industry</p> <p><b>Fourth term</b> Finance 3 – Current Topics in Finance Financial Econometrics Computer Intensive Methods for Stochastic Models in Finance</p>



<b>Western University</b>			
<b>Ivey</b>			
<b>MSc in Management</b>			
<b>Streams:</b> Business Analytics; MSc in International Business; MSc in International Business + Master from Norwegian School of Economics (NHH); MSc in International Business with CEMS Master in Management (MIM)			
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE: 16 months program, no thesis</b>	
<p>An undergraduate degree received within the past two years</p> <p>A <a href="#">strong academic history with a B average</a> achieved during the two most recent years of academic study</p> <p>A competitive GMAT or GRE score.</p> <p>CEMS MIM stream a high level of fluency <a href="#">in a minimum of two languages from the approved CEMS languages</a>.</p>	<p><b>Richard Ivey MSc Excellence</b> Awards: \$20,000, these awards are available to outstanding candidates.</p> <p><b>Financial Need Awards:</b> \$20,000, these awards are available to candidates who indicate a significant financial need in their online application. Not all applicants who request a Financial Need Award will receive funding.</p>	<p><b>MSc International Business OR MSc International Business + CEMS MIM</b></p>	<p><b>MSc International Business + NHH Dual degree</b></p>
		<p>Jan-April Core Courses <a href="#">Cross Cultural Management</a> <a href="#">Internationalization</a> <a href="#">Business Communications</a></p> <p>May-Aug Ivey <a href="#">Global Lab</a> 8-week summer practicum <b>OR</b> CEMS-MIM 8-week international internship requirement.</p> <p>Sep-Dec Core Course <a href="#">Global Strategy</a> 3 Elective Courses chosen from a list of 13</p> <p>Jan-Apr Core Course <a href="#">Joint Ventures and Alliances</a> 2 Elective Courses Two electives chosen from a list of 13 <b>OR</b> All CEMS students go on Exchange during this term.</p>	<p><b>Jan-April</b> Core Courses <a href="#">Cross Cultural Management</a> <a href="#">Internationalization</a> <a href="#">Business Communications</a></p> <p><b>May-Aug</b> Ivey <a href="#">Global Lab</a></p> <p>Terms 3 and 4 studying at NHH.</p> <p>At the end, you graduate with an MSc in International Business from Ivey, and second masters degree from NHH in:</p> <ul style="list-style-type: none"> <li>• Economics</li> <li>• Energy, Natural Resources, and the Environment</li> <li>• Finance</li> <li>• International Business</li> <li>• Marketing and Brand Management</li> <li>• New Business Development</li> <li>• Strategic Management</li> <li>• Business Analytics (Minor)</li> </ul> <p>The NHH portion of your MSc experience includes a mandatory research-based thesis.</p>

Western University		
Ivey		
MSc in Management Business Analytics Stream		
ADMISSION	FUNDING	STRUCTURE: 16 months program, no thesis- Business Analytics
<p>An undergraduate degree received within the past two years</p> <p>A <a href="#">strong academic history with a B average</a> achieved during the two most recent years of academic study</p> <p>An undergraduate degree in engineering, science, computer science, statistics, mathematics, or economics with emphasis on quantitative analysis.</p> <p>Strong course work in: Calculus, Linear Algebra, Statistics and Computer Science (with programming focus).</p> <p>While a GMAT or GRE score is not required, it may be recommended to help strengthen your application.</p>	<p><b>Richard Ivey MSc Excellence Awards:</b> \$20,000, these awards are available to outstanding candidates.</p> <p><b>Financial Need Awards:</b> \$20,000, these awards are available to candidates who indicate a significant financial need in their online application. Not all applicants who request a Financial Need Award will receive funding.</p>	<p>Jan-April Core Courses</p> <ul style="list-style-type: none"> <li>• <a href="#">Big Data Analytics</a></li> <li>• <a href="#">Business Statistics</a></li> <li>• <a href="#">Competing with Analytics</a></li> <li>• <a href="#">Programming Skills 1</a></li> <li>• <a href="#">Business Communications</a></li> </ul> <p>May-Aug Ivey <a href="#">Global Lab</a> (8-week summer practicum) Students engage in consulting style in-country, in-company experiences with partner organizations. In assigned teams, you will complete a practical work assignment for an assigned client.</p> <p>Sep-Dec Core Course</p> <ul style="list-style-type: none"> <li>• <a href="#">Prescriptive Analytics and Optimization</a></li> <li>• <a href="#">Programming Skills 2</a></li> <li>• 2 Elective Courses chosen from a list of 13</li> </ul> <p>Jan-Apr Core Course</p> <ul style="list-style-type: none"> <li>• <a href="#">Simulation and Risk Analysis</a></li> <li>• 2 Elective Courses chosen from a list of 13</li> </ul>

<b>University of Manitoba</b>		
<b>Asper School of Business</b>		
<b>Master of Finance</b>		
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE: one-year 3-term program; part-time also available</b>
<p>At minimum, a three-year Bachelor degree from a postsecondary recognized educational institution, in any discipline;</p> <p>At a minimum, a 3.0 admission GPA (on 4.5 scale) on the last 60 credit hours of university degree-level study;</p> <p>Results of the Graduate Management Admissions Test (GMAT), with a minimum score of 550.</p> <p>The GRE will be accepted with a percentile score across its components equivalent to the current acceptable percentile level of the GMAT.</p> <p><b>Asper BComm students:</b> GMAT Exemption if GPA is 3.25 and above AND you scored either a B+ in Corporation OR an average of 3.5 on your four finance major courses in the last five years) Certain Course Exemptions</p> <p><b>Asper MBA Graduates:</b> eligible for a maximum of 7.5 credit hours of exemptions to certain courses</p>	<p><b>International Graduate Student Entrance Scholarship</b></p> <p>International students with an admission GPA of 3.5 and above who are entering the MFin program will be eligible for this \$5,400 scholarship.</p>	<p>The Asper Master of Finance (MFin) program uses the CFA Body of Knowledge as its frame of reference. We worked with the CFA to map over 70% of the CFA Program Candidate Body of Knowledge into our concentration, in addition to the CFA Institute Code of Ethics and Standards of Professional Conduct. Our degree prepares you to write all three levels of exams needed to obtain your CFA designation, with a focus on the Level 1 exam.</p> <p><b>Courses Offered:</b></p> <ul style="list-style-type: none"> <li>• Managerial Economics (1,5)</li> <li>• Corporate Finance (3)</li> <li>• Readings in Accounting and Finance (3)</li> <li>• Accounting Fundamentals (3)</li> <li>• International Finance (3)</li> <li>• Investment Policy (3)</li> <li>• Alternative Markets and Instruments (1,5)</li> <li>• Portfolio Management (3)</li> <li>• Fixed Income Securities (3)</li> <li>• Behavioural Finance (3)</li> <li>• Financial Modelling (3)</li> </ul>

University of Manitoba				
Asper School of Business				
MSc in Management				
Areas of specialization: Actuarial Mathematics, Finance, Human Resource Management, Marketing, Organizational Behaviour, Organizational Theory, Strategy, or Supply Chain Management				
ADMISSION	FUNDING	STRUCTURE		
<p>Students have completed an honours bachelor degree (or its equivalent) in either:</p> <ol style="list-style-type: none"> <li>1. Management/business with a major in the same area or a similar area to that pursued in the MSc, or</li> <li>2. A degree from another Faculty with a closely related major</li> <li>3. <b>Results of a graduate aptitude test</b>, preferably the <b>Graduate Management Admissions Test (GMAT)</b>, with a minimum score of 600 (effective for 2016-17 admissions; previously 550). The GRE will be accepted with a mean percentile score across the three areas similar to the current acceptable percentile level of the GMAT. GMAT and GRE scores must not be older than five years.</li> </ol>	<p>Research funding is available on a competitive basis through the University of Manitoba Graduate Fellowship program.</p> <p>International Graduate Student Entrance Scholarship (<a href="#">IGSES</a>) Academic qualification for this scholarship is a grade point average (GPA) of 3.5 in the previous two years of study.</p>	<p><b>Finance</b></p>	<p><b>Marketing</b></p>	<p><b>OB/ Org Theory / HRM / Strategy / Entrepreneurship and Small Business</b></p>
		<p><b>Required courses</b></p> <ul style="list-style-type: none"> <li>• <a href="#">FIN 7100</a> (3 credit hours)</li> <li>• <a href="#">FIN 7110</a> or 7520 (3 credit hours)</li> </ul> <p><b>Optional courses</b></p> <ul style="list-style-type: none"> <li>• Research Methods chosen from Econometrics courses (3 credit hours)</li> <li>• At least one of Microeconomics or Macroeconomics (3 credit hours)</li> <li>• Two optional electives chosen from graduate level courses offered in Finance, Econometrics, Microeconomics or Macroeconomics (6 credit hours)</li> </ul>	<p><b>Six credit hours from the following:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">MKT 7100</a> Selected Topics in Marketing (3 credit hours)</li> <li>• <a href="#">MKT 7110</a> Doctoral Seminar in Marketing (3 credit hours)</li> <li>• <a href="#">MKT 7120</a> Doctoral Seminar in Buyer Behaviour (3 credit hours)</li> <li>• <a href="#">MKT 7080</a> Research Design and Methods (3 credit hours)</li> <li>• Six credit hours of research methods coursework (quantitative or qualitative)</li> <li>• <b>An additional six credit hours of courses</b> related to the</li> </ul>	<p><b>Requirements</b></p> <ol style="list-style-type: none"> <li>1. Either of <a href="#">GMGT 7740</a> Organizational Theory or <a href="#">GMGT 7410</a> Organizational Behaviour (3 credit hours)</li> <li>2. <a href="#">GMGT 7540</a> Doctoral Seminar in Research Methods or the MBA course <a href="#">GMGT 7080</a> Research Methods, (3 credit hours)</li> <li>3. Optional (additional), but encouraged: either a statistics or econometrics course, or a second research methods course</li> <li>4. Optional (additional) but encouraged: <a href="#">PHDM 7110</a> Doctoral Seminar in Management</li> </ol>

		<p><b>3. Master's thesis or research practicum</b></p>	<p>chosen area of specialization, from within or outside of the Faculty.</p> <p><b>4. Thesis</b></p>	<p>5. Two optional (additional) courses, subject to approval. Must be of direct relevance to chosen area of specialization, from within or outside of the Faculty.</p> <p>6. Thesis.</p>
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University of Winnipeg		
Faculty of Business and Economics - UWinnipeg		
Master in Management (MIM) with a specialization in Technology, Innovation and Operations.		
ADMISSION	FUNDING	STRUCTURE: on-campus & online
<p>The general admission requirement for the MiM is a 4-year Bachelor of Business Administration or Honours Bachelor of Commerce Degree. The minimum acceptable CGPA (Cumulative Grade Point Average) is a 3.0 out of a possible 4.0, equivalent to a "B" on a letter grade scale.</p> <p>Applications with a non-business degree, a 3-year Bachelor of Business Administration, a professional designation, or extensive professional experience will also be considered. Pre-qualifying courses may be required as determined by the Department of Business &amp; Administration.</p>	<p>None specific to the MIM</p>	<p><b>Module 1</b> An intensive, in-person two week introduction to the degree held in August. The courses delivered will be:</p> <ul style="list-style-type: none"> <li>• GBUS 7110, Introduction to Technology, Innovation, and Operations Management (3 credits)</li> <li>• GBUS 7120, Leadership and Organizational Behaviour in Innovative Organizations (3 credits)</li> </ul> <p><b>Module 2</b> The core of the program with six courses delivered in an online format.</p> <ul style="list-style-type: none"> <li>• GBUS 7210, Business Strategy (3 credits)</li> <li>• GBUS 7220, Project Management (3 credits)</li> <li>• GBUS 7230, Strategies in Operations and Supply Chain Management (3 credits)</li> <li>• GBUS 7240, Information Systems and Knowledge Management (3 credits)</li> <li>• GBUS 7250, Strategic Management Accounting (3 credits)</li> <li>• GBUS 7260, Innovation Management (3 credits)</li> </ul> <p><b>Module 3</b> Concludes the program and will be delivered in an intensive two week capstone session also in August. The courses delivered will be:</p> <ul style="list-style-type: none"> <li>• GBUS 7310, Current Trends in Technology, Innovation and Operations Management (3 credits)</li> <li>• GBUS 7320, Graduate Project (3 credits)</li> </ul>

University of Saskatchewan		
Edwards School of Business		
Master of Professional Accounting (MPAcc)		
ADMISSION	FUNDING	STRUCTURE:
<p>Applicants must have a four-year undergraduate degree from a recognized university. Applicants must demonstrate their ability to pursue advanced study with a minimum 70% overall average in the last two years of undergraduate studies.</p> <p>Adequate preparation in Canadian Accounting principles as demonstrated by successful completion of the appropriate university-level prerequisites courses as designated by the Canadian Institute of Chartered Professional Accountants for entrance into their Professional Education Program.</p>	<p>Year 1 students successfully admitted to the 2019 MPAcc program will receive a one-time \$3,000 scholarship.</p> <p>In addition, the Edwards School of Business MPAcc Office administers scholarships and bursaries for both entering and continuing students. Awards have specific criteria based on academic achievement and financial need; and range in value up to \$5,000.</p>	<p>Currently, students enrolled in the MPAcc program will undertake an alternative route that covers all modules of the CPA PEP program. Upon completion of the MPAcc program, students may go on to write the Common Final Examination in the fall.</p> <p><b>Year one</b></p> <ul style="list-style-type: none"> <li>• MPAC 811 Performance Management I</li> <li>• MPAC 813 Financial Reporting I</li> <li>• MPAC 814 Finance I</li> <li>• MPAC 815 Assurance I</li> <li>• MPAC 816 Taxation I</li> <li>• MPAC 992 Research Project</li> </ul> <p><b>Year two</b></p> <ul style="list-style-type: none"> <li>• MPAC 821 Performance Management II</li> <li>• MPAC 823 Financial Reporting II</li> <li>• MPAC 824 Finance II</li> <li>• MPAC 825 Assurance II</li> <li>• MPAC 826 Taxation II</li> <li>• MPAC 891 Integrative Capstone 1</li> <li>• MPAC 892 Integrative Capstone 2</li> </ul>

University of Saskatchewan			
Edwards School of Business			
MSc in Finance and MSc in Marketing			
ADMISSION	FUNDING	STRUCTURE : 2-year program	
<p>Applicants must have a four-year undergraduate degree in business or a related field with a major or substantial number of courses in finance from a recognized university. Applicants must have a cumulative weighted average of at least 75% in the last two years of study (i.e. 60 credit units). Unofficial transcripts from all post-secondary institutions that you have attended must be uploaded to your application.</p> <p><a href="#">GMAT</a> - The minimum accepted GMAT score is 500 (a score of 600 or higher is recommended, due to competition for limited space in the program). GMAT scores are valid for five years from the date the test is taken.</p> <p><a href="#">GRE</a> - The minimum accepted GRE score is that which is equivalent to a 600 GMAT score.</p>	?	<p><b>Finance</b></p> <p><b>Term 1:</b></p> <ul style="list-style-type: none"> <li>• FIN 801 Advanced Corporate Finance</li> <li>• FIN 805 Fixed Income Securities</li> <li>• FIN 990 Seminar in Finance</li> <li>• FIN 994 Research in Finance</li> <li>• ECON 808 Econometrics</li> <li>• GSR 960 Introduction to Ethics and Integrity</li> <li>• Elective</li> </ul> <p><b>Term 2</b></p> <ul style="list-style-type: none"> <li>• FIN 802 Advanced Investment Theory</li> <li>• FIN 803 Empirical Methods in Finance</li> <li>• FIN 990 Seminar in Finance</li> <li>• FIN 994 Research in Finance</li> <li>• Elective</li> </ul> <p><b>Term 3</b></p> <ul style="list-style-type: none"> <li>• FIN 994 Research in finance</li> </ul> <p><b>Term 4</b></p> <ul style="list-style-type: none"> <li>• FIN 990 Seminar in Finance</li> <li>• FIN 994 Research in Finance</li> <li>• Optional: Additional Electives</li> </ul> <p><b>Term 5</b></p> <ul style="list-style-type: none"> <li>• FIN 990 Seminar in Finance</li> <li>• FIN 994 Research in Finance</li> <li>• Optional: Additional Electives</li> </ul>	<p><b>Marketing</b></p> <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li>• MKT 801 Designing Marketing Research</li> <li>• MKT 802 Marketing Theory</li> <li>• MKT 803 Consumer Behaviour</li> <li>• ERES 842 Statistical Methods Advanced</li> <li>• ERES 845 Qualitative Methods</li> <li>• MKT 990 Research Seminar in Marketing</li> <li>• GSR 960 Introduction to Ethics</li> <li>• GSR 979 Introduction to Instructional Skills</li> <li>• Elective Options in business, psychology, economics, education, and other disciplines</li> </ul> <p><b>Year 2</b></p> <ul style="list-style-type: none"> <li>• MKT 990 Research Seminar in Marketing</li> <li>• Thesis Work</li> </ul>



		<b>Term 6</b> <ul style="list-style-type: none"><li>• FIN 994 Research in Finance</li><li>• Thesis</li></ul>	
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University of Regina		
Faculty of Business Administration - URegina		
Master of Administration in Leadership		
ADMISSION	FUNDING	STRUCTURE: full-time; part-time; blended; online; coop; 3 start dates
<ul style="list-style-type: none"> <li>• Four-year undergraduate degree with a minimum grade point average equivalent to Canadian 70%</li> <li>• Applicants are normally required to have at least two years full-time work experience               <ul style="list-style-type: none"> <li>○ Experience must be obtained after completion of undergraduate degree</li> <li>○ Internships, work placements and co-operative education placements are not accepted as work experience</li> </ul> </li> </ul>	<p>Coop option</p>	<ul style="list-style-type: none"> <li>• GBUS 817 Human Behaviour in Organizations</li> <li>• GBUS 870 Leadership: Theory and Practice</li> <li>• GBUS 874 Cases in Leadership</li> </ul> <p>Four 3 credit hour electives from the following:</p> <ul style="list-style-type: none"> <li>• GBUS 815 Business Policy and Strategy</li> <li>• GBUS 860 Managing Change</li> <li>• GBUS 865 Project Management</li> <li>• GBUS 871 Group Dynamics in Organizations</li> <li>• GBUS 873 Negotiation and Conflict Resolution</li> <li>• GBUS 875 Women in Leadership</li> </ul> <p>To complete your program, choose three 3 credit hour GBUS 800-level electives</p> <p><b>OR</b></p> <p>One 3 credit hour GBUS 800-level elective plus the 6 credit hour GBUS 902 Practicum Project. Students selecting the project option must prepare and present a paper on a suitable topic of personal or professional interest. The project is supervised by a member of the Faculty of Business Administration.</p> <p><b>COOP program option</b></p> <p>The co-op option consists of two work terms; either two separate four month work terms or one eight month work term. An option to complete a third work term is available. You are expected to submit a work term report after the successful completion of each placement. To successfully complete a Co-op work term and receive a grade of "P" (Pass) for each work term, students must successfully complete the required work placement, including an evaluation of feedback from the employer, and attain a passing grade on their associated work term report.</p>

University of Regina		
Faculty of Business Administration - URegina		
Master of Human Resource Management (MHRM)		
ADMISSION	FUNDING	STRUCTURE: full-time; part-time; blended; online; coop; 3 start dates
<ul style="list-style-type: none"> <li>• Four-year undergraduate degree with a minimum grade point average equivalent to Canadian 70%</li> <li>• Applicants are normally required to have at least two years full-time work experience in the field of HRM <ul style="list-style-type: none"> <li>○ Experience must be obtained after completion of undergraduate degree</li> <li>○ Internships, work placements and co-operative education placements are not accepted as work experience</li> </ul> </li> </ul>	Coop option	<p><b>Four required 3 credit hour core courses:</b></p> <ul style="list-style-type: none"> <li>• GBUS 817 Human Behaviour in Organizations</li> <li>• GBUS 838 Research Methods in Management</li> <li>• GBUS 843 Strategic Human Resource Management</li> <li>• GBUS 862 Evaluation of Human Resource Practices and Systems (Prerequisite GBUS 838)</li> </ul> <p>In addition to four core courses, choose three 3 credit hour electives from the following:</p> <ul style="list-style-type: none"> <li>• GBUS 844 Labour Relations &amp; Collective Bargaining</li> <li>• GBUS 863 Staffing Organizations</li> <li>• GBUS 864 Compensation</li> <li>• GBUS 868 Occupational Health and Safety</li> <li>• GBUS 872 Managing Activist Employees</li> <li>• GBUS 873 Negotiation and Conflict Resolution</li> <li>• EAHR 811 Assessment Of Training</li> <li>• EAHR 850 Research In Adult Education</li> </ul> <p>To complete your program, choose three 3 credit hour GBUS 800-level electives</p> <p><b>OR</b></p> <p>One 3 credit hour GBUS 800-level elective plus the 6 credit hour GBUS 900 Practicum Project. Students selecting the project option must prepare and present a paper on a suitable topic of personal or professional interest. The project is supervised by a member of the Faculty of Business Administration.</p> <p><b>COOP program option</b></p> <p>The co-op option consists of two work terms; either two separate four month work terms or one eight month work term. An option to complete a third work term is available. You are expected to submit a work term report after the successful completion of each placement. To successfully complete a Co-op work term and receive a grade of "P" (Pass) for each work term, students must successfully complete the required work placement, including an evaluation of feedback from the employer, and attain a passing grade on their associated work term report.</p>

University of Regina		
Faculty of Business Administration- URegina		
Master of Science in Organizational Studies		
ADMISSION	FUNDING	STRUCTURE: full-time; evening, online or one-week intensive delivery.
<p>The Levene MSc program starts once each year. In advance of applying, prospective students *must* have a faculty member who has agreed to supervise their research.</p> <ol style="list-style-type: none"> <li>1. Applicants are normally required to have completed a four-year undergraduate degree with an acceptable grade point average equivalent to Canadian 80%.</li> <li>2. A minimum GMAT score of 600 or a combined verbal and quantitative GRE score of 315 is normally required.</li> <li>3. Applicants are normally required to have successfully completed (with a minimum grade of 70%) the following undergraduate courses (or their equivalents) within five years of applying: BUS 260 (Introduction to Organizational Behavior) or PSYC 220 (Social Psychology), STAT 200 or STAT 160 (Introductory Statistics), and an upper year advanced statistics and/or research methods course</li> </ol>	<p>Tuition and Research Support will be Available to Qualified Students – contact a program advisor for details.</p>	<p>Three required 3 credit hour core courses:</p> <ul style="list-style-type: none"> <li>• GBUS 817 - Human Behavior in Organizations</li> <li>• GBUS 838 - Research Methods in Management</li> <li>• PSYC 802 - Applied Multivariate Statistics</li> </ul> <p>In addition to these three core courses, choose three 3 credit hour electives from the following (or any relevant graduate level course recommended by the faculty advisor and approved by the Faculty of Business Associate Dean Research and Graduate Programs. Note: This could include directed readings courses with the faculty advisor relevant to the student’s area of research):</p> <ul style="list-style-type: none"> <li>• GBUS 844 – Labour Relations and Collective Bargaining</li> <li>• GBUS 845AK - Business Analytics</li> <li>• GBUS 845 - Women in Leadership</li> <li>• GBUS 868 - Occupational Health and Safety</li> <li>• GBUS 870 - Leadership: Theory &amp; Practice</li> <li>• GBUS 871 - Group Dynamics in Organizations</li> <li>• GBUS 873 – Negotiation and Conflict Resolution</li> <li>• PSYC 820 – Advanced Social Psychology</li> <li>• SOC 804 – Advanced Research Methods</li> <li>• SOC 805 – Advanced Research Methods II</li> </ul> <p>To complete your program you must complete a thesis project worth 15 credit hours.</p>

<b>University of Calgary</b>		
<b>Haskayne School of Business</b>		
<b>MSc Sustainability Energy Development (SEDV)</b>		
A combined offering through the Haskayne School of Business, Schulich School of Engineering and the Faculties of Law and Environmental Design		
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE: 16-months; full-time</b>
<ul style="list-style-type: none"> <li>▪ A four-year baccalaureate degree from a recognized university with a minimum 3.0 grade point average on a four-point grading system in the final two years of study.</li> <li>▪ 2 years of progressive work experience after graduation</li> </ul>	?	<b>Requirements: 13 courses – no formal thesis</b> <ul style="list-style-type: none"> <li>• <a href="#">SEDV 601: Energy Systems I: Non-Renewable Energy</a></li> <li>• <a href="#">SEDV 603: Energy Systems II: Renewable Energy</a></li> <li>• <a href="#">SEDV 605: Ecology, Sustainable Development, and Indigenous Cultures</a></li> <li>• <a href="#">SEDV 607: Water Pollution and its Impact on the Energy Sector</a></li> <li>• <a href="#">SEDV 609: Air Pollution and its Impact on the Energy Sector</a></li> <li>• <a href="#">SEDV 611: Land Pollution and Waste Management in the Energy Sector</a></li> <li>• <a href="#">SEDV 613: Energy Systems III: Planning and Energy Economics</a></li> <li>• <a href="#">SEDV 615: Environmental Impact Assessment in the Energy Sector</a></li> <li>• <a href="#">SEDV 617: Human Resources and Management in the Energy Sector</a></li> <li>• <a href="#">SEDV 619: Environmental Law in the Energy Sector</a></li> <li>• <a href="#">SEDV 621: Environmental Management Tools in the Energy Sector</a></li> <li>• <a href="#">SEDV 623: Strategic Environmental Planning for Energy Organizations</a></li> <li>• <a href="#">SEDV 631: Life Cycle Assessment in the Energy Sector</a></li> <li>• <a href="#">SEDV 699: Topics in Energy &amp; the Environment</a></li> <li>• <a href="#">Capstone Project*</a></li> </ul>

\*A capstone project is a requirement of this program. The work must be interdisciplinary, reflecting a minimum of 3 areas of study, with energy and environment as the 2 anchors. Students work with an advisor on their project in a 3 course series (1 half-course equivalent) to complete their work.

**SEDV 640 Capstone Project I: Research Design**

**SEDV 641 Capstone Project II: Proposal Development**

**SEDV 642 Capstone Project III: Research Exploration and Examination**

University of Alberta		
Alberta School of Business		
Master of Accounting (MAcc)		
ADMISSION	FUNDING	STRUCTURE: Offered over two years during four-month full-time summer session (May - August)
<p>Admission to the MAcc program requires a four-year undergraduate degree from a recognized academic institution with a minimum grade point average of 3.0/4.0. Your admission GPA will be calculated based on your most-recent 60-credits (typically your last two years of study).</p> <p>A number of prerequisite courses are required to enter the MAcc program, which are typically met through a Canadian undergraduate degree in accounting.</p>	<p>Students successfully admitted to the 2018 program will receive a minimum of \$7,000 in scholarships spread over the two years they are enrolled in the program.</p> <p>In addition, students admitted to the Alberta MAcc program are automatically considered for entrance awards. Entrance awards range in value up to \$10,000. The value of the award is based upon the MAcc admission criteria and academic performance in your undergraduate program.</p>	<p>The MAcc allows you to complete all of the CPA Professional Education Program and prepares you to write the Common Final Examination (CFE).</p> <p><b>Year One</b></p> <ul style="list-style-type: none"> <li>• ACCTG 601: Case Studies in Accounting</li> <li>• FIN 625: Finance for MAcc</li> <li>• ACCTG 625: Performance Management</li> <li>• ACCTG 630: Valuation</li> <li>• SMO 610: Manager as Strategist</li> <li>• OM 624: Project Management</li> </ul> <p><b>Year Two</b></p> <ul style="list-style-type: none"> <li>• ACCTG 657: Advanced Auditing</li> <li>• ACCTG 662: Strategic Tax Planning</li> <li>• OM 604: Bargaining and Negotiations</li> <li>• ACCTG 688: CPA Capstone 1</li> <li>• ACCTG 689: CPA Capstone 2</li> </ul>

University of Alberta		
Alberta School of Business		
Master of Financial Management		
ADMISSION	FUNDING	STRUCTURE:
?	?	<p>The program requires the completion of 14 courses (39 credits).</p> <ul style="list-style-type: none"> <li>• Introduction to Financial Management</li> <li>• Investment Principles</li> <li>• Risk Management</li> <li>• Fixed Income</li> <li>• International Finance</li> <li>• Private Equity and Venture Capital</li> <li>• Financial Reporting for Managers &amp; Analysts</li> <li>• Financial Statement Analysis</li> <li>• History of Finance</li> <li>• Mergers, Acquisitions, and Restructuring</li> <li>• Bargaining and Negotiations</li> <li>• Applied Corporate Financial Management</li> <li>• Business Strategy</li> <li>• Strategic Financial Management</li> </ul>

University of British Columbia		
Sauder School of Business		
Master of Management		
ADMISSION	FUNDING	STRUCTURE: 9-months
<p>Three-or Four-year non-business Bachelor's degree with a B+ average, or recognized equivalent from an accredited institution. Applicants with business degrees (majors/minors) are NOT eligible for admission. Applicants should have B+ or 76% or 3.3GPA.</p> <p>Competitive requirement: 650 GMAT OR 310+ GRE score on combined verbal and quantitative section.</p> <p>No full-time work experience to a maximum of two years full-time work experience gained after graduation from your Bachelor's degree.</p>	<p><b>UBC MM Scholarship &amp; Awards</b></p> <p>At UBC Sauder, our entrance scholarships are based on merit, going to candidates who display an outstanding combination of talent, drive, professional potential and academic achievement. We take a merit-based holistic view of what each talented candidate brings into the program. Applicants are automatically considered for every applicable scholarship upon submission, and are assessed on a number of factors, including (but not limited to) academic achievement, business drive, application essays.</p>	<p><b>Modules</b></p> <p>Topics include: strategic management, finance, managerial accounting, marketing, entrepreneurship, organizational behaviour and human resources, information technology, supply chain management, and operations and logistics.</p> <p><b>Community Business Project</b></p> <p>From January to May, the <u>Community Business Project</u> allows you to engage, collaborate and network with local businesses on group projects. The Community Business Project is a 1.5 credit course that provides an opportunity for you to put your business skills to work on community-enhancing projects such as business planning, market expansion, community planning, and environmental sustainability initiatives.</p> <p><b>Capstone Course</b></p> <p>Solve a significant business challenge in this three-day business simulation.</p> <p><b>Study Abroad Opportunities</b></p> <p>MM Study Abroad programs take place during the summer months and vary in length from two to eight weeks. Students participating in a Study Abroad program will gain extra credit and graduate with an option in International Business.</p>

**Note:** there is a UBC Bachelor + Master of Management Dual Degree that combines a Bachelor's degree in a non-business faculty with a Master of Management in 4.5 years.



University of British Columbia		
Sauder School of Business		
Master of Business Analytics		
ADMISSION	FUNDING	STRUCTURE: 9-months
<p>Three-* or Four-year Bachelor's degree with a B+ average, or recognized equivalent from an accredited institution.</p> <p>It is recommended that applicants have some exposure to university-level courses in topics like statistics, calculus, and linear algebra (or other courses in mathematics and statistics). Experience in computer programming, data analytics or mathematical modeling is also an asset.</p> <p>650 GMAT OR 310+ GRE score on combined verbal and quantitative section.</p>	?	<p><b>Skillsets</b></p> <ul style="list-style-type: none"> <li>• <b>Data management</b> BAIT 507: Data Management for Business Analytics BAIT 508: Business Analytics Programming</li> <li>• <b>Data Analytics</b> BABS 506: Analyzing and modeling uncertainty BABS 507: Descriptive and Predictive Business Analytics BABS 508: Advanced Predictive Business Analytics BABS 502: Forecasting and Time Series Prediction BAIT 509: Business Applications of Machine Learning</li> <li>• <b>Decision Analytics</b> BAMS 506: Optimal Decision Making I BAMS 508: Optimal Decision Making II BAMS 503: Simulation Modeling I: Data Processing and Monte Carlo Simulation BAMS 504: Simulation Modeling II: Queueing and Discrete Event Simulation BAMS 517: Decision Analysis under uncertainty</li> <li>• <b>Business Context</b> BASC 500: Process Fundamentals BASC 523: Supply Chain Management BAMA 509: Marketing Analytics BAMA 516: Customer Relationship Management BAMA 511: Pricing Analytics BAMA 517: Data Driven Marketing</li> <li>• <b>Business Skills</b> BAMS 521: Consulting Practices and Project Management BA 520: Career Development Programming BA 562: Creativity BAHR 516: Leading Teams</li> <li>• <b>Experiential Learning</b> BA 509: Analytics Consulting Internship This is an optional, competitive 6-credit option that students must apply for at the time of application. Students may complete the program without this option.</li> </ul>

<b>University of British Columbia</b>			
<b>Sauder School of Business</b>			
<b>MSc in Business Administration</b>			
3 areas of specialization: finance; management information systems; transportation & logistics			
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE</b>	
<p>The GMAT or GRE is mandatory for all applicants</p> <p><b>Canada and USA:</b> A four year Bachelor's degree with an overall B+ standing in third and fourth year level courses prescribed by the department concerned as prerequisite to the Master's program. From Quebec, a three year Bachelor's degree is acceptable provided the Diplome d'Etudes Collegiales has been previously awarded.</p> <p>Finance MSc students typically have very strong academic records and undergraduate degrees (or even graduate degrees) in quantitative disciplines such as commerce, economics, mathematics, statistics, science, or engineering. Previous work experience is not required. Enrollment is limited and admission is highly competitive.</p>	<p>Teaching assistant, marker, and research assistant positions are administered by each Division in the Sauder School of Business and Business Administration.</p>	<b>Finance</b>	<b>Management information systems</b>
		<p><b>Term 1</b> <b>September to December</b> COMM 671 Theory of Finance ECON 500 Microeconomics COMM 581 Statistical Methodology I One Elective--Finance module, or a non-finance course</p> <p><b>Term 2</b> <b>January to April</b> COMM 673 Advanced Topics in Theoretical Asset Pricing COMM 674 Advanced Topics in Empirical Asset Pricing COMM 582 Statistical Methodology II One elective--Finance module, or a non-finance course</p> <p><b>Term 3</b> <b>September to December</b> Four electives--Finance modules, or non-finance courses</p> <p><b>Term 4</b> <b>January to April</b> COMM 672 Advanced Topics in</p>	<ul style="list-style-type: none"> <li>• 9 credits of advanced MIS courses</li> <li>• 3 credits of research methodology courses</li> <li>• 6 credits of electives</li> <li>• 12 credit thesis</li> </ul> <p><b>Advanced MIS Courses (9 credits)</b></p> <ul style="list-style-type: none"> <li>• Comm 633 (3 credits): Modelling Methods in the Research and Practice of Information Systems</li> <li>• Comm 634 (3 credits): Empirical Research Methods in Information Systems</li> <li>• Comm 635 (3 credits) or BAIT 580 (1.5 credits, to be taken twice): Advanced Topics in Management Information Systems</li> </ul> <p><b>Research Methodology Courses (3 credits)</b> Commerce 525 (Introduction to Behavioural Research Methods for Business) is highly recommended.</p> <p><b>MIS Workshop</b> Participation in the MIS Workshop throughout the MSc studies is required. The MIS workshop is</p>

		<p>Theoretical Corporate Finance  COMM 695 Advanced Topics in  Empirical Corporate Finance  Two Electives--Finance modules, or  non-finance courses</p> <p><b>Note:</b> With permission of the  finance MSc advisor, students who  wish to take fewer classroom  courses and instead write an MSc  thesis during their second year may  do so as part of their electives in  Terms 3 and 4.</p>	<p>devoted to learning and sharing  information on current research  topics.</p> <p><b>Thesis (12 credits)</b>  A required and major component of  the MSc program in MIS is the thesis.  The thesis work can comprise basic  or applied research.</p>
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<b>Simon Fraser University</b>		
<b>Beedie School of Business</b>		
<b>Master of Science in Finance</b>		
Investment management and risk management streams		
<b>ADMISSION</b>	<b>FUNDING</b>	<b>STRUCTURE: 16-months; full-time</b>
<p><b>Academic achievements</b> A Bachelor's degree or equivalent from a recognized university with a cumulative grade point average of at least 3.0/4.33 (B), or a grade point average of at least 3.33/4.33 (B+) based on the last 60 credits of undergraduate courses in a quantitative discipline such as business, economics, mathematics, the sciences, or engineering is required. All graduate course work is also considered.</p> <p><b>Professional experience</b> Preference will be given to candidates with two to three years of related professional work experience.</p> <p><b>GMAT or GRE</b> We ask for a minimum GMAT score of 550. We also accept the GRE exam (minimum score of 150 in each section).</p>	<p>Possibility of scholarships or financial aid.</p>	<p><b>The program will commence with two courses held online in mid-July:</b></p> <ul style="list-style-type: none"> <li>• Mathematics for Computational Finance – part 1</li> <li>• Statistics for Financial Economics – part 1</li> </ul> <p><b>Semester 1: Fall</b></p> <ul style="list-style-type: none"> <li>• Mathematics for Computational Finance – part 2</li> <li>• Statistics for Financial Economics</li> <li>• Financial Modeling Tools</li> <li>• Financial Economics I</li> <li>• Derivative Securities I</li> <li>• Equity Security Analysis and Portfolio Management I</li> </ul> <p><b>Semester 2: Spring</b></p> <ul style="list-style-type: none"> <li>• Financial Econometrics</li> <li>• Fixed Income Security Analysis and Portfolio Management</li> <li>• Derivative Securities II</li> <li>• Market Risk Management</li> <li>• Portfolio Theory and Asset Pricing</li> <li>• Equity Security Analysis and Portfolio Management II</li> </ul> <p><b>Semester 3: Summer</b></p> <ul style="list-style-type: none"> <li>• Financial Economics II</li> <li>• Structures and Numerical Methods in Risk Management</li> <li>• Financial Statement Analysis</li> <li>• Credit Risk Management</li> <li>• Strategic Asset Allocation</li> </ul> <p><b>Semester 4: Fall</b></p> <ul style="list-style-type: none"> <li>• Enterprise Risk Management</li> <li>• Ethics</li> <li>• Final Project</li> </ul>

University of Victoria		
Gustavson School of Business		
Master of Global Business (MGB)		
ADMISSION	FUNDING	STRUCTURE
<p>Bachelor's degree in commerce, business administration or management. Your degree must contain at least one course in each of the following disciplines: Finance, International Business, Accounting, Marketing and Organizational Behaviour/Human Resource Management.</p> <p><b>Or</b> Bachelor's degree in any academic discipline <b>AND</b> complete the University of Victoria's <a href="#">Certificate in Business Administration Fast-track program</a>.</p> <p>You have earned the equivalent of at least a "B" average over the last two years (or equivalent of 30 UVic units) of your degree.</p>	<p>With numerous UVic scholarships, bursaries and awards, your MGB education is more affordable than you might think. In addition to the scholarships provided specifically for MGB students, visit UVic's <a href="#">Awards and Financial Aid</a> for more information.</p>	<p>Four geographical paths – 2 start in January; 2 in September You spend about three months in each country progressing through three modules. Then you complete the program with a global internship.</p> <p><b>Global Business Fundamentals</b></p> <ul style="list-style-type: none"> <li>▪ MGB 510 The North American Business Context (1.0 unit)</li> <li>▪ MGB 512 International Financial Management (1.0 unit)</li> <li>▪ MGB 516 International Marketing and Global Strategy (1.0 unit)</li> <li>▪ MGB 519 International Logistics and Supply Chain Management (1.0 unit)</li> </ul> <p><b>Global Business Opportunities module</b></p> <ul style="list-style-type: none"> <li>• MGB 520 Industry Analysis and the Asian Business Context (1.5 units)</li> <li>▪ MGB 525 Business Development and Asia's or Europe's Entrepreneurial Environment (1.5 units)</li> </ul> <p><b>Global Business in Action module</b></p> <ul style="list-style-type: none"> <li>• MGB 530 The European Business Context (1.5 units)</li> <li>• MGB 535 Consulting Methods and Practice (1.0 unit)</li> </ul> <p><b>Global Business Experience</b></p> <ul style="list-style-type: none"> <li>▪ <b>MGB 537 Global Internship (2.0 units)</b></li> </ul> <p>Students must complete at least 300 hours of work with an organization that normally (1) has an international component linking two or more regions of the world, or (2) is located in any region of the world, provided that it is not the student's "home" region or country. Requires students to apply their</p>

		<p>learning through a reflective component that describes how each of the first three program modules has prepared students for global business.</p> <ul style="list-style-type: none"> <li>• <b>MGB 536 International Research and Consulting Report (3.0 units)</b> This project consists of an individual or group consulting report. Participating students are placed into small teams and under faculty supervision, and maintain a consulting/client relationship with a corporate sponsor. The students examine a problem of current interest to the sponsor and prepare detailed written recommendations.</li> <li>▪ <b>MGB 570 Global Leadership and Cultural Intelligence (2.0 units)</b></li> </ul>
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# PAC Report 1. Cover page

PAC 10 –MSc Programs (JMSB) Year of appraisal 2017

PAC Chair signature: \_\_\_\_\_

Name of PAC member	Title	Signature
Kathleen Boies	PAC Chair	
Zeynep Arsel	Full-time faculty	
Tingyu Zhou	Full-time faculty	
Louis Charbonneau	Part-time faculty	
Tania Chomyk	Staff representative	
Dolores Mosquera	Staff representative	
Brooke Welburn	Staff representative	
Nura Jabagi	Student representative (G)	

List of programs under appraisal
MSc in Finance
MSc in Management
MSc in Marketing

List of excluded programs (<10 UG or <5 graduate students registered OR program <5 academic years in the Calendar)
Master of Supply Chain Management

The PAC met on the following dates				
May 9, 2017	May 16, 2017	Sept. 21, 2017		

# PAC Report

## 2. Checklist and table of contents

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<input checked="" type="checkbox"/>	5. List of key issues and topics for the EE	7
<input type="checkbox"/>	6. Rationale for small programs	N/A
<input checked="" type="checkbox"/>	7. Unit/unit analysis	8
<input checked="" type="checkbox"/>	a) Faculty complement (as a group)	8
<input checked="" type="checkbox"/>	b) Teaching practices and philosophy	11
<input checked="" type="checkbox"/>	c) Research, creation and graduate supervision	13
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<input checked="" type="checkbox"/>	c) Curriculum mapping (repeat for each program/cluster)	24
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<input checked="" type="checkbox"/>	a) 1-Librarian's Summary Report	60
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The John Molson School of Business is one of Canada's largest and oldest business schools with over 9,000 students, 51,000 alumni and 158 full-time faculty from 34 countries. The John Molson School of Business offers undergraduate programs, graduate diplomas and certificates, and master's and doctoral programs. Previously known as Concordia's Faculty of Commerce and Administration, the school was renamed the John Molson School of Business in 2000 in honour of one of Canada's most historic and prestigious business leaders. The school is accredited by the AACSB (Association to Advance Collegiate Schools of Business), the premier accrediting agency for degree programs in business administration and accounting, thus ranking it among other leading business schools such as Harvard, Wharton, and Northwestern. JMSB was the first in Montreal and the fourth business school in Canada to receive this prestigious seal of excellence. In 2017, JMSB's AACSB accreditation was maintained for another 5 years.

The MSc Programs in Finance, Management and Marketing have been offered at Concordia University since 1989. Previously offered as the MSc in Administration degree with three concentrations, the program was re-structured in 2014 and split into three separate degree designations: MSc in Finance, MSc in Management and MSc in Marketing. However, the curriculum and administration has remained mostly unchanged. The three programs are designed to: train specialists to perform high-level analytical thinking and data-based decision-making, and develop rigorous research skills. The program also serves as a conduit to PhD Programs at John Molson School of Business and elsewhere. The programs emphasize strong methodological training and up-to-date scientific knowledge within the curriculum. The three programs are administrated jointly and benefit from interdisciplinary cross-fertilization, as well as sharing the same administrative resources.

For full-time students, course work is usually completed over the first year, while the second year is devoted to thesis work. Coursework consists of three (Finance) or two (Management and Marketing) core courses, and five to six elective seminars from the appropriate area of specialization. In their second year, students complete a 21-credit thesis under faculty supervision.

The MSc program adds an important value to John Molson School of Business' curriculum, and brings a strategic advantage as it is one of the few thesis-based business master's programs in the country. The program takes advantage of the University's unique strengths in faculty expertise and vision to provide next-generation education. With the percentage of the international student body exceeding 70%, it also puts the university on the global radar.

Enrollment in the program has been steadily growing, from 120 in Fall 2011 to 183 in Fall 2017. This is not only due to consistent championing of the program by the Dean and Associate Dean, but also by increasing relevance and the need for specialized skills in the job market. While there is still need for more generalist programs such as MBAs, recruiters are increasingly interested in hiring workers with advanced degrees in focused specializations such as sensory marketing, advanced market research methods, financial risk management or change management. Our program therefore fills a need in the institutional curricula and the broader job market.

JMSB faculty is well-regarded for their contribution to research, occupying many editorial board positions (including associate editorship and editorships in chiefs in highly ranked journals). JMSB features 14 research chairs (five endowed chairs and nine Concordia University Research Chairs), and 10 distinguished professorships. The faculty also houses eight research centres and laboratories. The MSc programs are integrated into the faculty's research strategy. Through engaging supervision and the employment of highly motivated research personnel in research teams, the MSc programs provide a mutually beneficial environment for students to gain research experience attained through mentorship of top researchers and faculty. While 8% of the program's students work full-time elsewhere, many of our students take research assistantship positions under their faculty supervisors, and get hands-on experience working in state of the art (and frequently externally funded) research projects.

## Academic Programs Summary Table: Summary on current situation

	Strengths	Weaknesses	Recommendation # (if applicable)
Please consider using a bullet-point format to complete this section of the table.			
Faculty members (as a group)	<ul style="list-style-type: none"> <li>Diverse faculty bringing a range of expertise and focused seminars</li> </ul>	<ul style="list-style-type: none"> <li>Niche research expertise does not always correspond to students' broader professional needs</li> </ul>	1
Teaching practices and philosophy	<ul style="list-style-type: none"> <li>Interdisciplinary and theory focused</li> <li>Small class sizes</li> <li>Involvement of faculty members in pedagogical innovations</li> </ul>	<ul style="list-style-type: none"> <li>Not enough applied content in some courses</li> <li>Moderate satisfaction with core courses</li> <li>Limited number of electives</li> <li>Cross-listing of PhD and MSc courses affect in-class pedagogy</li> </ul>	1
Research, creation, and graduate supervision	<ul style="list-style-type: none"> <li>Very high caliber graduate research, frequently published in academic journals</li> <li>Small student/supervisor ratios</li> </ul>	<ul style="list-style-type: none"> <li>Uneven expectations regarding thesis requirements across students and faculty</li> <li>Only select faculty members are involved in supervision</li> </ul>	1, 2, 7
Administrative processes	<ul style="list-style-type: none"> <li>New lab facilities for MSc students</li> <li>Dedicated staff for each of the research programs will enhance the level of service</li> </ul>		
Program analysis (list the full name of the program)	<ul style="list-style-type: none"> <li>International reputation</li> <li>Program complements JMSB's research goals</li> </ul>	<ul style="list-style-type: none"> <li>Low capture rates in admission</li> <li>Limited alumni connection</li> <li>Limited local outreach, narrow international outreach</li> <li>Longer time to completion than recommended</li> </ul>	2,3,4,5,6

## Academic Programs Summary Table: Recommendations

Please number the recommendations the way they appear in Section 9. Recommendations.

Recommendations (add rows as needed)	Responsibility (role, unit, or committee)	Implementation schedule
1. Review and revise curriculum	GPD, Curriculum Review Committee	Begin Winter 2018
2. Institute formal thesis standards (including thesis proposal requirements) while respecting norms of each discipline.	GPD, Department MSc Committees, Curriculum Review Committee	During curriculum revision
3. Speed up admission process	GPD, GPA, Department MSc Committees	Ongoing
4. Provide early entrance scholarships for top applicants	GPD, Associate Dean Research, Dean	Ongoing
5. Strengthen alumni connection	GPD, Alumni Relations, Communications	Begin Winter 2018
6. Increase local outreach and broaden international outreach	GPD, Graduate Recruitment, Communications	Ongoing
7. Encourage more faculty members to teach in the program and get involved in supervision	GPD, Department Chairs	Ongoing

## 5. List of key issues and topics for the EE

PAC 10 –MSc Programs (JMSB) Year of appraisal 2017

Please provide a short list of issues or topics of interest to be considered by the EE during the visit; a numbered list format is recommended.

1. Curriculum review
2. Admissions
3. Alumni connection
4. Supervision
5. Thesis procedures and requirements

#### Overall impact of the faculty's initiatives in teaching

The JMSB faculty members positively impact the program in the following ways:

- Producing intellectual contributions that inspire the business research community, resulting in improvements in business practices, and motivating leaders to make the world a more sustainable and ethical place;
- Allowing our students to experiment boldly and engage in collaborative projects situated in applied contexts that they can help to improve;
- Occupying a noticeable place in the public sphere and positioning ourselves in business and society debates.

There are numerous opportunities for faculty members to pursue professional development in the area of teaching, notably through workshops offered by the Centre for Teaching and Learning Services (CTLS). Some examples of these offerings are: "Active Learning Brainstorming Session" or "What Does Blended Learning Look Like?". CTLS also organizes New Faculty Orientation, in addition to offering individual consultations.

#### Profile of the faculty as a group

John Molson School of Business faculty members belong to one of five academic departments. As of 2016, there are 161 full-time faculty and 165 part-time faculty. Here we report only the policies pertaining to tenured and tenure-track faculty members, as part-time faculty members are not involved in the research-based programs.

The management of tenured and tenure-track professors is guided by a collective agreement between the University and the Concordia University Faculty Association (CUFA). The Dean is responsible for allocating positions approved by the Provost to each of the faculties according to their needs, development objectives and demographic profile. Departments are responsible for the recruitment process, which is governed by the collective agreement. New hires are typically given a reduced course-load for the first year (three courses instead of four, the latter considered the normal workload), and a \$15,000 startup research grant. These measures have allowed the JMSB to successfully attract top candidates during the five (5) years covered by the review. The teaching and research environment is among the JMSB's main selling point and strategic plan when hiring faculty.

The performance of each faculty member is evaluated formally every two (2) years. However, at the end of every year, each faculty member is required to submit a report detailing all activities conducted in the context of his or her work, including: research and publications, research grant proposals submitted and obtained, conference papers, course development, course evaluations, student supervision, and participation in internal and external activities. These reports are submitted to the department Chairs and to the Dean; they are used for (a) course allocation, (b) career

development increases (i.e., performance evaluation every two years), and (c) assessment of academic and professional qualification according to AACSB's definitions.

Upon graduation of an MSc student, the faculty member who served as the student's supervisor receives 0.75 course credits, which corresponds to a remission of  $\frac{1}{4}$  of a course.

In order for an MSc course to count towards course load for a faculty member, there must be at least 10 students registered in the course.

#### Research and/or creation

Summary of the most significant strategic initiatives and outcomes demonstrating impact:

- Collectively, the JMSB's faculty members have published 527 peer-reviewed journal articles, 205 conference proceedings papers, 72 book chapters and 27 textbooks from 2011-2015; several of these intellectual contributions had a significant impact on policy, industry, companies, and the community;
- One JMSB faculty member was included in the top 100 Influential Leaders from AACSB Business Schools in 2015 for his work on climate change and sustainability;
- The number of media mentions increased from 152 in 2011 to 429 in 2015, totaling 1,458.
- A professor in the Management Department won the Decade Award from the Academy of Management Review (AMR) for research into the power of context on organizational behavior;
- A professor in the Accountancy Department and his co-authors won the Canadian Journal of Administrative Sciences Best Paper Award in 2016;
- A professor in the Marketing Department co-authored a paper that won the Hans B. Thorelli Award. This prize is awarded by the Editorial Board of the Journal of International Marketing.
- In 2016, two JMSB faculty members were awarded Editor in Chief positions to highly ranked journals: Canadian Journal of Administrative Sciences and Journal of Group Decision and Negotiation

#### Infrastructure Supporting Faculty Intellectual Contribution Development

The Office of the Associate Dean, Research and Research Programs is in charge of research development and management. In addition, it administers the Faculty's Master of Science (MSc) and PhD programs. It offers advice and support services for grant applications and contracts. It also manages and makes available several research support programs such as a regular call for internal grant applications and awards to tenured/tenure track faculty members and graduate students.

In addition, the Office of the Associate Dean, Research and Research Programs (ADR) organizes and provides internal rankings for various competitions organized by Concordia's Office of the Vice President, Research and Graduate Studies (OVPRGS). These include an individual seed funding competition, a team grant competition, an infrastructure development grant competition, a grant competition to support research-related events, and a postdoctoral student funding competition. Finally, it administers the internal nomination of Concordia University Research Chairs (CURCs), Canada Research Chairs (CRCs), endowed chairs/professorships as well as their mid-term evaluation and renewal.

As a means of enhancing visibility and promoting the contributions of researchers, the Dean (in collaboration with the Associate Dean, Research and Research Programs) issues an annual research bulletin which highlights the achievements of JMSB's faculty members (see Appendix 4-1).

In addition, JMSB offers awards for distinguished scholarship in the junior, mid-career and established scholar category every year; there are also awards to reward excellence in teaching and service. This program is currently being re-packaged.



The MSc curriculum is designed to deliver five sets of skills to students: 1) specialized knowledge through providing theoretical background on the substantive issues at hand (such as pricing, leadership, investment management); 2) analytical skills to evaluate this knowledge, synthesize it and raise new research questions and assess their implications; 3) methodological skills to gather data to answer research questions; 4) oral and written communication skills to deliver these findings; and 5) ethical integrity to carry out research tasks (data collection, analysis and reporting) that follow the Tri-council policies as well as the university's codes of conduct.

Our pedagogy involves seminar style classes (except for statistics courses that follow more traditional lecture styles) and participatory processes. Our class sizes are small, capped at 30. Most electives have 10-15 students. These seminars are designed around our faculty's expertise and provide our students with a mix of classical theories and most recent research findings. Some of our faculty flip their classrooms so that students deliver a proportion of course content or lead in-class discussions. The majority of our seminars have an assessment component that requires a conceptual or empirical research paper. Most of the seminars also require students to collect primary data, or analyse existing data sets. Our coursework also frequently incorporates an oral presentation requirement to ensure that our graduates gain experience in making professional and academic presentations. Our faculty members incorporate their own research expertise into their supervision endeavours and include graduate students in their research teams. Faculty members are also expected to take into account students' professional aspirations when they carry out their pedagogy.

Because of size and profitability issues, the number of electives that are offered is limited. Despite this, a 2016 survey conducted amongst graduating students indicates 73% student satisfaction with the elective offerings. However, the satisfaction rate for our core courses is at 69% (See page 4, Appendix 4-2 Annual Graduate Survey). As our enrollment is increasing, we hope to offer more elective options. One of the solutions that the program has implemented in the past (based on recommendations from the previous appraisal exercise) was to cross-list MSc seminars with PhD equivalents, wherein instructors apply separate assessment criteria for these two groups. For these courses, MSc students are usually expected to have a lighter workload, and complete some assessment requirements in teams. However, this requires trade-offs in delivery in course content in the classroom to address pedagogical needs of both MSc and PhD students.

The program continuously tries to find a balance between offering a diverse range of courses and refraining from taking over departmental priorities such as undergraduate teaching. However, our vision is to train experts who are irreplaceable in terms of their expertise, rather than generalists.

Unlike the majority of graduate programs at Concordia that are housed in individual departments, our programs are administered at the faculty level; therefore, administration of courses and resource allocation are carried out through individual departments. Each department oversees their own graduate courses in coordination with the MSc Programs office, mentors their own faculty on their pedagogy, and delivers their individual teaching and curriculum initiatives. At the central level, the MSc Program office offers workshops on issues such as Plagiarism prevention, Statistics Tutorials, and How to Critique Research workshop; however except for these pedagogical efforts, administration of teaching is decentralized and delegated to individual departments.

Since the program relies heavily on international student enrollment, a new School of Extended Learning course titled “Academic English for Graduate Business Students” was developed. This course is given as a pre-requisite for enrollment for those students that are on the threshold of their language tests, but have otherwise great credentials for admission. Students are also frequently reminded of opportunities offered by GradProSkills, and many have taken advantage of brief but focused seminars such as Leadership, Communication, and Research Management offered through this initiation. Lastly, the faculty hosts a significant number of invited speakers every year (24 in 2015-2016, see Appendix 4-1 JMSB Research Bulletin). MSc students are encouraged to attend these talks to gain exposure to the most up-to-date research and top researchers in the world.

In addition to assessment of coursework, each thesis document and oral presentation are evaluated through an AOL rubric that measures four learning goals: 1) to introduce specialized knowledge in the field of study, 2) to demonstrate proficiency in research skills in the field of study, 3) to demonstrate the competence to effectively communicate knowledge and research results, 4) to demonstrate an understanding of ethical issues relevant in research and scholarship (See Appendix 4-3 for AOL rubric, and Appendix 4-4 for most recent assessment statistics). Students are also asked to self-assess these learning goals in our annual survey, and the results are more than satisfactory (See page 4, Appendix 4-2 Annual Graduate Survey). However, please note that while the coverage of theoretical knowledge is frequently lauded by students, some students do not always find the applied content adequate (see pages 7-8, Appendix 4-2 Annual Graduate Survey). While the degree is designed as a research program, stronger reinforcement of practical uses of academic research in the classroom and assignments will strengthen the program as well as reinforcing the unique strength of this program against programs without a research focus (such as the MBA) during the recruitment process to manage expectations.

The teaching effectiveness of faculty members teaching in the MSc program is assessed using the same standard format used across the university and administered by the Centre for Teaching and Learning Services.

### Unit Practices

JMSB has elaborated a strategic plan covering the period 2014-2019. One of the strategic directions of this plan is to “Increase Research and Knowledge Transfer”, with several sub-objectives. In the 2016 progress report of this plan, the following progress was noted on the sub-objectives relevant to this report (in italics):

- Grow our research capacity and results through initiatives such as: additional research chairs, scholars in residence, PhD student intake and external funding
  - a. *Two new Concordia University Research Chairs (CURC Tier 2 and CURC New Scholar) awarded*
  - b. *The Stephen A. Jarislowsky Chair in Corporate Governance established*
  - c. *National Bank Initiative in Entrepreneurship and Family Business established in 2014*
  - d. *Intensive grant proposal development process, in collaboration with the Office of Research, has led to a significant increase in grants*
- Increase the visibility of our research strengths within the academic community with focused initiatives/activities
  - a. *Symposia organized by JMSB research centres*
  - b. *Increase in the number of refereed journal articles and conference presentations in 2015 and 2016*
  - c. *Several faculty members appointed editors in chief, associate editors and to editorial boards*
- Increase the visibility of our research strengths within the business community with focused initiatives/activities
  - a. *Establishment of research centres and other initiatives through donations from the business community and participation of the business community on the advisory boards of those centres*
- Transfer research knowledge in useable form to the business community with an open dialogue to understand its research needs
  - a. *Annual Research Bulletin expanded to include more editorial content and to feature research by JMSB’s PhD and MSc students*
- Increase the involvement of graduate students in research at JMSB
  - a. *New PhD and MSc student space which will enhance community-building and knowledge transfer*

JMSB has put in place a number of mechanisms to support and promote innovation and initiatives to facilitate knowledge mobilization, notably:

- JMSB students and their supervisors can apply to CASA Thesis Grants, for up to \$2500 to support thesis research.
- The Annual Graduate Research Exhibition (AGRE) showcases the latest research findings of JMSB’s Doctoral (PhD) and Master of Science (MSc) students. Participating students present their work on posters mounted throughout the Molson Building atrium. The event is special in that graduate students are not often provided with an opportunity to present their research to the academic and business communities, representatives of which will be on hand to act as judges. The event is also

fully funded (including poster costs) for those students with accepted submissions. Judges select the best posters at both the MSc and PhD levels and winners receive cash prizes.

At the university level, the School of Graduate Studies offers MSc students funding for travel to one conference during the term of their program, ranging between \$200 and \$1,000.

### Graduate Student Supervision

Students spend their first two terms taking core and elective courses while also looking for a thesis supervisor. It should be acknowledged that most students end up being supervised by a select group of professors, mostly due to the structure of the program and limited number of course offerings. While students are asked to shop around, they usually stick to those few professors offering courses in the program. There is an opportunity to further extend the reach of faculty and diversify the supervision pool.

Once students have found their supervisor, they need to select at least one more committee member in consultation with their supervisor. They then complete the Link-Up form (which lists the names of their committee members and proposed thesis title) and submit the form to the MSc Program Office. The Link-Up form is thought of as a contract between the student and their committee. Before the final defence, another faculty member who has at least a general understanding of the area of the proposed thesis must be added to the committee.

Students and committee members are also recommended to provide a thesis proposal to their committee; however the execution of this phase is not standardized across faculty. While some committees treat this more formally, others skip it altogether. While there is no need for an oral proposal defense, clarifying and standardizing expectations regarding the thesis proposal will prevent future ambiguities.

Once the students have established their proposed methodology, they are expected to pass an ethics clearance from the University Ethics Board (only applicable to those students who collect data using human subjects). From thereon, students work with their supervisors and committee members until their defense date without any unit-prescribed guidelines.

The thesis defense is comprised of a public 15-20 minute presentation, a public question-and-answer period and a private session of committee members elaborating on the merits of the thesis. At the end of this session, the committee reaches a recommendation from one of the following options:

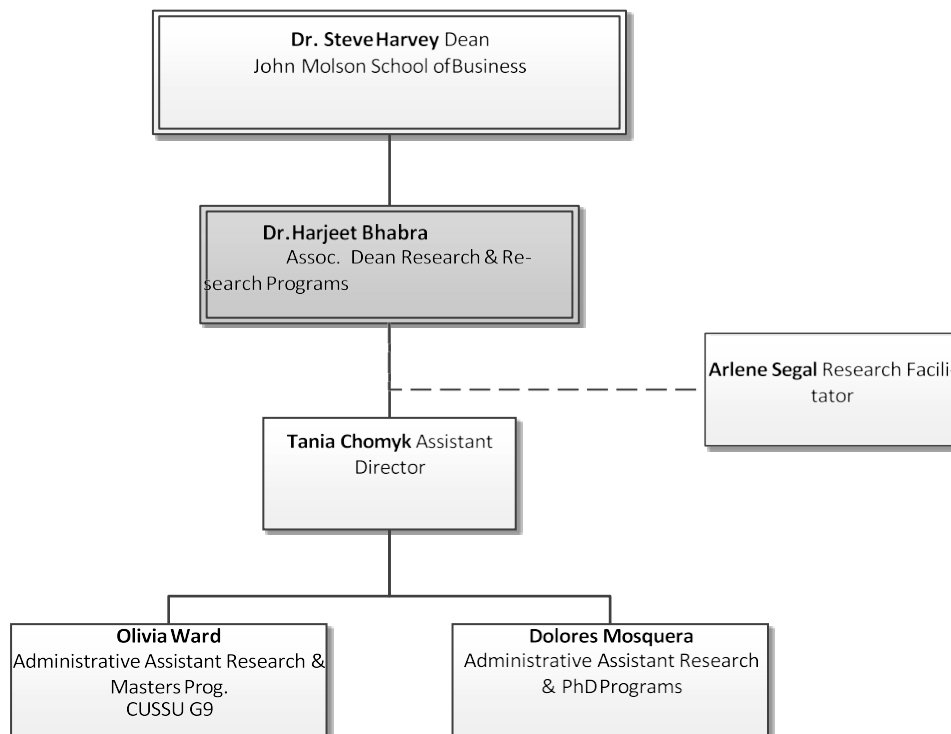
- Accept as submitted.
- Accepted with minor modifications.
- Accepted with major modifications.
- Rejected.

Other than the thesis defense procedures, there are no other formal guidelines on how supervision is implemented, such as how often students should have contact with their supervisors.

## Administrative Structure

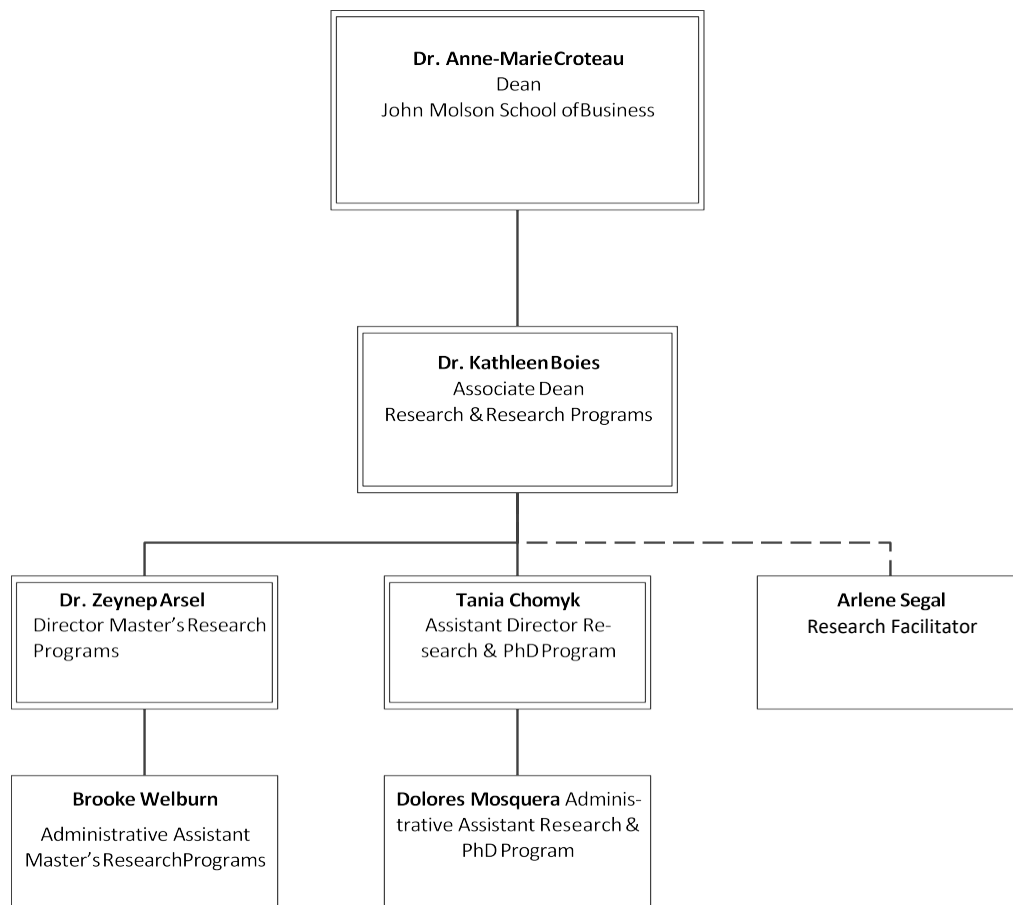
The Research & Research Programs Office at the John Molson School of Business (JMSB) has been operating under a merged structure that was implemented in 2014 under the leadership of the Associate Dean, Research & Research Programs. Contrary to how other faculties operate in the University, this included combining two separate operations, that of graduate research program delivery (MSc and PhD) and the research activities of the entire faculty of JMSB. JMSB is the only faculty in which the management of research activities is fully intertwined with the administration of its graduate research programs. This interlaced structure below (a) affected all positions in the Research & Research Programs Office – from the Associate Dean to the administrative assistants – and negatively impacted the focus with respect to the office’s daily tasks and implementation of important initiatives in both the research or research programs area.

*(a) 2014 Research Programs (MSc & PhD) & Research Office Structure*



In order to address this more effectively, a proposal was made to restructure the unit in an attempt to separate these activities and ensure that appropriate leadership and resources are provided for both the office’s research programs and research-related activities. The structure below (b) is the outcome of the proposal presented to the Interim Dean of JMSB in November 2016 which was implemented by September 2017. In addition to the new GPD position for the MSc and new MSCM program, further resources (3-day part-time office assistant) have been added to the daily research office activities. This structure represents the division of tasks for the MSc and PhD programs while still operating under the leadership of the Associate Dean, Research & Research Programs. The new model will allow both areas (research/research programs) to individually advance and provide service excellence to their separate clientele (faculty/students).

*(b) 2017 Research Programs & Research Office Structure*



Academic & professional advising

The MSc program has assigned department representatives who serve as advisors to the students in each respective specialization (MSc: Finance, Marketing, and Management).

Students and department representatives along with Chairs of departments receive a student handbook that is generated every year (based on SGS rules and regulations, also available on-line) which serves as a guide to all relevant information related to their program of study in order to

ensure optimal student success. Course selection advising is normally done at the outset in collaboration with the department representatives. Course planning forms are only completed by the student and approved by the representatives if they are taking courses outside of their specialization. This is to ensure that the appropriate path is followed. Further advising in terms of research interest, thesis development, etc. is done by the respective student supervisor.

Faculty, department representatives and/or supervisors bring forward any specific concerns they may have with student(s) who are at risk directly to the graduate program director and/or associate dean. Through consultation with the School of Graduate Studies, issues of this nature are addressed in a timely matter.

### Facilities & Services

JMSB classes are held in the MB building, which is the primary administrative and academic centre of the John Molson School of Business. The program office is located on the 11<sup>th</sup> floor of the MB building. As of June 1, 2017, with the implementation of the new structure that was presented above, the MSc operations moved from the main Research Programs Office MB11.330 to MB11.191 as the current premises could no longer accommodate the entire unit.

In September 2017, JMSB underwent renovations to the 9<sup>th</sup> and 11<sup>th</sup> floors where most of our graduate students were located (either in common space, labs, or designated offices). The MB 9<sup>th</sup> floor became the primary location for the PhD students. Unlike the PhD students, the MSc students do not have designated office space, but rather they share a common lab on the 11<sup>th</sup> floor which accommodates 30 students at any given time. The lab is equipped with 10 desktop computers, a laser printer, and 20 working desks. All MSc students have 24-hour access to this lab.

A designated Lab supervisor from CIT (Centre for Instructional Technology) is available to students and provides assistance with respect to equipment or any software issues they may have.

### Libraries

Through the Concordia University Libraries, students have wide access to books, journals, and research databases. Many of these resources are available over the internet but some (mostly books) require on-site visits to the libraries. While the Webster Library is a few steps away from the MB building, some materials are only available at the Vanier Library on Concordia's Loyola campus, located approximately 7 kilometers away. However, students and faculty members can have books delivered at the Webster library, and they can also have portions of textbooks photocopied/scanned and sent to them. All graduate students at JMSB may borrow from other Quebec and Ontario University libraries with a CREPUQ card, which may be obtained at the library. These cards are issued from the Office of the Director of Libraries.

COLOMBO, an active inter-library lending service permits the borrowing of materials from other libraries at the national or international level. A delivery service between the research libraries of Quebec and Ontario facilitates relatively quick delivery of items located within this network.

# PAC Report

## 8. Program analysis

### a) Characteristics of the programs under appraisal

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**Academic year used:** 2017-2018

**Link to Undergraduate Calendar:** N/A

**Link to Graduate Calendar:** <https://www.concordia.ca/academics/graduate/calendar/current/jmsb/msc.html>

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#### **Funding<sup>17</sup>**

There are many different sources for funding for MSc students throughout their time in the program.

*MSc Student Research (Thesis) Funding:* This grant is to help students, together with their faculty supervisor, achieve their thesis research objectives. Funding is available to a maximum of \$2,500 per student.

*MSc Conference Travel Funding<sup>18</sup>:* This is a grant to assist MSc Students with conference travel. Funding is available to a maximum of \$1,000 per student. Students must apply for this funding a minimum of two months prior to the date of travel.

*Graduate Awards & Fellowships:* Each year entrance scholarships are awarded on a competitive basis. The number and amounts vary depending on the availability of funds. Students are also eligible for other awards and scholarships administered by the School of Graduate Studies

*Research Assistantships:* Many graduate students receive support in the form of a stipend paid by a faculty member holding a research grant.

*Teaching Assistantships:* JMSB typically allocates funds annually to individual departments for teaching assistants, markers, lab demonstrators, conference leaders, etc.

#### **Admission Process:**

The admission process is as follows:

1. Student completes online application for admission and receives a notification from the Office of Registrar.
2. JMSB Graduate Admissions monitors the admissions file for missing documents

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<sup>17</sup>Source: <https://www.concordia.ca/jmsb/programs/graduate/msc/students/funding.html>

<sup>18</sup> Canceled in 2015 due to lack of demand



- a. If the file is complete, it is indicated as such on the student information system.
- b. If the file is incomplete, and the deadline has not passed, the student is sent a letter so that they can submit missing documents.
- c. If the file is incomplete and the deadline has passed, the program assistant will attempt to communicate with the student to gauge their level of interest. Based on the response, their application would or would not be further considered.
3. Once the file is complete, the Program Assistant initially prepares a template indicating all documentation received and highlights the minimum requirements.
4. The template is forwarded to the Program Director who reviews the files and rejects those who do not meet the minimum requirements.
5. Files that meet the minimum requirements are sent to Departmental Representatives by the Program Assistant.
6. Departmental Representatives distribute the files to their Departmental Committees for evaluation.
7. Departmental Representatives return the files to the Program Assistant with their assessment and their recommendations for qualifying courses, if applicable.
8. Program Director approves the admission decisions and informs the Program Assistant.
9. Program Assistant enters the decisions in the SIS.
10. JMSB Graduate Admissions send letters of admission or rejection.
  - a. If there are conditions (missing documents, prerequisite courses), the student is informed in this letter.
11. Considering the time it takes to evaluate these files, the Program Assistant sends files to committees in batches, instead of waiting for all to be completed.

## Admission Standards

- Undergraduate degree in any discipline with a minimum GPA of 3.0.
  - Students applying from Canadian universities must have maintained at least a 3.0 (out of 4.3) average for their final two years of studies. Students from other countries must, in their final two years, have obtained the equivalent, from an accredited university.
- A GMAT score of 580 or higher.
  - This requirement may be waived for candidates who completed an undergraduate degree at a recognized Canadian university with a GPA above 3.7 (out of 4.3) and have some research experience.
- A student whose primary language is not English must write a pre-admissions proficiency test (TOEFL iBT minimum score 95 or IELTS (Academic) minimum score 7.0 *and no part under 6.5*) if not exempted as indicated below. Test results must be reported directly to the Admissions Application Centre by the test centre. Results more than two years old will not be accepted as proof of language proficiency. Students with lower than this minimum, but with otherwise good academic credentials might be admitted on the condition that

they take “Academic English for Graduate Business Students” (offered by the School of Extended Learning) in the summer, prior to beginning their studies.

- Quebec applicants who have completed a Diploma of Collegial Studies (DEC) and a university degree in Quebec or international applicants who have completed a minimum of three full years of study either at the undergraduate or graduate level in an institution where the sole language of instruction is English are exempted from taking an English proficiency test.

Depending on background, non-commerce students may be asked to take one or more supplemental courses as a part of Qualifying Program.

#### **Finance Qualifying Program Courses**

FINA 385 - Theory of Finance I

FINA 395 - Theory of Finance II

FINA 410 - Investment Analysis

FINA 411 - Portfolio Management

#### **Management Qualifying Program Courses**

COMM 215 - Business Statistics

COMM 222 - Organizational Behaviour Theory

#### **Marketing Qualifying Program Courses**

COMM 215 - Business Statistics

COMM 223 - Marketing Management I

### **Learning Outcomes**

The goal of the program is to furnish students with specialized knowledge and methodologies, help them to use theory to understand real life issues and use advanced methodologies to solve these issues. A proportion of our students also continue with graduate education, using our program as a conduit to their PhD training at Concordia (through our fast-track program or through regular channels) or elsewhere. At the end of their education, the students are expected to have in-depth knowledge on their topic of interests, advanced methodological skills to collect and analyze data on these topics, proper communication skills to deliver their findings and an understanding of ethical issues pertaining to their topic and methodology of interest.

There is a 21-credit thesis component to our program. If students take a full course load as a full-time student, they enter the thesis phase at the beginning of their second year. This component includes a written thesis document and an oral defense. Students are expected to conduct a comprehensive literature review and present a theoretical contribution to knowledge or a rigorous empirical application. The definition of what constitutes “a contribution” varies between domains and even across faculty members in the same department. As a result, it is left to the student’s committee to determine if the thesis document meets their criteria of contribution. This, in turn, bears the risk of uneven workload distribution across both supervisors and students themselves.

### **Local and International Reputation**

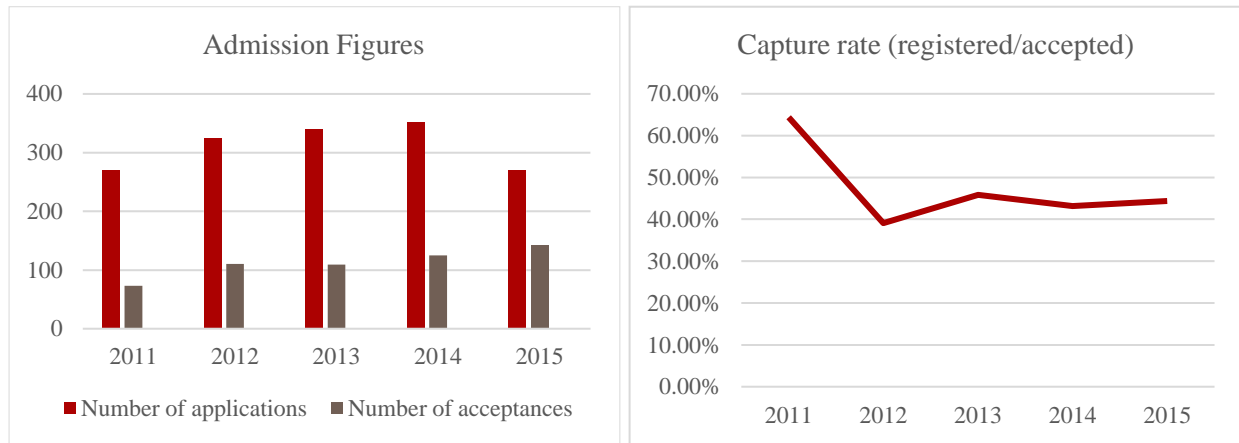
While JMSB is well-regarded locally, nationally and internationally, a majority of our students (above 60 percent) come from outside Canada. While there is a strength in our international reputation and reach through our ever-increasing ranking performances internationally, we also see potential opportunities to increase local recruitment. Our faculty is known for their research, supported by many endowed chairs, professorships and external grants.

Our program is one of the few business masters’ degree in Canada that offers students a thesis option, and this has been a deciding factor for some of our recruits. Vibrant student groups, extracurricular options, and the quality of life in Montreal also are attractive attributes that contribute to the differentiation of our programs.

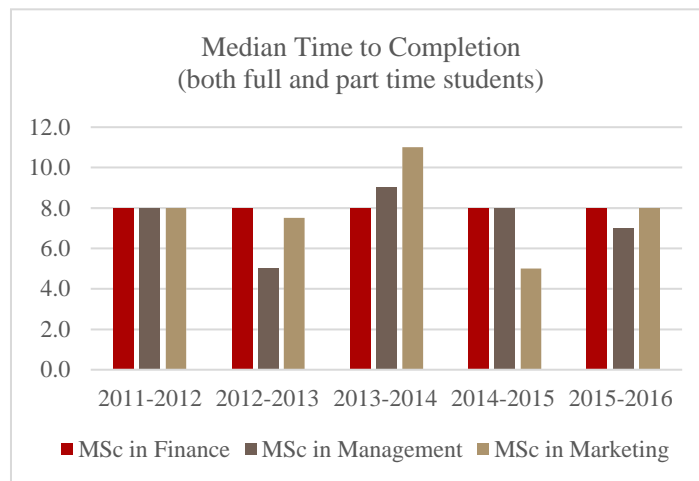
### **Descriptive Statistics on Program Performance**

Please see below for admission figures. While our application numbers have been steady and our acceptance rate has been more selective compared to other JMSB programs (in the 40% vs. higher 50% faculty average), our capture rates (around low 40%) have been lower than faculty average (which tends to be in the higher 60% in other graduate programs, but similar to research based

programs such as the PhD program, which are also at 40%). To remedy this, we have been looking into ways of speeding up the admission process to ensure we send faster admission decisions and also providing more entrance scholarships for top applicants who might find opportunities in competitive institutions.



One of the challenges the program is facing is slow time to completion. The median number of terms to completion is reported as 8 and is longer than recommended. However, these numbers provided to us include both full- and part-time students. Currently 8-10 % of our students continue their studies part-time, taking half (or even less) of the course load compared to the full-time students, stretching their time to completion.



## **Expectations for Specific Jobs Available to Students after Graduation**

Many of our students are expected to end up in specialized positions in the industry (for example, as Product Manager, Market Research Specialist, Business Analyst, Human Resources Advisor, Pricing Manager). A proportion of our students also are expected to continue to PhD Programs, either at JMSB through the fast-track program (provided that they meet the minimum admission requirements for the PhD), through the regular channels at JMSB, or elsewhere.

### MASTER OF SCIENCE (MSc) IN FINANCE

**General objective of the program:**

The Master of Science (MSc) in Finance equips students with a solid understanding of financial theory and research methodology. Graduates are prepared to build successful careers in research or analysis in the financial sector or in government. The program also serves as excellent preparation for those wishing to pursue their studies at the doctoral level.

The MSc program is a 45-credit program offered on a full-time or part-time basis.

The analysis is based on “Milestones” model. There is no linear path leading to the completion of the degree, and students might have several options available to them.

**Milestones: 1) Core courses; 2) Elective courses; 3) Thesis**

**1. Core courses: 9 credits**

General description: By the time students complete this milestone, the students will have acquired strong quantitative and analytical abilities and a solid understanding of economic theory and research methodology.

Course	Skills/competencies and learning activities
MSCA 601: Financial Economics	The course will begin with a rigorous review of microeconomic theory including analysis of consumer behaviour and demand, the theory of production and supply, optimal price and output determination by firms, and the concept of market equilibrium. Within this framework, the course will then focus specifically on the equilibrium determination of interest rates and asset prices under conditions of uncertainty. Finally, the course will discuss the role of market imperfections for decisions under uncertainty with particular emphasis on agency problems.
MSCA 602: Applied Linear Statistical Models	Various Linear Model topics in statistical analysis applied to business and economic problems will be reviewed. This will include design of experiments, analysis of variance, multiple regression, model building, multi-collinearity influential observations, variable selection techniques, ANOVA models with random effects, analysis of covariance etc. Case studies illustrating the different areas of application will be used.

MSCA 611: Research Methodology – Finance	This seminar is intended to prepare students to conduct econometric analysis in financial research. The material builds up on the topics covered in the core course MSCA 602 and continues to provide an in-depth understanding of the advanced econometric techniques in finance. Topics covered include: maximum likelihood estimation, autoregressive estimation techniques, generalized least square procedures, simultaneous equation systems, non-linear estimation techniques, limited dependent variables, and qualitative response model. In addition, the course provides an introduction to the use and the development of stochastic modeling in finance.
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## 2. Elective courses: 15 credits

General description: By the time students complete this milestone, the students will have acquired specialized knowledge and skills in developing their thesis.

Course	Skills/competencies and learning activities
MSCA 621 Investment Theory	This seminar deals with the market for financial assets, market efficiency and the valuation of financial assets. The seminar begins with a discussion of various financial assets and their institutional trading arrangements, and then continues with a theoretical development of market efficiency and testing methodologies. Various market anomalies will be identified as the empirical evidence on whether or not various types of information are fully reflected. The seminar concludes with the theory and empirical evidence on various asset-pricing paradigms. These include the Capital Asset Pricing Model (CAPM) and the Arbitrage Pricing Model (APM) for equities, the Option pricing Model (OPM) for derivative securities, and the single factor duration model for fixed-income securities.
MSCA 622 Investment Management	This seminar covers the various aspects of investment analysis and management such as selection, revision and measurement in both a domestic and global environment. The seminar begins with a discussion of asset allocation systems and the merits of passive and active dynamic investment strategies in the absence and presence of market imperfections such as informational inefficiencies, taxes and transaction costs. Techniques for "stock picking", "market timing", portfolio insurance, program trading, bond swaps, (contingent) immunization, among others, will be discussed. The seminar ends with the measurement of investment performance and the management of particular types of investment portfolios. Normally, the Seminar in Investment Theory (MSCA 621) will be taken concurrently with, or prior to, this seminar.
MSCA 623 Financial Theory and Corporate Policy	This seminar applies the theory of decision making under uncertainty to evaluate the firm's financial and real policies. It offers a rigorous review of the modern theoretical and empirical literature on the valuation of the firm's securities and their special features, the relevance of the firm's financing choices and dividend policies, corporate mergers and acquisition activities, and the determination of the firm's cost of capital. More specifi-

	<p>cally, the analyses are conducted in an equilibrium setting where the impact of imperfections such as taxes, bankruptcy costs, informational asymmetries, and agency problems is analyzed for corporate decisions.</p>
<p>MSCA 624 Mergers, Re-structuring, and Corporate Control</p>	<p>The objectives of this course are two-fold: first, to introduce the area of mergers and acquisitions and second, to strengthen and develop the research skills (both in conducting and evaluating research) of students. To encourage you to read new research, you will be required to summarize and critique the research of others. In the last few weeks of the session, we will have a mini-conference. Students will present their work and discuss the work of other students.</p>
<p>MSCA 625 Op- tions and Fu- tures</p>	<p>Theoretical and empirical issues on the valuation and the financial use of options and futures are studied in this seminar. The seminar begins with an introduction of the options and futures markets and proceeds with the developments of pricing models for evaluating these securities. Several different types of options and futures contracts (such as stock index options, options on debt instruments and currencies, interest rate and stock index futures) are introduced and strategies for using them for arbitrage, hedging, and speculative purposes are discussed.</p>
<p>MSCA 629 In- ternational Fi- nancial Man- agement</p>	<p>This seminar examines the financial aspects of international business, including the financing and hedging activities of firms involved in the international transfer of goods and services, and decision making in connection with the asset management and financing of multinational corporations. Several mechanisms for managing international exchange and financial risk will be assessed, including forwards, options and futures on currencies as well as interest rates. The Eurocurrency and Eurobond markets will be studied, and financial market efficiency and integration will be examined in various regions.</p>
<p>MSCA 632K Corporate Gov- ernance &amp; Exec- utive Compen- sation</p>	<p>This course takes a finance perspective in examining conflicts over control and governance of the corporation. Students will familiarize themselves with the main areas of investigation in the corporate governance literature, discuss major scholarly articles of the field, get introduced to the major techniques of theoretical and empirical research, get introduced to recent contributions in the field. Out of the several mechanism to mitigate the conflicts between ownership and control, this class will focus on partial concentration of ownership and control in the hands of one or a few large investors, and alignment of managerial interests with investors through executive compensation contracts. The course will also consider the effect of legal and regulatory institutions of corporate governance in different countries. Finally we will investigate some of the reasons why the topic of corporate governance has received so much attention in recent years, namely the world-wide wave of privatization of the past two decades, deregulation and integration of capital markets combined with recent financial crises that have put the spotlight on corporate governance in emerging markets, and a series of recent US scandals and corporate failures.</p>



### 3. Thesis: 21 credits

General description: The thesis is the culminating milestone of the program. Students will apply the skills and knowledge acquired through core and elective courses to conduct original research in the form of a master's thesis, working under the direct supervision of a faculty member. Students must show competencies in all areas related to the writing of their thesis and will demonstrate their capacity of continuing into the doctoral program. Their supervisor and examination committee will measure the assessment of the student's success in this milestone.

Course	Skills/competencies and learning activities
MSCA 699: Thesis	The MSc thesis requirement is intended to provide candidates with an opportunity to carry out an investigation in depth in a particular area of interest and to make a contribution to knowledge in that area. It is expected that the thesis will include a comprehensive and critical synthesis of the relevant literature and will also embody either a theoretical contribution to knowledge, a rigorous empirical investigation or both. A Thesis Committee consists of a faculty member as Supervisor and two other faculty members. An Examining Committee consists of the Thesis Committee and a Thesis Examination Chair appointed by the School's MSc Director in accordance with the thesis regulations specified in the graduate calendar.

## MASTER OF SCIENCE (MSC) IN MANAGEMENT

### General objective of the program:

The Master of Science (MSc) in Management is designed for students who wish to enhance their research expertise in the areas of human resources and strategic management. The curriculum focuses on developing knowledge about current management theories and skills in the tools and methods used to conduct advanced research in an organizational setting. The structure of the program allows candidates to produce the kind of research that is becoming increasingly necessary in contemporary organizations or leads toward advanced graduate studies.

The MSc in Management prepares students for various careers. For those who wish to pursue a career in business or other organizations, the program prepares graduates to assume staff or analyst positions in human resources, change management, and strategic planning, or to work as consultants. The program also serves as an excellent stepping stone for those wishing to pursue doctoral studies in management or industrial and organizational psychology. The MSc program is a 45-credit program offered on a full-time or part-time basis.

The analysis is based on the “Milestones” model. There is no linear path leading to the completion of the degree, and students might have several options available to them.

### Milestones: 1) Core courses; 2) Elective courses; 3) Thesis

#### 1. Core courses: 6 credits

General description: By the time students complete this milestone, the students will have acquired current management theories and skills in the tools and methods used to conduct advanced research in an organizational setting.

Course	Skills/competencies and learning activities
MSCA 602: Applied Linear Statistical Models	Various Linear Model topics in statistical analysis applied to business and economic problems will be reviewed. This will include design of experiments, analysis of variance, multiple regression, model building, multi-collinearity influential observations, variable selection techniques, ANOVA models with random effects, analysis of covariance etc. Case studies illustrating the different areas of application will be used.
MSCA 615: Research Methodology – Administrative Sciences	The objective of this seminar is to provide a basic understanding of the research process and a knowledge of the methods used in the design and execution of scientific research relevant to social sciences, and specifically the business context. The seminar helps students to develop skills needed to assess the feasibility and potential contribution of proposed studies, and to critically evaluate research reported by others. The application of relevant research methods are reviewed through discussions of exemplary articles published in leading journals. Cornerstone topics in this seminar include: theory construction, measurement, overview of data collection methods, reliability, as well as internal and external validity issues.

## 2. Elective courses: 18 credits

General description: By the time students complete this milestone, the students will have acquired specialized knowledge and skills in producing the kind of research that is becoming increasingly necessary in contemporary organizations or lead toward advanced graduate studies.

Course	Skills/competencies and learning activities
MSCA 641 Organizational Staffing	This seminar is the first of three seminars that together provide an in depth understanding of the modern practice of personnel and human resource management. This seminar will provide the analytical and conceptual tools needed to effectively staff organizations with qualified employees. The main areas of coverage include: strategic human resource planning, task and job analysis, and the recruitment, selection and placement of qualified applicants. In addressing these topics, attention will focus on techniques for developing valid and reliable predictors of employee effectiveness which address both the strategic needs of the organization and the legal and employment equity requirements of contemporary Quebec and Canadian organizations.
MSCA 642 Employee Development	This seminar will provide the theory, concepts, and techniques necessary for the effective long-term development of employees. Areas covered include: training (needs analysis, program design, delivery, administration and evaluation), employee career development, organizational socialization and entry practices, career paths, strategic responses to technological change and employee obsolescence, downsizing, relocation, and retirement.
MSCA 643 Motivation, Evaluation, Compensation and Rewards	Provides knowledge of human motivation and compensation systems as they affect organizational processes and behavior. Emphasis will be on major theories of human motivation and on the relation between motivational processes and personal and organizational outcomes. The effects of evaluation, compensation and reward systems on motivation will also be discussed.
MSCA 645 Organizational Theory and Design	This course is a research-oriented seminar, in which we will explore a number of different theoretical perspectives on organizations and organizational environments. The primary aim of the seminar is to introduce students to an understanding of how organizational scholars have conceptualized and studied organizations as social systems and how these social systems interact with and are embedded in the context of an external environment. Particular attention is given to how organizations can be understood, both internally and in relation to the environment, as social structures composed of relationships, interdependencies, and social-cultural institutions. At the end of the seminar, students would have acquired a sophisticated understanding of the social and social cognitive context through which behaviour by people in organizations is both facilitated and constrained.

MSCA 652A International Management	This seminar explores the interaction of globalization and the organization. It explores three levels of analysis: (1) the broad institutional environment, (2) the organization itself, and (3) human. The emphasis is on developing analytical assessments of drivers and outcomes of globalization.
MSCA 652M Individual Performance in Organizations	The primary objective of this course is to provide a theoretical and practical overview of individual performance from the perspective of the field of human resource management and industrial/organizational psychology. The course is meant to be prescriptive rather than simply descriptive. This course will cover the following: the challenge of defining individual performance in organizations, how to measure individual performance, and how to use performance evaluations to positively influence the future behaviours of employees.
MSCA 652T Administrative Theory	This course will review the important developments in administrative and behavioural thinking and focus on the work of management scholars who have made significant contributions to the practice of management. The course will span the various levels of organization analysis (individual, group, organization and environment) and a variety of perspectives on organizational behaviour, organizational theory and administrative thought. Students are expected to understand and be able to critically assess the impact of concepts, theories, and scholarly contributions of material covered.
MSCA 683 Multivariate Data Analysis	This seminar is designed to introduce students to several multivariate analysis techniques with emphasis on the practical use of these tools in business research. Techniques that will be covered in this course include MANOVA, discriminant analysis, principal components and factor analysis, canonical correlation analysis and multidimensional scaling. The objective of the seminar is to provide a fundamental understanding of the nature, power, and the limitations of multivariate statistical techniques.

### 3. Thesis: 21 credits

General description: The thesis is the culminating milestone of the program. Students will apply the skills and knowledge acquired through core and elective courses to conduct original research in the form of a master's thesis, working under the direct supervision of a faculty member. Students must show competencies in all areas related to the writing of their thesis and will demonstrate their capacity of continuing into the doctoral program. Their supervisor and examination committee will measure the assessment of the student's success in this milestone.

Course	Skills/competencies and learning activities
MSCA 699: Thesis	The MSc thesis requirement is intended to provide candidates with an opportunity to carry out an investigation in depth in a particular area of interest and to make a contribution to knowledge in the area. It is expected that the thesis will include a comprehensive and critical synthesis of the relevant literature and will also embody either a theoretical contribution

	to knowledge, a rigorous empirical investigation or both. A Thesis Committee consists of a faculty member as Supervisor and two other faculty members. An Examining Committee consists of the Thesis Committee and a Thesis Examination Chair appointed by the School's MSc Director in accordance with the thesis regulations specified in the graduate calendar.
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## MASTER OF SCIENCE (MSc) IN MARKETING

### General objective of the program:

The Master of Science (MSc) in Marketing is designed for those who wish to enhance their expertise in the most up-to-date marketing theories and in the tools and methods used to conduct advanced marketing research. The program provides graduates with the skills and expertise to manage large research projects and prepares them to pursue successful careers as marketing specialists in fields such as brand management, new product development, communications and marketing research. Those who wish to pursue their studies at the doctoral level will find that the program provides a solid theoretical base for advanced research and consulting work. The MSc program is a 45-credit program offered on a full-time or part-time basis.

The analysis is based on the “Milestones” model. There is no linear path leading to the completion of the degree, and students might have several options available to them.

### Milestones: 1) Core courses; 2) Elective courses; 3) Thesis

#### 1. Core courses: 6 credits

General description: By the time students complete this milestone, the students will have acquired the tools and methods used to conduct advanced marketing research.

Course	Skills/competencies and learning activities
MSCA 602: Applied Linear Statistical Models	Various Linear Model topics in statistical analysis applied to business and economic problems will be reviewed. This will include design of experiments, analysis of variance, multiple regression, model building, multi-collinearity influential observations, variable selection techniques, ANOVA models with random effects, analysis of covariance etc. Case studies illustrating the different areas of application will be used.
MSCA 615: Research Methodology – Administrative Sciences	The objective of this seminar is to provide a basic understanding of the research process and a knowledge of the methods used in the design and execution of scientific research relevant to social sciences, and specifically the business context. The seminar helps students to develop skills needed to assess the feasibility and potential contribution of proposed studies, and to critically evaluate research reported by others. The application of relevant research methods are reviewed through discussions of exemplary articles published in leading journals. Cornerstone topics in this seminar include: theory construction, measurement, overview of data collection methods, reliability, as well as internal and external validity issues.

#### 2. Elective courses: 18 credits

General description: By the time students complete this milestone, the students will have acquired the skills and expertise to manage large research projects and prepares them to pursue

successful careers as marketing specialists in fields such as brand management, new product development, communications and marketing research.

Course	Skills/competencies and learning activities
MSCA 662 Consumer Re- search	The principal objective of the seminar will be to evaluate current empirical and theoretical issues in consumer research, with special emphasis on journal articles with interdisciplinary content. Methodological and review articles will also be discussed. The focus on the seminar is the subset of human behaviour related to the consumption and/or use of goods and services, as well as the processes that lead up to them. Major emphasis will be placed on marketing communication, attitude development and attitude change, information processing, decision-making processes and strategies, as well as the post-purchase process including new findings in the areas of consumer satisfaction and cognitive dissonance.
MSCA 665 Marketing Communica- tions	This seminar will focus on the communication process between a company and its markets and other publics. Theories, findings, hypotheses and techniques from several disciplines, such as social psychology, sociology, political science and marketing, will be studied and evaluated in the context of the design, planning and control of marketing communications programs. More emphasis will be given to advertising decisions than to personal communications decisions.
MSCA 668 New Product Innovation	This seminar acquaints students with well-known approaches to managerial decision-making and research in the area of Product Innovation and New Product Marketing. Analytical approaches presented in recent publications, combined with some important "classics", will be stressed. The course focuses primarily on new product development/marketing and covers a variety of topics, strategies, phases and analytical approaches relevant to this subject area. Specific topic areas include: innovation and new product development (NPD) strategies, the stages of the NPD process, new service development, and organization for NPD.
MSCA 672E Psychology of Decision Mak- ing	One of the most pervasive actions that humans engage in is making decisions. Individuals choose which products to purchase, universities to attend, careers to pursue, mates to marry, among countless other decisions that they will make in their lifetimes. How does a consumer decide which product to purchase? How much information will an executive use prior to deciding whether to launch or abort a new product? What are the attributes that men and women look for in their ideal mates? How do individuals allocate their gift giving expenditures to the various recipients? The purpose of this course will be to introduce the student to two areas of inquiry that can help us understanding how individuals make decisions. The first part of the course will focus on the vast behavioral literature in judgment and decision making in an attempt to better understand how individuals arrive at a final judgment and/or choice. The second part of the course will shift focus to a recently developed Darwinian framework namely evolutionary psychology, to show that many behaviors, cognitions, emotions,

	preferences, and choices that we make are steeped in our Darwinian heritage.
MSCA 672G Segmentation and Positioning in Marketing	Segmentation and positioning are two of the most critical strategic choices in marketing. This course focuses on some statistical models that are used often by researchers in segmentation and positioning. Collectively, these tools aim to (1) understand the nature of consumer perceptions and preferences and (2) examine if they are homogeneous across groups of buyers. The models to be covered include factor analysis, deterministic and probabilistic multidimensional scaling, correspondence analysis, internal and external analysis of preferences, conjoint analysis and various types of cluster analysis. In addition to providing an understanding of the statistical foundations of these popular models in marketing research, the course will expose the students to "hands-on" data analysis through assignments that require the use of statistical software such as BMDP, SPSS, SAS, and other software shared by researchers and academicians.
MSCA 672U Research in Retailing: Theories, Methods and Applications	This specialized MSc seminar in marketing emphasizes theoretical and methodological knowledge necessary to conduct marketing research in a retailing context and is targeted toward MSc students who consider working (1) in retail management, (2) in marketing research, or (3) as consultants in the retail sector. The first half of the seminar emphasizes research on retail consumers and their responses to retail environments and retail offerings. The second half of the seminar focuses on strategic issues in retailing, such as pricing, sales promotions, and loyalty programs.
MSCA 674 Brand Management	This specialized MSc course in marketing aims at providing graduate students in marketing with an in-depth knowledge of consumer, organizational, and societal perspectives on brand management. The first half of the course emphasizes the cultural, personal, and interpersonal meaning of brands, and includes a discussion of the meaning of possessions, sacred and ritual brand experiences, and the role of nostalgia in shaping the meaning of brands. The second half of the course focuses on managerial aspects of branding, such as brand equity, brand extensions, and the elements of the brand mix.
MSCA 683 Multivariate Data Analysis	This seminar is designed to introduce students to several multivariate analysis techniques with emphasis on the practical use of these tools in business research. Techniques that will be covered in this course include MANOVA, discriminant analysis, principal components and factor analysis, canonical correlation analysis and multidimensional scaling. The objective of the seminar is to provide a fundamental understanding of the nature, power, and the limitations of multivariate statistical techniques.

### 3. Thesis: 21 credits

General description: The thesis is the culminating milestone of the program. Students will apply the skills and knowledge acquired through core and elective courses to conduct original research in the form of a master's thesis, working under the direct supervision of a faculty member. Stu-



dents must show competencies in all areas related to the writing of their thesis and will demonstrate their capacity of continuing into the doctoral program. Their supervisor and examination committee will measure the assessment of the student’s success in this milestone.

Course	Skills/competencies and learning activities
MSCA 699: Thesis	The MSc thesis requirement is intended to provide candidates with an opportunity to carry out an investigation in depth in a particular area of interest and to make a contribution to knowledge in the area. It is expected that the thesis will include a comprehensive and critical synthesis of the relevant literature and will also embody either a theoretical contribution to knowledge, a rigorous empirical investigation or both. A Thesis Committee consists of a faculty member as Supervisor and two other faculty members. An Examining Committee consists of the Thesis Committee and a Thesis Examination Chair appointed by the School’s MSc Director in accordance with the thesis regulations specified in the graduate calendar.

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## MASTER OF SCIENCE (MSc) IN FINANCE

### 1. Curriculum mapping and program objectives analysis

#### 1.1 Program sequence

The Master of Science (MSc) in Finance is a two-year program consisting of both course work and a thesis. In the fall semester of the first year, students with B.A. or B. Sc. Degrees take courses in financial economics, applied linear statistical models and two electives in specialized seminars. In the winter semester of the first year, students take courses in research methodology – finance, and three electives in specialized seminars. The five elective courses include investment theory, investment management, financial theory and corporate policy, mergers, restructuring and corporate control, options and futures, international financial management, corporate governance and executive compensation, and multivariate data analysis. In the summer term, students start conducting preliminary thesis work, including thesis proposal and data collection. During the second year, students continue their thesis work in the fall semester and complete their thesis defense in the winter term.

The Master of Science (MSc) in Finance equips students with a solid understanding of financial theory and research methodology. Graduates are prepared to build successful careers in research or analysis in the financial sector or in government. The program also serves as excellent preparation for those wishing to pursue their studies at the doctoral level.

Successful applicants to the MSc in Finance program have strong quantitative and analytical abilities and a solid understanding of economic theory and research methodology. Ultimately, they apply these skills and knowledge while conducting original research in the form of a master's thesis, working under the direct supervision of a faculty member.

#### 1.2 Program and learning objectives as described in the curriculum mapping

Students can pursue an MSc degree full-time or part-time. Full-time students usually complete the program within two years, while part-time students generally complete it in four years.

The 45-credit programs consist of a combination of core and elective seminars (24 credits) geared to provide students with the knowledge and skills to complete a thesis (21 credits). All three spe-

cializations have a thesis requirement. Students complete the coursework in their field of specialization before commencing their thesis. Courses and seminars are offered in the Fall and Winter terms.

### Program structure & recommended MSc program plan

The MSc program is a 45-credit program offered on a full-time or part-time basis.

#### Program structure: Year 1

Fall	Winter	Summer
2 core courses MSCA 601: Financial Economics MSCA 602: Applied Linear Statistical Models	1 core course MSCA 611: Research Methodology – Finance	Preliminary thesis work
2 specialized seminars (electives)	3 specialized seminars (electives)	Thesis proposal and data collection

#### Program structure: Year 2

Fall	Winter	Summer
Thesis work	Thesis defence	-
Thesis work	Graduation	-

The information on the sequence and program objectives are available on the JMSB website: <http://www.concordia.ca/jmsb/programs/graduate/msc/program-details/finance.html>

The JMSB website also provides a complete list and descriptions of core courses and electives offered.

### 1.3 High-impact educational practices

#### Specialized Knowledge

To introduce specialized knowledge in the field of study, a mandatory seminar for students on how to critique and evaluate research was organized in Winter 2014 by a faculty member who served as the editor-in-chief of a top ranked journal. In addition, the faculty member in charge of the Research Methodology course was advised to include more assignments in the courses.

#### Proficiency in Research Skills

To demonstrate proficiency in research skills in the field of study, more assignments were included in the Research Methodology course that emphasizes the application of methodologies in

the discipline. The Annual Graduate Research Exposition (AGRE), which showcases the latest research findings of the JMSB's PhD and MSc students, is now held every year. An English Course for Business Students was developed by Concordia University's School of Extended Learning for international students.

### **Competence to Effectively Communicate Knowledge and Research Results**

To demonstrate competence to effectively communicate knowledge and research results, two (2) 3-hour tutorials were organized to help students acquire the necessary skills to employ statistical software (SAS, SPSS, STATA etc.) in their research. An English Course for Business Students was developed by Concordia University's School of Extended Learning for international students. Students are encouraged to register for "GradProSkills" workshops offered by the School of Graduates Studies to improve their writing and speaking abilities. Their services were noted as a source of help for already admitted students. Due to the decrease in writing and speaking skills among newly admitted students, students with an IELTS below 7.5 automatically have to register for English language courses (CEES); the opportunity to increase the requirements for writing and speaking is being considered by the Program.

### **Understanding of Ethical Issues**

An annual Plagiarism seminar is offered to all incoming students.

### **Fast-track to a PhD**

JMSB also offers a fast-track to the PhD in Business Administration program. Meritorious students who have completed all program requirements except for the thesis may apply for permission to proceed directly to doctoral studies in the same discipline without submitting a master's thesis, provided that they meet the minimum PhD admission requirements.

### **The Annual Graduate Research Exposition (AGRE)**

The Annual Graduate Research Exposition (AGRE) is an event that showcases the research findings and talent of JMSB's Doctoral (PhD) and Master of Science (MSc) students. It exemplifies the school's commitment to research excellence based on rigour and relevance.

The AGRE provides students with a unique opportunity to present and communicate their ideas and research findings to members of the business community. This event facilitates students networking with industry representatives and gives them the chance to explore career options.

The AGRE uses a "poster" format that provides students in the PhD and MSc programs with a forum to present their original research to the academic and business communities, representatives of which act as the competition's judges. Judges select the best posters at both the MSc and PhD levels and winners receive cash prizes.

### **Learning Communities**

The John Molson Graduate Students Association (JMGSA) acts as the official representative organization for all JMSB graduate students. MSc students are automatically part of the JMGSA where they can participate in a multitude of exciting events, establish relationships, and eventually run for a student executive position with JMGSA or one of its many clubs and associations.

- International Community Outreach Program (iCOP)
- JMGSA Speaker Series

- JMSB Soccer Club
- John Molson Entrepreneurs Club (JMEC)
- John Molson Graduates Investment Club (JMGIC)
- John Molson Sustainable Business Group (JMSBG)
- John Molson Women in Business Club (WIBC)
- Case Competition Club
- MSc Society

The MSc Society is a student-led initiative, the purpose of which is to enhance the experience of students in the JMSB Master of Science programs through organizing or facilitating social, networking and professional events. These events are aimed at developing skills essential for personal and professional growth. The Society also acts as a liaison between students and faculty members.

### **The Career Management Services (CMS)**

The Career Management Services (CMS) supports all JMSB students and alumni in their professional endeavours and provides the relevant resources to help them reach their career goals. MSc students have access to a dedicated graduate advisor who will guide them throughout the career planning and strategy implementation process. CMS offers a variety of career-building solutions to help students become confident and market-ready job applicants:

- Online job database
- Workshops
- Résumé and cover letter writing, job searching, interview preparation, job offer negotiation, LinkedIn/digital brand management, and dining etiquette.
- On-campus recruitment and employer information sessions
- Annual career fair
- Graduate-level Student Elevator-Pitch Day
- Opportunities to connect with JMSB alumni
- Online resources
- First Hand (webinars by industry leaders), Management Consulted (complete guide on careers in consulting, recruitment process, application documents and 500+ case bank), Career Insider Vault (industry-specific tips on the application process), and Going Global (country-by-country data on industry, salary scales, lifestyle and cultural trends for a career abroad).
- JMSB-branded business cards
- CMS Volunteer Program

### **Financial Support**

Graduate students have access to a range of financial support options, demonstrating JMSB's commitment to providing students the foundation and security they need to pursue advanced research.

Funding opportunities are available from Concordia, JMSB and government agencies. Several research centers at Concordia also offer research assistantships to graduate students.

## 2. Data analysis

### 2.1 Data package analysis

The data on applications, acceptances and registrations in MSc in Finance are available in the recent two years from 2014 to 2015. The number of applications in MSc in Finance was 180 in 2014 and 170 in 2015. The number of acceptances was 65 in 2014 and 78 in 2015, yielding acceptance rate of 36.11% and 45.88%, respectively. Among those accepted applicants, 25 (29) applicants were registered in the program in 2014 (2015).

The data on applications, acceptances and registrations in MSc in Administration are available from 2011 to 2013. Compared with MSc in Administration, MSc in Finance had a higher acceptance rate, lower capture rate and comparable yield rate. It is noted that there are no overlapping periods for the comparison.

The data on applications, acceptances and registrations in all graduate programs are available from 2011 to 2015. Compared with all graduate programs, MSc in Finance had lower acceptance rate, lower capture rate and lower yield rate. To understand how to interpret the numbers in the table below, it should be noted that prior to 2013, the program was MSc in Administration, with three specializations. In 2013, it was changed to three separate program. The numbers in the table below refer to the different program labels (before and after the change).

MSc in Finance	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled (MSc Finance)				22	45	
Number of students enrolled I-Finance (inactive)	55	69	73	56	34	
Applications/ acceptances/ registrations						
Number of applications			1	180	170	
Number of acceptances			0	65	78	
New registrants			1	25	29	
Acceptance rate (accepted/applied)			0.00%	36.11%	45.88%	
Capture rate (registered/accepted)				38.46%	37.18%	
Yield rate (registered/applied)			100.00%	13.89%	17.06%	

MSc in Administration (for information only)	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Applications/acceptances/registrations						
Number of applications	269	325	340	54		
Number of acceptances	73	110	109	0		
New registrants	47	43	50	0		
Acceptance rate (accepted/applied)	27.14%	33.85%	32.06%	0.00%		
Capture rate (registered/accepted)	64.38%	39.09%	45.87%	0.00%		
Yield rate (registered/applied)	17.47%	13.23%	14.71%	0.00%		

John Molson School					
Number of students enrolled					
Applications/acceptances/registrations					
New applicants	1,056				
Number of acceptances	510	460	4		
New registrants	384	343	339	6	
Acceptance rate (accepted/applied)	48.30%	47.47%	49.60%	53.88%	59.59%
Capture rate (registered/accepted)	75.29%	74.57%	68.48%	70.95%	69.95%
Yield rate (registered/applied)	36.36%	35.40%	33.97%	38.23%	41.69%

## 2.2 Survey data analysis

The Office of Institutional Planning and Analysis, on behalf of the Office of the Provost and Vice-President, Academic Affairs, conducts academic program appraisals surveys on an annual basis. These departmental evaluations are performed as part of an ongoing review of the university's academic programs and services and the university's responsibility to be accountable to the Quebec government. The appraisals offer academic departments a unique opportunity to assess their programs and services, to make changes where necessary, and to clarify their missions, goals and objectives.

The academic program appraisals survey provides students an opportunity to participate in the evaluation process by providing feedback on a variety of topics including curriculum, course content, administrative support, and departmental facilities.

This year, programs in the John Molson School of Business were evaluated. Included in the sample were students registered in the Fall 2016 term in the following program clusters who had already completed a minimum of 3 credits:

- UG Core
- Accountancy
- Finance
- Management
- Marketing
- SCBTM
- International Business
- GDBA/GCBA
- MBA/GIIM/EMBA
- MSc/PhD

The Program Appraisal Survey was launched online on October 3, 2016 and ran until October 21, 2016, with two additional reminder emails sent on October 11 and 18. A total of 6869 students were invited to participate, with 771 students completing the survey. Therefore, the overall response rate was 11.2% and the overall margin of error was  $\pm 3.3\%$  at a 95% confidence level.

The response rate for the MSc/PhD program cluster is as follows:

<b>Program cluster</b>	<b>Number invited</b>	<b>Number responded</b>	<b>Response rate</b>	<b>Margin of error*</b>
MSc/PhD	193	44	22.8%	± 13.0%

These results must be interpreted with caution, however, given the low response rate and the high margin of error.

There are 10 students in MSc in Finance who responded. The survey results can be summarized as follows:

- 80% of the students agree that the John Molson School of Business provides a welcoming atmosphere to students, provides opportunities to meet professors and discuss their research and fields related to their research.
- 60% of the students agree that the goals of the program fit their academic and career goals.
- 80% of the students agree that the program is intellectually challenging.
- 70% of the students agree that the program is innovative and helping them develop transferable critical career skills.
- 80% of the students agree that, in general, faculty members are helpful, committed to the program, available for consultation and offer constructive feedback.

### **3. Program relevance and updates**

The Master of Science (MSc) in Finance is a two-year program consisting of both course work and a thesis. The Master of Science (MSc) in Finance equips students with a solid understanding of financial theory and research methodology. Graduates are prepared to build successful careers in research or analysis in the financial sector or in public service. The program also serves as excellent preparation for those wishing to pursue their studies at the doctoral level.

The Master of Science (MSc) in Finance is strongly research oriented. Students are expected to gain a solid understanding of financial theory and research methodology and apply quantitative and analytical skills while conducting original research in the form of a master's thesis, working under the direct supervision of a faculty member. MSc students are encouraged to publish with supervisors.



## **MASTER OF SCIENCE (MSc) IN MANAGEMENT**

### **Curriculum mapping and program objectives analysis**

#### **1.1 Program sequence**

The Master of Science (MSc) in Management is a two year program consisting of both coursework and a thesis. In the fall semester of the first year, students with B.A. or B. Sc. Degrees take courses in applied linear statistical models, research methodology – administrative sciences and two electives in specialized seminars. In the winter semester of the first year, students take four electives in specialized seminars. The elective courses include Organizational Staffing, Employee Development, Motivation, Evaluation, Compensation and Rewards, Organizational Theory and Design, International Management, Individual Performance in Organizations, Administrative Theory and Multivariate Data Analysis. In the summer term, students start conducting preliminary thesis work, including thesis proposal and data collection. During the second year, students continue thesis work in the fall semester and complete their thesis defense in the winter term.

The Master of Science (MSc) in Management is designed for students who wish to enhance their research expertise in the areas of human resources and strategic management. The curriculum focuses on developing knowledge about current management theories and skills in the tools and methods used to conduct advanced research in an organizational setting. The structure of the program allows candidates to produce the kind of research that is increasingly becoming necessary in contemporary organizations or lead toward advanced graduate studies.

The MSc in Management prepares students for various careers. For those who wish to pursue a career in business or other organizations, the program prepares graduates to assume staff or analyst positions in human resources, change management, and strategic planning, or to work as consultants. The program also serves as an excellent stepping stone for those wishing to pursue doctoral studies in management or related fields.

#### **1.2 Program and learning objectives as described in the curriculum mapping**

Students can pursue an MSc degree full-time or part-time. Full-time students usually complete the program within two years, while part-time students generally complete it in four years.

The 45-credit programs consist of a combination of core and elective seminars (24 credits) geared to provide students with the knowledge and skills to complete a thesis (21 credits). All three specializations have a thesis requirement. Students complete the coursework in their field of specialization before commencing their thesis. Courses and seminars are offered in the Fall and Winter terms.

### **Program structure & recommended MSc program plan**

The MSc program is a 45-credit program offered on a full-time or part-time basis.

### Program structure: Year 1

Fall	Winter	Summer
2 core courses: MSCA 602: Applied Linear Statistical Models MSCA 615: Research Methodology – Administrative Sciences	4 specialized seminars (electives)	Preliminary thesis work
2 specialized seminars (electives)		Thesis proposal and data collection

### Program structure: Year 2

Fall	Winter	Summer
Thesis work	Thesis defence	-
Thesis work	Graduation	-

The information on the sequence and program objectives are available on the JMSB website: <http://www.concordia.ca/jmsb/programs/graduate/msc/program-details/management.html>

The JMSB website also provides a complete list and descriptions of core courses and electives offered.

### 1.3 High-impact educational practices

#### Specialized Knowledge

To introduce specialized knowledge in the field of study, a mandatory seminar for students on how to critique and evaluate research was organized in Winter 2014 by a faculty member who served as the editor-in-chief of a top ranked journal. In addition, the faculty member in charge of the Research Methodology course was advised to include more assignments in the courses.

#### Proficiency in Research Skills

To demonstrate proficiency in research skills in the field of study, more assignments were included in the Research Methodology course that emphasizes the application of methodologies in the discipline. The Annual Graduate Research Exposition (AGRE), which showcases the latest research findings of the JMSB's PhD and MSc students, is now held every year. An English Course for Business Students was developed by Concordia University's School of Extended Learning for international students.

## **Competence to Effectively Communicate Knowledge and Research Results**

To demonstrate competence to effectively communicate knowledge and research results, two (2) 3-hour tutorials were organized to help students acquire the necessary skills to employ statistical software (SAS, SPSS, STATA etc.) in their research. An English Course for Business Students was developed by Concordia University's School of Extended Learning for international students. Students are encouraged to register for GradProSkills offers by the School of Graduates Studies to improve their writing and speaking abilities. Their services were noted as a source of help for already admitted students. Due to the decrease in writing and speaking skills among newly admitted students, students with an IELTS below 7.5 automatically have to register for English language courses (CEES); the opportunity to increase the requirements for writing and speaking is being considered by the Program.

## **Understanding of Ethical Issues**

An annual Plagiarism seminar is offered to all incoming students.

## **Fast-track to a PhD**

JMSB also offers a fast-track to the PhD in Business Administration program. Meritorious students who have completed all program requirements except for the thesis may apply for permission to proceed directly to doctoral studies in the same discipline without submitting a master's thesis. Students who opt to fast track will graduate with a PhD and not be awarded an MSc.

## **The Annual Graduate Research Exposition (AGRE)**

The Annual Graduate Research Exposition (AGRE) is an event that showcases the research findings and talent of JMSB's Doctoral (PhD) and Master of Science (MSc) students. It exemplifies the school's commitment to research excellence based on rigour and relevance.

The AGRE provides students with a unique opportunity to present and communicate their ideas and research findings to members of the business community. This event facilitates students networking with industry representatives and gives them the chance to explore career options.

The AGRE uses a "poster" format that provides students in the PhD and MSc programs a forum to present their original research to the academic and business communities, representatives of which act as the competition's judges. Judges select the best posters at both the MSc and PhD levels and winners receive cash prizes.

## **Learning Communities**

The John Molson Graduate Students Association (JMGSA) acts as the official representative organization for all JMSB graduate students. MSc students are automatically part of the JMGSA where they can participate in a multitude of exciting events, establish relationships, and eventually run for a student executive position with JMGSA or one of its many clubs and associations.

- International Community Outreach Program (iCOP)
- JMGSA Speaker Series
- JMSB Soccer Club
- John Molson Entrepreneurs Club (JMEC)
- John Molson Graduates Investment Club (JMGIC)
- John Molson Sustainable Business Group (JMSBG)
- John Molson Women in Business Club (WIBC)

- Case Competition Club
- MSc Society

The MSc Society is a student-led initiative, the purpose of which is to enhance the experience of students in the JMSB Master of Science programs through organizing or facilitating social, networking and professional events. These events are aimed at developing skills essential for personal and professional growth. The Society also acts as a liaison between students and faculty members.

### **The Career Management Services (CMS)**

The Career Management Services (CMS) supports all JMSB students and alumni in their professional endeavours and provides the relevant resources to help them reach their career goals. MSc students have access to a dedicated graduate advisor who will guide them throughout the career planning and strategy implementation process. CMS offers a variety of career-building solutions to help students become confident and market-ready job applicants:

- Online job database
- Workshops
- Résumé and cover letter writing, job searching, interview preparation, job offer negotiation, LinkedIn/digital brand management, and dining etiquette.
- On-campus recruitment and employer information sessions
- Annual career fair
- Graduate-level Student Elevator-Pitch Day
- Opportunities to connect with JMSB alumni
- Online resources
- First Hand (webinars by industry leaders), Management Consulted (complete guide on careers in consulting, recruitment process, application documents and 500+ case bank), Career Insider Vault (industry-specific tips on the application process), and Going Global (country-by-country data on industry, salary scales, lifestyle and cultural trends for a career abroad).
- JMSB-branded business cards
- CMS Volunteer Program

### **Financial Support**

Graduate students have access to a range of financial support options, demonstrating JMSB's commitment to providing students the foundation and security they need to pursue advanced research.

Funding opportunities are available from Concordia, JMSB and government agencies. Several research centers at Concordia also offer research assistantships to graduate students.

## **2. Data analysis**

### **2.1 Data package analysis**

The data on applications, acceptances and registrations in MSc in Management are available in the recent two years from 2014 to 2015. The number of applications in MSc in Management was

93 in 2014 and 43 in 2015. The number of acceptances was 29 in 2014 and 26 in 2015, yielding acceptance rate of 31.18% and 60.4% respectively. Among those accepted applicants, 15 (14) applicants were registered in the program in 2014 (2015).

The data on applications, acceptances and registrations in MSc in Administration are available from 2011 to 2013. Compared with the MSc in Administration, the MSc in Management had comparable acceptance rate, capture rate and yield rate in 2014. Due the large drop in applications, MSc in Management had higher acceptance rate, capture rate and yield rate in 2015. It is noted that there are no overlapping period for the comparison.

The data on applications, acceptances and registrations in all graduate programs are available from 2011 to 2015. Compared with all graduate programs, the MSc in Management had a lower acceptance rate, lower capture rate and lower yield rate in 2014. In 2015, due to the decline in applications, MSc in Management recorded a comparable acceptance rate. The capture rate and yield rates were still lower than all graduate programs.

To understand how to interpret the numbers in the table below, it should be noted that prior to 2013, the program was MSc in Administration, with three specializations. In 2013, it was changed to three separate program. The numbers in the table below refer to the different program labels (before and after the change).

MSc in Management	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled (MSc Management)				14	27	
Number of students enrolled II-Manag (inactive)	30	26	27	18	11	
Applications/acceptances/registrations						
Number of applications				93	43	
Number of acceptances				29	26	
New registrants				15	14	
Acceptance rate (accepted/applied)				31.18%	60.47%	
Capture rate (registered/accepted)				51.72%	53.85%	
Yield rate (registered/applied)				16.13%	32.56%	

MSc in Administration (for information only)	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Applications/acceptances/registrations						
Number of applications	269	325	340	54		
Number of acceptances	73	110	109	0		
New registrants	47	43	50	0		
Acceptance rate (accepted/applied)	27.14%	33.85%	32.06%	0.00%		
Capture rate (registered/accepted)	64.38%	39.09%	45.87%	0.00%		
Yield rate (registered/applied)	17.47%	13.23%	14.71%	0.00%		

Graduate					
John Molson School					
Number of students enrolled					
Applications/acceptances/registrations					
New applicants	1,056				
Number of acceptances	510	460	4		
New registrants	384	343	339	6	
Acceptance rate (accepted/applied)	48.30%	47.47%	49.60%	53.88%	59.59%
Capture rate (registered/accepted)	75.29%	74.57%	68.48%	70.95%	69.95%
Yield rate (registered/applied)	36.36%	35.40%	33.97%	38.23%	41.69%

## 2.2 Survey data analysis

The Office of Institutional Planning and Analysis, on behalf of the Office of the Provost and Vice-President, Academic Affairs, conducts academic program appraisals surveys on an annual basis. These departmental evaluations are performed as part of an ongoing review of the university's academic programs and services and the university's responsibility to be accountable to the Quebec government. The appraisals offer academic departments a unique opportunity to assess their programs and services, to make changes where necessary, and to clarify their missions, goals and objectives.

The academic program appraisals survey provides students an opportunity to participate in the evaluation process by providing feedback on a variety of topics including curriculum, course content, administrative support, and departmental facilities.

This year, programs in the John Molson School of Business were evaluated. Included in the sample were students registered in the Fall 2016 term in the following program clusters who had already completed a minimum of 3 credits:

- UG Core
- Accountancy
- Finance
- Management
- Marketing
- SCBTM
- International Business
- GDBA/GCBA
- MBA/GIIM/EMBA
- MSc/PhD

The Program Appraisal Survey was launched online on October 3, 2016 and ran until October 21, 2016, with two additional reminder emails sent on October 11 and 18. A total of 6869 students were invited to participate, with 771 students completing the survey. Therefore, the overall response rate was 11.2% and the overall margin of error was  $\pm 3.3\%$  at a 95% confidence level.

The response rate for the MSc/PhD program cluster is as follows:

Program cluster	Number invited	Number re-sponded	Re-sponse rate	Margin of error*
MSc/PhD	193	44	22.8%	± 13.0%

As there were insufficient data collected for conducting analysis on MSc in Management, the survey results are summarized based on aggregate data of “cycle 2” as follows:

- Over 80% of the students agree that the John Molson School of Business provides a welcoming atmosphere to students,
- Over 60% of the students agree that provides opportunities to meet professors and discuss their research and fields related to their research.
- 66% of the students agree that the goals of the program fit my academic and career goals.
- 81% of the students agree that the program is intellectually challenging.
- Over 80% of the students agree that the program is innovative and helping develop transferable critical career skills.
- Over 80% of the students agree that, in general, faculty members are helpful, committed to the program, available for consultation and offer constructive feedback.
- Over 60% of the students were actively involved in selecting supervisors and agree that their supervisor is available when needed and the supervisors appreciate and encourage independent thought and research.

### 3. Program relevance and updates

The Master of Science (MSc) in Management is a two year program consisting of both course work and a thesis. The Master of Science (MSc) in Management is designed for students who wish to enhance their research expertise in the areas of human resources and strategic management. The curriculum focuses on developing knowledge about current management theories and skills in the tools and methods used to conduct advanced research in an organizational setting. The structure of the program allows candidates to produce the kind of research that is becoming increasingly necessary in contemporary organizations or lead toward advanced graduate studies.

The MSc in Management prepares students for various careers. For those who wish to pursue a career in business or other organizations, the program prepares graduates to assume staff or analyst positions in human resources, change management, and strategic planning, or to work as consultants. The program also serves as an excellent stepping stone for those wishing to pursue doctoral studies in management or industrial and organizational psychology. MSc students are encouraged to publish with supervisors.

## MASTER OF SCIENCE (MSc) IN MARKETING

### 1. Curriculum mapping and program objectives analysis

#### 1.1 Program sequence

The Master of Science (MSc) in Marketing is a two year program consisting of both coursework and a thesis. In the fall semester of the first year, students with B.A. or B. Sc. Degrees take courses in applied linear statistical models, research methodology – administrative sciences and two electives in specialized seminars. In the winter semester of the first year, students take four electives in specialized seminars. The elective courses include Consumer Research, Marketing Communications, New Product Innovation, Psychology of Decision Making, Segmentation and Positioning in Marketing, Research in Retailing: Theories, Methods and Applications, Brand Management and multivariate data analysis. In the summer term, students start conducting preliminary thesis work, including thesis proposal and data collection. During the second year, students continue thesis work in the fall semester and complete thesis defense in the winter term.

The Master of Science (MSc) in Marketing is designed for those who wish to enhance their expertise in the most up-to-date marketing theories and in the tools and methods used to conduct advanced marketing research. The program provides graduates with the skills and expertise to manage large research projects and prepares them to pursue successful careers as marketing specialists in fields such as brand management, new product development, communications and marketing research. Those who wish to pursue their studies at the doctoral level will find that the program provides a solid theoretical base for advanced research and consulting work.

#### 1.2 Program and learning objectives as described in the curriculum mapping

Students can pursue an MSc degree full-time or part-time. Full-time students usually complete the program within two years, while part-time students generally complete it in four years.

The 45-credit programs consist of a combination of core and elective seminars (24 credits) geared to provide students with the knowledge and skills to complete a thesis (21 credits). All three specializations have a thesis requirement. Students complete the coursework in their field of specialization before commencing their thesis. Courses and seminars are offered in the Fall and Winter terms.

#### Program structure & recommended MSc program plan

The MSc program is a 45-credit program offered on a full-time or part-time basis.

##### Program structure: Year 1

Fall	Winter	Summer
2 core courses:	4 specialized seminars (electives)	Preliminary thesis work



MSCA 602: Applied Linear Statistical Models MSCA 615: Research Methodology – Administrative Sciences		
2 specialized seminars (electives)		Thesis proposal and data collection

### Program structure: Year 2

Fall	Winter	Summer
Thesis work	Thesis defence	-
Thesis work	Graduation	-

The information on the sequence and program objectives are available on the JMSB website: <http://www.concordia.ca/jmsb/programs/graduate/msc/program-details/marketing.html>

The JMSB website also provides a complete list and descriptions of core courses and electives offered.

### 1.3 High-impact educational practices

#### Specialized Knowledge

To introduce specialized knowledge in the field of study, a mandatory seminar for students on how to critique and evaluate research was organized in Winter 2014 by a faculty member who served as the editor-in-chief of a top ranked journal. In addition, the faculty member in charge of the Research Methodology course was advised to include more assignments in the courses.

#### Proficiency in Research Skills

To demonstrate proficiency in research skills in the field of study, more assignments were included in the Research Methodology course that emphasizes the application of methodologies in the discipline. The Annual Graduate Research Exposition (AGRE), which showcases the latest research findings of the JMSB's PhD and MSc students, is now held every year. An English Course for Business Students was developed by Concordia University's School of Extended Learning for international students.

#### Competence to Effectively Communicate Knowledge and Research Results

To demonstrate competence to effectively communicate knowledge and research results, two (2) 3-hour tutorials were organized to help students acquire the necessary skills to employ statistical software (SAS, SPSS, STATA etc.) in their research. An English Course for Business Students was developed by Concordia University's School of Extended Learning for international students. Students are encouraged to register for "GradProSkills" offers by the School of Graduates Studies to improve their writing and speaking abilities. Their services were noted as a source of help for

already admitted students. Due to the decrease in writing and speaking skills among newly admitted students, students with an IELTS below 7.5 automatically have to register for English language courses (CEES); the opportunity to increase the requirements for writing and speaking is being considered by the Program.

### **Understanding of Ethical Issues**

An annual Plagiarism seminar is offered to all incoming students.

### **Fast-track to a PhD**

JMSB also offers a fast-track to the PhD in Business Administration program. Meritorious students who have completed all program requirements except for the thesis may apply for permission to proceed directly to doctoral studies in the same discipline without submitting a master's thesis.

### **The Annual Graduate Research Exposition (AGRE)**

The Annual Graduate Research Exposition (AGRE) is an event that showcases the research findings and talent of JMSB's Doctoral (PhD) and Master of Science (MSc) students. It exemplifies the school's commitment to research excellence based on rigour and relevance.

The AGRE provides students with a unique opportunity to present and communicate their ideas and research findings to members of the business community. This event facilitates students networking with industry representatives and gives them the chance to explore career options.

The AGRE uses a "poster" format that provides students in the PhD and MSc programs a forum to present their original research to the academic and business communities, representatives of which act as the competition's judges. Judges select the best posters at both the MSc and PhD levels and winners receive cash prizes.

### **Learning Communities**

The John Molson Graduate Students Association (JMGSA) acts as the official representative organization for all JMSB graduate students. MSc students are automatically part of the JMGSA where they can participate in a multitude of exciting events, establish relationships, and eventually run for a student executive position with JMGSA or one of its many clubs and associations.

- International Community Outreach Program (iCOP)
- JMGSA Speaker Series
- JMSB Soccer Club
- John Molson Entrepreneurs Club (JMEC)
- John Molson Graduates Investment Club (JMGIC)
- John Molson Sustainable Business Group (JMSBG)
- John Molson Women in Business Club (WIBC)
- Case Competition Club
- MSc Society

The MSc Society is a student-led initiative, the purpose of which is to enhance the experience of students in the JMSB Master of Science programs through organizing or facilitating social, networking and professional events. These events are aimed at developing skills essential for personal and professional growth. The Society also acts as a liaison between students and faculty members.

## **The Career Management Services (CMS)**

The Career Management Services (CMS) supports all JMSB students and alumni in their professional endeavours and provides the relevant resources to help them reach their career goals. MSc students have access to a dedicated graduate advisor who will guide them throughout the career planning and strategy implementation process. CMS offers a variety of career-building solutions to help students become confident and market-ready job applicants:

- Online job database
- Workshops
- Résumé and cover letter writing, job searching, interview preparation, job offer negotiation, LinkedIn/digital brand management, and dining etiquette.
- On-campus recruitment and employer information sessions
- Annual career fair
- Graduate-level Student Elevator-Pitch Day
- Opportunities to connect with JMSB alumni
- Online resources
- First Hand (webinars by industry leaders), Management Consulted (complete guide on careers in consulting, recruitment process, application documents and 500+ case bank), Career Insider Vault (industry-specific tips on the application process), and Going Global (country-by-country data on industry, salary scales, lifestyle and cultural trends for a career abroad).
- JMSB-branded business cards
- CMS Volunteer Program

## **Financial Support**

Graduate students have access to a range of financial support options, demonstrating JMSB's commitment to providing students the foundation and security they need to pursue advanced research.

Funding opportunities are available from Concordia, JMSB and government agencies. Several research centers at Concordia also offer research assistantships to graduate students.

## **2. Data analysis**

### **2.1 Data package analysis**

The data on applications, acceptances and registrations in the MSc in Marketing are available in the recent two years from 2014 to 2015. The number of applications in the MSc in Marketing was 79 in 2014 and 57 in 2015. The number of acceptances was 31 in 2014 and 38 in 2015, yielding acceptance rate of 39.24% and 66.67% respectively. Among those accepted applicants, 14 (20) applicants were registered in the program in 2014 (2015).

The data on applications, acceptances and registrations in the MSc in Administration are available from 2011 to 2013. Compared with the MSc in Administration, the MSc in Marketing had higher acceptance rate but comparable capture rate and yield rate in 2014. Due the drop in applications, the MSc in Marketing had higher acceptance rate, capture rate and yield rate in 2015. It is noted that there are no overlapping period for the comparison.

The data on applications, acceptances and registrations in all graduate programs are available from 2011 to 2015. Compared with all graduate programs, the MSc in Marketing had a lower acceptance rate, lower capture rate and lower yield rate in 2014. In 2015, when the number of applications decreased, MSc in Marketing recorded a higher acceptance rate but lower capture rate than all graduate programs.

To understand how to interpret the numbers in the table below, it should be noted that prior to 2013, the program was MSc in Administration, with three specializations. In 2013, it was changed to three separate program. The numbers in the table below refer to the different program labels (before and after the change).

MSc in Marketing	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled (MSc Marketing)				12	28	
Number of students enrolled III-Mark (inactive)	32	25	28	26	20	
Applications/ acceptances/ registrations						
Number of applications				79	57	
Number of acceptances				31	38	
New registrants				14	20	
Acceptance rate (accepted/applied)				39.24%	66.67%	
Capture rate (registered/accepted)				45.16%	52.63%	
Yield rate (registered/applied)				17.72%	35.09%	

MSc in Administration (for information only)	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Applications/acceptances/registrations						
Number of applications	269	325	340	54		
Number of acceptances	73	110	109	0		
New registrants	47	43	50	0		
Acceptance rate (accepted/applied)	27.14%	33.85%	32.06%	0.00%		
Capture rate (registered/accepted)	64.38%	39.09%	45.87%	0.00%		
Yield rate (registered/applied)	17.47%	13.23%	14.71%	0.00%		

Graduate Programs	
John Molson School of Arts	
Number of students enrolled	
Applications/acceptances/registrations	
New applicants	1,056
Number of acceptances	510    460    4
New registrants	384    343    339    63
Acceptance rate (accepted/applied)	48.30%    47.47%    49.60%    53.88%    59.59%
Capture rate (registered/accepted)	75.29%    74.57%    68.48%    70.95%    69.95%
Yield rate (registered/applied)	36.36%    35.40%    33.97%    38.23%    41.69%

## 2.2 Survey data analysis

The Office of Institutional Planning and Analysis, on behalf of the Office of the Provost and Vice-President, Academic Affairs, conducts academic program appraisals surveys on an annual basis. These departmental evaluations are performed as part of an ongoing review of the university's academic programs and services and the university's responsibility to be accountable to the Quebec government. The appraisals offer academic departments a unique opportunity to assess their programs and services, to make changes where necessary, and to clarify their missions, goals and objectives.

The academic program appraisals survey provides students an opportunity to participate in the evaluation process by providing feedback on a variety of topics including curriculum, course content, administrative support, and departmental facilities.

This year, programs in the John Molson School of Business were evaluated. Included in the sample were students registered in the Fall 2016 term in the following program clusters who had already completed a minimum of 3 credits:

- UG Core
- Accountancy
- Finance
- Management
- Marketing
- SCBTM
- International Business
- GDBA/GCBA
- MBA/GIIM/EMBA
- MSc/PhD

The Program Appraisal Survey was launched online on October 3, 2016 and ran until October 21, 2016, with two additional reminder emails sent on October 11 and 18. A total of 6869 students were invited to participate, with 771 students completing the survey. Therefore, the overall response rate was 11.2% and the overall margin of error was  $\pm 3.3\%$  at a 95% confidence level.

The response rate for the MSc/PhD program cluster is as follows:

<b>Program cluster</b>	<b>Number invited</b>	<b>Number re-sponded</b>	<b>Re-sponse rate</b>	<b>Margin of er-ror*</b>
MSc/PhD	193	44	22.8%	$\pm 13.0\%$

As there were insufficient data collected for conducting analysis on MSc in Marketing, the survey results are summarized based on aggregate data of "cycle 2" as follows:

- Over 80% of the students agree that the John Molson School of Business provides a welcoming atmosphere to students,

- Over 60% of the students agree that provides opportunities to meet professors and discuss their research and fields related to their research.
- 66% of the students agree that the goals of the program fit my academic and career goals.
- 81% of the students agree that the program is intellectually challenging.
- Over 80% of the students agree that the program is innovative and helping develop transferable critical career skills.
- Over 80% of the students agree that, in general, faculty members are helpful, committed to the program, available for consultation and offer constructive feedback.
- Over 60% of the students were actively involved in selecting supervisors and agree that their supervisor is available when needed and the supervisors appreciate and encourage independent thought and research.

### **3. Program relevance and updates**

The Master of Science (MSc) in Marketing is a two year program consisting of both course work and a thesis. The Master of Science (MSc) in Marketing is designed for those who wish to enhance their expertise in the most up-to-date marketing theories and in the tools and methods used to conduct advanced marketing research. The program provides graduates with the skills and expertise to manage large research projects and prepares them to pursue successful careers as marketing specialists in fields such as brand management, new product development, communications and marketing research. Those who wish to pursue their studies at the doctoral level will find that the program provides a solid theoretical base for advanced research and consulting work. MSc students are encouraged to publish with supervisors.

Several weaknesses identified in this appraisal report point to opportunities for curriculum improvement. Notably, students in the MSc Programs have a long time to completion, and have moderate satisfaction with course offerings, including core courses. Cross-listing courses, while solving some resource problems, also has an impact on pedagogical approaches. The alignment between students' professional aspirations and course learning goals also present opportunities for improvement. Particularly, students' answers to open-ended questions highlight an over-emphasis on theoretical knowledge and a need for increasing applied content. The MSc curriculum currently better suits those students who aim to continue with graduate studies than those who seek jobs in the industry. Finally, we observed inconsistent practices with regards to thesis administration and expectations across and within departments. While some variation across disciplines are expected, some of these practices may also contribute to delays in completion, and additionally, perceptions of unfairness among students. The fairness and distribution of faculty workload may also be called into question as some do more work to complete this 21-credit requirement than others.

In order to ensure that the program remains current, and to address many of the issues that were raised in this report, a review and, if required, an update of the curriculum seem to be in order. This will ensure that the program remains current, fulfils the needs and professional aspirations of its recruits, and that students complete the program within a reasonable timeline. It should be noted that since the last appraisal report, produced in 2005, there have been no substantial revisions to the curriculum. Thus, we propose the following:

1. Review and revise curriculum.
2. Institute formal thesis standards (including thesis proposal requirements) while respecting norms of each discipline.

The second set of recommendations is based on weaknesses identified in the admission process. The programs' capture rates are considerably low compared to other graduate programs and other programs in general. We think this is due to two compounded factors: slow admission process and competition with other programs. For this we suggest the following:

3. Speed up admission process.
4. Provide early entrance scholarships for top applicants.

While the international reputation of the program is a strength, our enrollment is concentrated in select countries. We see an opportunity to increase local enrolment and also to increase the reach of international recruitment.

5. Strengthen alumni connection.
6. Increase local outreach and broaden international outreach .

While there has been some improvement since the most recent assessment, in some departments, supervision is concentrated within select faculty members in each department, favoring mostly senior faculty. Incorporating more faculty members, and facilitating the involvement of junior faculty members in supervision earlier on is important for both the health of the program and the research capacity of the faculty in general. When students are left to their own device to find a supervisor, they will contact either (a) faculty members who have taught them, who tend to be more senior faculty members, or (b) faculty members with an established reputation for supervision. While we believe that the choice of a supervisor belongs to the student, efforts could be made to facilitate the involvement of more faculty members in the program, and junior faculty members earlier on in their career.

7. Encourage more faculty members to teach in the program and get involved in supervision



## 10. Appendices: Librarian's Summary Report, Short Data, Curricula vitae, and other relevant documentation

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[Appendix 1: Librarian's Summary Report](#)

[Appendix 2: Summarized data spreadsheet](#)

[Appendix 3: Full-time faculty CV](#)

[Appendices 4 – X: Other relevant documentation](#)

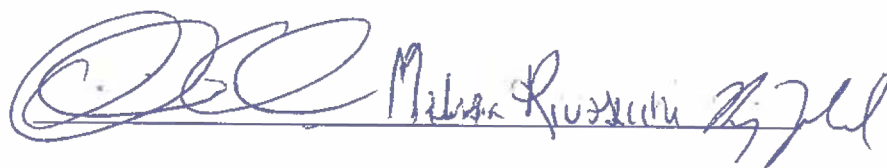
- [Appendix 4-1 JMSB Research Bulletin \(2016\)](#)
- [Appendix 4-2 Annual Graduate Survey \(MSc\)](#)
- [Appendix 4-3 Assessment of Learning Rubric](#)
- [Appendix 4-4 Most recent Assessment of Learning Statistics](#)

# DAC Report

## Appendix 1: Librarian's Summary Report

Program of MSc & PhD Year of appraisal 2017

Business Librarians' signature:



Handwritten signature of Melissa Russo.

Report submitted on: February 1<sup>st</sup> 2017

### 1. General services offered by the Library

- Library locations and hours

The Concordia Library system includes the Webster Library on the downtown campus and the Vanier Library at the Loyola campus. In addition, the Libraries provide additional study space at the downtown campus in the Grey Nuns building located in close proximity to the Webster Library. During the fall and winter terms, the Webster and Vanier libraries are open 24 hours, seven days a week and the Grey Nuns Reading & Group Study Rooms are open from 9am to 9pm most weekdays and 9am to 5pm on weekends.

- Facilities, including study and collaborative spaces

Silent study spaces and 34 bookable group study rooms are available on both campuses, including some with collaborative technology. Desktop computers are on site and students may borrow one of 260 laptops and 125 tablets. Through the Webster Library Transformation Project, new and dynamic spaces are now available to students at the Webster Library to meet emerging and diverse needs and to foster innovation and collaboration. New spaces include a multifunctional classroom, dissertation writers' rooms and collaborative meeting spaces for graduate students, a zero noise room, a thesis seminar room, a visualization room and a technology sandbox. More information on the Webster Transformation Project is available at <http://library.concordia.ca/webster-transformation>. Planning to transform the Vanier Library began in 2016.

- Collections overview including access and discovery services

The Library's collections support the teaching, learning and research activities of the Concordia community. The collection includes 1.9 million physical and electronic items, including books, videos and streaming media, thousands of journals and 10,700 rare books, periodicals and manuscripts. The Library system has subscriptions to hundreds of electronic databases in all major disciplines. Access to electronic full-text resources, databases and streaming media are available on and off campus through the Library's website, Discovery Search and catalogue.

- **General support for teaching, learning and research**  
The Library offers general library workshops and reference services on both campuses as well as specialized workshops targeted to graduate students through the GradProSkills program. Librarians and staff at of Concordia University Library offered nearly 57,000 answers to questions from our community and provided 475 workshops to 9590 students in all disciplines. The Library website provides self-directed learning tools including research guides by discipline, topic and genre, guides to copyright, data management, open access publishing and citation styles. The Library manages Spectrum, Concordia's open access research repository, and assist faculty in depositing their research items. The Library will provide coordination and administrative support to the new Concordia University Press, launched in 2016, which will publish high caliber open access scholarly books in the humanities, social sciences and fine arts.
- **Partnerships**  
The Library collaborates with CRKN (Canadian Research Knowledge Network), BCI (Bureau de coopération universitaire), CARL (Canadian Association of Research Libraries) and others in projects that enhance our efficiency and expand our services and collections. We participate in collaborative licensing of resources, and inter-institutional borrowing agreements that allow us to obtain material for our students and faculty from lending libraries internationally. A direct borrowing agreement allows our students and faculty to borrow material directly from other University libraries locally and across Canada.

## 2. Services for MSc and PhD Students

Students engaged in MSc or PhD programs affiliated with Accountancy, Business Technology Management, Finance, Marketing or Management would normally be directed to the appropriate librarian by faculty or the reference service.

- **Workshops**  
Usually, a librarian is invited to provide a short workshop introducing library services to all new MSc and PhD students during their orientation. Furthermore, the Finance and Accountancy librarians prepare a detailed orientation session for international MSc students (*Academic English for Graduate Business Students* course) every September.
- **Consultations**  
In addition to general library services, MSc and PhD students are advised and encouraged to contact the appropriate librarian servicing the Management, Marketing, Accountancy, Business Technology Management and Finance departments.

## 3. Collections support for the John Molson School of Business MSc and PhD students

- **Collections Overview**  
The Business Collection features extensive holdings of e-books and electronic journals. Concerning e-books, the following Library and University funds support the research needs of the JMSB Community:
  - Approval plan funds, created from academic plan monies, are used to purchase monographs published by the following University presses or academic publishers: Springer-

Palgrave, Elsevier, Yale, Chicago, Princeton, Cornell, Stanford, California, McGill-Queen's, Toronto and British Columbia.

Concordia Library also have access to a substantial collection of current and retrospective electronic journals that support the Business graduate programs at Concordia. These journals are often purchased in bundles, either by publisher or aggregator. The electronic journal collections include Sage Journals, Springer Link, Taylor & Francis, Elsevier Science Direct, Wiley Online Library, Emerald, Cambridge Journals, Oxford Journals, JSTOR Arts & Sciences, and Project MUSE Premium Collection.

The collection allows students and faculty to obtain valuable information about corporations and their operations for most countries around the world. The resources include:

- Business Source Complete
  - Web of Science
  - Scopus
  - ProQuest Thesis and Dissertations
  - ProQuest Business Databases
  - ICPSR: for US and international social science microdata
  - StockGuide
  - IBISWorld: 1000+ industry reports for Canada, USA, China and the world
  - Passport by Euromonitor: consumer reports for 180+ countries, includes Canada
  - Country profiles from Economist Intelligence Unit and the OECD iLibrary
- Future orientations and areas for improvement  
In order for Concordia Library to support the Business graduate programs to the level that they deserve requires a permanent commitment to increasing significantly the annual monograph budget. This is compounded by the end of the academic plan and the funding which supported the monograph collection.

## Comparative data: Concordia University

Student enrolments, Applications/acceptances/registrations, and graduations

Years of appraisal: 2011-2012 to 2015-2016

Undergraduate programs						
Concordia University	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled	35,440	36,008	36,081	35,896	34,124	
Applications/acceptances/registrations						
New applicants	47,304	50,225	46,483	46,439	50,342	
Number of acceptances	13,353	14,009	13,880	14,691	14,579	
New registrants	8,341	8,683	8,774	9,444	8,627	
Acceptance rate (accepted/applied)	28.23%	27.89%	29.86%	31.64%	28.96%	
Capture rate (registered/accepted)	62.47%	61.98%	63.21%	64.28%	59.17%	
Yield rate (registered/applied)	17.63%	17.29%	18.88%	20.34%	17.14%	

Graduate programs						
Concordia University	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled	7,022	7,158	7,238	7,686	7,528	
Applications/acceptances/registrations						
New applicants	8,928	9,552	9,418	9,393	9,034	
Number of acceptances	4,680	5,037	5,155	5,371	5,158	
New registrants	2,678	2,704	2,686	3,146	2,969	
Acceptance rate (accepted/applied)	52.42%	52.73%	54.74%	57.18%	57.10%	
Capture rate (registered/accepted)	57.22%	53.68%	52.10%	58.57%	57.56%	
Yield rate (registered/applied)	30.00%	28.31%	28.52%	33.49%	32.86%	

Undergraduate and graduate programs						
Concordia University	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled	42,462	43,166	43,319	43,582	41,652	
Applications/acceptances/registrations						
New applicants	56,232	59,777	55,901	55,832	59,376	
Number of acceptances	18,033	19,046	19,035	20,062	19,737	
New registrants	11,019	11,387	11,460	12,590	11,596	
Acceptance rate (accepted/applied)	32.07%	31.86%	34.05%	35.93%	33.24%	
Capture rate (registered/accepted)	61.10%	59.79%	60.20%	62.76%	58.75%	
Yield rate (registered/applied)	19.60%	19.05%	20.50%	22.55%	19.53%	

## Comparative data: John Molson School of Business

Student enrolments, Applications/acceptances/registrations, and graduations

Years of appraisal: 2011-2012 to 2015-2016

**\*\*See list of programs included in this grouping at the end of the table\*\***

Undergraduate programs*						
John Molson School of Business	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled	7,572	7,617	7,515	7,546	7,468	
Applications/acceptances/registrations						
New applicants	11,225	11,530	8,643	8,324	9,307	
First choice applicants	6,683	6,965	6,985	6,649	7,074	
Number of acceptances	3,114	3,078	2,981	3,354	3,279	
New registrants	2,165	2,166	2,096	2,320	1,929	
Acceptance rate (accepted/applied first choice)	46.60%	44.19%	42.68%	50.44%	46.35%	
Capture rate (registered/accepted)	69.52%	70.37%	70.31%	69.17%	58.83%	
Yield rate (registered/applied first choice)	32.40%	31.10%	30.01%	34.89%	27.27%	

\*Note: The UG total includes Certificate in Business Studies, excluded from the appraisal

Graduate programs						
John Molson School of Business	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled	970	986	984	1,194	1,392	
Applications/acceptances/registrations						
New applicants	1,056	969	998	1,648	1,480	
Number of acceptances	510	460	495	888	882	
New registrants	384	343	339	630	617	
Acceptance rate (accepted/applied)	48.30%	47.47%	49.60%	53.88%	59.59%	
Capture rate (registered/accepted)	75.29%	74.57%	68.48%	70.95%	69.95%	
Yield rate (registered/applied)	36.36%	35.40%	33.97%	38.23%	41.69%	

Undergraduate and graduate programs						
John Molson School of Business	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled	8,542	8,603	8,499	8,740	8,860	
Applications/acceptances/registrations						
New applicants	12,281	12,499	9,641	9,972	10,787	
Number of acceptances	7,193	7,425	7,480	7,537	7,956	
New registrants	3,498	3,421	3,320	3,984	3,896	
Acceptance rate (accepted/applied)	47.45%	45.83%	46.14%	52.16%	52.97%	
Capture rate (registered/accepted)	72.41%	72.47%	69.40%	70.06%	64.39%	
Yield rate (registered/applied)	34.38%	33.25%	31.99%	36.56%	34.48%	

List of programs included in the John Molson School of Business faculty data

Undergraduate programs

- Major in Administration
- Major in Accountancy
- Major in Accountancy (Co-Op)
- Certificate in Accountancy
- Major in Finance
- Major in Finance (Co-Op)
- Major in Management
- Major in Human Resource Management
- Major in Marketing
- Major in Business Technology Management
- Major in Business Technology Management (Co-Op)
- Major in Supply Chain Operations Management
- Major in Supply Chain Operations Management (Co-Op)
- Major in International Business
- Major in International Business (Co-Op)

Graduate programs

- Graduate Diploma in Chartered Professional Accountancy (CPA)
- Graduate Diploma In Business Administration
- Graduate Certificate in Business Administration
- Masters of Business Administration
- Masters of Business Administration (Co-Op)
- Executive MBA
- MBA with CFA integration (GIIM)
- MSc in Finance
- MSc in Marketing
- MSc in Management
- PhD in Business Administration



## Program data: MSc/PhD

### Student enrolments, Applications/acceptances/registrations, and graduations

Years of appraisal: 2011-2012 to 2015-2016

Program: Master of Science						
MSc in Administration (for information only)	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Applications/acceptances/registrations						
Number of applications	269	325	340	54		
Number of acceptances	73	110	109	0		
New registrants	47	43	50	0		
Acceptance rate (accepted/applied)	27.14%	33.85%	32.06%	0.00%		
Capture rate (registered/accepted)	64.38%	39.09%	45.87%	0.00%		
Yield rate (registered/applied)	17.47%	13.23%	14.71%	0.00%		

MSc in Finance	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled (MSc Finance)				22	45	
Number of students enrolled I-Finance (inactive)	55	69	73	56	34	
Applications/acceptances/registrations						
Number of applications			1	180	170	
Number of acceptances			0	65	78	
New registrants			1	25	29	
Acceptance rate (accepted/applied)			0.00%	36.11%	45.88%	
Capture rate (registered/accepted)				38.46%	37.18%	
Yield rate (registered/applied)			100.00%	13.89%	17.06%	

MSc in Management	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled (MSc Management)				14	27	
Number of students enrolled II-Manag (inactive)	30	26	27	18	11	
Applications/acceptances/registrations						
Number of applications				93	43	
Number of acceptances				29	26	
New registrants				15	14	
Acceptance rate (accepted/applied)				31.18%	60.47%	
Capture rate (registered/accepted)				51.72%	53.85%	
Yield rate (registered/applied)				16.13%	32.56%	

Program Appraisal data package  
PAC-10: MSc/PhD, page 6 of 13

MSc in Marketing	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled (MSc Marketing)				12	28	
Number of students enrolled III-Mark (inactive)	32	25	28	26	20	
Applications/acceptances/registrations						
Number of applications				79	57	
Number of acceptances				31	38	
New registrants				14	20	
Acceptance rate (accepted/applied)				39.24%	66.67%	
Capture rate (registered/accepted)				45.16%	52.63%	
Yield rate (registered/applied)				17.72%	35.09%	

Program: PhD in Business Administration						
PhD in Business Administration	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled (Business Admin)	40	33	19	12	5	
Number of students enrolled (I-Finance)	14	19	23	24	26	
Number of students enrolled (II-Manag)	12	13	16	19	21	
Number of students enrolled (Marketing)	9	12	15	20	24	
Number of students enrolled (SCBTM)	7	5	4	7	8	
Number of students enrolled (Accounting)	7	10	11	11	13	
Applications/acceptances/registrations (All PhD options)						
Number of applications	113	108	87	77	103	
Number of acceptances	34	30	31	33	38	
New registrants	18	16	17	14	23	
Acceptance rate (accepted/applied)	30.09%	27.78%	35.63%	42.86%	36.89%	
Capture rate (registered/accepted)	52.94%	53.33%	54.84%	42.42%	60.53%	
Yield rate (registered/applied)	15.93%	14.81%	19.54%	18.18%	22.33%	

Graduate programs						
All graduate programs	Academic years					5-year trend
	2011	2012	2013	2014	2015	
Number of students enrolled	206	212	216	241	262	
Applications/acceptances/registrations						
Number of applications	382	433	428	483	373	
Number of acceptances	107	140	140	158	180	
New registrants	65	59	68	68	86	
Acceptance rate (accepted/applied)	28.01%	32.33%	32.71%	32.71%	48.26%	
Capture rate (registered/accepted)	60.75%	42.14%	48.57%	43.04%	47.78%	
Yield rate (registered/applied)	17.02%	13.63%	15.89%	14.08%	23.06%	

## Program data: MSc/PhD

### Median program GPA

*Years of appraisal: 2011-2012 to 2015-2016*

Degree	Program type	Average number of courses					Median program GPA				
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Master of Science	Finance				11.5	12.5				3.5	3.5
	INACTIVE - Admin (I-Finance)	15.7	17.3	17.4	19.2	15.8	3.6	3.6	3.7	3.8	3.8
	Management				12.4	12.3				3.6	3.6
	INACTIVE - Admin (II-Management)	14.0	16.0	19.2	21.3	22.9	3.7	3.7	3.7	3.4	3.7
	Marketing				10.4	11.5				3.9	4.0
	INACTIVE - Admin (II-Marketing)	14.5	17.4	17.9	17.6	18.1	3.7	3.7	3.8	3.7	3.7
PhD of Business Administration	Business Administration (I-Finance)	28.57	26.26	27.22	26.3	24.8	3.8	3.8	3.8	3.7	3.7
	Business Administration (II-Management)	25.0	26.5	27.5	25.2	22.4	3.8	3.8	3.7	3.8	3.7
	Business Administration (III-Marketing)	27.3	26.3	25.2	23.2	18.1	3.9	3.9	3.9	3.9	3.9
	Business Administration (IV-SUPP & TEC)	21.3	22.8	30.5	26.1	22.9	3.7	3.6	3.6	3.7	3.6
	Business Administration (V-Accounting)	23.1	24.2	25.6	25.0	24.6	3.4	3.7	3.7	3.6	3.7
	Business Administration	26.6	27.5	35.7	37.8	38.7	3.7	3.7	3.8	3.5	3.5
<i>All JMSB programs (Graduate)</i>		<i>18.81</i>	<i>19.27</i>	<i>20.98</i>	<i>18.83</i>	<i>17.46</i>	<i>3.63</i>	<i>3.64</i>	<i>3.69</i>	<i>3.62</i>	<i>3.62</i>

Program Appraisal data package  
PAC-10: MSc/PhD

## Program data: MSc/PhD

Time to completion (median number of terms)

*Years of appraisal: 2011-2012 to 2015-2016*

Program	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
MSc in Finance	8.0	8.0	8.0	8.0	8.0
MSc in Management	8.0	5.0	9.0	8.0	7.0
MSc in Marketing	8.0	7.5	11.0	5.0	8.0
PhD in Business Administration	19.5	20.0	16.0	24.0	22.0
PhD in Business Administration (I-Finance)			16.0	13.0	34.0
PhD in Business Administration (II-Management)			13.0		
PhD in Business Administration (III-Marketing)				17.0	15.0
PhD in Business Administration (IV-SUPP & TEC)					22.0
PhD in Business Administration (V-Accounting)				16.0	
PhD in Administration (INACTIVE)	29.0				
<i>Average: John Molson School of Business (Graduate)</i>	6.91	7.05	6.68	7.64	7.41

## Number of graduates

*Years of appraisal: 2011-2012 to 2015-2016*

Program	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
MSc in Finance (listed as INACTIVE - Admin I-Finance)	7	16	15	25	24
MSc in Management (listed as INACTIVE - Admin II-Manag)	10	5	5	6	7
MSc in Marketing (listed as INACTIVE - Admin III-Marketing)	11	10	3	5	13
PhD in Business Administration	4	10	7	7	2
PhD in Business Administration (I-Finance)			1	1	1
PhD in Business Administration (II-Management)			1		
PhD in Business Administration (III-Marketing)				2	1
PhD in Business Administration (IV-SUPP & TEC)					1
PhD in Business Administration (V-Accounting)				1	
PhD in Administration (INACTIVE)	2				
<i>Totals: John Molson School of Business (Graduate)</i>	338	362	337	381	352

*Note: the number of graduates and the time to completion refer to the number of students who obtained their degree in year X, not to the cohort year.*

Program Appraisal data package  
PAC-10: MSc/PhD

## Program data: MSc/PhD

Student support: amounts paid and number of students receiving support

Years of appraisal: 2011-2012 to 2015-2016 (data only available from 2013-14 to 2015-16)

Programs, PAC-10: MSc/PhD	Academic year								
	2013			2014			2015		
	N students receiving support	Total Paid	Amount per student	N students receiving support	Total Paid	Amount per student	N students receiving support	Total Paid	Amount per student
<b>MSc in Finance</b>									
Other employment	No available data						36	\$10,618.93	\$294.97
RA							32	\$18,921.33	\$591.29
Scholarship				6	\$13,330.00	\$2,221.67	13	\$22,164.00	\$1,704.92
TA				1	\$530.28	\$530.28	26	\$8,209.57	\$315.75
Other				1	\$21.21	\$21.21	78	\$1,474.85	\$18.91
Total				8	\$13,881.49	\$1,735.19	185	\$61,388.68	\$331.83
<b>INACTIVE - MSc Admin (I-Finance)</b>									
Award	5	\$9,500.00	\$1,900.00						
Bursary	1	\$378.20	\$378.20						
Fellowship	113	\$48,288.75	\$427.33	54	\$11,711.62	\$216.88			
Other employment	2	\$78.75	\$39.38	57	\$16,344.98	\$286.75	55	\$11,937.38	\$217.04
RA	44	\$16,590.33	\$377.05	105	\$52,058.33	\$495.79	34	\$21,178.90	\$622.91
Scholarship	20	\$17,500.00	\$875.00	11	\$16,583.00	\$1,507.55	4	\$14,666.00	\$3,666.50
TA	41	\$4,905.99	\$119.66	51	\$15,237.63	\$298.78	70	\$17,341.74	\$247.74
Other	71	\$730.10	\$10.28	184	\$3,467.06	\$18.84	117	-\$1,906.73	-\$16.30
Total	297	\$97,972.12	\$329.87	462	\$115,402.62	\$249.79	280	\$63,217.29	\$225.78
<b>MSc in Management</b>									
Other employment	No available data			2	\$94	\$47.19	9	\$3,115.18	\$346.13
RA				14	\$4,523.87	\$323.13	20	\$8,355.34	\$417.77
Scholarship				1	\$3,333.00	\$3,333.00	3	\$5,149.00	\$1,716.33
TA				5	\$923.73	\$184.75	77	\$14,505.71	\$188.39
Other				20	\$221.70	\$11.09	72	\$1,039.03	\$14.43
Total				42	\$9,096.68	\$216.59	181	\$32,164.26	\$177.70

Program Appraisal data package

PAC-10: MSc/PhD

Programs, PAC-10: MSc/PhD	Academic year								
	2013			2014			2015		
	N students receiving support	Total Paid	Amount per student	N students receiving support	Total Paid	Amount per student	N students receiving support	Total Paid	Amount per student
INACTIVE - MSc Admin (II-Management)									
Award	2	\$1,300.00	\$650.00						
Other employment	28	\$5,942.20	\$212.22	17	\$3,859.62	\$227.04	1	\$50.00	\$50.00
RA	31	\$10,112.55	\$326.21	11	\$8,317.34	\$756.12	28	\$6,756.29	\$241.30
Scholarship	8	\$12,000.00	\$1,500.00	2	\$4,333.00	\$2,166.50	1	\$1,666.00	\$1,666.00
TA	42	\$8,448.57	\$201.16	121	\$28,404.35	\$234.75	72	\$10,459.58	\$145.27
Other	67	\$897.89	\$13.40	64	\$1,541.29	\$24.08	58	\$666.00	\$11.48
Total	178	\$38,701.21	\$217.42	215	\$46,455.60	\$216.07	160	\$19,597.87	\$122.49
MSc in Marketing									
Other employment	No available data						11	\$1,339.80	\$121.80
RA				7	\$1,045.00	\$149.29	15	\$4,506.13	\$300.41
Scholarship							14	\$16,891.04	\$1,206.50
TA				4	\$1,423.86	\$355.97	56	\$11,554.65	\$206.33
Other				10	\$98.75	\$9.88	55	\$696.03	\$12.66
Total				21	\$2,567.61	\$122.27	151	\$34,987.65	\$231.71
INACTIVE - MSc Admin (III-Marketing)									
Award	3	\$2,150.00	\$716.67	1	2333.33				
Fellowship	24	\$9,315.36		22	4684.62				
Other employment	23	\$12,485.47	\$542.85	14	\$5,950.89	\$425.06	6	\$566.25	\$94.38
RA				1	\$208.73	\$208.73			
Scholarship	5	\$6,250.00	\$1,250.00	9	\$13,965.33	\$1,551.70	2	\$2,666.00	\$1,333.00
TA	52	\$8,563.11	\$164.68	80	\$21,144.48	\$264.31	26	\$5,066.07	\$194.85
Other	65	\$841.97	\$12.95	63	\$4,424.81	\$70.24	20	\$225.30	\$11.27
Total	172	\$39,605.91	\$230.27	190	\$52,712.19	\$277.43	54	\$8,523.62	\$157.84

Program Appraisal data package

PAC-10: MSc/PhD

Programs, PAC-10: MSc/PhD	Academic year								
	2013			2014			2015		
	N students receiving support	Total Paid	Amount per student	N students receiving support	Total Paid	Amount per student	N students receiving support	Total Paid	Amount per student
PhD in Business Administration (I-Finance)									
Award	13	\$41,135	\$3,164.25	8	\$45,845.06	\$5,730.63	1	\$17,500.00	\$17,500.00
Bursary	32	\$16,568	\$517.73	45	\$20,866.16	\$463.69	57	\$28,135.42	\$493.60
Fellowship	313	\$166,207	\$531.01	148	\$64,813.02	\$437.93			
Other employment	60	\$7,760	\$129.33	47	\$7,160.42	\$152.35	26	\$3,072.97	\$118.19
RA	135	\$88,688	\$656.94	115	\$72,571.48	\$631.06	144	\$94,001.31	\$652.79
Scholarship	16	\$46,707	\$2,919.17	60	\$181,063.82	\$3,017.73	70	\$229,046.10	\$3,272.09
TA	474	\$91,221	\$192.45	497	\$165,734.20	\$333.47	439	\$128,396.37	\$292.47
Other	420	\$7,350	\$17.50	339	\$11,477.74	\$33.86	404	\$8,585.15	\$21.25
Total	1,463	\$465,634.45	\$318.27	1,259	\$569,531.90	\$452.37	1,141	\$508,737.32	\$445.87
PhD in Business Administration (II-Management)									
Award	14	\$29,484	\$2,105.99	4	\$5,917.33	\$1,479.33	3	\$5,396.00	\$1,798.67
Bursary	51	\$17,058	\$334.46	69	\$34,499.88	\$500.00	88	\$41,117.84	\$467.25
Fellowship	35	\$24,735	\$706.70	26	\$29,034.12	\$1,116.70			
Other employment	15	\$5,557	\$370.44	11	\$1,883.29	\$171.21	10	\$1,609.81	\$160.98
RA	117	\$53,960	\$461.20	70	\$32,499.00	\$464.27	38	\$25,553.47	\$672.46
Scholarship	33	\$81,449	\$2,468.16	91	\$207,537.18	\$2,280.63	73	\$226,603.65	\$3,104.16
TA	355	\$72,038	\$202.92	343	\$71,140.37	\$207.41	303	\$69,815.82	\$230.42
Other	285	\$5,262	\$18.46	168	\$6,703.82	\$39.90	158	\$3,879.16	\$24.55
Total	905	\$289,541.73	\$319.94	782	\$389,214.99	\$497.72	673	\$373,975.75	\$555.68
PhD in Business Administration (III-Marketing)									
Award	11	\$43,140	\$3,921.82	2	\$7,500.00	\$3,750.00	1	\$2,623.00	\$2,623.00
Fellowship	184	\$111,088	\$603.74	126	\$75,661.34	\$600.49	1	\$134.10	\$134.10
Other employment	40	\$8,637	\$215.92	24	\$7,012.07	\$292.17	25	\$6,432.17	\$257.29
RA	100	\$75,281	\$752.81	125	\$94,064.77	\$752.52	148	\$113,691.98	\$768.19
Scholarship	21	\$53,438	\$2,544.66	54	\$123,126.84	\$2,280.13	84	\$271,650.86	\$3,233.94
TA	193	\$37,996	\$196.87	157	\$47,504.48	\$302.58	179	\$47,600.04	\$265.92
Other	232	\$7,887	\$33.99	235	\$5,943.35	\$25.29	257	\$6,708.92	\$26.10
Total	781	\$337,466.29	\$432.10	723	\$360,812.85	\$499.05	695	\$448,841.07	\$645.81



Program Appraisal data package

PAC-10: MSc/PhD

Programs, PAC-10: MSc/PhD	Academic year								
	2013			2014			2015		
	N students receiving support	Total Paid	Amount per student	N students receiving support	Total Paid	Amount per student	N students receiving support	Total Paid	Amount per student
PhD in Business Administration (IV-SUPP & TEC)									
Award	1	\$150	\$150.00	1	\$625.00	\$625.00	3	\$2,166.67	\$722.22
Bursary	41	\$17,957	\$437.97	50	\$21,346.17	\$426.92	43	\$34,183.11	\$794.96
Fellowship	33	\$9,179	\$278.14	11	\$3,749.97	\$340.91			
Other employment	13	\$851	\$65.45	17	\$1,716.37	\$100.96	3	\$95.94	\$31.98
RA	2	\$49	\$24.62	1	\$1,346.15	\$1,346.15			
Scholarship				17	\$30,104.70	\$1,770.86	27	\$87,036.68	\$3,223.58
TA	31	\$6,487	\$209.25	90	\$34,654.93	\$385.05	48	\$20,999.45	\$437.49
Other	31	\$295	\$9.53	56	\$1,658.68	\$29.62	47	\$843.78	\$17.95
Total	152	\$34,967.56	\$230.05	243	\$95,201.97	\$391.78	171	\$145,325.63	\$849.86
PhD in Business Administration (V-Accounting)									
Award	7	\$12,167	\$1,738.13	2	\$5,933.33	\$2,966.67	2	\$3,077.62	\$1,538.81
Fellowship	126	\$55,944	\$444.00	66	\$16,998.49	\$257.55			
Other employment	3	\$825	\$275.00	4	\$1,013.94	\$253.49	1	\$180.00	\$180.00
RA	23	\$33,774	\$1,468.42	6	\$10,613.50	\$1,768.92	25	\$26,166.33	\$1,046.65
Scholarship	33	\$76,685	\$2,323.79	47	\$114,504.50	\$2,436.27	29	\$67,018.48	\$2,310.98
TA	55	\$11,921	\$216.74	42	\$11,809.87	\$281.19	24	\$8,985.19	\$374.38
Other	61	\$1,861	\$30.50	41	\$937.50	\$22.87	43	\$1,413.25	\$32.87
Total	308	\$193,175.82	\$627.19	208	\$161,811.13	\$777.94	124	\$106,840.87	\$861.62
PhD in Business Administration (I-Finance)									
Award	2	\$575	\$287.50	1	\$5,000.00	\$5,000.00			
Other employment	5	\$276	\$55.19	4	\$1,393.75	\$348.44	1	\$50.00	\$50.00
RA	93	\$28,212	\$303.35	46	\$25,396.36	\$552.09	10	\$7,994.16	\$799.42
TA	141	\$23,307	\$165.30	102	\$35,962.54	\$352.57	91	\$32,752.04	\$359.91
Other	158	\$4,273	\$27.04	106	\$8,297.48	\$78.28	42	\$1,631.81	\$38.85
Total	399	\$56,642.43	\$141.96	259	\$76,050.13	\$293.63	144	\$42,428.01	\$294.64
<i>Comparison: JMSB (Graduate)</i>	<i>5,735</i>	<i>\$1,914,526</i>	<i>\$333.83</i>	<i>5,521</i>	<i>\$2,332,505</i>	<i>\$422.47</i>	<i>4,973</i>	<i>\$2,224,198</i>	<i>\$447.25</i>

Note: "Number of students" does not necessarily refer to separate individuals. For example, the same person might have obtained an award and an RA in the same year.



JOHN MOLSON  
SCHOOL OF BUSINESS



# RESEARCH BULLETIN 2016



## DEAN'S MESSAGE



Research is an integral component JMSB's strategic plan and I am very pleased to report that we have made excellent progress in this area over the course of the last year.

As you will read in the bulletin, we have seen an increase in the number of refereed journal articles and conferences presentations by our faculty members, our research centres have been busy organizing symposia, we have had several faculty members named to editorial boards and last year, launched a new research centre: The Bob and Raye Briscoe Centre in Business Ownership Studies.

Additionally, we have grown our pool of graduate students and provided newer faculty members with access to them in

order to engender research partnerships. Admissions to our MSc programs grew by 20% in the last year, while the PhD program saw an increase of 30%.

Having streamlined our faculty recruitment process, we have once again, made some significant new hires in order to advance our research mission. I would like to take this opportunity to welcome our newest faculty members whose profiles are included in this publication: Michael Bourne, Pierre-Yann Dolbec, Rucsandra Moldovan, Rajshree Prakash.

I would like to congratulate all of the faculty members whose achievements are recognized in this bulletin.

Stéphane Brutus  
Interim Dean

## MESSAGE FROM THE EDITOR



Dear colleagues and students,

It is with great pleasure that we disseminate this research bulletin.

As you know, this year marks both the implementation of a series of strategic directions across our university and the second anniversary of JMSB's five-year strategic plan. Comprised of several strategic imperatives, the increase of research and knowledge transfer highlighted by both documents is of special interest to the JMSB research community. Said community, consisting of both faculty and students, has had a particularly productive year. The number of publications, conference presentations, and research grant awards has continued to grow. This year's edition of the JMSB Research Bulletin highlights our research activities for the period from May 2015 to April 2016 and displays the extent to which academic excellence remains one of our school's driving forces.

Many of our achievements deserve special attention, but let me take this opportunity to highlight some particularly noteworthy accomplishments: First, Dr. Michel Laroche, Royal Bank Distinguished Professor in Marketing, was named Editor-in-Chief of the Canadian Journal of Administrative Sciences. In addition, Michel was bestowed the Hans B. Thorelli Award for his paper "Cosmopolitanism, Consumer Ethnocentrism, and Materialism: An Eight-Country Study of Antecedents and Outcomes." Granted by the editorial board of the Journal of International Marketing, his article was deemed to have made the most significant and long-term contribution to international marketing theory or practice over the past five years. Second, let me congratulate Dr. Gregory Kersten, Senior Concordia University Research Chair in

Decision and Negotiation Systems, who was named Editor-in-Chief of the Journal of Group Decision and Negotiation. Michel's and Gregory's appointments bring two highly ranked journals into JMSB.

Other recognitions include the implementation of the Sustainable Real Estate and Built Environment Program made possible by Sam and Diana Scalia. The program, administered by the David O'Brien Centre for Sustainable Enterprise, focuses on research, events, and curriculum development in sustainable real estate and the built environment. I am also very pleased to announce that JMSB has initiated a search for two tenure-track appointments. Both positions, one in Real Estate and one in Supply Chain Management, are expected to be filled within the current academic year.

Finally, we are very excited to announce the introduction of a new master's program. The program, titled "Master in Supply Chain Management (MSCM)," is a 16 month applied research program consisting of both course work and an applied research project. Fellowships made possible through the CN Centre for Studies in Sustainable Supply Chain Management will be offered to incoming MSCM students.

It is a rewarding experience to publish this Research Bulletin and to reflect on the many accomplishments of our research community. I congratulate all faculty members and students on their accomplishments and wish them continued success in the coming year. Finally, I would like to thank Arlene Segal, Yuri Mytko, Sam Kolaghar, and Andrea Kim for their dedication and hard work in putting this bulletin together. Without their help, this task wouldn't have been possible.

Thomas Walker  
Associate Dean Research and Research Programs

## NEW RESEARCH CENTRES

### The Bob and Raye Briscoe Centre in Business Ownership Studies

The Bob and Raye Briscoe Centre in Business Ownership Studies was established to support teaching and research in the area of business ownership and entrepreneurship at the John Molson School of Business. The

Centre is dedicated to knowledge creation and applied practice while providing an environment for students and faculty to cultivate ties with the business community.

## NEW FACULTY

### Michael Bourne, Assistant Professor Department of Accountancy

Michael Bourne's research interests turn on the social and organizational contexts of financial accounting, as well as accounting regulation and standard setting, the sociology of the accountancy profession, and the debates about financial accounting, such as the use of fair values in financial reporting and approaches to consolidated financial statements. He seeks to locate accounting in its institutional context by drawing on a number of methodological approaches, including social network theory, semiotics, and discourse analysis.

### Pierre-Yann Dolbec, Assistant Professor Department of Marketing

Pierre-Yann Dolbec studies market-level innovation, or how the actions of consumers and producers create and disrupt markets by bringing about new forms of actors, practices, products, and market logics. He has published in the Journal of Consumer

Research, the Journal of Retailing, as well as the SAGE Handbook of Qualitative Data Analysis. has presented his research at the Association for Consumer Research, the European Association for Consumer Research, and the Consumer Culture Theory conferences.

### Rucsandra Moldovan, Assistant Professor Department of Accountancy

Rucsandra Moldovan's areas of expertise are in accounting disclosure characteristics, financial reporting quality, international financial reporting and standard setting, role of accounting disclosure for capital markets and product markets, diversified firms. She has published in Accounting in Europe and has presented at the 8th LSE/LUMS/MBS CFIE Conference 2014 in London, the EAA 2015 in Glasgow and AAA 2014 in Atlanta, amongst others.

### Rajshree Prakash, Assistant Professor Department of Management

## NEW PROFESSORSHIPS



**Emilio Boulianne**  
Manulife Professorship in  
Financial Planning (Pedagogy)



**Denis Schweizer**  
Manulife Professorship in  
Financial Planning (Research)

## EDITOR-IN-CHIEF APPOINTMENTS



**Gregory Kersten**  
*Journal of Group Decision  
and Negotiation*



**Michel Laroche**  
*Canadian Journal of  
Administrative Sciences*

## EXTERNAL VISITING SPEAKERS

**Wachowicz, Tomasz**  
Katowice University, Poland

*Gregory Kersten, Concordia University Research Chair Tier 1  
May 1, 2015*

**Hornuf, Lars**  
University of Trier and IAAEU,  
Germany

**Funding Dynamics in Crowdfunding**  
*Finance Department Seminar Series, September 11, 2015*

**Ruppenthal, Tonia**  
University of Fulda

**Sustainable and Organic Labeling in the Food Industry**  
*David O'Brien Centre for Sustainable Enterprise, September 18, 2015*

**Padilla, Amado**  
Stanford University

**The new dynamics in ethnic research: Multiculturalism,  
technology, globalization, and millennials**  
*Michel Laroche, Royal Bank Distinguished Professorship, September 25, 2015*

**Purdon, Mark**  
Institut Québécois du Carbone,  
Université de Montréal

**The Economics and Politics of an Emissions Trading System**  
*David O'Brien Centre for Sustainable Enterprise, September 25, 2015*

**Peñaloza, Lisa**  
Kedge Business School, France

**Ethnic Marketing: Future opportunities and challenges in a  
globalized world**  
*Michel Laroche, Royal Bank Distinguished Professorship, September 26, 2015*

<b>Leblibici, Huseyin</b> University of Illinois	<b>Discursive Nature of Organizational Fields and the Institutionalization of New Practices</b> <i>Michael Carney, Concordia University Research Chair Tier 1, October 2, 2015</i>
<b>Krosinsky, Cary</b> Yale University & University of Maryland	<b>Climate Change and Evolving Investment Strategies</b> <i>David O'Brien Centre for Sustainable Enterprise, October 23, 2015</i>
<b>Yao, Tong</b> University of Iowa	<b>In Search of Habitat</b> <i>Finance Department Seminar Series, October 30, 2015</i>
<b>Erickson, Jon</b> University of Vermont	<b>Economics for the Anthropocene</b> <i>David O'Brien Centre for Sustainable Enterprise, November 13, 2015</i>
<b>Giesler, Markus</b> York University	<b>Shifting to a Platform Business: How Empathy Mitigates Consumer Risk</b> <i>Zeynep Arsel, Concordia University Research Chair Tier 2, November 27, 2015</i>
<b>Wiklund, Johan</b> Syracuse University	<b>ADHD, Impulsivity and Entrepreneurship</b> <i>Michael Carney, Concordia University Research Chair Tier 1, January 15, 2016</i>
<b>Calderisi, Robert</b> World Bank (retired)	<b>Old Missionaries and New: The Confusing Role of Outsiders in African Development</b> <i>David O'Brien Centre for Sustainable Enterprise and Loyola College for Sustainability and Diversity, January 15, 2016</i>
<b>Simutin, Mikhail</b> University of Toronto	<b>The best of both worlds: Accessing emerging economics by investing in developed markets</b> <i>Finance Department Seminar Series, January 29, 2016</i>
<b>Schmid, Markus</b> University of St. Gallen	<b>All good things come to an end: CEO tenure and firm value</b> <i>Finance Department Seminar Series, February 19, 2016</i>
<b>Huson, Mark</b> University of Alberta	<b>On the Management of Legacy Assets</b> <i>Finance Department Seminar Series, March 22, 2016</i>
<b>Pandher, Gurupdes</b> University of Windsor	<b>Is CEO Cash &amp; Equity Compensation Efficient for Maximizing Shareholder Returns</b> <i>Finance Department Seminar Series, April 1, 2016</i>
<b>Suddaby, Roy</b> University of Victoria	<b>The Professionalization of the Corporate Historian/Archivist</b> <i>Michael Carney, Concordia University Research Chair Tier 1, April 13, 2016</i>
<b>Clapp, John</b> University of Connecticut	<b>Housing Booms and the Return to Salient Fundamentals</b> <i>Finance Department Seminar Series, April 15, 2016</i>
<b>Humphreys, Ashlee</b> Northwestern University	<b>Professional Contests and the Emergence of Social Media as an Institutional Field</b> <i>Zeynep Arsel, Concordia University Research Chair Tier 2, April 18, 2016</i>
<b>Afik, Zvika</b> Ben-Gurion University of the Negev	<b>Have credit ratings become more accurate?</b> <i>Van Berkom Endowed Chair of Small Cap Equities, April 18, 2016</i>
<b>Cooper, David</b> University of Alberta	<i>Claudine Mangen, Concordia University Research Chair Tier 2, April 27, 2016</i>
<b>Combs, James G. (Jim)</b> University of Central Florida	<b>What Option do I have? Why going option-less improves the triple bottom line</b> <i>Michael Carney, Concordia University Research Chair Tier 1, April 29, 2016</i>
<b>Alfano, Simon</b> Freiburg University, Germany	<i>Gregory Kersten, Concordia University Research Chair Tier 1, April 29, 2016</i>





## STUDENTS

### Annual Graduate Research Exposition (AGRE)

On Thursday, November 12, 2015, the John Molson School of Business hosted its seventh Annual Graduate Research Exposition (AGRE), showcasing the original research of its Doctoral (PhD) and Master of Science (MSc) in Administration students.

#### PhD Track "Best Poster" Prizes

- |   |  |
|---|--|
| <b>Best Poster</b>                          | <b>Gillian Leithman, Management</b><br>Hell, No. I Won't Go: Achievement, Power and a Working Retirement<br><i>Supervisor: L. Dyer</i>         |
| <b>Runner-up</b>                            | <b>Badr Hadrioui, Management</b><br>Time Management that Really Works<br><i>Supervisor: A. Panaccio</i>  |
| <b>Honourable<br/>Mention (tie)</b>         | <b>Mostafa Ayoobzadeh, Management</b><br>Leaders' Emotional Intelligence and Followers' Creativity<br><i>Supervisor: K. Boies</i>              |
| <b>Honourable<br/>Mention (tie)</b>         | <b>Samuel Tang, Management</b><br>Team Efficacy and Emotional Exhaustion in Intra-team Conflict and Performance<br><i>Supervisor: G. Johns</i> |
| <b>Popular Choice/Best<br/>Communicator</b> | <b>Derek Theriault, Marketing</b><br>Liberal or Conservative: Political Ideology and Consumer Brand Preference<br><i>Supervisor: G. Saad</i>   |

#### MSc Track for "Best Poster" Prizes

- |                               |  |
|-------------------------------|--|
| <b>Best MSc Poster</b>        | <b>Sarine Karajian, Finance</b><br>Cooking the Books: The Consequences of Corporate Fraud<br><i>Supervisor: S. Ullah</i>                   |
| <b>Runner-up</b>              | <b>Ali Chraim, Management</b><br>Servant Leadership Behaviors, Trust and Organizational Citizenship Behavior<br><i>Supervisor: L. Dyer</i> |
| <b>Honourable<br/>Mention</b> | <b>Sahar Taher, Management</b><br>Identity and Dysfunctional Behaviour: The Case of Shisha<br><i>Supervisor: K. Boies</i>                  |



## MSC 25<sup>TH</sup> ANNIVERSARY REUNION

Last September, the John Molson School of Business celebrated the 25th anniversary of its Master of Science program. Established in 1990, the program filled an emerging need in the marketplace for highly skilled professionals with advanced analytical and technical skills. Since then, over 400 students have graduated with an MSc degree from JMSB. Many are working in industry as experts in specialized fields of business,

while others have continued in academia to obtain doctoral degrees from leading universities in Canada and the United States.

The program has evolved over the years but its core mission to produce highly trained research professionals remains the same.

Thank you for being a part of our celebrations. We look forward to continuing our association in the years ahead.

## 2015-2016 STUDENT RESEARCH AWARDS

### FEDERAL AND PROVINCIAL GRADUATE STUDENT AWARDS

Social Sciences and Humanities Research Council (SSHRC)

Doctoral Awards

Anika Lapierriere, Management, \$105,000

Derek Theriault, Marketing, \$60,000

Masters Awards

Ryan Amsden, Finance, \$17,500

Jonathan Leclerc, Marketing, \$17,500

Fonds de recherche du Québec – Société et culture (FRQSC)

Doctoral Awards

Raghid Al Hajj, Management, \$46,666

Sara Leanne Keddie, Accountancy, \$53,333

### JMSB GRADUATE STUDENT AWARDS

JMSB presents two annual student research awards of \$1,000, one in each of the graduating classes of the MSc and PhD programs, based on successful thesis defense and the quality of imaginativeness of the student's research.

The Uma and Mahesh Sharma Graduate Award

Winner: Dan Zhang (MSc Finance)

Thesis: The Influence of Founder Status on Firm Performance: Empirical Evidence from Canadian IPO Firms.

Supervisor: Saif Ullah

*The Joe Kelly Graduate Award (PhD Program) was not awarded in 2016*



## 2015-2016 PhD THESES DEFENSES

<p><b>Derayti, Ehsan</b>  <i>Supervisor: R. Molz</i></p>	<p>The Impact of Relative Institutional Challenge on the Process of Firms' Internationalization (Management), Jun. 20, 2016</p>
<p><b>Giroux, Marilyn</b>  <i>Supervisor: B. Grohmann</i></p>	<p>Powerful Connections: Two Essays on How Brands Can Influence and Strengthen their Connections with Consumers (Marketing), Jun. 1, 2016</p>
<p><b>Kaviani, Mahsa Somayeh</b>  <i>Supervisor: L. Kryzanowski</i></p>	<p>Three essays on corporate debt financing (Finance), Jun. 28, 2016</p>
<p><b>Maleki, Hosein</b>  <i>Supervisor: L. Kryzanowski</i></p>	<p>Three essays on capital structure determinants (Finance), Jul. 6, 2016</p>
<p><b>Mesgari Mashhadi, Mostafa</b>  <i>Supervisor: C. Okoli</i></p>	<p>Essays on an Ecological Approach to User-Technology Interaction (SCBTM), Jul. 15, 2016</p>
<p><b>Mohebshahedin, Mahmood</b>  <i>Supervisor: L. Kryzanowski</i></p>	<p>Three essays on mutual fund governance and sponsorship (Finance), Jun. 22, 2016</p>
<p><b>Osman, Atkas</b>  <i>Supervisor: L. Kryzanowski</i></p>	<p>Three Essays on the Microstructure of BIST (Finance), Feb. 5, 2016</p>
<p><b>Saffie-Robertson, Maria Carolina</b>  <i>Supervisor: S. Brutus</i></p>	<p>Understanding the Impact of Mentee's Gender in the Development of Informal Mentoring Relationships in the Workplace (Management), May 19, 2016</p>
<p><b>Tofighi, Maryam</b>  <i>Supervisor: B. Grohmann, O. Bodur</i></p>	<p>Three Essays on the Effects of Ethical Attributes on the Private Label and National Brands (Marketing), Jun. 3, 2016</p>
<p><b>Yu, Bo</b>  <i>Supervisor: R. Vadihov</i></p>	<p>The impact of the Relation between Users and Software Agents in Delegated Negotiation: A Control Perspective (SCBTM), Apr. 7, 2016</p>



## 2015-2016 MSc THESES DEFENSES

- Baygin, Christophe Hrant**  
*Supervisor: B. Grohmann*      The fundamental antecedents of a brand relationship: An exploration of the effect of consumers' personalities on the strength of brand relationships (Marketing), Sept. 2, 2015
- Bellhassen, Alexander**  
*Supervisor: O. Bodur*      Product Placement in Videogames: Does in-game violence really have an effect on product evaluations? (Marketing), Apr. 14, 2016
- Cai, Jing**  
*Supervisor: M. Jamal*      An investigation of the relationship of leadership and employees' engagement and turnover intention – Emotional intelligence and tenure as moderators (Management), Oct. 8, 2015
- Cai, Ya**  
*Supervisor: L. Shanker*      The Relationship between Margin Changes and Volatility in Futures Markets (Finance), Jul. 29, 2015
- Chen, Longren**  
*Supervisor: T. Walker*      The Impact of Founder Transitions in IPO firms: A Look at IPO Firm Valuation, Delistings, and Litigation Risk (Finance), Apr. 6, 2016
- Chen, Xin**  
*Supervisor: M. Thakor*      A Re-Investigation of Gender Differences in Loyalty to Service Providers (Marketing), Jan. 8, 2016
- Chen, Zhefan**  
*Supervisor: B. Grohmann*      Personality Congruence Effect in Marketing Communication: Theory and Implication (Marketing), Sept. 24, 2015
- Chraim, Ali**  
*Supervisor: L. Dyer*      The Impact of Servant Leadership Behaviors on Trust and Organizational Citizenship Behavior (Management), Mar. 11, 2016
- Duan, Siyu**  
*Supervisor: L. Switzer*      The impact of public news on return predictability following major one-day price or volume shocks: Evidence for Canada (Finance), Aug. 25, 2015
- Geng, Xi**  
*Supervisor: N. Basu*      Innovation and Corporate Governance (Finance), Sept. 9, 2015
- Guo, Chaoqing**  
*Supervisor: M. Larocche*      Exploring the Role of Perceived Word-of-Mouth Source Reliability in the Process of Online Negative Word-of-Mouth Spreading, and Outcomes of the Online Negative Word-of-Mouth (Marketing), Dec. 7, 2015

## 2015-2016 MSc THESES DEFENSES

<p><b>Guo, Lingfeng</b>  <i>Supervisor: L. Kryzanowski</i></p>	<p>Share class structures and asset transactions: Canadian evidence (Finance), Mar. 17, 2016</p>
<p><b>He, Mengdong</b>  <i>Supervisor: T. Walker</i></p>	<p>How Does Hedging Affect Firm Value - Evidence from The U.S. Airline Industry (Finance), Aug. 27, 2015</p>
<p><b>He, Yang</b>  <i>Supervisor: B. Grohmann</i></p>	<p>Examining the Effect of Social Media Communication on Brand Equity (Marketing), Jan. 8, 2016</p>
<p><b>Hu, Weiluo</b>  <i>Supervisor: M. Laroche</i></p>	<p>An Exploratory Study Examining Fear Appeals in Print Advertisements: A Comparison between China and Canada (Marketing), Dec. 7, 2015</p>
<p><b>Karajian, Sarine</b>  <i>Supervisor: S. Ullah</i></p>	<p>Consequences of Fraud and Overcoming Negative Market Reaction (Finance), Nov. 17, 2015</p>
<p><b>Li, Xin</b>  <i>Supervisor: L. Kryzanowski</i></p>	<p>Canadian Stock Mispricings and Their Determinants (Finance), Apr. 13, 2016</p>
<p><b>Li, Yuan</b>  <i>Supervisor: N. Basu</i></p>	<p>The Impact of Social Connections on Merger Performance (Finance), Jun. 23, 2015</p>
<p><b>Li, Zihui</b>  <i>Supervisor: T. Walker</i></p>	<p>How Does Regulations and Country-Level Governance Impact the Probability of a Financial Crisis? (Finance) Apr. 6, 2016</p>
<p><b>Msefer, Salma</b>  <i>Supervisor: R. Molz</i></p>	<p>The Strategic Responses of Multinational Enterprises During Institutional Change (Management), Aug. 12, 2015</p>
<p><b>Noël, Mélissa</b>  <i>Supervisor: B. Grohmann</i></p>	<p>The impact of a Social Customer Relationship Management (SCRM) system on the development of customer engagement in the restaurant industry (Marketing), May 14, 2015</p>
<p><b>Popp, Alexandru</b>  <i>Supervisor: K. Lamertz &amp; R. Vahidov</i></p>	<p>Reducing Waiting Time for Elective Surgeries (Management), Apr. 11, 2016</p>
<p><b>Qu, Shu</b>  <i>Supervisor: J. Yu</i></p>	<p>National Formal Institutions, Regional Informal Institutions and Foreign Entry Mode Decision: Evidence from China (Management), May 12, 2015</p>



<p>Sahir, Rita  <i>Supervisor: S. Brutus</i></p>	<p>The Representation of Consultants As Experts in the Popular Press (Management), Mar. 17, 2016</p>
<p>Sambath, Alice  <i>Supervisor: M. Laroche</i></p>	<p>The Relationship Between Cosmopolitanism and Brand Origin Recognition: The Moderating Effect of Need for Cognition (Marketing), Aug. 27, 2015</p>
<p>Shao, Heran  <i>Supervisor: B. Grohmann</i></p>	<p>Online brand community usage: a motivation of consumption approach (Marketing), Sept. 9, 2015</p>
<p>Simone, Karina  <i>Supervisor: R. Ravi</i></p>	<p>Price Discovery in the Cross Listed Stock Market: Revisiting the Case of Canadian Stocks Listed in the United States (Finance), May 5, 2016</p>
<p>Sun, Xiao  <i>Supervisor: T. Walker</i></p>	<p>The Impact of Natural Catastrophes on Property/Liability Insurers: A Geographical Proximity Analysis (Finance), Aug. 31, 2015</p>
<p>Susan-Resiga, Irina  <i>Supervisor: B. Grohmann</i></p>	<p>Maybe It Should Be a Laughing Matter: A Further Exploration of the Persuasive Power of Humorous Threat Appeals (Marketing), Jul. 24, 2015</p>
<p>Tu, Qiao  <i>Supervisor: L. Switzer</i></p>	<p>Corporate Governance and Firm Default Risk during the Post Financial Crisis Period (Finance), Sept. 25, 2015</p>
<p>Wan, Peiyi  <i>Supervisor: L. Switzer</i></p>	<p>Corporate governance mechanisms and the cost of capital: evidence from Canadian firms (Finance), Nov. 17, 2015</p>
<p>Wang, Mozhi  <i>Supervisor: F. Davis</i></p>	<p>Rumor Effects and Potential Bidders (Finance), Mar. 14, 2016</p>
<p>Wang, Shuman  <i>Supervisor: B. Grohmann</i></p>	<p>The effects of visual servicescapes elements on consumer-retailer relationship formation (Marketing), Apr. 13, 2016</p>
<p>Wang, Yanan  <i>Supervisor: Y-P. Chen</i></p>	<p>Antecedents of next generations with Chinese family business background (Management), Jun. 22, 2015</p>
<p>Wen, Bowei  <i>Supervisor: L. Kryzanowski</i></p>	<p>Market effects associated with different financial restatements announcement strategies by Canadian firms (Finance), Jun. 23, 2015</p>



Xiang, Lin  
Supervisor: H. Bhabra

Convertible Bond Issues and Institutional Investors (Finance),  
Sept. 9, 2015

Xiao, Chang  
Supervisor: S. Isaenko

Optimal Trading for Mean-Reverting Security in Finite Time  
with Transaction Fees (Finance), Apr. 13, 2016

Yao, Qian  
Supervisor: T. Walker

The Impact of Firm and Information Production on the  
Aftermarket Liquidity of IPO Firms (Finance), Oct. 1, 2015

Zhang, Dan  
Supervisor: S. Ullah

The Influence of Founder Status on Firm Performance:  
Empirical Evidence from Canadian IPO Firms (Finance), Mar. 24,  
2016

Zhang, Yajing  
Supervisor: L. Switzer

Effect of corporate governance on default risk in Financial vs  
Non-financial firms: Canadian Evidence (Finance), Sept. 24,  
2015

Zhao, Kun  
Supervisor: T. Walker and F. Davis

The Effects of Litigation on Mergers and Acquisitions (Finance),  
Feb. 11, 2016

Zhao, Yun  
Supervisor: L. Switzer

Predicting Extreme Returns in the Canadian Stock Market  
(Finance), Mar. 9, 2016

Zhou, Linyi  
Supervisor: T. Walker and F. Davis

Mergers and Acquisitions Deal Initiation and Motivation  
(Finance), Jan. 18, 2016

Zhu, Hong  
Supervisor: M. Laroche

Program-Induced Mood Effects on Purchase Intention to Buy  
Counterfeit Luxury Brands (Marketing), Jun. 18, 2015

Zhu, Li  
Supervisor: M. Farashahi

The role of sectorial moderator - a combination of the  
environmental munificence and volatility - in the corporate  
social responsibility and financial performance (Management),  
May 21, 2015

Zhu, Lingzi  
Supervisor: S. Ullah

Why Firms Go Dark? (Finance), Dec. 18, 2015

## PHD INTERNATIONAL CONFERENCE PRESENTATIONS/ PROCEEDINGS (MAY 1, 2015 – APRIL 30, 2016)

**Ayooorzadeh, M.**, Does Academic Mentoring Improve Students' Career Decision-Making?, *Academy of Management (AoM) Annual Meeting 2015*, Vancouver, BC, Canada (August 2015)

**Ayooorzadeh, M.**, The Strategic Role of Human Resource Management in Mergers and Acquisitions: A Sense-making of Process, *Administrative Sciences Association of Canada (ASAC) Conference 2015*, Halifax, NS, Canada (June 2015)

**Crichton, R.**, "Slowing Climate Change: Mitigating Poverty and Environmental Degradation via Strategic Human Resource Management and Responsible Leadership," *The Administrative Science Association of Canada*, Edmonton, Alberta, Canada (June 2016).

**Crichton, R.**, "Sustaining Human Resources via Aesthetic Practices," *The Organizational Creativity International Conference*, Nancy, France (March 2015).

**Duval, Kimberly & Bodur, H. Onur**, Whom Do You Know? When Social Identity Complexity Hinders the Promotion of Sustainable Products, *APA Annual Convention*, Toronto, Canada (August 2015).

**Jabagi, N.**, Croteau, A.-M., and Dostaler, I., (2015) "Getting on the Same Page: Co-evolutionary Lens Applied to Business-IT Alignment", *Proceedings of the Administrative Sciences Association of Canada Conference (ASAC)*, IS division, Halifax. (June, 2015)

**Kim, A.**, "From Sharing to Exchange: An Extended Framework of Dual Modes of Collaborative Non-Ownership Consumption," *American Marketing Association Summer Marketing Educator's Conference*, Chicago, Illinois, U.S.A. (August 2015).

**Pain, G.** 2015. Sensemaking, Schema Interaction Dynamics, and Corporate Environmental Performance. In John Humphreys (Ed.), *Proceedings of the Seventy-fifth Annual Meeting of the Academy of Management*. Online ISSN: 2151-6561.

**Pain, G.**, Performance, *Annual Meeting of the Academy of Management*, Vancouver, BC (August 2015).

**Pain, G.**, Sensemaking, Schema Interaction Dynamics, and Corporate Environmental Performance, *Annual Meeting of the Society for Business Ethics*, Vancouver, BC (August 2015).

**Pain, G.**, Schema Interaction Dynamics and Corporate Environmental Performance, Ontario-Quebec, Sensemaking, *Schema Interaction Dynamics, and Corporate Environmental Qualitative Methods Workshop*, Montreal, QC (May 2015).

**Tajeddin, M.**, Internationalization of SMEs: Institutional escape or institutional arbitrage? *19th McGill International Entrepreneurship Conference*, Birkbeck, University of London, UK. (August 2015)



## 2015-2016 POST-DOCTORAL FELLOWS

Bai, Chunguang (Management)  
*Supervisor: A. Satir*

Bitar, Mohammad (Finance)  
*Supervisor: T. Walker*

Greengross, Gil (Marketing)  
*Supervisor: G. Saad*

Martin, Dominic (Accountancy)  
*Supervisor: M. Magnan*

Miraglia, Mariella (Management)  
*Supervisor: G. Johns*

Montecinos, Julio (SCBTM)  
*Supervisor: S. Chauhan*

Mukherjee, Tulika (Management)  
*Supervisor: S. Chauhan*

Nosoohi, Iman (Management)  
*Supervisor: X. Huang*

Pomies, Anissa (Marketing)  
*Supervisor: A. Zeynep*

Sarhadi, Hassan (Management)  
*Supervisor: S. Chauhan*

## FACULTY



L-R:  
S.H. Appelbaum,  
A.M. Croteau, G.  
Johns, M. Magnan,  
G. Saad

### Research Awards and Distinctions

Appelbaum, S.H. (2015). "Corporate psychopathy: deviant workplace behaviour and toxic leaders – part one (Part One)" *Industrial and Commercial Training*, 47(4). Highly Commended Paper in the 2016 Emerald Literati Network Awards for Excellence.

Croteau, A.M., Award for the Best paper of the Information Systems division at ASAC: Ayouby, Reem; and Croteau, Anne-Marie (2015) "Problematic Use of Social Media and Implicit Motives", Presented at the Administrative Sciences Association of Canada Conference, IS division, Halifax, June 13-16.

Croteau, A.M., Distinguished speaker of the Information Systems division at ASAC: Croteau, Anne-Marie (2015) *Business-IT Alignment: A Question of Timing*, Distinguished speaker of the Information Systems Division at Administrative Sciences Association of Canada Conference, Halifax, June 13-16.

Dawson, A., Best Paper Award: Chadwick, I., and Dawson, A., "Female leadership and family business performance: Distinguishing between financial and nonfinancial performance." *International Family Enterprise Research Academy (IFERA) Research development workshop*, Catania, Italy (February 2016).

Jaskiewicz, P., Outstanding Reviewer Award. *Entrepreneurship Theory and Practice*, 2015.

Johns, G., 2016 Academy of Management Review Decade Award, given for the one AMR article that has garnered the most citations over the past ten years. "The Essential Impact of Context on Organizational Behavior". *Academy of Management Review*, 31 PP 386-408.

Magnan, M., 2015 Best Paper Published in *Canadian Journal of Administrative Sciences*: Sur, S.; Magnan, M.; Cordeiro, J. 2015. Disentangling CEO Compensation: A Simultaneous Examination Of Time, Industry, And Firm-Level Effects. *Canadian Journal of Administrative Sciences* 32(1): 30-46.

Nason, R., 2016 Petro-Canada Young Innovator Award, Concordia University.

Nason, R., EGOS 2015 Best Paper Finalist. Nason, R. & Gras, D. The impact of family household health on family economic activity. Athens, Greece.

Saad, G., Recipient of the 2015 President's Media Outreach Award-Research Communicator (International) [concordia.ca/cunews/main/stories/2015/06/09/presidents-media-outreach-awards-honour-newsmakers](http://concordia.ca/cunews/main/stories/2015/06/09/presidents-media-outreach-awards-honour-newsmakers)

## EXTERNAL GRANTS



L-R: C. Okoli, J. Yu, T. Zhou



L-R: S. Betton, S. Chauhan, B. Grohmann, J. Proelss, L. Yao

Barralet, J. (PI, McGill Surgery), **Betton, S.** (co-applicant, JMSB), Fevens, T. (co-applicant, ENCS), Dargahi, J (co-applicant, ENCS), Nuno, N. (co-applicant, ETS), Duchaine, V. (co-applicant, ETS), Guise, J. (co-applicant, ETS), Leask, R. (co-applicant, McGill Engineering), Liu, X (co-applicant, McGill Engineering), Pasini, D. (co-applicant, McGill Engineering), Prakash, S. (co-applicant, McGill Engineering), CREATE (Collaborative Research and Training Experience), NSERC. \$1.65 million (2016 – 2021).

**Chadwick, Ingrid C.** (PI), with co-investigator Alyson Byrne (PI), Women's Ambiguous Leadership Trajectories - Identity, Motivation, and Effectiveness, SSHRC Insight Development Grant, \$50, 351 (2015-2017).

**Chadwick, Ingrid C.** (PI), Microfondement de l'efficacité des entrepreneures : le rôle des processus cognitifs et de l'identité de genre, FRQ-SC Établissement de nouveaux professeurs-chercheurs, \$36, 549 (2016-2019).

**Chauhan, S. S.**, Real time Collaborative transportation planning for logistics service providers, NSERC Engage Grant, \$23,700 (2015-2016)

**Grohmann, B.**, with co-investigators Bodur O. (JMSB), Johnson A (FAS), and Wittich W (Université de Montréal), Groupe de recherche sur la perception visuelle et le bien-être des consommateurs, FRQ-SC Soutien aux Équipes de Recherche, \$181,446 (2016-2020).

**Kersten, G.**, Efficient Exchange Mechanisms for Services and Configurable Goods, Natural Sciences and Engineering Research Council of Canada, \$ 110,000, 2016-21.

**Okoli, C.**, Mitacs Globalink research internship. Do certain aspects of national culture make corruption more prevalent in some countries? 2015 (\$7,500).

Himick, D. (PI), Ipino, I., and **Peltier, E.**, Risk Management Disclosure Post-IFRS in Canada, University of Ottawa CPA Canada AGRC, \$5,000 (May 2015)

**Peltier, E.**, L'impact de la qualité individuelle de l'associé sur la qualité de l'audit : Le cas du Québec, FRQ-SC Établissement de nouveaux professeurs-chercheurs, \$30,611 (2016-2019).

**Proelss, J.**, Chine : de l'imitation à l'innovation?, FRQ-SC Établissement de nouveaux professeurs-chercheurs, \$37,107 (2016-2019).

**Schweizer, D.**, (PI) with co-investigators Proelss, J. (JMSB), and Walker, T. (JMSB), Corporate Fraud and Illegal Insider Trading, Autorité des Marchés Financiers Education and Good Governance Fund, \$148,500 (2016-2019).

**Yao, L.** (PI), and Chen, C. (co-applicant), Smoothing Earnings through Real Activities, CPA Canada-CAAA Research Program, \$6,000 (2015-2017).

**Walker, T.** (PI) with co-investigators Pukthuanthong, K. (University of Missouri) and Shrivastava, P. (Future Earth), Impact of Natural Disasters on the Financial System, Autorité des Marchés Financiers Education and Good Governance Fund, \$114,050 (2016-2019).

Han, K. (PI) & **Yu, J.** (Co-applicant), Impacts of Information Technology on

Multinational Corporations, SSHRC Insight Grant, \$139,040, 2016-2020.

**Zhou, T.**, Composition optimale de l'éventail des locataires dans les centres commerciaux, FRQ-SC Établissement de nouveaux professeurs-chercheurs, \$34,318 (2016-2019).

## REFEREED JOURNAL ARTICLES

Cheang, H.S., **Appelbaum, S.H.** (2015). "Corporate Psychopathy: Deviant Workplace Behaviour and Toxic Leaders (Part One)", *Industrial and Commercial Training*, 47(4), 165-173.

Cheang, H.S., **Appelbaum, S.H.** (2015). "Corporate Psychopathy: Deviant Workplace Behaviour and Toxic Leaders (Part Two)", *Industrial and Commercial Training*, Vol.47, No.5, pp.236-243.

**Appelbaum, S.H.**, Kryvenko, O., Rodriguez, M., Soochan, M., & Shapiro, B.T. (2015). "Racial-Ethnic Diversity in Canada: Competitive Edge or Corporate Encumbrance? (Part One)", *Industrial and Commercial Training*, Vol.47, No.6, pp.302-309.

**Appelbaum, S.H.**, Kryvenko, O., Rodriguez, M., Soochan, M., & Shapiro, B.T. (2015). "Racial-Ethnic Diversity in Canada: Competitive Edge or Corporate Encumbrance? (Part One)", *Industrial and Commercial Training*, Vol.47, No.7, pp.386-393.

**Appelbaum, S.H.**, Calcagno, R., Magarelli, S., & Saliba, M. (2016). "A Relationship between Corporate Sustainability and Organizational

Change (Part One)", *Industrial and Commercial Training*, Vol.48, No.1, pp.16-23.

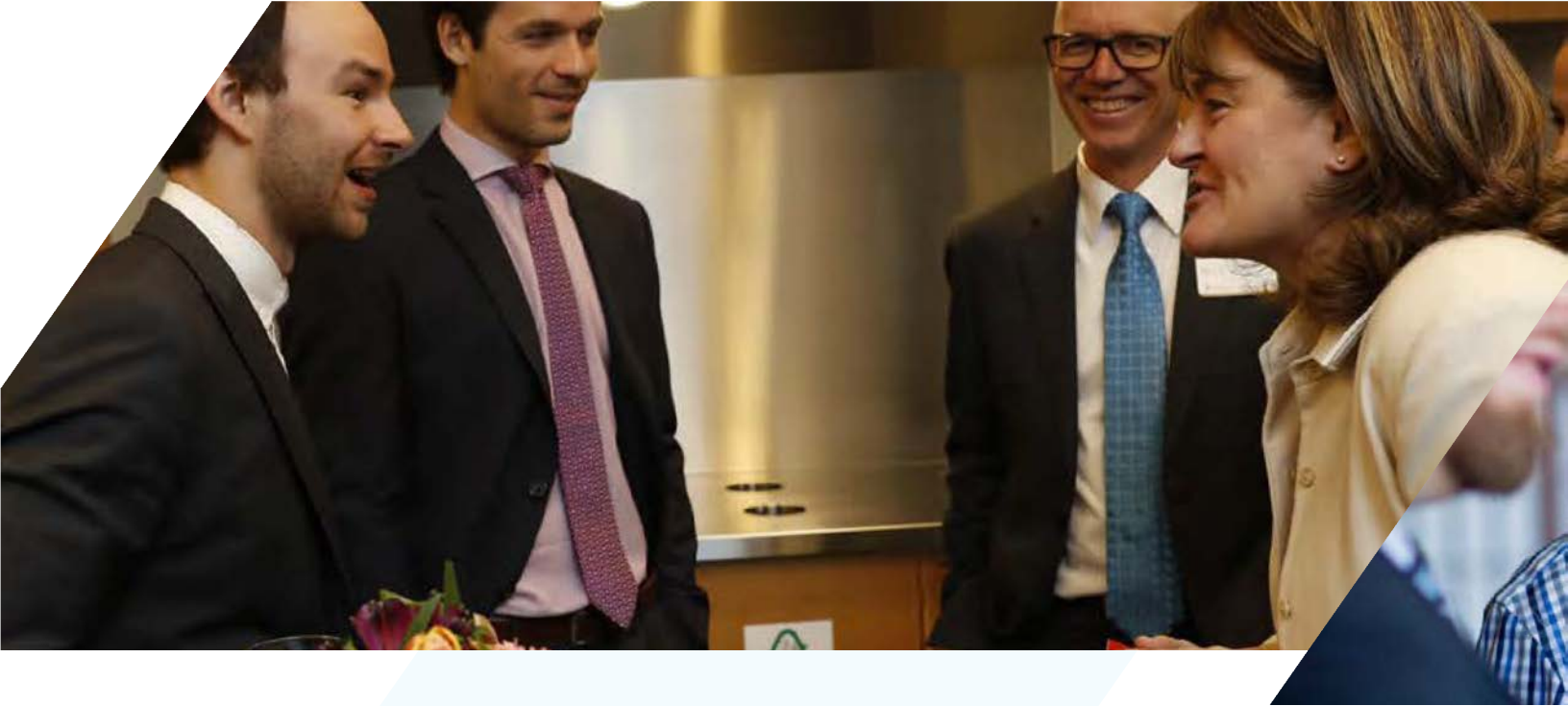
**Appelbaum, S.H.**, Calcagno, R., Magarelli, S., & Saliba, M. (2016). "A Relationship between Corporate Sustainability and Organizational Change (Part Two)", *Industrial and Commercial Training*, Vol.48, No.2, pp.89-96.

**Appelbaum, S.H.**, Calcagno, R., Magarelli, S., & Saliba, M. (2016). "A Relationship between Corporate Sustainability and Organizational Change (Part Three)", *Industrial and Commercial Training*, Vol.48, No.3, pp.133-141.

**Appelbaum, S.H.**, Wenger, R., Pachon, C., & Kaur, R. (2016). "The Effects of Old-Age Stereotypes on Organizational Productivity (Part One)", *Industrial and Commercial Training*, Vol.48, No.4, pp.181-188.

**Appelbaum, S.H.**, Wenger, R., Pachon, C., & Kaur, R. (2016). "The Effects of Old-Age Stereotypes on Organizational Productivity (Part Two)", *Industrial and Commercial Training*, Vol.48, No.5.

**Appelbaum, S.H.**, Wenger, R., Pachon, C., & Kaur, R. (2016). "The Effects of Old-Age Stereotypes on Organizational



L-R: S. Audousset-Coulier, K. Boies, L. Dyer, X. Huang

Productivity (Part Three)", *Industrial and Commercial Training*, Vol.48, No.6.

**Audousset-Coulier, S.**, Jeny-Cazavan, A., Jiang L. (2016). "The validity of auditor industry specialization measures" *Auditing: A Journal of Practice and Theory*, 35(1), pp. 139-161.

Robinson, M. A., & **Boies, K.** (in press). "Different ways to get the job done: Comparing the effects of intellectual stimulation, contingent reward leadership and no leadership on task-related outcomes" Forthcoming at the *Journal of Applied Social Psychology*.

**Boies, K.**, Fiset, J., & Gill, H. (2015). "Communication and trust are key: Unlocking the relationship between leadership and team performance." *Leadership Quarterly*, 26(6), 1080-1094.

**Carney, M.**, Dieleman, M., & Taussig, M. (2015) "How are institutional capabilities transferred across borders?" *Journal of World Business*, Published online December 24, 2015, [dx.doi.org/10.1016/j.jwb.2015.12.002](https://doi.org/10.1016/j.jwb.2015.12.002)

**Carney, M.** (2015) "Capacity building at the Asia Pacific Journal of

Management." *Asia Pacific Journal of Management*, 32(4), PP. 827-833

Raymond, L., **Croteau, A.M.**, Bergeron, F., and St-Pierre, J. (accepted) "IT-enabled Knowledge Management for the Competitive Performance of Manufacturing SMEs: An Absorptive Capacity-based View", *Knowledge and Process Management*.

Bergeron, F., **Croteau, A.M.**, Uwizyemungu, S., & Raymond, L. (2015) "IT Governance Framework Applied to SMEs", *International Journal on IT/Business Alignment and Governance* (6:1), 32-48.

Hjorth, D., **Dawson, A.**, (2016). "The Burden of History in the Family Business Organization", *Organization Studies*, doi: 10.1177/0170840615613375.

**Dawson, A.**, Sharma, P., Gregory, I.P, Joel, M., Chirico, F., (2015). "Predictors of Later Generation Family Members' Commitment to Family Enterprises" *Entrepreneurship Theory & Practice*, 39(3): PP. 545-56.

Reid, S.E., and **de Brentani, U.**, (2015). "Building a Measurement Model for Market Visioning Competence and its



Proposed Antecedents: Organizational Encouragement of Divergent Thinking, Divergent Thinking Attitudes, and Ideational Behaviour”, *Journal of Product Innovation Management*, 32(2), pp. 243-262.

Restuccia, M., de Brentani, U., Legoux, R., and Ouellet, J-F. (2016). “Product Life Cycle Management and Distributor Contribution to New Product Development”, *Journal of Product Innovation Management*, 33(1), pp. 69-89.

Dolbec, P.Y., and Fischer, E., (2015), “Re-fashioning a Field? Connected Consumers and Institutional Dynamics in Aestheticized Markets”, *Journal of Consumer Research*, 42, pp. 1447-1468.

Castilhos, R., Dolbec, P.Y., and Veresiu, E. (forthcoming), “Introducing a Spatial Perspective to Analyze Market Dynamics,” *Marketing Theory*.

Ntalianis, F., Dyer, L., and Vandenberghe, C., (2015) “Owner-Employee Relations in Small Firms”. *Journal of Managerial Psychology*, 30(7), pp. 832-846.

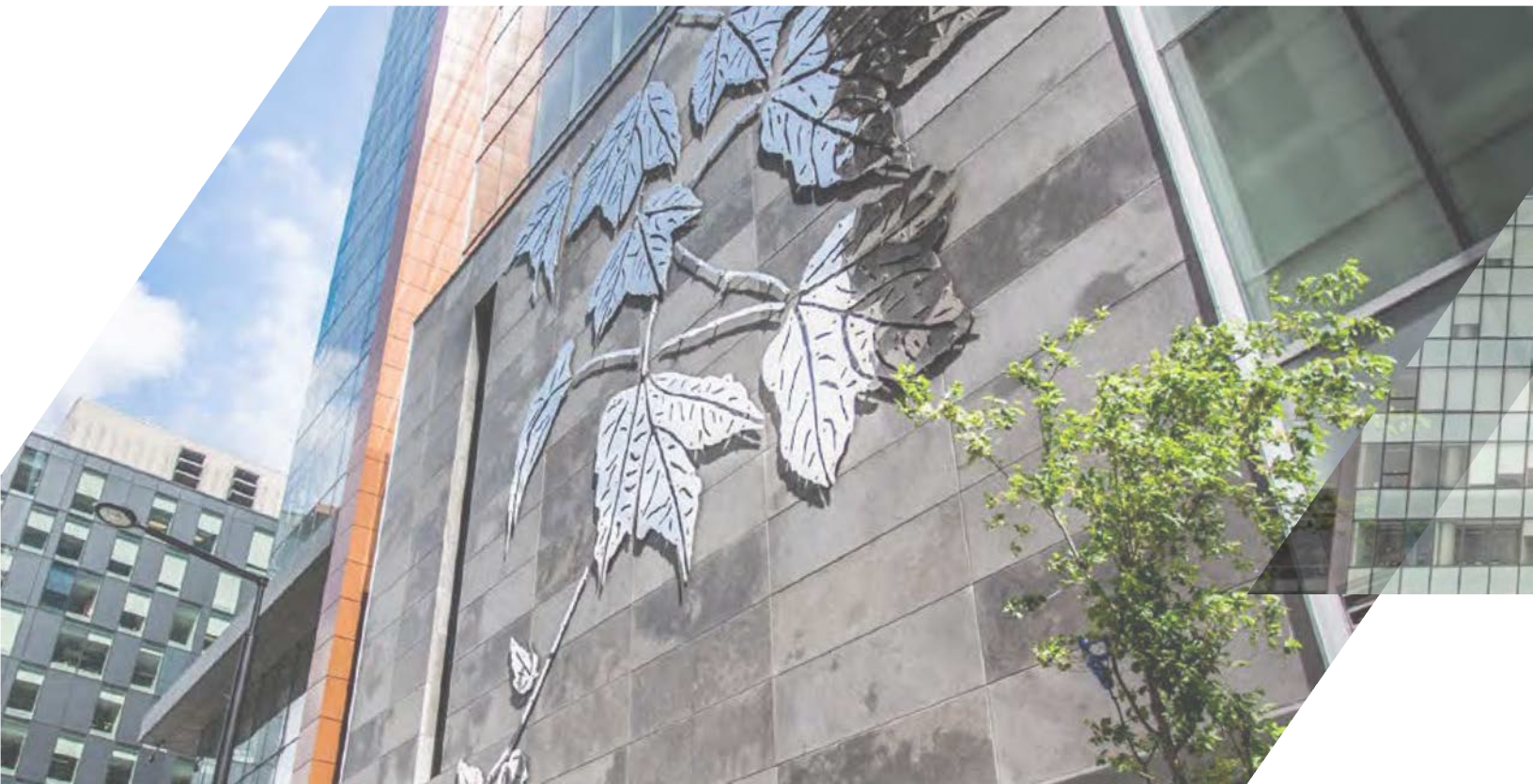
Ferguson, R., Schattke, K., Paulin, M., (2016) “The Social Context for Value Co-creation in an Entrepreneurial Network: Influence of Interpersonal attraction, relational norms and partner trustworthiness”, *International Journal of Entrepreneurial Behavior and Research*. 22:2, pp. 199-214.

Salman, A., Ferguson, R., Paulin, M., Schattke, K. (2016) “Gaining Millennial Women’s Support for a Fashion Show: Influence of Fashion Experiences, Gender Identity and Cause-Related Facebook Appeals”. *Journal of Global Fashion Marketing*. 7(2), pp. 132-146.

Fu, C. K., Hsu, Y.S., Shaffer, M. A., and Ren, H., (forthcoming). “A Longitudinal Investigation of Self-Initiated Expatriate Organizational Socialization”. *Personnel Review*.

Li, Y., Huang, X., (2015). “A One-Vendor Multiple-Buyer Production-Distribution System: The Value of Vendor Managed Inventory”. *INFOR*. 53 (1) 13-25.

Xiao, V., Huang, X., (2015). “Elevate Shared Service Operations to New Levels”. *Boao Review*. October 2015. 106-108.



Cheng, S.H., **Majidul, I.**, and Yi-Feng, Y., (2016) “Studies of CRM: Management capabilities and the mediating role of customer satisfaction”, *International Journal of Business Excellence*, Vol.10, No.2.

**Jaskiewicz, P.**, Luchak, A., Oh, I.S., and Chlosta, S., (2015) “Are individual differences really dead? The mediating role of regulatory career goals in the relationship between individual differences and entrepreneurial intentions and status.” *Journal of Career Development*, forthcoming (2015).

**Jaskiewicz, P.**, Block, J., Miller, D., and Combs, J., (2015) “Owners and their different agency problems: CEO incentives and firm performance among founder-owned, family-owned, and manager-controlled firms.” *Entrepreneurship Theory & Practice*, forthcoming (2015).

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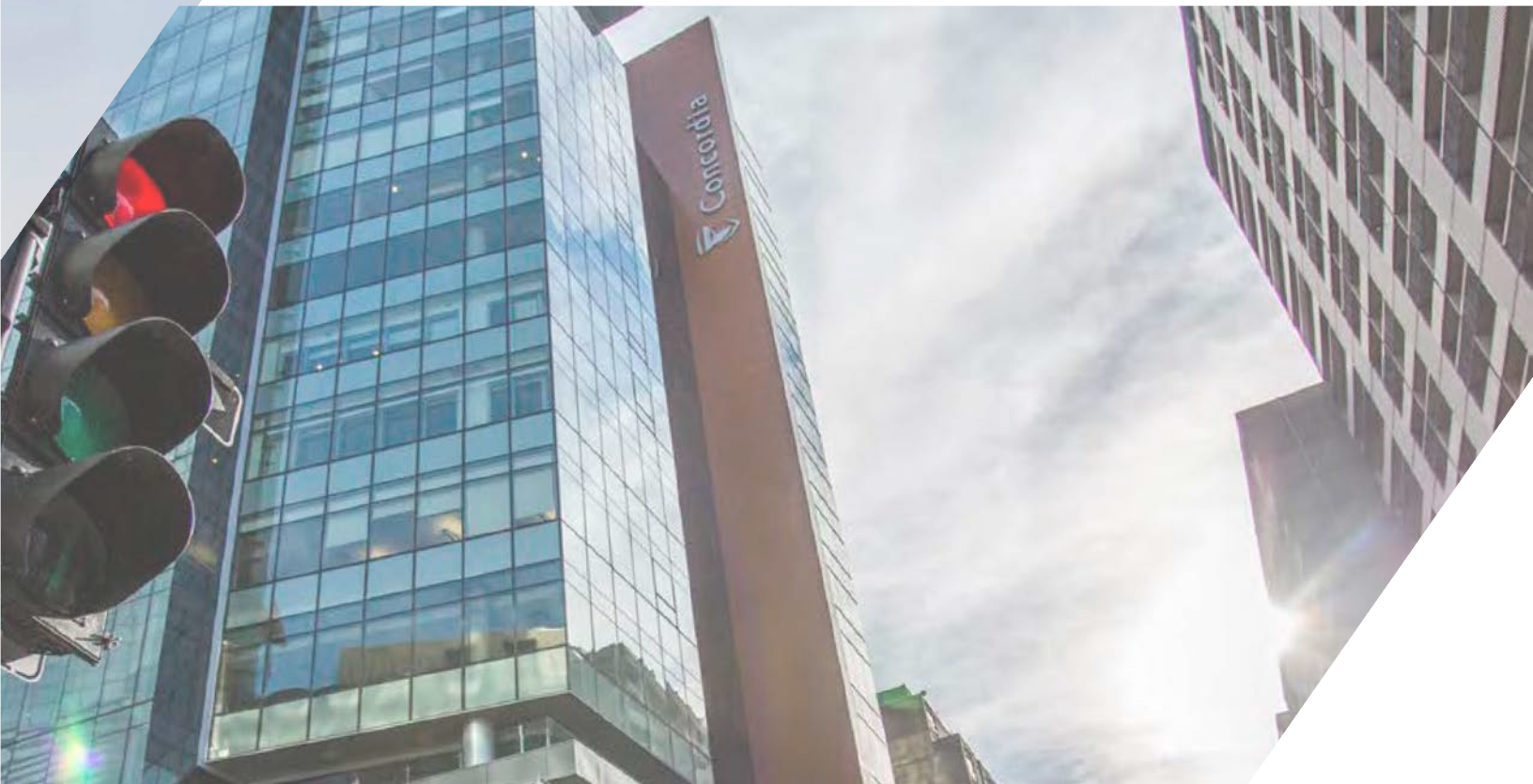
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## INTERNATIONAL CONFERENCE PRESENTATIONS AND PROCEEDINGS, WORKSHOP KEYNOTES



L-R: A. Addas, H. Bhabra, M. Bitar, I.C. Chadwick



**Addas, A.**, “Analysis of Stranded Asset Risk in the Extractive Sector in North America,” *Caisse de Dépôt et Placement du Québec Fund Managers Workshop*, Montréal, Canada (March 2016).

**Addas, A.**, “Analysis of Stranded Asset Risk in the Extractive Sector in North America,” *Finance and Sustainability Initiative Workshop on Stranded Assets*, Montréal, Canada (March 2016).

**Arsel, Z.** “Coding,” *Consumer Culture Theory Qualitative Data Analysis Workshop*, Fayetteville AR, (June 2015).

**Bitar, M.**, “Bank Capital, Risk, Efficiency and Profitability: Evidence from OECD Countries,” *32nd International Conference of the French Finance Association (AFFI)*, Cergy, France (May 2015).

**Bitar, M.**, Hassan, M.K., “The Performance of Islamic vs. Conventional Banks: A Note on the Suitability of Capital Requirements,” *KFUPM Islamic Banking and Finance Research Conference*. Riyadh, Saudi Arabia (March 2016).

**Bitar, M.**, Hassan, M.K., “The Performance of Islamic vs. Conventional Banks: A Note

on the Suitability of Capital Requirements,” *Eastern Finance Association*, Baltimore, Maryland, U.S.A. (April 2016).

**Bitar, M.**, Hassan, M.K., “What Drives the Financial Soundness of Islamic Banks?” *Islamic Finance, Banking & Business Ethics Global Conference*, Lahore, Pakistan (March 2016).

**Boies, K.**, & Fiset, J. (2015). “Leadership and Communication as Antecedents of Shared Mental Models.” *Poster presented at the Society for Industrial and Organizational Psychology*, Philadelphia, PA.

**Bhabra, H.S.**, and Hossain, A. “Geographic Location, Ownership Structure and Executive Compensation”, *India Finance Conference*, IIM Kolkata, India, December 2015.

**Bhabra, H.S.**, and Hossain, A. “Geographic Location, Ownership Structure and Executive Compensation”, *World Finance Conference*, Buenos Aires, Argentina, July 2015.

**Boulianne, E.**, 2015. “Evaluating Organizational Performance with a Stakeholders’ Approach: How to Add Up and Weight KPIs?” *Institute of Management*



*Accountants (IMA) Annual Conference, June 20-24, Los Angeles, USA.*

**Boulianne, E.,** Keddie, L. "Where is Sustainability within the Canadian CPA Education Program?" *3rd French CSEAR Conference, June 11-12, ESSEC Business School, Cergy, France.*

Block, J., **Carney, M.,** Jaskiewicz, P., and Wagner, D., "Bridging the Pacific divide: A meta-analysis on the role of the institutional context for the performance of family firms". *Academy of Management Conference, Vancouver, Canada (August 2015).*

Block, J., **Carney, M.,** Jaskiewicz, P., and Wagner, D., "A meta-analysis on the role of the institution of family for the performance of family firms". *EGOS conference, Athens, Greece (July 2015).*

Lyons, B., and **Chadwick, I.C.,** "The Social Context of Mistreatment: Multiple Levels of Analysis and Mitigating Factors." *Academy of Management Annual Meeting, Vancouver, BC. (August 2015).*

Raver, J. R., and **Chadwick, I. C.,** "Affective Diversity and Dissimilarity: Implications for Team Victimization and Effectiveness."

*Academy of Management Annual Meeting, Vancouver, BC. (August 2015).*

Ayouby, R., and **Croteau, A.M.,** (2016) "How do the implicit affiliation and implicit achievement motives influence problematic social media use?" Symposium on Cognitive Foreshadowing: Next Steps in Applying Neuroscience and Cognitive Science (NCS) to Information Systems Research, *49th Hawaii International Conference on System Sciences, Kauai, United States, January 5-8.*

Ayouby, R., and **Croteau, A.M.,** (2015). "Problematic Use of Social Media and Implicit Motives" *Journal of the Association for Information Systems Theory Development Workshop at the International Conference on Information Systems, Fort Worth, Texas, USA, December 13-16.*

Vieru, D., Pelletier, C., **Croteau, A.M.,** (2015) "Peering below the Surface: Social Mechanisms for Analyzing Interorganizational Information Systems Integration", *Proceedings of the 21st Americas Conference on Information Systems, Puerto Rico, August 11-13, 9 pages.*

Ayouby, R., **Croteau, A.M.,** (2015) "Problematic Use of Social Media



and Implicit Motives”, *Presented at the Administrative Sciences Association of Canada Conference*, IS division, Halifax, June 13-16. Best paper of the Information Systems division.

Jabagi, Nura; **Croteau, A.M.**, and Dostaler, Isabelle (2015) “Getting on the Same Page: Co-evolutionary Lens Applied to Business-IT Alignment”, *Presented at the Administrative Sciences Association of Canada Conference*, IS division, Halifax, June 13-16.

**Croteau, A.M.**, (2015) Business-IT Alignment: A Question of Timing, *Distinguished speaker of the Information Systems Division at Administrative Sciences Association of Canada Conference*, Halifax, June 13-16.

Parada, M. J., and **Dawson, A.** “Building family businesses identity through transgenerational narratives of business families”. *Conference on Rhetoric and Narratives in Management Research*, ESADE, Barcelona, Spain (March 2016).

Chadwick, I., and **Dawson, A.**, “Female leadership and family business performance: Distinguishing between financial and nonfinancial performance”. *International*

*Family Enterprise Research Academy (IFERA) Research development workshop*, Catania, Italy (February 2016).

Restuccia, M., **de Brentani, U.**, and Legoux, R., “The Effect of Channel Awards on Company Value”, *European Marketing Academy Conference (EMAC)*, Leuven, Belgium (2015).

Reid, S. E., and **de Brentani, U.**, “Divergent Thinking and its impact on the Development of Organizational Market Visioning Competence: An Empirical Test of the Model”, *International Product Development and Management Association (IPDMA)*, Copenhagen, Denmark (2015).

**de Brentani, U.**, and Kleinschmidt, E. J., “Capabilities and Performance in Global New Product Development”. *European Marketing Academy Conference (EMAC)*, Oslo, Norway (2016).

**Dolbec, P.Y.** (2016), “Systemic Valuation Processes: The Role of Market Categories in Value Creation, or How EDM Became a US\$6B Market,” *presented at the 2016 American Marketing Association Conference*, Las Vegas, Nevada, February 27th.



L-R: U. de Brentani, I. Dostaler, M. Islam, A. Jain

**Dolbec, P.Y.** (2015), "From Consumer Creation to Mainstream Adoption: A Multi-Level Perspective on Cultural Category Creation," presented at the 2015 Consumer Culture Theory Conference, Fayetteville, AK. June 20th.

**Dolbec, P.Y.** (2015), "The Bit Generation: Consumer participation and Legitimacy in the Digital Age," presented at the 2015 Consumer Culture Theory Conference, Fayetteville, AK. June 20th.

Fiset, J., **Dostaler, I.** (2015) "Opening the ambidexterity black box: Three stories from the aerospace industry", *British Academy of Management Conference*, Portsmouth, September.

Jabagi, N., Croteau, A.M., **Dostaler, I.** (2015) "Getting on the Same Page: Co-Evolutionary Lens Applied to Business-IT Alignment", *Annual Conference of the Administrative Sciences Association of Canada*, Halifax, June.

**Dostaler, I.**, Lamothe, L. (2015) "Get me out of here! The challenges of medical air transportation in the remote regions of Quebec", *Association for Marketing & Health Care Research Conference*, Steamboat Springs, February.

**Ferguson, R.**, Paulin, M., "Millennials' perception of greenwashing", *Technology, Innovation, Marketing, Entrepreneurship TIME Research Seminar Series*, RWTH Aachen University, Germany, February 25, 2016.

Paulin, M., **Ferguson, R.**, Salman, A., Schattke, K. "Emphasizing the cause in cause-related marketing? Gaining millennial women's support for a fashion event through facebook appeals", *American Marketing Science (AMS) World Marketing Congress*, Bari, Italy, (July 2015).

Schattke, K., **Ferguson, R.**, Paulin, M., "Making Nonprofit Partnerships with Businesses More Effective: Importance of Emphasizing the Charitable Cause in Social Media Appeals" *European Academy of Management, (EURAM), Annual Meeting*, Warsaw, Poland, (June 2015).

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L-R: P. Jaskiewicz, Y.C. Jeong



**Islam, M., Hossain, A., and Lokman, M.,** “How Do Competition and Capabilities Influence Managerial Performance?” *The International Academy of Business Disciplines (IABD) conference*, Las Vegas, USA, March 31-April 2, 2016.

**Jain, A.K.,** “Willful Blindness and Global Financial Crisis,” *Indian Finance Conference*, Indian Institute of Management, Calcutta, December 2015.

**Jain, A.K.,** “Global Economic Challenges & The Forest Products Industry,” *FP Innovates Conference*, Montreal, November 26, 2015.

Block, J., Carney, M., **Jaskiewicz, P.,** and Wagner, D., “Bridging the Pacific divide: A meta-analysis on the role of the institutional context for the performance of family firms”. *Academy of Management Conference*, Vancouver, Canada (August 2015).

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Hoffmann, C., **Jaskiewicz, P.,** and Wulf, T., “Socioemotional wealth preservation

and family-firm performance? The moderating role of outside board and management members.” *ASAC Conference*, Halifax, Canada (June 2015).

**Jaskiewicz, P.** and Reda, B., “How do families imprint an entrepreneurial legacy on the next generation? A family science perspective.” *FERC Conference*, Burlington, USA (June 2015).

**Jaskiewicz, P.,** Burrows, S., and Deephouse, D., “How stakeholder identification with the family firm handcuffs the family firm: A qualitative analysis of Anheuser-Busch.” *FERC Conference*, Burlington, USA (June 2015).

**Jeong, Y.C.,** Leblebici, H., and Kwon, O., “The Evolution of Professional Careers: An investigation of the Careers of Law School Deans in the US during the 20th Century”, *8th Annual People and Organizations Conference*, The Wharton School of the University of Pennsylvania, Philadelphia (October 2015).

**Jeong, Y.C.,** Leblebici, H., and Kwon, O., “How do Professions and Organizational Fields Co-evolve? An Investigation of Deans’ Professional Careers in American Law Schools, 1894-2009,”



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Miraglia, M., and **Johns, G.**, “Going to Work III: A Meta-Analysis of the Correlates of Presenteeism”, *European Congress of Work and Organizational Psychology*, Oslo, Norway, (May 2015).

Patton, E., and **Johns, G.**, “Social Policy, Time Use, Economics, and National Values: A Meta-Analysis of Gender and Absence,” *Academy of Management annual meeting*, Vancouver, (August 2015).

Maddox, L., **Katsanis, L.P.**, and Dennis P., (2016) “Addressing the Obesity Issue: Affirmative Disclosure in Fast Food Advertisements”, *11th Global Brand Conference: Brands that Do Good*, Bradford, UK, April 27-29, 2016.

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**Katsanis, L.P.**, “The Role of Pharmaceutical Marketing in the Adoption of Personalized

Medicine by Consumers”, *The International and Interdisciplinary Association on the Pharmaceutical Lifecycle (IIAPC)*, Montreal, Quebec Canada (August 20-21, 2015).

**Kersten, G.** and T. Wachowicz, “If I Tell You the Truth, I Get Less but You’ll be Less Satisfied”, *MCDM*, Hamburg, August 1-5, 2015.

**Kersten, G.**, E. Roszkowska and T. Wachowicz, “The Impact of Preference Visualization and Negotiators’ Profiles on Scoring System Accuracy.” *EURO*, Glasgow, July 12-15, 2015.

**Kersten, G.** (2015) “Seller-determined Two-attribute Reverse Auctions.” In Proceedings of the *49th Hawaii International Conference on Systems Sciences*, Los Alamitos, CA: IEEE Computer Society Press, (406-413). 2016, DOI: 10.1109/HICSS.2016.56.

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Etezadi, J. and Kersten, G. (2015) "The Effect of Buyers' Negotiation Approach on Sellers' Attitude and Behavior." In *Proceedings of the 15th International Conference on Group Decision & Negotiation*, B. Kamiński, G.E. Kersten, P. Szufel, M. Jakubczyk and T. Wachowicz (Eds.), WSE Press, Warsaw, 2015, (279-286).

Habibi, M.R., Kim, A., and Laroche, M. (2015) "Sharing, collaborative consumption, or commodity exchange? A cross context study of different modes of consumption," in *AMA Summer Educators' Conference*, Michel Ahearne and Douglas Hughes, eds., Chicago: American Marketing Association (Chicago, August 14-16, 2015).

Buhamra Abreu Romero, c., Laroche, M., Mohammad Aurup, G., and Ferraz, S.B. (2015) "The Effects of Acculturation of Brazilians Living in Canada on their Pro-Environmental Attitudes and Behaviors," in *Proceedings, Tenth Royal Bank International Research Seminar*, ed. M. Laroche, Montreal: Concordia University (September 24-26, 2015).

Sobol, K., Cleveland, M., and Laroche, M. (2015) "Globalization, National Identity, Biculturalism, and Consumer Behavior: The Case of Dutch Consumers," in *Proceedings, Tenth Royal*

*Bank International Research Seminar*, ed. M. Laroche, Montreal: Concordia University (September 24-26, 2015).

Kizgin, H., Jamal, A., and Laroche, M. (2015) "Acculturation Influences on Ethnic Consumers in a Western Society: Culture-Specific Consumption of Non-Western Turkish Immigrants in the Netherlands," in *Proceedings, Tenth Royal Bank International Research Seminar*, ed. M. Laroche, Montreal: Concordia University (September 24-26, 2015).

Habibi, M.R., Davidson, A., and Laroche, M., (2015) "Materialism and the Sharing Economy: A Cross-Cultural Study of American and Indian Consumers," in *Proceedings, Tenth Royal Bank International Research Seminar*, ed. M. Laroche, Montreal: Concordia University (September 24-26, 2015).

Bartikowski, B., Jamal, A., and Laroche, M., (2015) "The Digital Divide and the Well-Being of Minority and Majority Consumers: A Multi-Country Investigation," in *Proceedings, Tenth Royal Bank International Research Seminar*, ed. M. Laroche, Montreal: Concordia University (September 24-26, 2015).



R. Molz

**Laroche, M.**, Teng, L., Richard, M.O., Liu, L., and Zhu, X., (2015) "Chinese Consumer Perception of Celebrity Endorsers: A Social Identity Perspective," in Proceedings, *Tenth Royal Bank International Research Seminar*, ed. M. Laroche, Montreal: Concordia University (September 24-26, 2015).

Habibi, M.R., Kim, A., and **Laroche, M.**, "Are we sharing in the sharing economy? A cross context investigation," presented at the *First International Workshop on the Sharing Economy*, June 3-5, 2015, Utrecht (The Netherlands).

Zhang, C., **Laroche, M.**, Richard, M.O. "Should We Care about the Vocabulary of an Advertisement? A Study on the Roles of Language and Word Category in Advertising," poster presentation at the *Society of Judgment and Decision Making Conference*, Chicago, November 20-23, 2015.

**LeBel, J.L.**, Moderator and session organizer. Coalition Building and Public Engagement: Lessons Learned from Two Cases in the Natural Resources Sector, presented June 2 at the Impact+Engagement Conference (Annual conference of the Canadian Public Relations Society, Montreal, May 31-June 2, 2015).

**LeBel, J. L.**, L. Gosselin. Le mieux manger : leçons tirées des campagnes publicitaires du concours DUX. Colloque Raconter l'aliment. La gastronomie et ses récits contemporains , Université Concordia, Montréal, 11-13 mai 2015.

**Magnan, M.**, "The informational value of environmental and energy reporting. Session on Reporting and Measurement Capabilities: Strategic Advantage or Window-dressing?" *Council on Business & Society Annual Conference*, September 26, 2015.

**Molz, R.**, & Petrukhina, K., "Internationalization of SMEs: The Effect of Institutional Distance." *Academy of International Business*, UK-Ireland. London, April 2016.

Edwards, G., & **Molz, R.**, "Nortel's last decade: How one darn thing led to another." *Academy of Management Annual Meeting* (Vancouver), August 2015.

Thomas, J.D.E., **Morin, D.** and Kira, D. (2016). "Social Media and Communication Skills." Proceedings of the *Allied Academies International Conference*. January 6-8, Montego Bay, Jamaica.

**Morin, D.** Thomas J.D.E, and Kira' D., (2015). "The three C's of Team-



L-R: A. Panaccio, R. Oppenheimer, R.L. Paquin, E. Peltier, D. Peltier-Rivest, C. Roux

Building – Communication, Cooperation, Coordination.” Proceedings of the *International Teacher Education Conference (ITEC)*, St Petersburg, Russia. (September 2015).

Shang Ly, S. L., Saadé, R. G., and **Morin, D.**, (2015). “Immersive interactive learning environments (A PhD case study)” Proceedings of *Informing Science & IT Education Conference (InSITE)*, Tampa, Florida, pp 401-415. June (2015).

**Morin, D.**, Thomas, J.D.E., and Kira, D., (2015). “Perceived Impact of Activities and Resources on Higher Order Learning Skills in an Online Course.” Proceedings of *The IEEE World Congress on Information Technology and Computer Applications (WCITCA)*, IEEE Xplore, Hammamet, Tunisia, pp1-6. June (2015).

**Nason, R.**, Wiklund, J. & McKelvie, A. “Neither Open Nor Closed: Organizational Boundary Permeability And New Venture Growth”. *Academy of Management*. Vancouver, Canada. (August 2015).

**Nason, R.** & Gras, D. “The impact of family household health on family economic activity”. *EGOS. Institutional Theories of Family Firms Subtheme*. Athens, Greece. (July 2015).

Carney, M. & **Nason, R.** “Family Business and the 1%.” *EGOS. Institutional Theories of Family Firms Subtheme*. Athens, Greece. (July 2015).

**Nason, R.** & Gras, D. “The impact of family household health on family economic activity”. *Babson Entrepreneurship Research Conference*. Wellesley, MA. (June 2015).

**Nason, R.**, Gras, D. & Lumpkin, G.T. “Push and Pull: The Role of the Family Institution in Economic Activity: Evidence from Impoverished Indian Households”. *Academy of Management Conference*. Philadelphia, PA. (May 2015).

Mesgari, M., and **Okoli, C.**, (2015). “Ecological Approach to Technology Sensemaking”. Proceedings of the *International Conference on Information Systems*. Fort Worth, USA. December 13-16, 2015.

**Okoli, C.**, and Nguyen, J., (2015). “Business Models for Free and Open Source Software: Insights from a Delphi Study.” Proceedings of the *21st Americas Conference on Information Systems*. Puerto Rico. August 13-15, 2015.

**Okoli, C.**, and Wang, N., (2015). “Business Models for Online Education and Open Educational Resources: Insights from a Delphi Study.” Proceedings of the *21st Americas Conference on Information Systems*. Puerto Rico. August 13-15, 2015.



Mesgari, M., Okoli, C., and Ortiz de Guinea, A., (2015). "Affordance-based User Personas: A Mixed-Method Approach to Persona Development". Proceedings of the 21st Americas Conference on Information Systems. Puerto Rico. August 13-15, 2015.

Oppenheimer, R., "Conflict Management: What, Why, When and How", *Academy of Business Disciplines Conference*, Ft. Myers, FL November 2015.

Landry, G., Roberts, J., Wang, Z., & Panaccio, A., (May 2015). "Employee commitment to the supervisor and to the organization: Does congruence matter?" *European Association of Work and Organizational Psychology annual meeting*, Oslo, Norway.

Wang, Z., Panaccio, A., Landry, G., & Raja, U., (May 2015). "Servant leadership and self-determined motivation: Looking at basic psychological need satisfaction as a mediating mechanism and employees' values as boundary conditions". *European Association of Work and Organizational Psychology annual meeting*, Oslo, Norway.

Prakash, R., Paquin, R.L., Kwon, W. (2015). "Designing Sustainable Governance." *ONE, OMT, ENT, BPS PDW, Academy of Management Conference*, Vancouver, Canada.

Paquin, R.L., Beaulieu, J. & Schmitt, K. (2015). "Using agent-based modeling of

facilitated industrial symbiosis exchanges to explore strategic selection of projects." *International Society for Industrial Ecology (ISIE) Conference*, Surrey, UK.

Beaulieu, J., Paquin, R.L. & Schmitt, K. (2015). "Epidemic modeling of waste exchange adoption in an orchestrated facilitated industrial symbiosis exchanges." *International Society for Industrial Ecology (ISIE) Conference*, Surrey, UK.

Tilleman, S.G., Paquin, R.L., & Howard-Grenville, J. (2015). "Gains, Large and Small Through Industrial Symbiosis." *SEE (Sustainability, Ethics, Entrepreneurship) Conference*. Denver, USA.

Joyce, A., Paquin, R.L., & Pigneur, Y. (2015). "The triple layered business model canvas - A tool to design more sustainable business models." *ARTEM Organizational Creativity International Conference*. Nancy, France.

Ferguson, R., Paulin, M., "Millennials' Perception of Greenwashing", *Technology, Innovation, Marketing, Entrepreneurship TIME Research Seminar Series*, RWTH Aachen University, Germany, (February 25, 2016).

Paulin, M., Ferguson, R., Salman, A., Schattke, K., "Emphasizing the Cause in Cause-Related Marketing? Gaining Millennial Women's Support for a Fashion Event Through Facebook Appeals", *American*





*Marketing Science (AMS) World Marketing Congress, Bari, Italy, (July 2015).*

Schattke, K., Ferguson, R., **Paulin, M.**, “Making Nonprofit Partnerships with Businesses More Effective: Importance of Emphasizing the Charitable Cause in Social Media Appeals” *European Academy of Management, (EURAM), Annual Meeting, Warsaw, Poland, (June 2015).*

Salman, A., Ferguson, R., **Paulin, M.**, Schattke, K., (2015), “Engaging millennial women to support a fashion event through social media: how important is the cause in cause-related marketing?”, *44th European Marketing Academic Conference (EMAC), Leuven, Belgium. (May 2015).*

Ghosh, A. and **Peltier, E.**, “How Have Auditors Managed their Chinese ADR Engagements”, *American Accounting Association Annual Meeting, Chicago, Illinois (August 2015).*

**Peltier-Rivest, D.**, (2015) “The Prevention & Detection of Corruption in Pharmaceutical Companies,” *European Network for Research in Organisational and Accounting Change Conference (Galway, Ireland).*

**Peltier-Rivest, D.**, (2015) Discussant of “Prediction–Postdiction Model of Risk Management: The Limitations of Hindsight beyond Fueling a Precautionary Philosophy,” Authored by Jason Crawford,

*European Network for Research in Organisational and Accounting Change Conference (Galway, Ireland).*

**Peltier-Rivest, D.**, (2015) “The Prevention & Detection of Corruption in Pharmaceutical Companies,” *Irish Accounting & Finance Association Annual Conference (Dublin, Ireland).*

Kryzanowski, L., **Perrakis, S.**, Zhong, R., “Financial oligopolies: theory and empirical evidence from the Credit Default Swap Markets”, *fourth IFSID conference, September 2015 (presented by S. Perrakis).*

Ghanbari, H., Oancea, M., and **Perrakis, S.**, “Jump-Diffusion Option Valuation and Option-Implied Investor Preferences: A Stochastic Dominance Approach”, *Midwest Finance Association (MFA) Annual Conference, Atlanta, March, 2016 (presented by Hamed Ghanbari).*

**Robinson, M. A. & Wang, Z.** (2015). “Motivational mechanisms of transformational and servant leadership”. Poster presented at the *8th Annual Meeting for the Society for the Study of Motivation (New York, N.Y.; May 21, 2015).*

**Roux, C.**, and Zhu, M., “Thinking Under Scarcity: How Resource Scarcity Impacts Consumers’ Cognitive Processes,” *Society for Consumer Psychology 2nd International Conference, Vienna, Austria (June 2015).*



**Roux, C.**, and Goldsmith, K.,  
 “Understanding the Psychology of Scarcity: When Limited Resources Promote Abstract Thinking,” *Society for Consumer Psychology 2nd International Conference*, Vienna, Austria (June 2015).

**Roux, C.**, Goldsmith, K., and Bonezzi, A.,  
 “On the Consequences of a Scarcity Mindset: Why Thoughts of Having Less Can Lead to Taking (and Giving) More,” *Society for Consumer Psychology 2nd International Conference*, Vienna, Austria (June 2015).

**Roux, C.**, Goldsmith, K., and Bonezzi, A.,  
 “When Reminders of Resource Scarcity Prompt Selfish (and Generous) Behavior,” *AMA Marketing & Public Policy Conference*, Washington, D.C. (June 2015).

**Roux, C.**, Ma, J., and Goldsmith, K.,  
 “When Choosing the Best Brings out the Worst: Maximizing Increases Cheating Due to Greater Perceptions of Scarcity,” *Society for Judgment and Decision Making Conference*, Chicago, IL (November 2015).

Theriault, D., & Saad, G. “I love the cozy places: Prospect-Refuge Theory explains restaurant spatial preferences.” Presented by Derek Theriault at the *Association for Consumer Research Conference*, New Orleans, October, 2015.

**Schweizer, D.**, “Ambiguity in Option Markets—Evidence from SEOs,”

Seminar series presentation at *EMLYON*, Lyon, France (May 2015).

**Schweizer, D.**, “Ambiguity in Option Markets—Evidence from SEOs,” *Financial Management Association*, Orlando, FL, USA (September 2015).

**Schweizer, D.**, “China: From Imitator to Innovator,” *5th Chinese Capital Markets Conference*, Winnipeg, Manitoba, Canada (July 2015).

**Shrivastava, P.** “Future earth Secretariat Transformation to Sustainability”, *Montreal Future Earth Forum*, Montreal, April 22, 2015.

**Shrivastava, P.** “The way forward”, *DFG International Conference on Measuring Sustainable Development: How Can Science Contribute to Realizing the SDGs?* April 23 – 24, 2015, New York.

**Shrivastava, P.** “Visioning: The scope and structure of a new global research programme on social transformation to sustainability” *Scoping Workshop on Transformation to Sustainability*, Brussels, 11-12 May 2015.

**Shrivastava, P.** “Sustainable Financial Systems”, at the *Stakeholder Dialogue at Our Common Future under Climate Change*, July 10, 2015.



**Shrivastava, P.** “Collaborating on Water in SDGs”, presented at the *Conference on Implementing Sustainable Development Goals: A Water Perspective*, Bonn, August 17-18, 2015.

**Shrivastava, P.** “Future Earth activities in SDGs” *Fifth SDSN Conference on Sustainable Development*, Columbia University, New York, Sept 24-25, 2015.

**Shrivastava, P.** “Adaptation Measures for Reducing Climate Change Impacts”, presented at the *GEA International Conference 2015 Climate Policy Measures: Towards the Realization of Sustainable Societies*, Oct 15-16, Tokyo, Japan.

**Shrivastava, P.** “Resilience of Art in Urbanization” presented at the *International Symposium on Co-design in Urbanization*, Xiamen, China Oct 22-23, 2015.

**Shrivastava, P.** “Future Earth Transdisciplinary Research for Peace and Sustainability” *Taoyaka Symposium*, Hiroshima, Japan, Nov 4, 2015.

**Shrivastava, P.** “Future Earth Health Knowledge Action Network”, *COP21 Side event*, Paris, Dec 11, 2015.

**Shrivastava, P.** “Future Earth Collaborative Science”, *2nd Future Earth German National Summit*, Jan 28, 2016.

**Shrivastava, P.** “Future Earth Science for Global Understanding”, *Inaugural Ceremony of International Year of Global Understanding*, Jena, Germany, Feb 2, 2016.

**Switzer, L.N.**, “Stock Market Liquidity and Economic Cycles,” delivered at the *2015 European Financial Management Association Meetings*, Nyernrode Business Universiteit, The Netherlands, June 24-27, 2015.

**Switzer, L.N.**, “Alliance Portfolios: In Memory of Ulrich Wassmer,” delivered at the *2015 Academy of Management Meetings*, Vancouver, B.C., August 7-11, 2015.

**Switzer, L.N.**, “Liquidity and Economic Cycles, a Switching Regime Approach,” delivered at the *2015 World Finance and Banking Symposium*, Vietnam National University, Hanoi, Vietnam, Dec. 18, 2015

**Switzer, L.N.**, “Corporate Governance and Default Risk in Financial Firms,” delivered at the *2016 FIRCG Conference*, Melbourne Business School, Jan. 22-23, 2016.

**Switzer, L.N.**, “The Cyclical Behaviour of the Small Cap Premium: Evidence for the US and Canada”, delivered at the *2016 Midwest Finance Association Meetings*, Atlanta, Georgia, March 2-5, 2016.

**Tekathen, M.**, “The Site of Enterprise Risk Management,” *5ième atelier de*



L-R: P. Shrivastava, L.N. Switzer, M. Tekathen

recherche de l'association de contrôle de gestion, Montréal, QC (April 2016).

**Tekathen, M.**, and Dechow, N., "Managing Production, Accounting & Risk: The Case of Managing Product Quality Risk in Enterprise Risk Management", *Alternative Accounts Conference 2016*, Ottawa, ON (April 2016).

DeSouza E., **Valverde R.** (2015) "An Employee-based Risk Management Strategy for reducing security incidents in a Canadian PHIPA Regulated Environment," proceedings of the *International Conference on Innovations in Computer Science and Information Technology (ICICSIT -2015)*, Hyderabad, India, (August 2015).

**Valverde R.**, (2015) "An Insurance Model for the Protection of Corporations against the Bankruptcy of Suppliers by Using the Black-Scholes-Merton Model," proceedings of the *2015 IFAC Symposium on Information Control in Manufacturing (INCOM 2015)*, Ottawa, Canada, (May 2015).

Avédissian, A., **Valverde, R.**, (2015) "An Extension Proposition for the Agent-Based Language Modeling Ontology for the Representation of Human-Driven Collaboration in Supply Chain Systems," proceedings of the *2015 IFAC Symposium on Information Control in Manufacturing (INCOM 2015)*, Ottawa, Canada, (May 2015).

Mark, W., **Valverde, R.**, Malleswara, T., (2015) "The Effectiveness of COBIT

5 Information Security Framework for Reducing the Cyber Attacks on Supply Chain Management System," proceedings of the *2015 IFAC Symposium on Information Control in Manufacturing (INCOM 2015)*, Ottawa, Canada, (May 2015).

**Walker, T.**, "Litigation Risk and Institutional Monitoring," *Third Paris Financial Management Conference*, Paris, France (December 2015).

**Walker, T.**, "The Effect of Bank Capital on Risk, Efficiency and Profitability: Does Compliance Matter?" *Third Paris Financial Management Conference*, Paris, France (December 2015).

**Yao, L.** "Earnings Smoothing and Crash Risk" *CPA/University of Manitoba Accounting Research Conference*, September 2015.

**Yao, L.** "Earnings Smoothing and Crash Risk" *American Accounting Association Annual Meeting*, Chicago, U.S.A., August 2015.

**Yao, L.** "Earnings Smoothing and Crash Risk" *Canadian Academic Accounting Association Annual Conference*, Toronto, Canada, May 2015.

**Zhou, T.**, "An Anatomy of the Interrelationship between Equity and Mortgage REITs," *Joint AREUEA-AsRES-GCREC-IREs Meeting*, Washington DC (July 2015).

## INVITED TALKS



R. Ferguson

Dostaler, I. (2015), "Some thoughts on the hub & spokes airline route structure", SNECMA Market Modeling Seminar, John Molson School of Business, Concordia University, July.

Paulin, M., Ferguson, R., "Millennials' perception of greenwashing: Social media and the Energy East pipeline", *Guest Speaker Series, The David O'Brien Centre for Sustainable Enterprise DOCSE*, John Molson School of Business, March 18, 2016.

Jain, A.K., "Willful Blindness and Global Financial Crisis," invited to present the paper at economics department faculty research seminar at University of Winnipeg, November 2015.

Johns, G., "Presenteeism at Work; the Agony and the Ecstasy," Sauder School of Business, University of British Columbia, February, 2016.

LeBel, J.L. « Les enjeux actuels du marketing alimentaire : quelle place aux valeurs socio-culturelles de l'aliment? » presented at the Ateliers de l'honnête volupté, UQAM, April 21, 2016.

LeBel, J.L. Participant, rondtable on terroir and labels of origins. Presented at the Conférence Culture Alimentaire France-Canada, organized by SOPEXA, January 28, 2016, McCord Museum Montreal.

LeBel, J.L. Mieux comprendre les choix alimentaires pour mieux aiguiller vos

stratégies marketing. Presented at the Conseil des industries bio-alimentaires de l'Île de Montréal, January 26., 2016.

Paulin, M., Ferguson, R., "Millennials' Perception of Greenwashing: Social Media and the Energy East Pipeline", *Guest Speaker Series, The David O'Brien Centre for Sustainable Enterprise DOCSE*, John Molson School of Business, (March 18, 2016).

Saad, G. "The global consumer: Born and made." *Mexico's Secretariat of Tourism*, Guadalajara, Mexico, April 26, 2016.

Saad, G. "The nexus of evolutionary psychology", *consumer psychology, & psychology of decision making*, Chapman University, Orange, California, February 22, 2016.

Saad, G. "How political correctness limits the free exchange of ideas on campus." *Institute for Liberal Studies*, hosted by the University of Ottawa, January 28, 2016.

Saad, G. "The global consumer: Born and Made." *La Ciudad de las Ideas*, Puebla, Mexico, November 5, 2015.

Shrivastava, P. "Future Earth Fostering Sustainable Development in the Private Sector", *Conference of Montreal*, Montreal, June 9, 2015.

Shrivastava, P. "Keeping Science Involved in SDG Implementation", *United Nations High Level Political Forum*, The United Nations, New York, June 29, 2015.

## BOOKS



L. Katsanis

Johns, G., and Saks, A.M., (2017). *Organizational Behaviour: Understanding and Managing Life at Work* (10th ed.). Pearson: Toronto (Published March 2016).

Saks, A.M., and Johns, G., (2017). *Instructor's Resource Manual, CBC Video Cases and Instructor's Guide, PowerPoint Slides, and Test Bank to accompany Organizational Behaviour: Understanding and Managing Life at Work* (10th ed.). Pearson: Toronto (Published March 2016).

Katsanis, L.P. (2016) *Global Issues in Pharmaceutical Marketing*. Routledge Press: New York.

Kaminski, B., Kersten, G., and Shapiro, T. (2015) *Outlooks and Insights on Group Decision and Negotiation*. *Lecture Notes in Business Information Processing, LNBIP Vol. 218*, Springer (56+416 pages).

Kamiński, B., Kersten, G., Szufel, P., Jakubczyk, M., Wachowicz, T. (2015) *Proceedings of the 15th International Conference on Group Decision & Negotiation*, WSE Press, Warsaw.

Jamal, A., Peñaloza, L., and Laroche, M. (2015) *The Routledge Companion on Ethnic Marketing*, Routledge, 362 pages.

Laroche, M. (ed.), *Proceedings, Tenth Royal Bank International Research Seminar*, Montreal: Concordia University (2015).

## BOOK CHAPTERS



L-R: Z. Arsel, M. Carney, J. Lebel, R. Valverde

**Arsel, Z.** (2015). "Assembling Markets and Value," in Canniford, R., & Bajde, D. (Eds.), *Assembling Consumption: The Handbook of Assemblage Theories in Marketing and Consumer Research*, New York, Routledge.

**Arsel, Z.**, & Stewart, S. (2015). "Identity Degrading Brands," in Fournier, S., Breazeale, M., & Avery, J., (Eds.), *Strong Brands, Strong Relationships*, New York, Routledge.

Wang, M.M., & **Carney, M.** (October 2015) "Founders and successors in China's family firms: What should we expect from the rising generation?" Forthcoming in Frank Hoy & Franz Kellermanns (Eds.), *The Family Business Companion*, Routledge, Oxford, UK.

Parada, M.J., and **Dawson, A.**, (forthcoming). "Copreneurs in the tourism industry: A Bolivian case". In M. Ramirez-Pasillas E. Brundin, & M. Markowska (Eds.) *Contextualizing entrepreneurship in emerging and developing economies*, Edward Elgar, Cheltenham, UK.

**Dostaler, I.**, Fiset, J. (2015) "Airlines companies: strategies and trends", in S. Eriksson and H.-J. Steenhuis, (Eds.), *The Global Commercial Aviation Industry*, Taylor & Francis, Routledge, Abingdon, UK.

Roy, M.-J., **Dostaler, I.**, Fiset, J. (2015) "Governance and Environmental Performance: An Airlines Perspective", in S. Eriksson and H.-J. Steenhuis (Eds.), *The Global Commercial Aviation Industry*, Taylor & Francis, Routledge, Abingdon, UK.

Decker, C., Heinrichs, K., **Jaskiewicz, P.**, and Rau, S., (2016) "What do we know about succession in family businesses? Mapping current knowledge and unexplored territory", IN Kellermanns, F., and Hoy, F., (Eds.): *The Family Business Companion*, forthcoming.

**Kersten, G.**, Roszkowska, E., and Wachowicz, T., "Ocena Zgodności Porządkowej Systemu Scoringowego Negocjatora z Informacją Preferencyjną – Analiza Badania Eksperymentalnego." In K. Jajuga and M. Walesiak (Eds.), *Taxonomy - Research Papers of Wrocław University of Economics*, No. 27, 2016, ISSN 1899-3192 (in print).

**Kersten, G.**, (2015) "Procurement Auctions: Improving Efficient Winning Bids through Multi-bilateral Negotiations." In Kaminski, B. Kersten, G., and T. Shapiro (Eds.) *Outlooks and Insights on Group Decision and Negotiation. Lecture Notes in Business Information Processing, Vol. 218*, Springer, 2015, (403-416).



**Kersten, G.**, (2015) "If I Tell the Truth, I Suffer and You'll be Less Satisfied." In Spencer, J.C., Schiuma, G., Albino, V. (Eds.), *Culture Innovation, and Entrepreneurship: Connecting the Knowledge Dots*. IFKAD 2015. IKAM Basilicata-Bari, 2015, (2243-2252).

**Kersten, G.**, and Al-Basha, F., (2015) "Beyond Dynamic Pricing: Dynamic Product Configuration with Auction/Negotiation Mechanisms." In Dolgui, A., Zaremba, M. (Eds.), *IFAC Papers, Vol. 48, No. 3, (1853–1856)*, doi:10.1016/j.ifacol.2015.06.356.

Jamal, A., Peñaloza, L., and **Laroche, M.**, (2015) "Introduction to Ethnic Marketing," chapter 1 in *The Routledge Companion on Ethnic Marketing*, Ahmad Jamal, Michel Laroche, and Lisa Peñaloza, eds., Routledge (2015), 3-14.

**Laroche, M.**, and Jamal, A., (2015) "Models of Culture Change," chapter 2 in *The Routledge Companion on Ethnic Marketing*, Ahmad Jamal, Michel Laroche, and Lisa Peñaloza, eds., Routledge (2015), 17-35.

Habibi, M.R., **Laroche, M.**, And Richard, M.O., (2015) "Advertising in the age of social media based brand communities," chapter 9 in *Handbook of Research on Effective Advertising Strategies in the social Media Age*, N. O. Taskiran and R. Yilmaz (EDS.) IGI Global Publishers (2015), 160-170.

Richard, M.O., Habibi, M.R., **Laroche, M.**, and Paulin, M. (2016) "Recent advances in online consumer behavior," chapter 120 (Volume III) in *Encyclopedia of E-Commerce Development, Implementation, and Management*, ed. I. Lee, Hershey, PA: IGI Global (2016), 1706-1723.

**LeBel, J.L.** (2016). The Food Retail Environment in Canada : Shaping What Canadians Eat and How They Communicate About Food. In C. Elliott (Ed.) *How Canadians Communicate VI: Food Promotion, Consumption, and Controversy*, pp 35-52, Edmonton, AB : AU Press.

Richard, M.O., Habibi, M.R., **Laroche, M.**, Paulin, M., (2016) "Recent Advances in Online Consumer-Behavior." In Lee, editor *Encyclopedia of E-Commerce Development, Implementation, and Management*, IGI Global (Forthcoming).

**Saad, G.**, (2015) "Evolutionary consumer psychology", in David M. Buss (Ed.). *Handbook of Evolutionary Psychology (2nd edition)*, pp. 1143–1160), New York: Wiley.

**Valverde, R.**, Saade R. and Barrad S. (2016) "Empirical Investigation of e-Supply Chain Management Experience in North American Electronic Manufacturing Services," in Lee (Eds.) *Encyclopedia of E-commerce development implementation, and management*, IGI Global.



## OTHER DISCTINCTIONS



L-R: A. Beaudry, A. Dawson, R. Nason

Appelbaum, S.H., Habashy, S., Malo, J., & Shafiq, H. (2012) "Back to the future: revisiting Kotter's 1996 change model", *Journal of Management Development*, 31 (8), pp.764 – 782. Most Downloaded article in HR, Learning and Organization Studies.

Arsel, Z., Appointed to Associate Editor, *Consumption Markets and Culture* (2016- present).

Arsel, Z., Guest editor, *Journal of Marketing Management Special Issue on Theorising Gender and Gendering Theory in Marketing and Consumer Research* (2015).

Arsel, Z., Track Chair, *Consumer Culture Theory Conference Special Session* (2016).

Beaudry, A., Appointed Associate Editor, *MIS Quarterly*, (2016-2019).

Boulianne, E., Provost's Circle of Distinction member, Concordia University, (2016).

Boulianne, E., Editorial Advisory Board Member of the *Journal of Accounting & Organizational Change*, 2016.

Carney, M., Accepted special issue proposal at the *Journal of Professions and Organization* "Professionalization of Family Businesses' Special issue editors: Michael Carney, Rajshree Prakash, Vanessa Strike.

Carney, M., Accepted Special Issue Proposal at *Asia-Pacific Journal of Management*; topic: "Familial Organizations and International Business: Individual, Organizational and Institutional Variety in and beyond Asia". Special issue editors Eddleston, Kimberly, Jaskiewicz, Peter, Wright, Mike, Chen, Ling, and Carney, Michael (2016-2018).

Carney, M., Editor-in-chief, Asia Pacific Journal of Management (2013-2015).

Carney, M., Member, editorial advisory board: Frontiers of Business Research in China, Renmin University, Beijing, China (2012-2018).

Carney, M., Member, Editorial advisory board: Family Business Review, (2015-2017).

Carney, M., Member, advisory board of the Center for Governance, Institutions, & Organizations, National University of Singapore (2011-2016)

Croteau, A.M., Scientific Advisor and Co-organiser: Séminaire international de jeunes économistes francophones sur l'économie numérique, Concordia University and Agence universitaire de la francophonie, Hosted by KnokwledgeOne and JMSB at Concordia University, Montreal, (October 19-23, 2015).

Dawson, A. Member of the Editorial Review Board, Family Business Review (2016).

Dolbec, P.Y., Organized a special session for the 2016 AMA conference (Las Vegas, Nevada, February 27th) on value creation with Henri Weijo.

Dolbec, P.Y., Most read publication on ResearchGate for the weeks of 9/11/15, 18/01/16, 8/2/16, 7/3/16, 14/3/16, 3/4/16, 18/4/16 (Total number of reads since Feb 2015: 1275).

Jaskiewicz, P., Editorial Review Board. Family Business Review 2016.

Jaskiewicz, P., Editorial Review Board. Entrepreneurship Theory and Practice 2016.

Jaskiewicz, P., Editorial Review Board. Corporate Governance: An International Review 2016.

Jaskiewicz, P., Chair of Review Board. Family Firm Institute. Best Unpublished Paper Award 2016.



**Jaskiewicz, P.**, Accepted Special Issue Proposal at Asia-Pacific Journal of Management; topic: “Familial Organizations and International Business: Individual, Organizational and Institutional Variety in and beyond Asia”. To be organized by Eddleston, Kimberly, Jaskiewicz, Peter, Wright, Mike, Chen, Ling, and Carney, Michael (2016-2018).

**Jaskiewicz, P.**, Winning paper in the prestigious Emerald Citations of Excellence for 2016: “Do Family Firms Have Better Reputations Than Non-Family Firms? An Integration of Socioemotional Wealth and Social Identity Theories”, *Journal of Management Studies*, 2013). [emeraldgrouppublishing.com/authors/literati/citations/awards.htm](http://emeraldgrouppublishing.com/authors/literati/citations/awards.htm)

**Katsanis, L.P.**, Published an invited article entitled “Why Pharma Needs Chief Values Officers”, Pharma Forum, [pharmaphorum.com/articles/why-pharma-needs-chief-values-officers](http://pharmaphorum.com/articles/why-pharma-needs-chief-values-officers) (November 23, 2015).

**Katsanis, L.P.**, Invited to be a Member of the Scientific Committee, Access to Medicine Foundation, 2017 Access to Medicines Index, Public Policy and Pharmaceutical Marketing Area (October, 2015).

**Katsanis, L.P.**, Invited to be an Expert Study Participant, University of Toronto and Transparency International: The Global Health

Corruption Project (December, 2015).

**Kersten, G.**, Departmental editor: Artificial Intelligence and Management Science (1992-2014).

**Kersten, G.**, Departmental editor: International Journal of Decision Support Systems (2013).

**LeBel, J.L.**, Member, Comité scientifique sur la prévention de l’obésité, Institut national de santé publique (INSPQ), Québec, 2013-present)

**LeBel, J.L.**, Expert Contributor, for “Comment faire mieux? L’expérience québécoise en promotion des saines habitudes de vie et en prévention de l’obésité” by Le Bodo, Y., C. Blouin, N. Dumas, P. De Wals & J. Laguë, Québec, Plateforme dévaluation en prévention de l’obésité (PEPO) et Institut national de santé publique du Québec (INSPQ), Les Presses de l’Université Laval, 2016, 379 pages.

**Magnan, M.**, Provost’s Circle, May 2015.

**Magnan, M.**, Associate Editor, European Accounting Review 2015

**Magnan, M.**, Associate Editor, Canadian Journal of Administrative Sciences, 2015

**Magnan, M.**, Co-Chief Editor, Revue française de gouvernance d’entreprise, 2015



**Magnan, M.**, Consulting Editor, Contemporary Accounting Research, 2015

**Magnan, M.**, Editorial Board memberships: Auditing : A Journal of Practice and Theory, Journal of International Accounting Research, Journal of Management & Governance, Comptabilité-contrôle-audit, Finance-contrôle-stratégie, Sustainability and Environmental Accounting Research, Management & Avenir. , 2015

**Nason, R.**, Appointed to the Editorial Board, Entrepreneurship Theory & Practice.

**Nason, R.**, 2016 Family Firm Institute Best Unpublished Research Award: Honorable Mention for "The Impact of Household Health Events on Family Economic Activity in Indian Slums"

**Okoli, C.**, (2016). Modèles d'affaires pour le contenu ouvert. April 12, 2016. Invited presentation at OK Fest Montreal 2016, Montreal for Open Knowledge Foundation Canada. <https://youtu.be/h9OZrsXI-fo>

**Okoli, C.**, (2015). Open content as a business proposition. October 3, 2015. Invited presentation at the BTM Talentmash Quebec 2015, Montreal for the Information Technology Association of Canada. [youtu.be/wrSs49b4\\_dA](https://youtu.be/wrSs49b4_dA)

**Okoli, C.**, Associate Editor, Directory of Open Access Journals (DOAJ) (September 2015 to present)

**Paquin, R.L.**, Associate Editor and Editorial Board Member for Journal of Industry Ecology since June 2015

**Roux, C.**, Invited speaker, Transformative Consumer Research Informs Marketing and Public Policy, Intersectional Poverty, AMA Marketing & Public Policy Conference, Washington, D.C. (June 2015).

**Roux, C.**, Invited participant, Roundtable: The Tipping Point: Going from Adaptive to Maladaptive Consumption Behavior, AMA Marketing & Public Policy Conference, Washington, D.C. (June 2015).

**Roux, C.**, Selected participant, Intersectional Poverty Track, Transformative Consumer Research Conference, Villanova, PA. (June 2015).

**Roux, C.**, and Ross, C., Interactive marketing workshop, Programme accélérateur pour entreprises d'économie sociale établies, organized by S2L Services conseil en économie sociale and Chantier de l'économie sociale (February 2016).

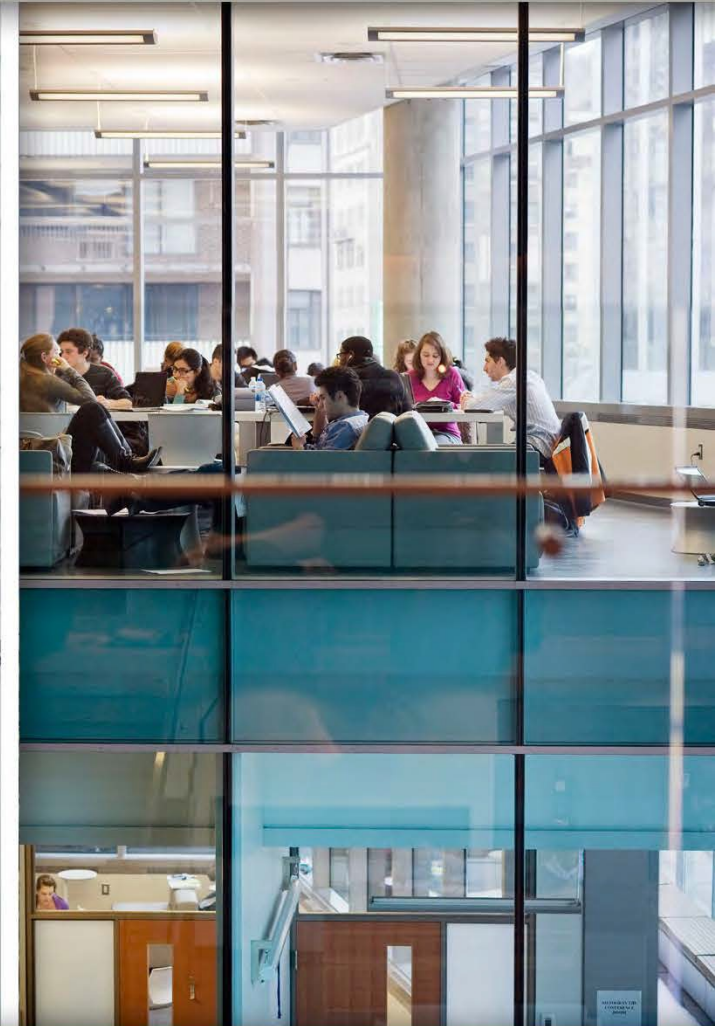
**Saad, G.**, Appointed 2015 section head / senior editor for "evolutionary psychology and behavior" in the forthcoming Elsevier journal Innovating Preventive Medicine (title to be finalized: [esprevmed.org/journal](https://esprevmed.org/journal))



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# 2016 JOHN MOLSON ANNUAL GRADUATE SURVEY

## MSc PROGRAM

**This report contains the results of our fourth yearly online graduate survey of student satisfaction. The objective of this survey is twofold.**

First, these data will feed directly into various rankings. As you well know, rankings play an important role for business schools and having a unique, standardized survey will allow us to be more efficient in responding to the requests of the different ranking organizations. The second objective of the survey is to provide us with a more systemic view of the graduate students' experience at JMSB. It allows us to go beyond anecdotal evidence and get a more general perspective on students' attitudes towards various facets of their experience.

30 MSc students responded to the survey. Overall satisfaction has decreased by about 5% compared to last year, to the level it was at 2 years ago (65.70% in 2014 and 70.40% in 2015, 65.6% in 2016), compared to 76.5 % for all the graduate programs. In regards to branding, the ties to the business school are viewed as the most important and as the most lacking (with over 26 points gap between expected and experienced). Second most important is the curriculum with an 18 point-gap between expectations and reality. Strong reputation comes third, with a similar discrepancy.

The MSc specific satisfaction is at 73 % (same level as last year and improved from the previous 2 years). Satisfaction with staff and facilities is at 76%, slightly lower than 2014 and 2015, that with alumni relations at only 60% and with career services at 63.7% - lower than the average across all graduate programs (68.2%).

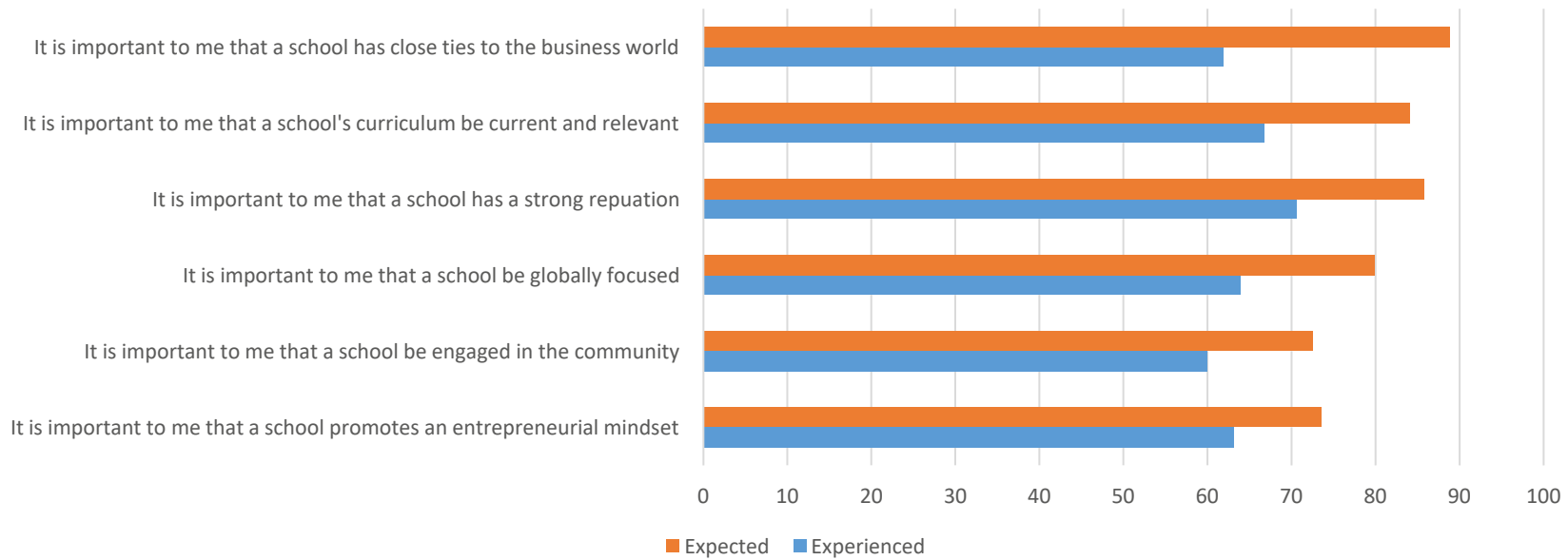
Also included is a Comments section where students could express their opinion in regards to the program.

Anne-Marie Croteau  
Associate Dean Professional Programs and External Relations

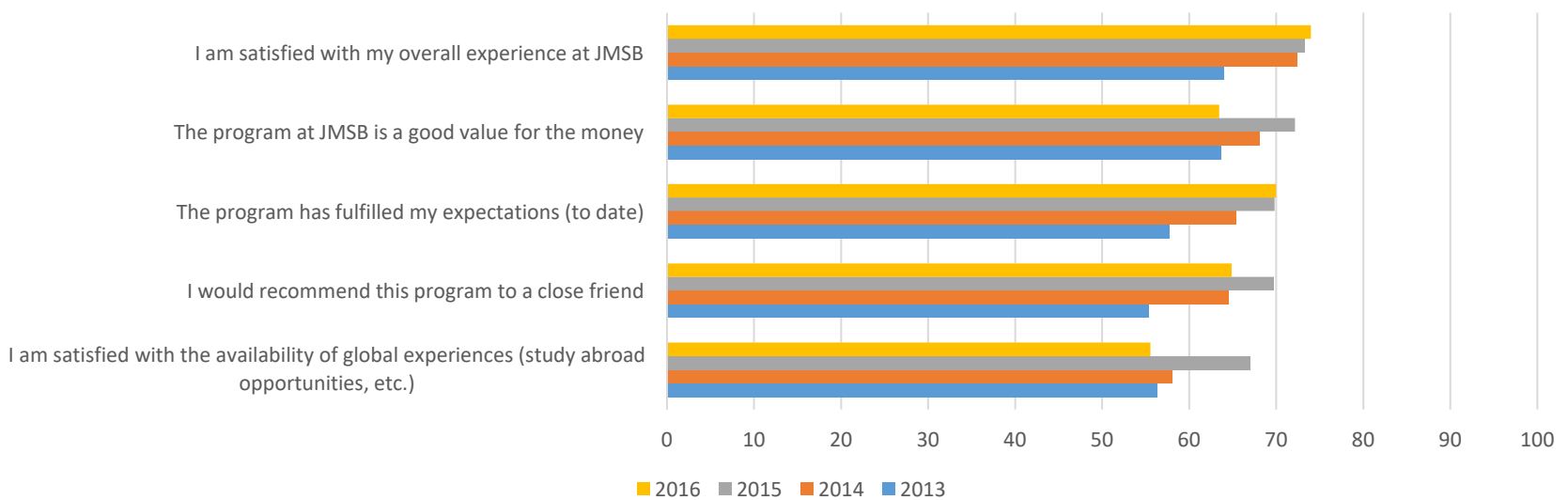


Amalia Dinut, MBA  
Survey Analyst

### Branding

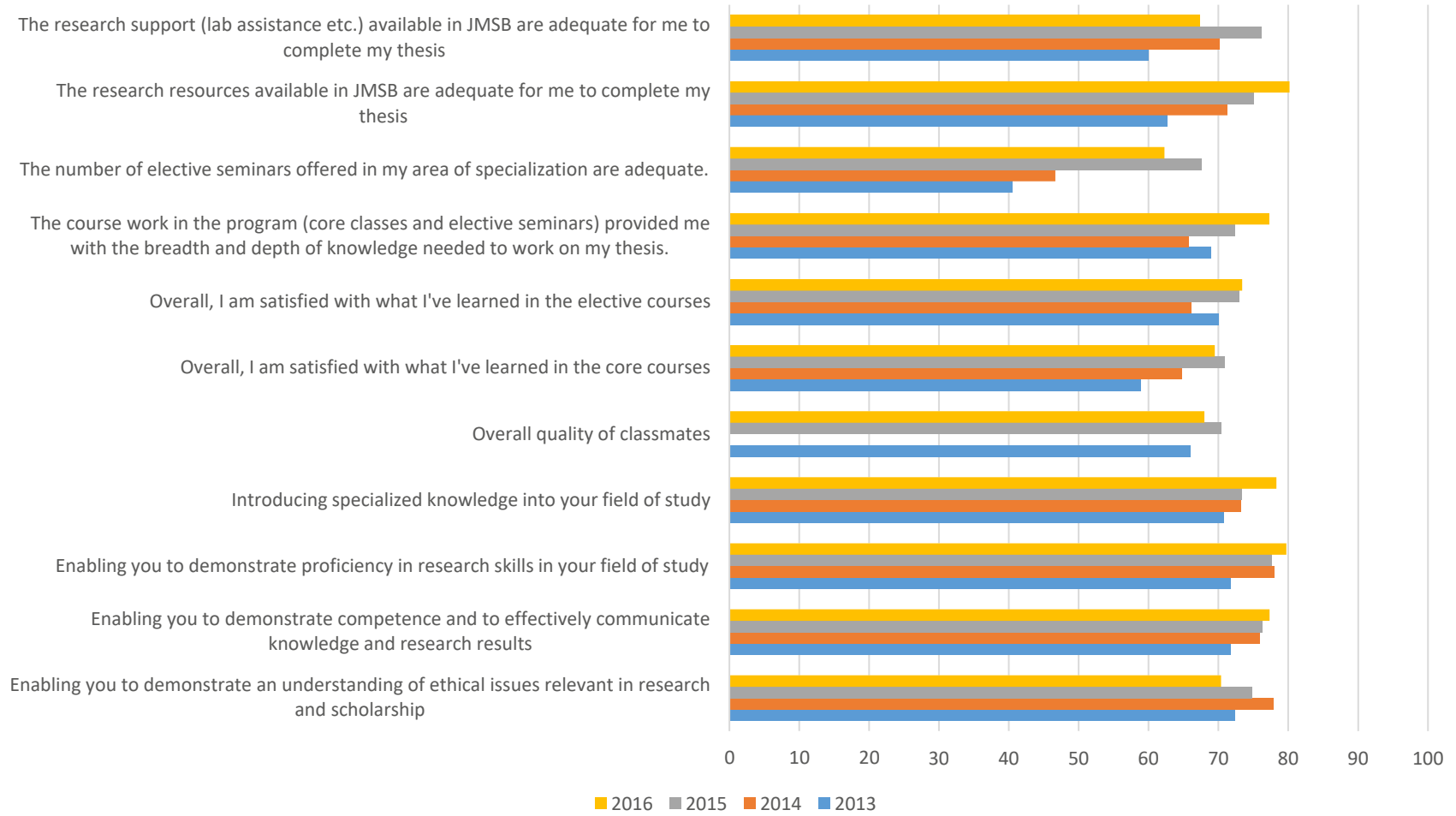


### Overall Experience

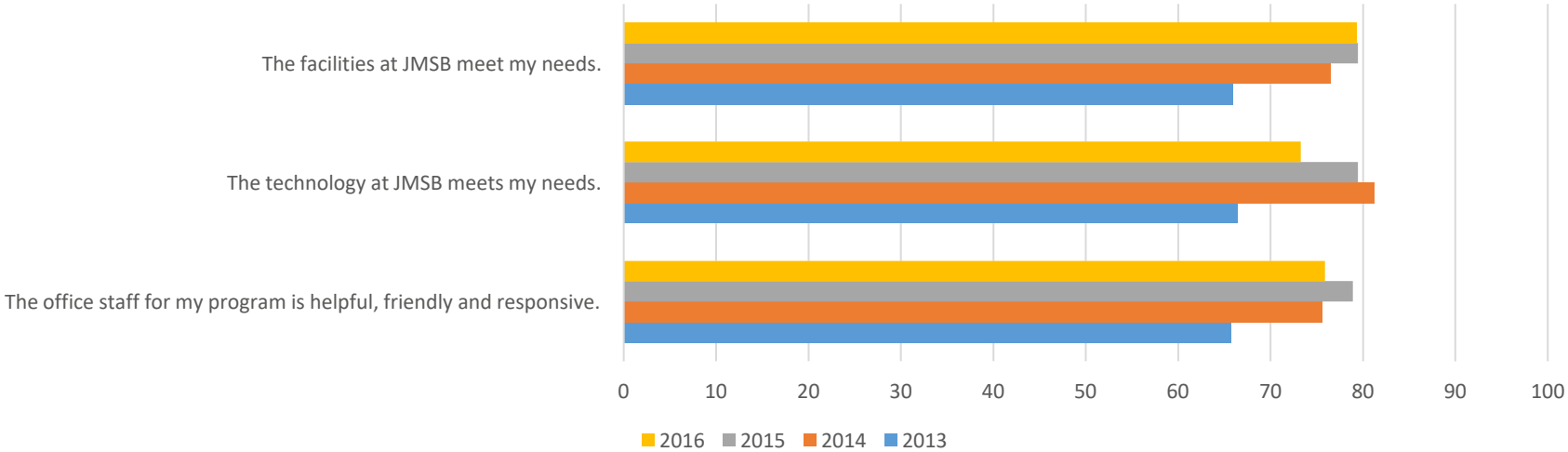




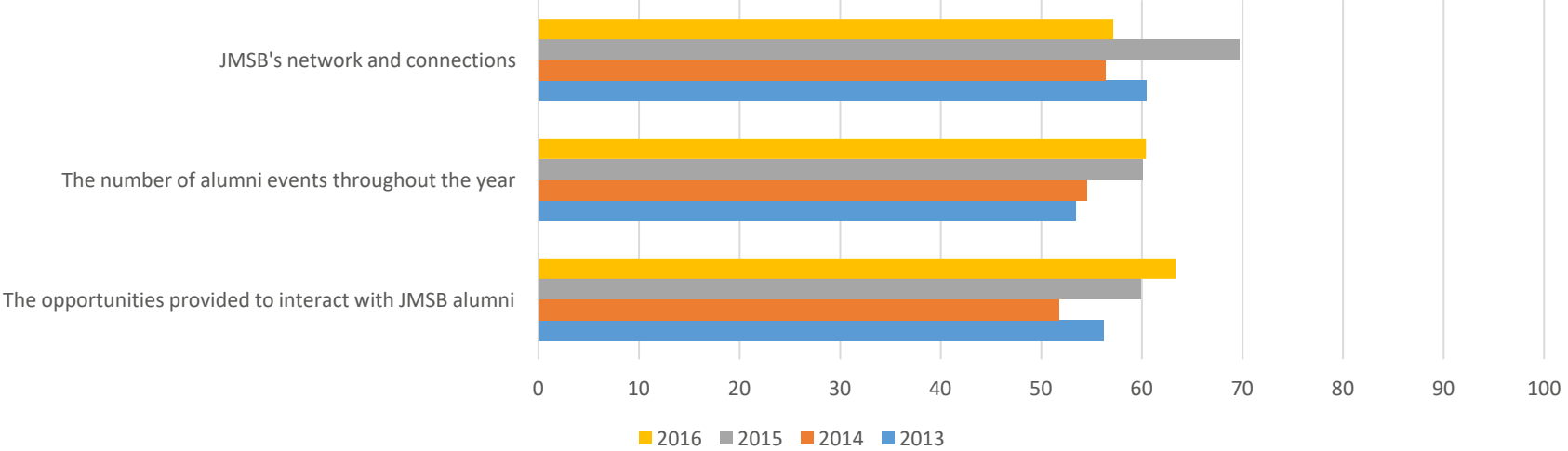
## MSc Satisfaction



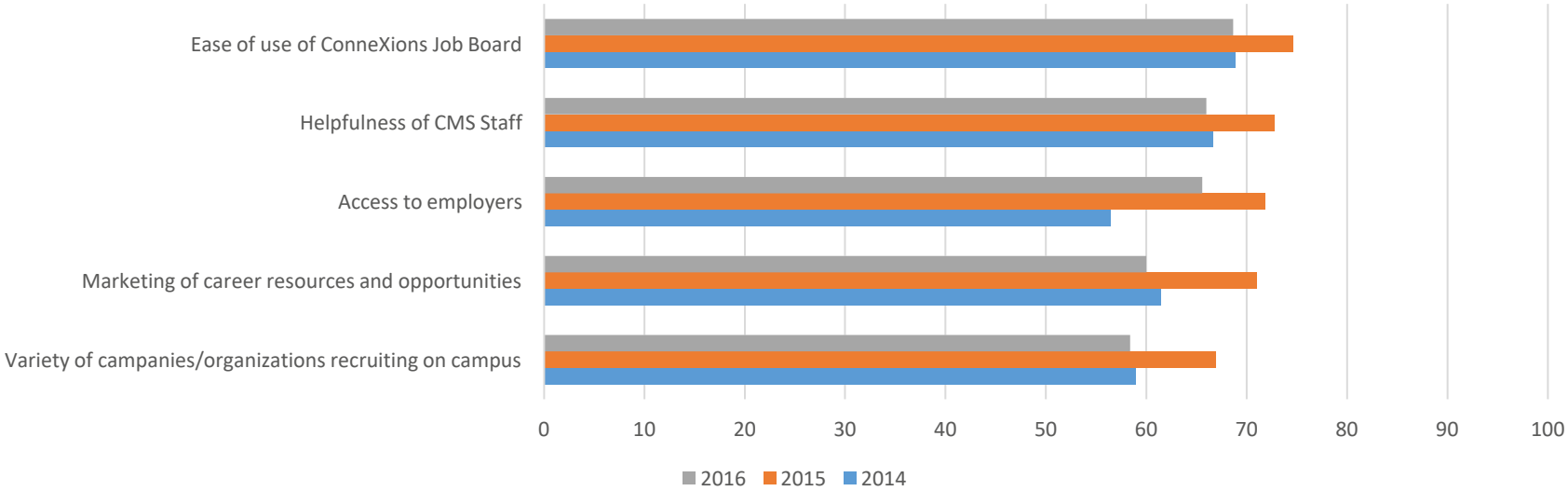
### Staff and Facilities



### Alumni Relations



### Career Management Services



## Students' Comments

I wish we have an econometrics course to learn more about doing research. The courses currently offered are not enough, in my opinion.

Overall knowledge and experience that I've got here has been good, though some aspects, such as connections between staffs and students and problems solving efficiency need improvements. It has been a great experience to study though, hope can get help in period of finding a job.

The MSc program is amazing (especially on the theoretical part). It fulfilled all my expectations about a graduate program. It would be better if there's more options on the practical courses.

MSc programs can provide more oversea exchange programs for the students, not even for the PhD programs.

The fee and course structure of this program is frankly non-sensical. You accept students in the winter semester, but don't offer them core courses, you don't charge students based on courses, but on an overall 'program cost' basis which NONE of the staff themselves understand, and so you end up asking us for money for summer semesters despite the fact that no courses are being offered, and you make course switching and dropping needlessly complicated; it should be using a portal, not emailing one person and another.

"The program is presented as both adequate for people wanting to go into industry and doing a PhD after. However, after taking the program I discovered that the program is mostly for people intending to do a PhD.

A clearer idea about the program should be given and more courses related to the industry should be offered."

Professors are helpful, however, courses do not meet the need of job.

Great experience but disorganized overall.

"1. The overall English levels of fellow colleagues is way too low for a master level bringing down the course level difficulty and or killing the group dynamic

2. The lab is way too noisy and too confined and all the devices are always broken.

3. The electives options are way too limited and their frequency problematic

4. The program is too rigid and too administrative. You need to reapply completely to change from specialty although you have the same core course, it should not be so difficult to register to MBA courses or PhD courses or outside faculty courses when the course selection is that limited.

5. International experience are way too limited and we have little exposure to it.

I did my undergraduate at JMSB and loved the school this is why I only applied to Concordia. It is also the Only MSc in montreal needing the GMAT to get in. I was expecting more. We cannot even register to classes online, core courses are offered only in the fall, no courses in the summer and the student pool has VERY low English proficiency, delaying courses and making them less interesting. I was a proud student of JMSB and I am very sad to admit that after doubting to complete the program due to so many administrative issues I would NEVER recommend this program and actually advice against it. "

Name of Professor: \_\_\_\_\_

Name of Student: \_\_\_\_\_

**Assurance of Learning – M.Sc. Program**

**Learning Goal #1: To introduce specialized knowledge in the field of study**

Performance Traits →		<b>B) Knowledge and understanding of recent research advances in field of specialization</b>		
Performance level ↓	<b>A) Knowledge of core concepts in the area of specialization</b>		<b>C) Ability to generate research ideas</b>	<b>D) Evaluate, assess and critique existing and on-going research</b>
<b>Very Good (4)</b>	Displays a thorough and clear understanding of the core knowledge in the field	Shows clear and detailed understanding of recent empirical advances in the area	Displays a clear ability to generate research ideas of very good quality that fill an existing gap in the literature	Shows a solid ability to evaluate, assess and critique research with arguments that are well organized, flow logically and easy to follow
<b>Good (3)</b>	Displays a good understanding of the core knowledge in the field most of the time	Demonstrates a good understanding of the recent empirical advances in the field most of the time	Demonstrates the ability to generate new research ideas that fill an existing gap in the literature	Displays a good ability to evaluate and critique research with arguments that are largely organized and logical
<b>Satisfactory (2)</b>	Displays the ability to understand the core concepts in the field often but in a limited manner	Displays limited but adequate understanding of the recent empirical research advances in the field	Displays ability to generate research ideas that extend the existing literature but not in unique ways	Displays sufficient ability to evaluate and critique research with arguments that are often, but not all, organized and logical
<b>Unsatisfactory (1)</b>	Displays a lack of adequate understanding of the core knowledge in the field of specialization	Shows a lack of adequate understanding of the recent empirical advances in the field	Shows an inability to generate original research ideas	Arguments are poorly organized, do not flow logically and are hard to follow in the critique for existing research

AOL-MScProgram-Measurement Rubric Professor: \_\_\_\_\_

## Learning Goal #2: To demonstrate proficiency in research skills in the field of study

Performance Traits → Performance level ↓	<b>A) Understanding of the research methodologies used in the area of specialization</b>	<b>B) Ability to identify the appropriate research methodology for a research problem</b>	<b>C) Use of appropriate research software and information technology (IT)</b>	<b>D) Apply appropriate research methodology to a research problem</b>
<b>Very Good (4)</b>	Displays a thorough and clear understanding of the different research methodologies in the field of specialization	Displays a clear ability to accurately identify the appropriate research methodology to be applied to a research problem in every case	Displays a thorough ability in the use of research software and IT in conducting research	Thoroughly displays the ability to apply the appropriate research methodologies to specific research problems
<b>Good (3)</b>	Shows a good understanding of most of the research methodologies in the field most of the time	Demonstrates a good ability to accurately identify the appropriate research methodology to be applied to a research problem most of the time	Displays a good ability in the use of research software and IT in conducting research	Demonstrates the ability to apply the appropriate research methodologies to different research problems most of the time
<b>Satisfactory (2)</b>	Demonstrates good understanding of the commonly used research methodologies in the field but lacks an adequate understanding of the more advanced methodologies in the field	Displays the ability to accurately identify the commonly used methodologies to standard research problems but has difficulty in identifying the appropriate methodology to more unique research problems	Displays adequate skills in the use of appropriate research software and IT in conducting research	Displays the ability to apply commonly used methodologies to standard research problems but has difficulty in applying the appropriate methodology to more unique research problems
<b>Unsatisfactory (1)</b>	Displays a lack of adequate understanding of the research methodologies in the field of specialization	Research problem specific methodologies are not appropriately identified most of the time	Frequently shows a lack of knowledge in the use of appropriate research software and IT when conducting research	Shows a lack of ability to apply the appropriate research methodologies to specific research problems most of the time

AOL-MScProgram-Measurement Rubric Professor: \_\_\_\_\_

### Learning Goal #3: To demonstrate the competence to effectively communicate knowledge and research results

#### A. Oral Presentation Skills

Performance Traits → Performance level ↓	<b>A) Content of the presentation</b>	<b>B) Clarity of the presentation</b>	<b>C) Delivery and enthusiasm</b>	<b>D) Use of visuals and props</b>	<b>E) Response to queries</b>
<b>Very Good (4)</b>	Appropriately addresses key major and minor discipline-specific concepts and issues	Purpose of the presentation, major and minor aspects of the topic, and conclusions are very clear and easily understood	Demonstrates passionate interest in the topic and engagement with the audience	Visuals or props augmented and extended comprehension of the topic	Displayed a complete understanding of what was asked and responded appropriately
<b>Good (3)</b>	Appropriately addresses most of the key major and minor discipline-specific concepts but misses a few of the minor ones	Purpose of the presentation, major and minor aspects of the topic, and conclusions are reasonably well understood	Demonstrates interest in topic and engagement with the audience	Use of visuals or props related to the material presented was mostly appropriate	Displayed a good understanding of the question and addressed most of the issues in the response
<b>Satisfactory (2)</b>	Addresses many of the discipline-specific concepts and issues but does not address many of the minor ones	Purpose of the presentation is clear but some of the major and minor aspects of the topic and conclusions are not clear some of the time	Limited evidence of interest in and engagement with the topic	Visuals or props were used in a limited manner and the content could be improved upon	Displayed a general understanding of the questions and responded only partially to the issues raised
<b>Unsatisfactory (1)</b>	Discipline-specific concepts and issues are not identified or they are identified inappropriately	Presenter generated confusion about what the main point is. The purpose of the presentation is unclear	Displays lack of enthusiasm and interest in the topic	Visuals and props were inappropriately and/or inadequately used in the presentation	Displayed a lack of understanding of the question. Response was unrelated to what was asked

AOL-MScProgram-Measurement Rubric Professor: \_\_\_\_\_



### Learning Goal #3: To demonstrate competence to effectively communicate knowledge and research results

#### B. Written Communication Skills

Performance Traits → Performance level ↓	A) Content of the written paper	B) Clarity and logical flow of the written paper	C) Discussion of findings and interpretation of results	D) Usage of vocabulary and grammatical accuracy	E) Overall quality of the paper (organization, tables, figures, etc.)
<b>Very Good (4)</b>	All aspects of the paper (research question, literature review, etc.) are clearly presented	The exposition flows clearly and logically. The different sections are well integrated	Findings are discussed in a concise and logical manner, and the interpretations are clear and sound	Displays a very good grasp of the language and the writing is almost grammatically error-free	Organization of the report is clear, well laid out and of the highest quality
<b>Good (3)</b>	Most aspects of the paper (research question, literature review, etc.) are generally well presented	Most of the writing flows clearly and logically but some improvements can be made to integrating different sections	Findings are discussed reasonably well and the interpretations are mostly appropriate	Displays a decent grasp of the language but the writing has few grammatical errors	Organization of the report is sufficiently clear and of good quality
<b>Satisfactory (2)</b>	Many aspects of the paper (research question, literature review, etc.) can be improved substantially	Exposition can be made more clear and logical as well some improvements can be made to integrating different sections	Most of the findings are discussed appropriately but the interpretations are sometimes confusing	Shows adequate grasp of the language but the writing suffers from several grammatical errors	The report is mostly well organized but can be improved with some formatting and editorial changes
<b>Unsatisfactory (1)</b>	Most aspects of the paper (research question, literature review, etc.) are inadequately and/or inappropriately discussed	The writing is confusing and does not flow logically. The different sections are also not properly integrated	Findings and the interpretations are inadequately and/or inappropriately presented	Shows poor language skills and writing displays poor understanding of grammar	The report is poorly organized overall

AOL-MScProgram-Measurement Rubric Professor: \_\_\_\_\_

### Learning Goal #4: To demonstrate an understanding of ethical issues relevant in research and scholarship

Performance Traits → Performance level ↓	<b>A) Understanding of plagiarism and its consequences</b>	<b>B) Understanding of ethical issues related to human subjects</b>	<b>C) Understanding of ethical issues of data collection and analysis</b>	<b>D) Understanding of ethical issues related to reporting of research results</b>
<b>Very Good (4)</b>	Displays complete understanding of plagiarism and consequences thereof	Is fully knowledgeable about ethical issues related research with human subjects	Fully understands the importance of diligence in data collection and analysis and consequences of misrepresentation	Displays a complete understanding of the importance of reporting research results ethically and the consequences of misrepresentation
<b>Good (3)</b>	Demonstrates a good understanding of plagiarism and understands its consequences reasonably well	Has a good knowledge of ethical issues related to research with human subjects in most situations	Shows a good understanding of the importance of diligence in data collection and analysis and the consequences of misrepresentation in most situations	Displays good understanding of the importance of reporting research results ethically and the consequences of misrepresentation in most situations
<b>Satisfactory (2)</b>	Shows a reasonable understanding of plagiarism but does not fully understand its consequences	Shows sufficient understanding of ethical issues related to research with human subjects but needs to do more	Shows sufficient understanding of the importance of diligence in data collection and analysis but is not fully aware of the consequences of misrepresentation	Displays adequate understanding of the importance of reporting research results ethically but is not fully aware of the consequences of misrepresentation
<b>Unsatisfactory (1)</b>	Displays little or no understanding of plagiarism and lacks understanding of its consequences	Displays a lack of adequate understanding of ethical issues related to research with human subjects	Displays a lack of adequate understanding of diligence in data collection and analysis and is completely unaware of the consequences of misrepresentation	Displays a lack of adequate understanding of the importance of reporting research results ethically and is completely aware of the consequences of misrepresentation

AOL-MScProgram-Measurement Rubric Professor: \_\_\_\_\_

## MSc Program Winter 2012 & Fall 2012 LG1 Assessment Results

<b>1. To introduce specialized knowledge in the field of study</b>	<b>Assessment Tool:</b> Final thesis	<b>Date Tool Administered:</b> Winter 2012 & Fall 2012
	<b>Course Selected:</b> Assessment based on the final thesis submitted by 33 students	<b>Description of Results:</b> 88.6% of the students achieved the minimum standard of 2.5 or better on a scale of 1 to 4. The threshold was therefore met.
	<b>Level of Results Expected:</b> This learning goal is considered to be attained if 75% of the students tested achieve a score of 2.5 or better.	<b>Date Results Discussed:</b> November 28, 2012
		<b>Outcome of Committee Discussions:</b> The committee noted that, although at 81.8% the threshold for 1.4 was met, there is a need to provide additional training to students. The committee recommended that one seminar per term be arranged with an expert to train students to critically evaluate ongoing research. The committee also recommended upgrading the minimum standard to 2.6 from 2.5 in the next cycle.  A special seminar on how to critique and evaluate research was organized in Winter 2014 by a faculty member who has served as the editor-in-chief of a top ranked journal in his discipline as well as continuing to serve as an associate editor of several leading journals. Attendance at the seminar was mandatory. A similar seminar will be organized in Winter 2015. In

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		addition, faculty teaching courses on research methodologies were advised to include more assignments in their courses.
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## MSc Program Winter 2012 & Fall 2012 LG2 Assessment Results

<b>2. To demonstrate proficiency in research skills in the field of study</b>	<b>Assessment Tool:</b> Final thesis	<b>Date Tool Administered:</b> Winter 2012 & Fall 2012
	<b>Course Selected:</b> Assessment based on the final thesis submitted by 33 students	<b>Description of Results:</b> 83.3% of students tested achieved a score of 2.5 or better on a scale of 1 to 4. The threshold was met.
	<b>Level of Results Expected:</b> This learning goal is considered to be attained if 75% of the students tested achieve a score of 2.5 or better.	<b>Date Results Discussed:</b> November 28, 2012
		<b>Outcome of Committee Discussions:</b> <p>The MSc Committee noted that performance on 2.1 (75.8%) and 2.4 (78.8%) were low although the threshold was met. The committee suggested that more assignments be included in the Research Methodology course that emphasize on the application of methodologies in the discipline. Professors teaching the course will be asked to implement the recommendation. It was also decided to increase the minimum achievable threshold to 2.6.</p> <p>The deficiency in generating research ideas is addressed at the Annual Graduate Research Exposition (AGRE). The MSc committee strongly supports this initiative as an avenue to enable students to engage and promote their research ideas. Subsequent to the MSc Program's Winter 2011 assessment, the AGRE was held on November 15, 2012</p>

		<p>and November 7, 2013 with the expectation that this exposition will continue on a yearly basis.</p> <p>The Annual Graduate Research Exposition (AGRE) showcases the latest research findings of the JMSB's Doctoral (PhD) and Master of Science (MSc) in Administration students. Participating students present their work on posters mounted throughout the Molson Building atrium.</p> <p>The event is special in that graduate students are not often provided with an opportunity to present their research to the academic and business communities, representatives of which will be on hand to act as judges. Judges select the best posters at both the MSc and PhD levels and winners receive cash prizes.</p> <p>The AGRE allows current students or recent graduates to discuss their ideas with interested parties and to receive feedback on their theses, thesis proposals or research-based seminars. It is this feedback that helps to address the formulation of research ideas.</p> <p>The AGRE allows for a continuous cycle of improvement in the area of research.</p> <p>Driven by AOL measurements in our Masters programs, the JMSB was able</p>
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		<p>to identify deficiencies in the English skills of our international students. To address the problem, Concordia University's School of Extended Learning, Centre for Continuing Education, in conjunction with the JMSB created the following course, Academic English Course for Business Students. The course was designed to specifically address the areas of weakness identified in the AOL activities and a supporting needs analysis.</p>
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## MSc Program Winter 2012 & Fall 2012 LG3 Assessment Results

<p><b>3. To demonstrate the competence to effectively communicate knowledge and research results</b></p>	<p><b>Assessment Tool:</b> Final thesis and final thesis defense</p>	<p><b>Date Tool Administered:</b> Winter 2012 &amp; Fall 2012</p>
	<p><b>Course Selected:</b> Assessment based on the final thesis submitted by 33 students as well as their thesis defense</p>	<p><b>Description of Results:</b> The test results strongly demonstrated the written and oral presentation skills of the students. Of the 33 students tested, 91.4% achieved the threshold on 3.1 on a scale of 1 to 4 while 92.1% achieved the threshold on 3.2.</p>
	<p><b>Level of Results Expected:</b> This learning goal is considered to be attained if 75% of the students tested achieve a score of 2.5 or better.</p>	<p><b>Date Results Discussed:</b> November 28, 2012</p>
	<p><b>Outcome of Committee Discussions</b> The committee recommended that minimum threshold be upgraded to 2.6.</p> <p>In Fall 2013, to assist the students in their research endeavors, two special 3-hour tutorials were organized to help students acquire the necessary skills to employ statistical software (SAS, SPSS, STATA etc.) in their research. Starting in Fall 2014, four such 3-hour tutorials are being provided to develop student expertise in statistical analysis</p> <p>Driven by AOL measurements in our Masters programs, the JMSB was able to identify deficiencies in the English skills of our international students. To address the problem, Concordia University's School of Extended Learning, Centre for Continuing</p>	



		<p>Education, in conjunction with the JMSB created the following course, Academic English Course for Business Students. The course was designed to specifically address the areas of weakness identified in the AOL activities and a supporting needs analysis.</p>
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## MSc Program Winter 2012 & Fall 2012 LG4 Assessment Results

<p><b>4. To demonstrate an understanding of ethical issues relevant in research and scholarship</b></p>	<p><b>Assessment Tool:</b> Final thesis</p>	<p><b>Date Tool Administered:</b> Winter 2012 &amp; Fall 2012</p>
	<p><b>Course Selected:</b> Assessment based on the final thesis submitted by 33 students</p>	<p><b>Description of Results:</b> The testing revealed that 98.5% of the 33 students demonstrated a clear understanding of ethical issues in research and scholarship.</p>
	<p><b>Level of Results Expected:</b> This learning goal is considered to be attained if 90% of the students tested achieve a score of 2.5 or better.</p>	<p><b>Date Results Discussed:</b> November 28, 2012</p>
		<p><b>Outcome of Committee Discussions:</b> The committee decided to upgrade the minimum threshold to 2.6.</p> <p>A special seminar on how to critique and evaluate research was organized in Winter 2014 by a faculty member who has served as the editor-in-chief of a top ranked journal in his discipline as well as continuing to serve as an associate editor of several leading journals. Attendance at the seminar was mandatory. A similar seminar will be organized in Winter 2015.</p> <p>This seminar will reinforce the students' understanding of ethical issues in research and scholarship.</p>

## MSc Program 2014 LG1 Assessment Results

<b>1. To introduce specialized knowledge in the field of study</b>	<b>Assessment Tool:</b> Final thesis	<b>Date Tool Administered:</b> Winter 2014 & Fall 2014															
		<b>Description of Results:</b>  Scale – 1 to 4  Learning Objectives*      Student with a minimum score of 2.5 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="border-bottom: 1px solid black;"></th> <th style="border-bottom: 1px solid black; text-align: center;">Number</th> <th style="border-bottom: 1px solid black; text-align: center;">Percentage</th> </tr> </thead> <tbody> <tr> <td>1.1</td> <td style="text-align: center;">58</td> <td style="text-align: center;">95.08%</td> </tr> <tr> <td>1.2</td> <td style="text-align: center;">59</td> <td style="text-align: center;">96.72%</td> </tr> <tr> <td>1.3</td> <td style="text-align: center;">58</td> <td style="text-align: center;">95.08%</td> </tr> <tr> <td>1.4</td> <td style="text-align: center;">58</td> <td style="text-align: center;">95.08%</td> </tr> </tbody> </table> These results are based on a total population of 61 students.		Number	Percentage	1.1	58	95.08%	1.2	59	96.72%	1.3	58	95.08%	1.4	58	95.08%
		Number	Percentage														
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\* **Learning objectives:**

- 1.1 : Knowledge of core concepts in the area of specialization
- 1.2 : Knowledge and understanding of recent research advances in field of specialization
- 1.3: Ability to generate research ideas
- 1.4: Evaluate, assess and critique existing and on-going research

## MSc Program 2014 LG2 Assessment Results

<b>2. To demonstrate proficiency in research skills in the field of study</b>	<b>Assessment Tool:</b> Final thesis	<b>Date Tool Administered:</b> Winter 2014 & Fall 2014															
		<b>Description of Results:</b>  Scale – 1 to 4  Learning Objectives*      Student with a minimum score of 2.5 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="border-bottom: 1px solid black;"></th> <th style="border-bottom: 1px solid black; text-align: center;">Number</th> <th style="border-bottom: 1px solid black; text-align: center;">Percentage</th> </tr> </thead> <tbody> <tr> <td>2.1</td> <td style="text-align: center;">59</td> <td style="text-align: center;">96.72%</td> </tr> <tr> <td>2.2</td> <td style="text-align: center;">58</td> <td style="text-align: center;">95.08%</td> </tr> <tr> <td>2.3</td> <td style="text-align: center;">58</td> <td style="text-align: center;">95.08%</td> </tr> <tr> <td>2.4</td> <td style="text-align: center;">59</td> <td style="text-align: center;">96.72%</td> </tr> </tbody> </table> <p>These results are based on a total population of 61 students who participated in a thesis defense.</p>		Number	Percentage	2.1	59	96.72%	2.2	58	95.08%	2.3	58	95.08%	2.4	59	96.72%
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		Education - Academic English for Graduate Business Students (CEEN 860A). It was recommended for future admittance that those who do not meet the minimum requirement in one or more sections of the test must also take the language course.
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\* **Learning objectives:**

- 2.1: Understanding of the research methodologies used in the area of specialization
- 2.2: Ability to identify the appropriate research methodology for a research problem
- 2.3: Use of appropriate research software and information technology (IT)
- 2.4: Apply appropriate research methodology to a research problem

## MSc Program 2014 LG3 Assessment Results

<p><b>3. To demonstrate the competence to effectively communicate knowledge and research results</b></p> <p><b>Oral communication</b></p>	<p><b>Assessment Tool:</b> Final thesis and thesis defense</p>	<p><b>Date Tool Administered:</b> Winter 2014 &amp; Fall 2014</p>																		
		<p><b>Description of Results:</b></p> <p>Scale – 1 to 4</p> <p>Learning Objectives*      Student with a minimum score of 2.5</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="border-bottom: 1px solid black; text-align: left;">Learning Objectives*</th> <th style="border-bottom: 1px solid black; text-align: center;">Number</th> <th style="border-bottom: 1px solid black; text-align: right;">Percentage</th> </tr> </thead> <tbody> <tr> <td>3.1</td> <td style="text-align: center;">60</td> <td style="text-align: right;">98.36%</td> </tr> <tr> <td>3.2</td> <td style="text-align: center;">59</td> <td style="text-align: right;">96.72%</td> </tr> <tr> <td>3.3</td> <td style="text-align: center;">61</td> <td style="text-align: right;">100%</td> </tr> <tr> <td>3.4</td> <td style="text-align: center;">60</td> <td style="text-align: right;">98.36%</td> </tr> <tr> <td>3.5</td> <td style="text-align: center;">57</td> <td style="text-align: right;">93.44%</td> </tr> </tbody> </table> <p>These results are based on a total population of 61 students.</p>	Learning Objectives*	Number	Percentage	3.1	60	98.36%	3.2	59	96.72%	3.3	61	100%	3.4	60	98.36%	3.5	57	93.44%
	Learning Objectives*	Number	Percentage																	
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**\* Learning objectives:**

- 3.1: Content of the presentation
- 3.2: Clarity of the presentation
- 3.3: Delivery and enthusiasm
- 3.4: Use of visuals and props
- 3.5: Response to queries

## MSc Program 2014 LG3 Assessment Results

<p><b>3. To demonstrate the competence to effectively communicate knowledge and research results</b></p> <p><b>Written communication</b></p>	<p><b>Assessment Tool:</b> Final thesis</p>	<p><b>Date Tool Administered:</b> Winter 2014 &amp; Fall 2014</p>																		
	<p><b>Level of Results Expected:</b> This learning goal is considered to be attained if 75% of the students tested achieve a score of 2.5 or better.</p>	<p><b>Date Results Discussed:</b> May 12, 2016 (MSc Program Committee)</p>																		
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Learning Objectives*	Student with a minimum score of 2.5 Number	Percentage																		
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**\* Learning objectives:**

- 3.1 : Content of the written paper
- 3.2 : Clarity and logical flow of the written paper
- 3.3 : Discussion of findings and interpretation of results
- 3.4: Usage of vocabulary and grammatical accuracy
- 3.5: Overall quality of the paper (organization, tables, figures, etc.)

## MSc Program 2014 LG4 Assessment Results

<b>4. To demonstrate an understanding of ethical issues relevant in research and scholarship</b>	<b>Assessment Tool:</b> Final thesis	<b>Date Tool Administered:</b> Winter 2014 & Fall 2014														
		<b>Description of Results:</b>  Scale – 1 to 4  <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Learning Objectives*</th> <th style="text-align: center; border-bottom: 1px solid black;">Student with a minimum score of 2.5 Number</th> <th style="text-align: center; border-bottom: 1px solid black;">Percentage</th> </tr> </thead> <tbody> <tr> <td>4.1</td> <td style="text-align: center;">61</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>4.2</td> <td style="text-align: center;">61</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>4.3</td> <td style="text-align: center;">61</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>4.4</td> <td style="text-align: center;">61</td> <td style="text-align: center;">100%</td> </tr> </tbody> </table> <p>These results are based on a total population of 61 students.</p>	Learning Objectives*	Student with a minimum score of 2.5 Number	Percentage	4.1	61	100%	4.2	61	100%	4.3	61	100%	4.4	61
Learning Objectives*	Student with a minimum score of 2.5 Number	Percentage														
4.1	61	100%														
4.2	61	100%														
4.3	61	100%														
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\* **Learning objectives:**

- 4.1 : Understanding of plagiarism and its consequences
- 4.2 : Understanding of ethical issues related to human subjects
- 4.3: Understanding of ethical issues of data collection and analysis
- 4.4: Understanding of ethical issues related to reporting of research results

## MSc Program 2016 LG1 Assessment Results

<b>1. To introduce specialized knowledge in the field of study</b>	<b>Assessment Tool:</b> Final thesis	<b>Date Tool Administered:</b> Winter 2016 & Fall 2016															
		<b>Description of Results:</b>  Scale – 1 to 4  Learning Objectives*      Student with a minimum score of 2.5 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="border-bottom: 1px solid black;"></th> <th style="border-bottom: 1px solid black; text-align: center;">Number</th> <th style="border-bottom: 1px solid black; text-align: center;">Percentage</th> </tr> </thead> <tbody> <tr> <td>1.1</td> <td style="text-align: center;">24</td> <td style="text-align: center;">90.79%</td> </tr> <tr> <td>1.2</td> <td style="text-align: center;">24</td> <td style="text-align: center;">90.79%</td> </tr> <tr> <td>1.3</td> <td style="text-align: center;">23</td> <td style="text-align: center;">89.47%</td> </tr> <tr> <td>1.4</td> <td style="text-align: center;">22</td> <td style="text-align: center;">85.53%</td> </tr> </tbody> </table>		Number	Percentage	1.1	24	90.79%	1.2	24	90.79%	1.3	23	89.47%	1.4	22	85.53%
		Number	Percentage														
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\* **Learning objectives:**

- 1.1 : Knowledge of core concepts in the area of specialization
- 1.2 : Knowledge and understanding of recent research advances in field of specialization
- 1.3: Ability to generate research ideas
- 1.4: Evaluate, assess and critique existing and on-going research

## MSc Program 2016 LG2 Assessment Results

<b>2. To demonstrate proficiency in research skills in the field of study</b>	<b>Assessment Tool:</b> Final thesis	<b>Date Tool Administered:</b> Winter 2016 & Fall 2016															
		<b>Description of Results:</b>  Scale – 1 to 4  Learning Objectives*      Student with a minimum score of 2.5 <table border="1" style="margin-left: 20px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Objectives*</th> <th style="text-align: center;">Number</th> <th style="text-align: center;">Percentage</th> </tr> </thead> <tbody> <tr> <td>2.1</td> <td style="text-align: center;">23</td> <td style="text-align: center;">93.33%</td> </tr> <tr> <td>2.2</td> <td style="text-align: center;">23</td> <td style="text-align: center;">93.33%</td> </tr> <tr> <td>2.3</td> <td style="text-align: center;">24</td> <td style="text-align: center;">94.67%</td> </tr> <tr> <td>2.4</td> <td style="text-align: center;">23</td> <td style="text-align: center;">93.33%</td> </tr> </tbody> </table> These results are based on a total population of 26 students who participated in a thesis defense.	Objectives*	Number	Percentage	2.1	23	93.33%	2.2	23	93.33%	2.3	24	94.67%	2.4	23	93.33%
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**\* Learning objectives:**

- 2.1: Understanding of the research methodologies used in the area of specialization
- 2.2: Ability to identify the appropriate research methodology for a research problem
- 2.3: Use of appropriate research software and information technology (IT)
- 2.4: Apply appropriate research methodology to a research problem

## MSc Program 2016 LG3 Assessment Results

<p><b>3. To demonstrate the competence to effectively communicate knowledge and research results</b></p> <p><b>Oral communication</b></p>	<p><b>Assessment Tool:</b> Final thesis and thesis defence</p>	<p><b>Date Tool Administered:</b> Winter 2016 &amp; Fall 2016</p>																		
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Learning Objectives*	Student with a minimum score of 2.5 Number	Percentage																		
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		<p>the School of Graduate Studies (SGS) to improve their writing and speaking abilities. Their services were noted as a source of help for already admitted students. The MSc office agreed to send the contact information of GradProSkills to the committee.</p> <p>When they met on November 25, 2016, the members of the AOL Steering Committee members noted that the LG1 assessment results were good and interpret this as a positive impact of the initiatives that were implemented after the 2012 assessment cycle.</p>
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**\* Learning objectives:**

- 3.1: Content of the presentation
- 3.2: Clarity of the presentation
- 3.3: Delivery and enthusiasm
- 3.4: Use of visuals and props
- 3.5: Response to queries

## MSc Program 2016 LG3 Assessment Results

<p><b>3. To demonstrate the competence to effectively communicate knowledge and research results</b></p> <p><b>Written communication</b></p>	<p><b>Assessment Tool:</b> Final thesis</p>	<p><b>Date Tool Administered:</b> Winter 2016 &amp; Fall 2016</p>																		
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**\* Learning objectives:**

- 3.1 : Content of the written paper
- 3.2 : Clarity and logical flow of the written paper
- 3.3 : Discussion of findings and interpretation of results
- 3.4: Usage of vocabulary and grammatical accuracy
- 3.5: Overall quality of the paper (organization, tables, figures, etc.)

## MSc Program 2016 LG4 Assessment Results

<b>4. To demonstrate an understanding of ethical issues relevant in research and scholarship</b>	<b>Assessment Tool:</b> Final thesis	<b>Date Tool Administered:</b> Winter 2016 & Fall 2016														
		<b>Description of Results:</b>  Scale – 1 to 4  <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Learning Objectives*</th> <th style="text-align: center; border-bottom: 1px solid black;">Student with a minimum score of 2.5 Number</th> <th style="text-align: center; border-bottom: 1px solid black;">Percentage</th> </tr> </thead> <tbody> <tr> <td>4.1</td> <td style="text-align: center;">25</td> <td style="text-align: center;">94.03%</td> </tr> <tr> <td>4.2</td> <td style="text-align: center;">24</td> <td style="text-align: center;">93.10%</td> </tr> <tr> <td>4.3</td> <td style="text-align: center;">22</td> <td style="text-align: center;">91.80%</td> </tr> <tr> <td>4.4</td> <td style="text-align: center;">23</td> <td style="text-align: center;">92.54%</td> </tr> </tbody> </table> <p>These results are based on a total population of 26 students.</p>	Learning Objectives*	Student with a minimum score of 2.5 Number	Percentage	4.1	25	94.03%	4.2	24	93.10%	4.3	22	91.80%	4.4	23
Learning Objectives*	Student with a minimum score of 2.5 Number	Percentage														
4.1	25	94.03%														
4.2	24	93.10%														
4.3	22	91.80%														
4.4	23	92.54%														
	<b>Level of Results Expected:</b> This learning goal is considered to be attained if 75% of the students tested achieve a score of 2.5 or better.	<b>Date Results Discussed:</b> November 1, 2016 (MSc Program Committee) November 25, 2016 (AOL Steering Committee)														
		<b>Outcome of Committee Discussions:</b> At their November 1, 2016 meeting, the Chair and the MSc Program Committee reviewed the assessment of learning statistics. The number of students who were rated with average scores above 2.5 was in the top decile in all four learning objectives evaluated. The committee was satisfied with the assessment of learning results. When they met on November 25, 2016, the members of the AOL Steering Committee members noted that the LG1 assessment results were good and interpret this as a positive impact of the initiatives that were implemented after the 2012 assessment cycle. However, they wonder whether all the members of student thesis committees are able to judge the extent to which MSc students have adhered to ethics principle while preparing their thesis.														

\* **Learning objectives:**

- 4.1 : Understanding of plagiarism and its consequences
- 4.2 : Understanding of ethical issues related to human subjects
- 4.3: Understanding of ethical issues of data collection and analysis
- 4.4: Understanding of ethical issues related to reporting of research results

**SCHOOL OF GRADUATE STUDIES**

Note: 2 memos are included with this dossier as it includes merged dossiers MSCA -19 and MSCA-20

**MEMO TO:** Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning

**FROM:** Rachel Berger, Associate Dean, Academic Programs and Development  
School of Graduate Studies

**DATE:** September 30, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (MSCM-2)  
(CALENDAR – 2021/2022)  
MASTER OF SUPPLY CHAIN MANAGEMENT  
JOHN MOLSON SCHOOL OF BUSINESS**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Council of the John Molson School of Business (JMSB).

JMSB is proposing changes to the program's elective course list by deleting MSCA 645, MSCA 647 and MSCA 668 and adding MSCA 657, MSCA 683, MSCA 691 and MSCA 693.

The GCC approved the proposed curriculum changes with minor modifications. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.

cc: S. Betton, Associate Dean, Professional Graduate Programs, John Molson School of Business  
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs



**SCHOOL OF GRADUATE STUDIES**

Note: 2 memos are included with this dossier as it includes merged dossiers MSCA -19 and MSCA-20

**MEMO TO:** Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning

**FROM:** Rachel Berger, Associate Dean, Academic Programs and Development  
School of Graduate Studies

**DATE:** September 30, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (MSCM-3)  
(CALENDAR – 2021/2022)  
MASTER OF SUPPLY CHAIN MANAGEMENT  
JOHN MOLSON SCHOOL OF BUSINESS**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Council of the John Molson School of Business (JMSB).

JMSB is proposing a new course: *MSCM 686 Supply Chain Sustainability*. It was previously offered as a special topics course.

The GCC approved the proposed curriculum changes with minor modifications. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.

cc: S. Betton, Associate Dean, Professional Graduate Programs, John Molson School of Business  
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs



Note: 2 memos are included with this dossier as it includes merged dossiers MSCA -19 and MSCA-20

**To:** Rachel Berger, Associate Dean, Academic Programs and Development  
Chair, Graduate Curriculum Committee

**Cc:** Gina Beltran, Developer, Graduate Academic Programs

**From:** Anne-Marie Croteau, Dean, John Molson School of Business

**Date:** August 10, 2021

**Subject:** Proposed changes to the Master of Supply Chain Management – Update to the elective courses list (MSCM-2)

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Recently, the Master of Science in Management and Marketing programs completed major curriculum revisions. As a result, some courses shared with the Master of Supply Chain Management have been changed or deleted. Consequently, the Department of Supply Chain and Business Technology Management proposes to update the program's elective list. These are the proposed changes:

- Course deletions: MSCA 645, MSCA 647 and MSCA 668
- Course additions: MSCA 657, MSCA 683, MSCA 691 and MSCA 693

There are no resource implications. The Masters of Science programs already offer these courses as follows: MSCA 657 (MSc in Management); MSCA 683, MSCA 691, MSCA 693 (MSc DS/MIS)

The JMSB Faculty Council approved this dossier on May 14, 2021.

I respectfully request to submit this dossier to the upcoming Graduate Curriculum Committee meeting.





Note: 2 memos are included with this dossier as it includes merged dossiers MSCA -19 and MSCA-20

**To:** Rachel Berger, Associate Dean, Academic Programs and Development  
Chair, Graduate Curriculum Committee

**Cc:** Gina Beltran, Developer, Graduate Academic Programs

**From:** Anne-Marie Croteau, Dean, John Molson School of Business

**Date:** August 10, 2021

**Subject:** Proposed changes to the Master in Supply Chain Management (MSCM-3)

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The Department of Supply Chain and Business Technology Management proposes to convert a special topics course into a regular elective, MSCM 686 Supply Chain Sustainability. Students from the Master in Supply Chain Management and other graduate programs will learn how supply chain management activities play a vital role in helping organizations to move closer to environmental and social sustainability.

Resource implications: a 3-credit teaching workload is required.

The JMSB Faculty Council approved this proposal on May 14, 2021.

I kindly request to submit this dossier to the Graduate Curriculum Committee meeting.

Note: 2 memos are included with this dossier as it includes merged dossiers MSCA -19 and MSCA-20

### INTERNAL MEMORANDUM

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**To:** Anne-Marie Croteau, Dean, John Molson School of Business

**From:** Sandra Betton, Associate Dean, Professional Graduate Program,  
Chair of the Faculty Academic Program Committee, JMSB

**Date:** April 30, 2021

**Subject:** Proposed changes to the Master of Supply Chain Management –  
Update of the list of Electives (MSCM-2)

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The Master of Supply Chain Management program proposes to update the list of its elective courses. There are different type of changes: the addition of data analytics courses to respond to new trends, the deletion and change of electives to align with the recent reviews of the Masters of Science in Management and Marketing and the creation of a new topics course.

On April 16, the JMSB Faculty Academic Programs Committee approved these changes.

I kindly request to submit this proposal during the next meeting of the JMSB Faculty Council.

Thank you.



Note: 2 memos are included with this dossier as it includes merged dossiers MSCA -19 and MSCA-20

## INTERNAL MEMORANDUM

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**To:** Anne-Marie Croteau, Dean, John Molson School of Business

**From:** Sandra Betton, Associate Dean, Professional Graduate Program,  
Chair of the Faculty Academic Program Committee, JMSB

**Date:** April 30, 2021

**Subject:** Proposed changes to the Master of Supply Chain Management  
Addition of MSCM 686 (MSCM-3)

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The Master of Supply Chain Management proposes to add an elective seminar, MSCM 686, Supply Chain Sustainability to provide students with a more in depth understanding of the role of managerial decision-making in creating sustainable supply chains that respond to current needs.

The JMSB Faculty Academic Programs Committee approved these changes on April 16, 2021.

I kindly request to submit this proposal during the next meeting of the JMSB Faculty Council.

Thank you.

Office of the Associate Dean  
Research & Research Programs

**I N T E R N A L   M E M O R A N D U M**

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**To:** Sandra Betton, Associate Dean Professional Graduate Programs  
**From:** Kathleen Boies, Associate Dean Research & Research Programs  
**Date:** March 18, 2021  
**Re:** **Proposed changes to the Master of Supply Chain Management**

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Dear Sandra,

I respectfully request that the proposed changes be submitted to the next Faculty Academic Programs Committee meeting.

The Master of Supply Chain Management (MSCM) requires students to take 3 elective courses from a list of pre-approved courses in other MSc programs at JMSB. Because of the recent curriculum changes to these MSc programs, the list of pre-approved courses needed to be updated.

I respectfully request that the proposed changes be submitted to the next Faculty Academic Programs Committee meeting.

Office of the Associate Dean  
Research & Research Programs

**I N T E R N A L   M E M O R A N D U M**

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**To:** Sandra Betton, Associate Dean Professional Graduate Programs  
**From:** Kathleen Boies, Associate Dean Research & Research Programs  
**Date:** March 18, 2021  
**Re:** **Proposed changes to the Master of Supply Chain Management**

---

Dear Sandra,

I respectfully request that the proposed changes be submitted to the next Faculty Academic Programs Committee meeting.

The Master of Supply Chain Management is proposing to add a new course to its list, which would be offered as an elective. This course had been scheduled under MSCA693 this year, but was ultimately cancelled because of lack of enrolment. The course is in fact very relevant to MSCM students, but because it was not formally in the calendar, did not appear in the list of pre-approved electives, and had a generic title "special topics" with the MSCA number, MSCM students did not recognize it as relevant to their degree. Making it a formal course, pre-approved by the MSCM program, and with "MSCM" number will ensure that enrolment is secure in the years to come. The course will also be relevant to students in other MSc programs with interest in sustainability.

I respectfully request that the proposed changes be submitted to the next Faculty Academic Programs Committee meeting.

Note: 2 memos are included with this dossier as it includes merged dossiers MSCA -19 and MSCA-20



## Internal Memorandum

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To: Kathleen Boies, Associate Dean, Research and Research Programs

From: Rustam Vahidov, Interim Chair, Supply Chain and Business Technology Management  
Department

Date: February 24<sup>th</sup>, 2021

Subject: Proposed changes to the Master of Supply Chain Management

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Dear Dr. Boies,

We have approved the changes in the Master of Supply Chain Management program proposed by the Director of this program (Dr. Satyaveer Chauhan) at the Department meeting held on February 23<sup>rd</sup>, 2021. The changes concern elective courses and have been triggered by the changes to courses offered by Management and Marketing departments, as well as by the growth of interest in data analytics subjects among the MSCM students. I am submitting the corresponding form for the change.

Regards,

Rustam Vahidov

Note: 2 memos are included with this dossier as it includes merged dossiers MSCA -19 and MSCA-20



## Internal Memorandum

---

To: Kathleen Boies, Associate Dean, Research and Research Programs

From: Rustam Vahidov, Interim Chair, Supply Chain and Business Technology Management  
Department

Date: February 24<sup>th</sup>, 2021

Subject: Proposed changes to the Master of Supply Chain Management

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Dear Dr. Boies,

We have approved the new course MSCM686 titled "Supply Chain Sustainability" in the Master of Supply Chain Management program at the Department meeting held on February 23<sup>rd</sup>, 2021. I am submitting the corresponding form for the course along with the course outline.

Regards,

Rustam Vahidov

**PROGRAM CHANGE:** Changes to Elective courses -**Proposed**  Undergraduate or  Graduate Curriculum Changes**Calendar for academic year:** 2021/2022  
**Implementation Month/Year:** October 2021**Faculty/School:** John Molson School of Business  
**Department:** Supply Chain and Technology Management  
**Program:** Supply Chain Management  
**Degree:** Master of/ Magisteriate in Supply Chain Management  
**Calendar Section/Graduate Page Number:** N/A**Type of Change:** Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2020/2021) calendar				Proposed Text			
3	<i>Credits of elective seminars chosen from:</i>			3	<i>Credits of elective seminars chosen from:</i>		
	MSCA 625	Seminar in Options and Futures	3.00		MSCA 625	Seminar in Options and Futures	3.00
	MSCA 632	Seminar in Special Topics in Finance	3.00		MSCA 632	Seminar in Special Topics in Finance	3.00
	<del>MSCA 645</del>	<del>Seminar in Organizational Theory and Design</del>	<del>3.00</del>		MSCA 652	Seminar in Special Topics in Management	3.00
	<del>MSCA 647</del>	<del>Seminar in Strategic Management in Global Context</del>	<del>3.00</del>		<a href="#">MSCA 657</a>	<a href="#">Organizations and Strategy</a>	<a href="#">3.00</a>
	MSCA 652	Seminar in Special Topics in Management	3.00		MSCA 672	Seminar in Special Topics in Marketing	3.00
	<del>MSCA 668</del>	<del>Seminar in Innovation and Marketing</del>	<del>3.00</del>		<a href="#">MSCA 683</a>	<a href="#">Applied Multivariate Data Analysis</a>	<a href="#">3.00</a>
	MSCA 672	Seminar in Special Topics in Marketing	3.00		<a href="#">MSCA 686</a>	<a href="#">Supply Chain Sustainability</a>	<a href="#">3.00</a>
	<i>Notes:</i> <i>At most one elective seminar at the graduate level can be taken outside of the John Molson School of Business. Each year a selection of specialized seminars are offered on a rotating basis from those listed above.</i>				<a href="#">MSCA 691</a>	<a href="#">Advanced Data Mining</a>	<a href="#">3.00</a>
					<a href="#">MSCA 693</a>	<a href="#">Special Topics in Business Analytics and Techology</a>	<a href="#">3.00</a>
					<i>Notes:</i> <i><a href="#">Taking an elective seminar is subject to the academic advisor's approval.</a></i> <i>At most one elective seminar at the graduate level can be taken outside of the John Molson School of Business. Each year a selection of specialized seminars are offered on a rotating basis from those listed above.</i>		



**Rationale:**

- i) Department of Management has recently deleted MSCA 645 and MSCA 647 in order to create a newly merged course MSCA 657.
- ii) Marketing Department is removing MSCA 668 from their curriculum.
- iii) Data analytics related courses (MSCA 683, MSCA 691) are more in demand due to analytics related project/research/jobs.
- iv) MSCA 693 will help us to offer special topics such as 'Impact of New Technologies on Supply Chain Management', 'Applied Game Theory', etc.
- v) The new elective seminar MSCM 686 will allow students from Master of Supply Chain Management and other graduate programs to learn about the crucial role supply chain management activities play in moving organizations closer to environmental and social sustainability.

**Resource Implications:**

There are no resource implications for these courses because they are offered by other programs: MSCA 657 (MSc in Management); MSCA 683, MSCA 691, MSCA 693 (MSc DS/MIS). MSCM 686 requires 3 teaching credits.

**COURSE CHANGE:** MSCM 686      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** Summer 2022

**Faculty/School:** John Molson School of Business  
**Department:** Supply Chain Management  
**Program:** Supply Chain Management  
**Degree:** Master of/Magisteriate in Supply Chain Management  
**Calendar Section/Graduate Page Number:**

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 2021/2022) calendar	Proposed Text
	<p><b>MSCM 686 Supply Chain Sustainability (3.00 credits)</b></p> <p>Prerequisite: Students must have completed 6 credits in their program prior to enrolling.</p> <p>Description: This seminar provides a detailed overview of the field of supply chain sustainability. It focuses on the role of managerial decision-making in creating sustainable supply chains. This seminar contains the analysis of the environmental and stakeholder management tools used by supply chain managers. It includes an examination of supply chain strategies that can be used to address real-world sustainability issues. The seminar content is presented through lectures, class discussions, case analyses and research articles.</p> <p>Component(s): Seminar</p>
<p><b>Rationale:</b>                      This new elective seminar will allow students from Master of Supply Chain Management and other graduate programs to learn about the crucial role supply chain management activities play in moving organizations closer to environmental and social sustainability.</p>	
<p><b>Resource Implications:</b>                      3-credit teaching.</p>	
<p>Other Programs within which course is listed:</p>	

## MSCM 686 SUPPLY CHAIN SUSTAINABILITY

### COURSE DESCRIPTION

This course provides a detailed overview of the field of supply chain sustainability. It focuses on the role of managerial decision-making to form sustainable supply chains. We will analyze the environmental and stakeholder management tools used by supply chain managers. We will examine and evaluate supply chain strategies that can be used to address real-world sustainability issues.

### LEARNING OBJECTIVES

By the end of this course, you will acquire an in-depth knowledge of the field of supply chain sustainability. In particular, you will identify a number of management techniques to address real-world sustainability issues. You will be able to describe the role of stakeholders in the production, distribution, and promotion of sustainable products and services; identify some of the sustainability issues that arise in making use of environmental and social information and techniques; and list managerial decision-making techniques to address these issues.

To successfully complete this course, students will be expected to:

1. Examine the current theory of supply chain sustainability
2. Evaluate findings on sustainable supply chain strategies
3. Assess supply chain performance using sustainability criteria rather than traditional economic criteria
4. Prepare case study reports on various topics in supply chain sustainability
5. Participate in discussions, debates, group work, and presentations

### COURSE MATERIALS

There will be no required textbook for this course. A variety of online resources and scholarly articles will be assigned throughout the course:

1. A selection of academic and practitioner articles
2. Case studies

Almost all articles can be accessed through the online Concordia Library. In case an article is not accessible, it is be uploaded on Moodle. Please, refer to the course schedule, to familiarize yourself with the assigned readings.

### ASSESSMENT

There will be a variety of assessment methods both individual and group-based.

Individual case study reports x 3	30%
Individual class participation	10%
Weekly reports on assigned readings	10%
Group presentation	10%
Final report	40%
<b>Total</b>	<b>100%</b>

Topic #	Topic and Readings
1	<p><b>Supply chain sustainability from the focal firm’s perspective</b></p> <p>Anatomy of Volkswagen’s deception: The recall that never fixed any cars  <a href="https://www.washingtonpost.com/news/wonk/wp/2015/09/22/anatomy-of-volkswagons-deception-the-recall-that-never-fixed-any-cars/?utm_term=.64f70232cc57">https://www.washingtonpost.com/news/wonk/wp/2015/09/22/anatomy-of-volkswagons-deception-the-recall-that-never-fixed-any-cars/?utm_term=.64f70232cc57</a></p> <p>Pagell, M &amp; Wu, Z. “Building a More Complete Theory of Sustainable Supply Chain Management Using Case Studies of 10 Exemplars”, <i>Journal of Supply Chain Management</i> (2009) V 45, 2</p> <p>Kirchoff, J. F., Omar, A., &amp; Fugate, B. S. (2016). A Behavioral Theory of Sustainable Supply Chain Management Decision Making in Non-exemplar Firms. <i>Journal of supply chain management</i>, 52(1), 41-65.</p>
2	<p><b>Supply chain transparency</b></p> <p>New, S. (2010). The transparent supply chain. <i>Harvard Business Review</i>, 88, 1-5. Chicago</p> <p>Marshall, D., McCarthy, L., McGrath, P. and Harrigan, F., 2016. What's Your Strategy for Supply Chain Disclosure? <i>MIT Sloan Management Review</i>, 57(2), p.37.</p> <p>Gualandris, J., Klassen, R. D., Vachon, S., &amp; Kalchschmidt, M. (2015). Sustainable evaluation and verification in supply chains: Aligning and leveraging accountability to stakeholders. <i>Journal of Operations Management</i>, 38, 1-13.</p>
3	<p><b>Role of non-governmental organizations in supply chain sustainability</b></p> <p>Kiron, D., Kruschwitz, N., Haanaes, K., Reeves, M., Fuisz-Kehrbach, S.K. &amp; Kell, G. (2015) <i>Joining Forces: Collaboration and Leadership for Sustainability</i>. MIT Sloan Management Review</p> <p>Oxfam Behind the Brands Campaign <a href="https://www.behindthebrands.org/">https://www.behindthebrands.org/</a></p>
4	<p><b>Models and logics: Supply chain sustainability as a shared value</b></p> <p>Porter, M. E., &amp; Kramer, M. R. (2011). Creating shared value. <i>Harvard business review</i>, 89(1/2), 62-77</p> <p>Golicic, S. L., &amp; Smith, C. D. (2013). A meta-analysis of environmentally sustainable supply chain management practices and firm performance. <i>Journal of supply chain management</i>, 49(2), 78-95.</p>
5	<p><b>Models and logics: Supply chain sustainability as a business model</b></p> <p>Crane, A., Palazzo, G., Spence, L. J., &amp; Matten, D. (2014). Contesting the value of “creating shared value”. <i>California management review</i>, 56(2), 130-153.</p> <p>Montabon, F., Pagell, M., &amp; Wu, Z. (2016). Making sustainability sustainable. <i>Journal of Supply Chain Management</i>, 52(2), 11-27.</p> <p>Lovins et al, “A Road Map for Natural Capitalism,” <i>Harvard Business Review</i>.</p>
6	<p><b>Models and logics: Supply chain sustainability as a risk</b></p> <p>Hajmohammad, S., &amp; Vachon, S. (2016). Mitigation, avoidance, or acceptance? Managing supplier sustainability risk. <i>Journal of Supply Chain Management</i>, 52(2), 48-65.</p> <p>Giannakis, M., &amp; Papadopoulos, T. (2016). Supply chain sustainability: A risk management approach. <i>International Journal of Production Economics</i>, 171, 455-470.</p>
7	<p><b>Group Presentation: Why should firms make their supply chains sustainable?</b></p>

9	<p><b>Innovation in supply chain sustainability – End-of-life product management</b></p> <p>Coming Full Circle: Four Ways to Fully Capitalize on Circular Supply Chains  <a href="http://www.industryweek.com/supply-chain/coming-full-circle-four-ways-fully-capitalize-circular-supply-chains">http://www.industryweek.com/supply-chain/coming-full-circle-four-ways-fully-capitalize-circular-supply-chains</a></p> <p>Blanco, E., &amp; Cottrill, K. (2014) Closing the Loop on a Circular Supply Chain. Supply Chain Management Review, September / October 2014.</p> <p>Kumar, S., &amp; Putnam, V. (2008). Cradle to cradle: Reverse logistics strategies and opportunities across three industry sectors. International Journal of Production Economics, 115(2), 305-315.</p> <p><b>Case Study:</b> Cradle-to-Cradle Design at Herman Miller: Moving Toward Environmental Sustainability HBR 607003</p>
10	<p><b>Innovation in supply chain sustainability - Industrial symbiosis</b></p> <p>Bansal, P. and McKnight, B., 2009. Looking forward, pushing back and peering sideways: analyzing the sustainability of industrial symbiosis. <i>Journal of Supply Chain Management</i>, 45(4), pp.26-37.</p> <p>Mirata, M., &amp; Emtairah, T. (2005). Industrial symbiosis networks and the contribution to environmental innovation: the case of the Landskrona industrial symbiosis programme. <i>Journal of cleaner production</i>, 13(10-11), 993-1002.</p> <p><b>Case Study:</b> Supply Loops and Their Constraints: The Industrial Ecology of Recycling and Reuse CMR276</p>
11	<p><b>Innovation in supply chain sustainability – Co-ops</b></p> <p>Wu, Z., &amp; Pullman, M. E. (2015). Cultural embeddedness in supply networks. <i>Journal of Operations Management</i>, 37, 45-58.</p> <p>Hobbs, J. E., &amp; Young, L. M. (2000). Closer vertical co-ordination in agri-food supply chains: a conceptual framework and some preliminary evidence. <i>Supply Chain Management: An International Journal</i>, 5(3), 131-143.</p> <p><b>Case Study:</b> Can Social Enterprises Scale While Remaining Sustainable? The Mondragon Cooperatives IMD766</p>

## Academic Integrity

The Academic Code of Conduct at Concordia University states that the "integrity of University academic life and of the degrees, diplomas and certificates the University confers is dependent upon the honesty and soundness of the instructor-student learning relationship and, in particular, that of the evaluation process. As such, all students are expected to be honest in all of their academic endeavors and relationships with the University" (Undergraduate Calendar, section 16.3.14). All students enrolled at Concordia are expected to familiarize themselves with the contents of this Code. You are strongly encouraged to visit <http://www.concordia.ca/students/academic-integrity.html>, which provides useful information about proper academic conduct.

## Academic Code of Conduct

The Academic Code of Conduct is a University policy that outlines the procedures by which academic honesty or integrity is enforced. It outlines offenses, procedures for dealing with offenses, and possible sanctions if charges are upheld. The Code can be found in the University Calendar or on the Concordia website at:

<http://www.concordia.ca/content/dam/common/docs/policies/official-policies/Academic-Code-Conduct-2015.pdf>

**PLAGIARISM:** Plagiarism is the most common offense under the Code. The Code defines it as: *“the presentation of the work of another person, in whatever form, as one’s own or without proper acknowledgement”*. This includes material copied word-for-word from books, journals, Internet sites, instructors’ course notes, material that is paraphrased but closely resembles the original source, a paper purchased through one of the many available sources, or work done by a fellow student such as an answer on a quiz, data for a lab report, a paper, or an assignment. Plagiarism does not refer to words alone – it can also refer to copying images, graphs, tables, and ideas. “Presentation” is not limited to written work - it also includes oral presentations, computer assignments and artistic work. Several information sources have been developed to assist you in understanding the meaning and implications of plagiarism:

1. [https://www.concordia.ca/content/dam/concordia/offices/cdev/docs/writing/avoid\\_plagiarism.pdf](https://www.concordia.ca/content/dam/concordia/offices/cdev/docs/writing/avoid_plagiarism.pdf) includes information on what plagiarism is and how you can avoid it;

2. <https://library.concordia.ca/help/citing/index.php> includes various guides for proper citation of reference material prepared by Concordia’s librarians.

## What else does the Code address?

Although plagiarism is the most common offense, the Code addresses other offences as follows:

- Stealing or obtaining exam questions, exam answers or any other University documents without authorization.
- Possession and/or use of any non-authorized materials, documents or devices such as calculators, translators, crib sheets, or hidden notes, during an examination. Possession of the unauthorized material, even if not used, is itself an offence. This also applies to books that can be accessed during the examination.
- Copying answers from someone else’s exam paper during an examination, or getting unauthorized help during an examination.
- Communicating, **for any reason**, with any person other than the invigilator during an examination.
- Making any changes to an exam booklet, including tearing out pages or adding pages.
- Removing an exam paper or booklet from an examination room.
- Personation: assuming the identity of another person or having another person assume one's own identity. For example, Mary who is not prepared for an exam asks her friend Jane, who took the

course the previous year, to write the exam in her place. Both Mary and Jane can be charged with personation.

- Giving your work to another student knowing that he/she will hand in all or part of your work claiming that it is his/her own. Both students can be charged.
- Submitting the same piece of work for evaluation in two or more courses without prior approval from the course instructors.
- Falsifying documents. This includes any documents being submitted to Concordia as well as any Concordia documents. Examples of falsified documents include transcripts and records for the purpose of admission, notes from medical doctors, or other documents to avoid writing exams or handing in assignments on the prescribed dates.
- Falsifying research facts, data or sources of information. For example, changing a few data points in your experiment in order to improve on the experiment's results.

The Student Advocate Program has recently produced pamphlets in English, French, Chinese and Arabic to help students get a better understanding of the essential content of the Code of Conduct. Student Advocacy Office webpage: <https://www.concordia.ca/offices/advocacy.html>

*DISCLAIMER:* In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.

**SCHOOL OF GRADUATE STUDIES**

**MEMO TO:** Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning

**FROM:** Rachel Berger, Associate Dean, Academic Programs and Development  
School of Graduate Studies

**DATE:** September 30, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (ELEC-121)  
(CALENDAR – 2021/2022)  
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING  
GINA CODY SCHOOL OF ENGINEERING AND COMPUTER SCIENCE**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Gina Cody School of Engineering and Computer Science.

The Department of Electrical and Computer Engineering is proposing changes to the degree requirements for the MEng program in Electrical and Computer Engineering, the creation of new courses and updates to existing topic areas/courses.

The GCC approved the curriculum changes with minor modifications. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.

cc: E. Shihab, Associate Dean, Graduate Programs and Research, Gina Cody School of Engineering and Computer Science  
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs



**INTERNAL MEMORANDUM**

**TO:** Dr. R. Berger  
Chair, Graduate Curriculum Committee  
School of Graduate Studies

**FROM:** Dr. E. Shihab  
Associate Dean, Graduate Programs and Research  
Faculty of Engineering and Computer Science

**CC:** Gina Beltran  
Academic Programs and Development  
School of Graduate Studies

**DATE:** September 2, 2021

**RE:** **Graduate Curriculum Proposal for the 2022-23 Academic Year (ELEC-121)**  
**Gina Cody Council of Engineering and Computer Science**

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At its meeting on May 14, 2021, the Faculty Council of the Gina Cody School of Engineering and Computer Science reviewed and approved, as presented, the graduate curriculum changes proposed by the Electrical and Computer Engineering (ECE) Department. Included curriculum changes involve revisions to the MEng degree requirements in Electrical and Computer Engineering and existing courses, as well as the creation of several new courses, some of which were offered as slot courses.

No additional resources are required as the courses will be taught as part of the Department's regular allotment.

Details of the curriculum changes are indicated and explained in the internal memorandums and in the ELEC-121 dossier.

Thank you for your consideration of this proposal.

**INTERNAL MEMORANDUM**

**TO:** Dr. M. Debbabi  
Chair of the School Council  
Gina Cody School of Engineering and Computer Science

**FROM:** Dr. E. Shihab  
Associate Dean, Graduate Programs and Research  
Gina Cody School of Engineering and Computer Science

**DATE:** April 27, 2021

**RE:** **Graduate Curriculum Proposal for the 2022-23 Academic Year (ELEC-121)**  
**Department of Electrical and Computer Engineering (ECE)**

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At its virtual meeting on April 26, 2021, the Gina Cody School Graduate Studies Committee (GCSGSC) reviewed and approved, with some corrections, the curriculum proposal from the Department of Electrical and Computer Engineering tabled at the last Executive Committee meeting. Namely, changes to the degree requirements for the MEng program in Electrical and Computer Engineering, creation of new courses and updates of existing topic areas/courses.

No additional resources are required as the courses will be taught as part of the Department's regular allotment.

Details of the curriculum changes are indicated and explained in the Department's internal memorandum and in the ELEC-121 dossier.

We kindly request that this proposal be placed on the next agenda of the GCS Faculty Council for approval.

Thank you for your consideration of this proposal.

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**DATE:** April 26, 2021

**TO:** Dr. E. Shihab, ENCS Associate Dean, Research and Graduate Studies

**FROM:** Dr. R. Selmic, Associate Chair Graduate Studies, ECE Department

**RE:** Modified courses, new courses, change in topic areas,  
MEng degree requirement changes

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Attached please find enclosed a dossier that proposes modifications to five (5) existing courses, creation of ten (10) new courses, changes in five (5) topic areas, and changes to the degree requirements of the MEng program in Electrical and Computer Engineering. No additional resources are required as the courses will be taught as part of the Department's regular allotment.

**MEng** degree requirement changes to the Electrical and Computer Engineering program, including changes to the following Topic Areas: E03, 42, 43, 48, E63, F03.

**Modified Courses:**

COEN 6341 Embedded Systems Design (4.00 credits)  
COEN 6561 Foundations of Cyber-Physical Systems (4.00 credits)  
COEN 6351 Protocol Design and Validation (4.00 credits)  
ELEC 6131: Information Theory and Error Control Coding (4.00 Credits)  
COEN 6861 Higher Layer Telecommunications Protocols (4.00 credits)

**New Courses:**

COEN 6371 Machine Learning for Cyber-Physical Systems (4.00 credits)  
COEN 6731 Distributed Software Systems (4.00 credits)  
COEN 6751 CPS Modeling and Design (4.00 credits)  
COEN 6761 Software Testing and Validation (4.00 credits)  
COEN 6841 Internet of Things (4.00 credits)  
ELEC 6031 Fault Tolerance and Resilience of Cyber-Physical Systems (4.00 credits)  
ELEC 6191 Wireless Sensor and Actuator Networks (4.00 credits)  
ELEC 6291 Radiation Detectors for Medical Imaging (4.00 credits)  
ELEC 6821 Fundamentals of Network Security and Management (4.00 credits)  
ENCS 6201 Ethics and Professionalism (1.00 credit)

**Course Overlaps:**

The Chair and the Associate Chair for Graduate Studies from ECE Department discussed course overlaps with Chairs and GPDs from CIISE Department and CSE Department. The following recommendations were made:

### **1. COEN 6761 Software Testing and Validation:**

There is some overlap between SOEN 7481 and COEN 6761. However, the way these courses are taught at both departments is different. Hence, a note in the course description has been added stating that students cannot receive credits for both courses.

### **2. COEN 6731 Distributed Software Systems:**

There is some overlap between COEN 6731 and COMP 6231. The CSE course Distributed Software Systems (COEN 6731) is broader than the Distributed System Design (COMP 6231) course which goes deeper into the design and implementation of distributed software systems/applications. CSE estimates that the overlap appears to be about 30% (4 weeks; specifically, data models, multithreading and concurrency, remote procedure call, http, distributed software system design, scalability, fault tolerance). Hence, a note in the course description saying that students cannot receive credits for both courses.

### **3. ELEC 6821 Fundamentals of Network Security and Management:**

ELEC 6821 focuses on the basics of network security whereas INSE 6170 focuses on the applications of network security and management. Hence, CIISE and ECE agreed to change the name of the ECE course to "***Fundamentals of Network Security and Management***".

I would be grateful if you could put this on the agenda of the next GCS GSC meeting for approval.

**PROGRAM CHANGE:** Degree Requirements Change Fall 2021

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng  
**Calendar Section/Graduate Page Number:** Degree Requirements Fall 2021

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p><b>Degree Requirements</b></p> <p>The requirements described here are in addition to the general degree requirements for the Master's Programs in the Gina Cody School of Engineering and Computer Science.</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Please see the Engineering Courses page for course descriptions.</p> <p>45      <b>Electrical and Computer Engineering MEng</b></p> <p>32      <i>Credits (minimum) consisting of 6000 numbered courses chosen from the following Topic Areas:</i>                      E01 - Mathematical Methods                      E03 – Systems and Control                      E10 – Robotics,                      E42 – Communication<del>s</del>,                      E43 – Micro-devices and Fabrication Processes                      E44 – Fields, Waves and Optoelectronics                      E45 – Electrical Power Engineering                      E47 – Signal Processing                      E48 – <del>Computer Engineering</del>                      F03 – <del>Application Specific Integrated Circuits</del></p> <p><i>ELEC/COEN courses in</i></p>	<p><b>Degree Requirements</b></p> <p>The requirements described here are in addition to the general degree requirements for the Master's Programs in the Gina Cody School of Engineering and Computer Science.</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Please see the Engineering Courses page for course descriptions.</p> <p>45      <b>Electrical and Computer Engineering MEng</b></p> <p>32      <i>Credits (minimum) consisting of 6000 numbered courses chosen from the following Topic Areas:</i>                      E01 - Mathematical Methods                      E03 – Systems and Control                      E10 – Robotics                      E42 – Communication <a href="#">Systems and Networks</a>                      E43 – Micro-devices and Fabrication Processes                      E44 – Fields, Waves and Optoelectronics                      E45 – Electrical Power Engineering                      E47 – Signal Processing                      E48 – <a href="#">Computing Systems</a>                      F03 – <a href="#">Microelectronic Systems</a></p> <p><i>ELEC/COEN courses in</i></p>

E02 – Developments in Engineering

Two concentrations from the following Topic Areas: 24  
 E03 – Systems and Control,  
 E42 – Communication~~s~~,  
 E43 – Micro-devices and Fabrication Processes,  
 E44 – Fields, Waves and Optoelectronics,  
 E45 – Electrical Power Engineering,  
 E47 – Signal Processing,  
 E48 – ~~Computer Engineering~~,  
 F03 – ~~Application-Specific Integrated Circuits~~

*In each of these two Topic Areas, at least 12 credits should be taken.*

4 Credits from Complementary courses chosen from Topic Area  
 E09 – Professional Leadership Skills

9 Credits chosen from one of the following: Industrial Stage and  
 Training Course, Project Courses, Project Course and Academic  
 Course, Academic Courses

**Industrial Stage and Training Course (9 credits)**

ENCS Industrial Stage and Training 9.00  
 6931

**Project Courses (9 credits)**

ENGR Project and Report I 4.00  
 6971

E02 – Developments in Engineering

Two concentrations from the following Topic Areas: 24  
 E03 – Systems and Control  
 E42 – Communication [Systems and Networks](#)  
 E43 – Micro-devices and Fabrication Processes  
 E44 – Fields, Waves and Optoelectronics  
 E45 – Electrical Power Engineering  
 E47 – Signal Processing  
 E48 – [Computing Systems](#)  
 F03 – [Microelectronic Systems](#)

*In each of these two Topic Areas, at least 12 credits should be taken.*

4 Credits from Complementary courses chosen from Topic Area  
 E09 – Professional Leadership Skills

9 Credits chosen from one of the following: Industrial Stage and  
 Training Course, Project Courses, Project Course and Academic  
 Course, Academic Courses

**Industrial Stage and Training Course (9 credits)**

ENCS Industrial Stage and Training 9.00  
 6931

**Project Courses (9 credits)**

ENGR Project and Report I 4.00  
 6971

ENGR Project and Report III 5.00  
6991

**Project Course and Academic Course (9 credits)**

A 4-credit course chosen from the following Topic Areas : 4.00

- E01 - Mathematical Methods;
- E03 – Systems and Control;
- E10 – Robotics;
- E42 – Communication~~s~~;
- E43 – Micro-devices and Fabrication Processes;
- E44 – Fields, Waves and Optoelectronics;
- E45 – Electrical Power Engineering;
- E47 – Signal Processing;
- E48 – ~~Computer Engineering~~;
- F03 – ~~Application Specific Integrated Circuits~~;

*ELEC/COEN courses in*  
E02 – Developments in Engineering

ENGR Project and Report III 5.00  
6991

**Academic Courses (9 credits)**

Two 4-credit courses from the following Topic Areas: 8.00

- E01 - Mathematical Methods;
- E03 – Systems and Control;
- E10 – Robotics;
- E42 – Communication~~s~~;
- E43 – Micro-devices and Fabrication Processes;
- E44 – Fields, Waves and Optoelectronics;
- E45 – Electrical Power Engineering;
- E47 – Signal Processing;
- E48 – ~~Computer Engineering~~;
- F03 – ~~Application Specific Integrated Circuits~~;

*ELEC/COEN courses in*  
E02 – Developments in Engineering

ENGR Project and Report III 5.00  
6991

**Project Course and Academic Course (9 credits)**

A 4-credit course chosen from the following Topic Areas : 4.00

- E01 - Mathematical Methods
- E03 – Systems and Control
- E10 – Robotics
- E42 – Communication [Systems and Networks](#)
- E43 – Micro-devices and Fabrication Processes
- E44 – Fields, Waves and Optoelectronics
- E45 – Electrical Power Engineering
- E47 – Signal Processing
- E48 – [Computing Systems](#)
- F03 – [Microelectronic Systems](#)

*ELEC/COEN courses in*  
E02 – Developments in Engineering

ENGR Project and Report III 5.00  
6991

**Academic Courses (9 credits)**

Two 4-credit courses from the following Topic Areas: 8.00

- E01 - Mathematical Methods
- E03 – Systems and Control
- E10 – Robotics
- E42 – Communication [Systems and Networks](#)
- E43 – Micro-devices and Fabrication Processes
- E44 – Fields, Waves and Optoelectronics
- E45 – Electrical Power Engineering
- E47 – Signal Processing
- E48 – [Computing Systems](#)
- F03 – [Microelectronic Systems](#)

<p><del>ELEC 6964</del>     <del>Graduate Seminar in Electrical and Computer Engineering</del>     1.00</p>	<p><i>ELEC/COEN courses in</i> E02 – Developments in Engineering</p> <p><a href="#">ENCS 6201</a>     <a href="#">Ethics and Professionalism course</a>     1.00</p>
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Rationale:  
Changes reflect updates of topic areas.

Resource Implications:  
None.



**PROGRAM CHANGE:** Topic Areas:E03, 42, 43, 48, E63, FO3

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsc, PhD  
**Calendar Section/Graduate Page Number:** Topic Areas

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 2021/2022) calendar			Proposed Text		
<b>E03 – Systems and Control</b>			<b>E03 – Systems and Control</b>		
ELEC 6041	Large-scale Control Systems	4.00	<a href="#">COEN 6561</a>	<a href="#">Foundations of Cyber-Physical Systems</a>	<a href="#">4.00</a>
ELEC 6061	Real-time Computer Control Systems	4.00	<a href="#">ELEC 6031</a>	<a href="#">Fault Tolerance and Resilience of Cyber-Physical Systems</a>	<a href="#">4.00</a>
ELEC 6091	Discrete Event Systems	4.00	ELEC 6041	Large-scale Control Systems	4.00
ENGR 6071	Switched and Control Hybrid Control Systems	4.00	ELEC 6061	Real-time Computer Control Systems	4.00
ENGR 6121	Control of Multi-Agent Systems	4.00	ELEC 6091	Discrete Event Systems	4.00
ENGR 6131	Linear Systems	4.00	ENGR 6071	Switched and Control Hybrid Control Systems	4.00
ENGR 6141	Nonlinear Systems	4.00	ENGR 6121	Control of Multi-Agent Systems	4.00
ENGR 6412	Autonomy for Mobile Robots	4.00	ENGR 6131	Linear Systems	4.00
ENGR 7121	Analysis and Design of Linear Multivariable Systems	4.00	ENGR 6141	Nonlinear Systems	4.00
ENGR 7131	Adaptive Control	4.00	ENGR 6412	Autonomy for Mobile Robots	4.00
ENGR 7181	Digital Control of Dynamic Systems	4.00	ENGR 7121	Analysis and Design of Linear Multivariable Systems	4.00
MECH 6681	Dynamics and Control of Nonholonomic Systems	4.00	ENGR 7131	Adaptive Control	4.00

Notes: The following courses are cross-listed:  
ENGR 6131, ENGR 6412

**E42 – Communications**

ELEC 6111	Detection and Estimation Theory	4.00
ELEC 6131	<del>Error-Detecting and Correcting Codes</del>	4.00
ELEC 6141	Wireless Communications	4.00
ELEC 6151	Information Theory and Source Coding	4.00
ELEC 6171	Modelling and Analysis of Telecommunications Network	4.00
ELEC 6181	Real-time and Multimedia Communication over Internet	4.00
ELEC 6831	Digital Communications	4.00
ELEC 6841	Advanced Digital Communications	4.00
ELEC 6851	Telecommunications Networks	4.00
<del>ELEC 6864</del>	<del>Higher Layer Telecommunications Protocols</del>	<del>4.00</del>
ELEC 6871	Fiber-Optic Communication Systems and Networks	4.00
ELEC 6881	Fundamentals and Applications of MIMO Communications	4.00
ELEC 6891	Broadcast Signal Transmission	4.00
ELEC 7151	Broadband Communications Networks	4.00
ENCS 6811	Optical Networking: Architectures and Protocols	4.00

Note: The following courses are cross-listed:

ENGR 7181	Digital Control of Dynamic Systems	4.00
MECH 6681	Dynamics and Control of Nonholonomic Systems	4.00

Notes: The following courses are cross-listed:

[COEN 6561](#) is cross-listed with [COEN 422](#)  
ENGR 6131 is cross-listed with [ELEC 481](#)  
ENGR 6412 is cross-listed with [ELEC 473](#)

**E42 – Communication [Systems and Networks](#)**

<a href="#">COEN 6841</a>	<a href="#">Internet of Things</a>	<a href="#">4.00</a>
<a href="#">COEN 6861</a>	<a href="#">Higher Layer Telecommunications Protocols</a>	<a href="#">4.00</a>
ELEC 6111	Detection and Estimation Theory	4.00
ELEC 6131	<a href="#">Information Theory and Error Control Coding</a>	4.00
ELEC 6141	Wireless Communications	4.00
ELEC 6151	Information Theory and Source Coding	4.00
ELEC 6171	Modelling and Analysis of Telecommunications Network	4.00
ELEC 6181	Real-time and Multimedia Communication over Internet	4.00
<a href="#">ELEC 6191</a>	<a href="#">Wireless Sensor and Actuator Networks</a>	<a href="#">4.00</a>
<a href="#">ELEC 6821</a>	<a href="#">Fundamentals of Network Security and Management</a>	<a href="#">4.00</a>
ELEC 6831	Digital Communications	4.00
ELEC 6841	Advanced Digital Communications	4.00
ELEC 6851	Telecommunications Networks	4.00
ELEC 6871	Fiber-Optic Communication Systems and Networks	4.00
ELEC 6881	Fundamentals and Applications of MIMO Communications	4.00
ELEC 6891	Broadcast Signal Transmission	4.00

ELEC 6891

**E43 – Micro-devices and Fabrication Processes**

ELEC 6221	Solid State Devices	4.00
ELEC 6231	Design of Integrated Circuit Components	4.00
ELEC 6241	VLSI Process Technology	4.00
ELEC 6251	Microtransducer Process Technology	4.00
ELEC 6261	Optical Devices for High-Speed Communications	4.00
ELEC 6271	Nanoscience and Nanotechnology: Opto-Electronic Devices	4.00
ELEC 6281	Principles of Solid State Nanodevices	4.00

*Note: The following courses are cross-listed:*  
ELEC 6221,  
ELEC 6231,  
ELEC 6241

**E48 – ~~Computer Engineering~~**

COEN 6211	Biological Computing and Synthetic Biology	4.00
COEN 6311	Software Engineering	4.00
COEN 6312	Model-Driven Software Engineering	4.00
COEN 6313	Programming on the Cloud	4.00
COEN 6321	Applied Evolutionary and Learning Algorithms	4.00
COEN 6331	Neural Networks	4.00

ELEC 7151	Broadband Communications Networks	4.00
ENCS 6811	Optical Networking: Architectures and Protocols	4.00

*Note: The following courses are cross-listed:*  
[COEN 6841 is cross-listed with COEN 446](#)  
[ELEC 6821 is cross-listed with ELEC 465](#)  
ELEC 6891 [is cross-listed with ELEC 470](#)

**E43 – Micro-devices and Fabrication Processes**

ELEC 6221	Solid State Devices	4.00
ELEC 6231	Design of Integrated Circuit Components	4.00
ELEC 6241	VLSI Process Technology	4.00
ELEC 6251	Microtransducer Process Technology	4.00
ELEC 6261	Optical Devices for High-Speed Communications	4.00
ELEC 6271	Nanoscience and Nanotechnology: Opto-Electronic Devices	4.00
ELEC 6281	Principles of Solid State Nanodevices	4.00
<a href="#">ELEC 6291</a>	<a href="#">Radiation Detectors for Medical Imaging</a>	<a href="#">4.00</a>

*Note: The following courses are cross-listed:*  
ELEC 6221 [is cross-listed with ELEC 421](#)  
ELEC 6231 [is cross-listed with ELEC 422](#)  
ELEC 6241 [is cross-listed with ELEC 424](#)

**E48 – Computing Systems**

COEN 6211	Biological Computing and Synthetic Biology	4.00
COEN 6311	Software Engineering	4.00

COEN 6341	Embedded Systems <del>Modelling</del>	4.00
<del>COEN 6561</del>	<del>Cyber-Physical Systems</del>	<del>4.00</del>
COEN 6611	Real-time Systems	4.00
COEN 6711	Microprocessors and Their Applications	4.00
COEN 6721	Fault-Tolerant Distributed Systems	4.00
COEN 6741	Computer Architecture and Design	4.00
COEN <del>7344</del>	Protocol Design and Validation	4.00
COEN 7741	Advanced Computer Architecture	4.00
ENGR 6231	Microfluidic Devices for Synthetic Biology	4.00

*Note: The following courses are cross-listed:*

COEN 6211,  
COEN 6313,  
COEN 6321,  
COEN 6231,  
COEN 6561

**E63 - Project, Report And Industrial Training**

BCEE 6001	Graduate Seminar in Building and Civil Engineering	1.00
CIVI 7901	Environmental Engineering Research Project	8.00
ENCS 6931	Industrial Stage and Training	9.00
<del>ELEC 6964</del>	<del>Graduate Seminar in Electrical and Computer Engineering</del>	<del>1.00</del>
INSE 6961	Graduate Seminar in Information and Systems Engineering	1.00
ENGR 692	Case Study and Report	1.00

COEN 6312	Model-Driven Software Engineering	4.00
COEN 6313	Programming on the Cloud	4.00
COEN 6321	Applied Evolutionary and Learning Algorithms	4.00
COEN 6331	Neural Networks	4.00
COEN 6341	Embedded Systems <u>Design</u>	4.00
<u>COEN 6371</u>	<u>Machine Learning for Cyber-Physical Systems</u>	<u>4.00</u>
COEN 6611	Real-time Systems	4.00
COEN 6711	Microprocessors and Their Applications	4.00
COEN 6721	Fault-Tolerant Distributed Systems	4.00
<u>COEN 6731</u>	<u>Distributed Software Systems</u>	<u>4.00</u>
COEN 6741	Computer Architecture and Design	4.00
<u>COEN 6751</u>	<u>Cyber-Physical Systems Modeling and Design</u>	<u>4.00</u>
<u>COEN 6761</u>	<u>Software Testing and Validation</u>	<u>4.00</u>
COEN <u>6351</u>	Protocol Design and Validation	4.00
COEN 7741	Advanced Computer Architecture	4.00
ENGR 6231	Microfluidic Devices for Synthetic Biology	4.00

*Note: The following courses are cross-listed:*

COEN 6211 is cross-listed with COEN 433  
COEN 6313 is cross-listed with COEN 424  
COEN 6321 is cross-listed with COEN 432  
COEN 6231 is cross-listed with COEN 434  
COEN 6561 is cross-listed with COEN 422

**E63 - Project, Report And Industrial Training**

ENGR 6971	Project and Report I	4.00
ENGR 6981	Project and Report II	4.00
ENGR 6991	Project and Report III	5.00
INDU 6990	Industrial Engineering Capstone	9.00
INDU 6991	Engineering Management Industrial Stage I	8.00
INDU 6992	Engineering Management Industrial Stage II	800

**F03 – ~~Application Specific Integrated Circuits~~**

COEN 6501	Digital System Design and Synthesis	4.00
COEN 6511	VLSI Circuit Design	4.00
COEN 6521	Design for Testability	4.00
COEN 6531	ASIC Synthesis	4.00
COEN 6541	Functional Hardware Verification	4.00
COEN 6551	Formal Hardware Verification	4.00
ELEC 6051	Introduction to Analog VLSI	4.00
ELEC 6071	Mixed-Signal VLSI for Communication Systems	4.00
ELEC 6081	Modern Analog Filter Design	4.00

BCEE 6001	Graduate Seminar in Building and Civil Engineering	1.00
CIVI 7901	Environmental Engineering Research Project	8.00
<a href="#">ENCS 6201</a>	<a href="#">Ethics and Professionalism</a>	<a href="#">1.00</a>
ENCS 6931	Industrial Stage and Training	9.00
ELEC 6961	Graduate Seminar in Electrical and Computer Engineering	1.00
INSE 6961	Graduate Seminar in Information and Systems Engineering	1.00
ENGR 692	Case Study and Report	1.00
ENGR 6971	Project and Report I	4.00
ENGR 6981	Project and Report II	4.00
ENGR 6991	Project and Report III	5.00
INDU 6990	Industrial Engineering Capstone	9.00
INDU 6991	Engineering Management Industrial Stage I	8.00
INDU 6992	Engineering Management Industrial Stage II	800

**F03 - [Microelectronic Systems](#)**

COEN 6501	Digital System Design and Synthesis	4.00
COEN 6511	VLSI Circuit Design	4.00
COEN 6521	Design for Testability	4.00
COEN 6531	ASIC Synthesis	4.00
COEN 6541	Functional Hardware Verification	4.00
COEN 6551	Formal Hardware Verification	4.00
ELEC 6051	Introduction to Analog VLSI	4.00
ELEC 6071	Mixed-Signal VLSI for Communication Systems	4.00

ELEC 6081

Modern Analog Filter Design

4.00

Rationale:

Changes reflect addition of new courses, updates of topic areas and course numbers / titles .

Resource Implications:

None.

**COURSE CHANGE:** COEN 6341      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsC, and PhD  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

- |  |  |                                       |  |
|--|--|---------------------------------------|--|
| <input type="checkbox"/> Course Number                 | <input checked="" type="checkbox"/> Course Title | <input type="checkbox"/> Credit Value | <input checked="" type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial               | <input type="checkbox"/> New Course   |  |
| <input type="checkbox"/> Course Deletion               | <input type="checkbox"/> Other - Specify:        |                                       |  |

Present Text (from 2020/2021) calendar	Proposed Text
<p>COEN 6341 Embedded System <del>Modeling</del> (4 credits)                      Prerequisite:  <del>Fundamental issues and state-of-the-art methods, tools and techniques for system-level design of heterogeneous multi-core embedded systems. Modelling at different levels, from abstract specification down to implementation across hardware-software boundaries. Embedded system specification using system-level design languages, SystemC and SpecC. Application modelling and analysis. Embedded multi-core platforms. Transaction-level platform modelling. Processor and RTOS modelling. Communication architecture modelling.</del> A project is required.</p>	<p><b>COEN 6341 Embedded Systems <u>Design</u></b> (4.00 credits)                      Prerequisite/corequisite: <a href="#">Permission of the Department is required.</a>                      Description: <a href="#">This course covers embedded systems and the foundations for cyber-physical systems design. It covers embedded hardware (HW) architectures, sensors, actuators, and processors. Other topics include input/output (I/O) and peripherals, memory architectures, and interfacing memory and peripheral. Moreover, it covers hardware-software partitioning, software transformations, floating to fixed point conversion, loop transformations, code compaction, low-power design and embedded system testing.</a> A project is required.                      Component(s): <a href="#">Lecture</a>                      Notes:                      • <a href="#">This course is cross-listed with COEN 421.</a></p>
<p><b>Rationale:</b>                      The content and title of the course is modified to include design aspects of Embedded Systems.</p>	
<p><b>Resource Implications:</b>                      This course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	

Other Programs within which course is listed:

None.





**COURSE CHANGE:** COEN 6561      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsC, and PhD  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

- |   |  |                                       |                                       |
|---|--|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input checked="" type="checkbox"/> Course Title | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial               | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify:        |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p>COEN 6561 <del>Cyber-Physical Systems</del> (*) (4 credits)                      Cyber-Physical Systems (CPS) consist of interacting networks of physical and computational elements. This course covers the fundamentals of modeling, specification, analysis and design of CPS. Models for computation and physical systems including discrete event dynamic models, finite-state machines, extended FSMs, statecharts, Petri nets and continuous variable models are studied. Scheduling and optimization of process networks and hybrid models are covered. Specification, simulation and performance analysis of CPS and the relationship of program execution with physical time constants are discussed. A project is required.</p>	<p><b>COEN 6561</b> <a href="#">Foundations of Cyber-Physical Systems</a> (4.00 credits)   <i>Description:</i> Cyber-Physical Systems (CPS) consist of interacting networks of physical and computational elements. This course covers the fundamentals of modeling, specification, analysis and design of CPS. Models for computation and physical systems including discrete event dynamic models, finite-state machines (<a href="#">FSMs</a>), extended FSMs, statecharts, Petri nets and continuous variable models are studied. Scheduling and optimization of process networks and hybrid models are covered. Specification, simulation and performance analysis of CPS and the relationship of program execution with physical time constants are discussed. A project is required.   <i>Component(s):</i> <a href="#">Lecture</a>.   <i>Notes:</i></p> <ul style="list-style-type: none"> <li>▪ <a href="#">This course is cross-listed with COEN 422.</a></li> </ul>
<p><b>Rationale:</b>                      Change of the course title to better reflect what is covered in the course. The course falls under the topic area E03 - SYSTEMS AND CONTROL.</p>	
<p><b>Resource Implications:</b>                      This course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p><b>Other Programs within which course is listed:</b></p>	

None.

**COURSE CHANGE:** COEN 6731      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsc, and PhD  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

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|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>COEN 6731 Distributed Software Systems (4.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: COEN 6311 and ELEC 6851</p> <p><i>Description:</i> The course covers the distributed system programming paradigms such as threads and input and output (IO) concurrency, data modeling and communicating techniques, distributed algorithms such as MapReduce and system fault tolerance. Topics include multi threading, I/O concurrency, Remote Procedure Calls (RPC), HTTP/RESTful and ProtocolBuffer, Pub-Sub, message and queue, event-driven, distributed software system design and patterns, distributed file systems, replication, consistency and fault tolerance. A project is required.</p> <p><i>Component(s):</i> Lecture</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>• Students who have taken COMP 6231 may not take this course for credit.</li> </ul>

**Rationale:**  
 This is a new course for the new CPS program. The course falls under the topic area E48 - COMPUTING SYSTEMS.

**Resource Implications:**  
 Normal software lab with open source tools and platforms which students will use to carry out their project. This course will be part of a faculty member's teaching load and drawn from our current course allotment

Other Programs within which course is listed:

None.

**COURSE CHANGE:** COEN 6751      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsC, and PhD  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

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|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>COEN 6751 Cyber-Physical Systems Modeling and Design (4.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: COEN 6561.</p> <p><i>Description:</i> The course reviews the various Cyber-Physical Systems (CPS) modeling formalisms such as finite-state machines (FSMs), Petri nets, timed automata, discrete and continuous time models and hybrid models. It also covers advanced modeling languages such as systems modeling language (SysML), unified modeling language (UML) and CPS related profiles. Topics include CPS specification, requirements engineering and analysis for CPS, CPS architectures, design, simulation, integration and synthesis techniques, as well as controller synthesis. The course also explores existing platforms for CPS modeling and design. A project is required.</p> <p><i>Component(s):</i> Lecture.</p>

**Rationale:**  
 This is a new course for the new CPS program. The course falls under the topic area E48 - COMPUTING SYSTEMS.

**Resource Implications:**  
 Normal software lab with the open source tools and platforms. This course will be part of a faculty member's teaching load and drawn from our current course allotment.

**Other Programs within which course is listed:**  
 CPS program.

**COURSE CHANGE:** COEN 6761      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsC, and PhD  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>COEN 6761 Software Testing and Validation (4.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: COEN 6311</p> <p><i>Description:</i> The course covers software testing process and software testing methods and techniques. Topics include overview of software process, software verification and software validation, inspection and reviews, pair programming, software version control, validating testing vs defect testing, test driven development, development testing (including unit testing, component testing, integration testing), regression testing, release testing, user testing, acceptance testing, performance testing, software metrics for testing purpose, configuration management and an introduction to formal methods. A project is required.</p> <p><i>Component(s):</i> Lecture.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>• This course is cross-listed with COEN 448.</li> <li>• Students who have taken SOEN 7481 may not take this course for credit.</li> </ul>

**Rationale:**  
 Software testing and validation are essential in software centric engineering systems. This course covers the process, methods and techniques to perform practical testing along the lifecycle of software systems. This course uses open source software tools and libraries. This course falls under the topic area E48 – COMPUTING SYSTEMS.

Resource Implications:

This course will be part of a faculty member's teaching load and drawn from our current course allotment.

Other Programs within which course is listed:

None.



**COURSE CHANGE:** COEN 6841      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsc, and PhD  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

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|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>COEN 6841 Internet of Things (4.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: ELEC 6851</p> <p><i>Description:</i> This course covers the paradigm change from the Internet and devices to Internet of Things ( IoT) and IoT business models and applications, including health monitoring and smart cities. It also covers the IoT characteristics, constraints and requirements, protocols stack and contrast with the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol stack. Other topics include physical, link and networking layer protocols. Moreover, it covers the message queueing telemetry transport (MQTT) and constrained application (CoAP) application layer protocols, and efficient XML interchange (EXI). The course provides an introduction to security threats and privacy in IoT systems, IoT analytics, platforms and tools. A project is required.</p> <p><i>Component(s):</i> Lecture.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>• This course is cross-listed with COEN 446.</li> <li>• Students who have received credit for this topic under COEN 691(Internet of Things) may not take this course for credit.</li> </ul>

**Rationale:**  
 New graduate course that covers the basics in the field of Internet of things in terms of communication protocols and applications. The class falls under the topic area E42 – COMMUNICATION SYSTEMS AND NETWORKS.

Resource Implications:

This course will be part of a faculty member's teaching load and drawn from our current course allotment.

Other Programs within which course is listed:

None



None

**COURSE CHANGE:** ELEC 6031      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsc, and PhD  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>ELEC 6031 Fault Tolerance and Resilience of Cyber-Physical Systems (4.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: ENGR 6131.</p> <p><i>Description:</i> This course deals with the fundamental principles of fault tolerance and resilience control for cyber-physical systems (CPS). This course covers model-based techniques for fault diagnosis, fault detection and isolation, reliable system design, control over packet-dropping channel, information dissemination in distributed systems, networked control systems, multi-agent systems, vulnerability of large-scale systems, and various applications related to CPS. It deals with the underlying mathematical theory, analysis, and design of fault- and attack-tolerant systems. A project is required.</p> <p><i>Component(s):</i> Lecture.</p>
<p><b>Rationale:</b>                      New graduate course that covers fault-tolerance and resilience of CPS. The course falls under the topic area E03 – SYSTEMS AND CONTROL.</p>	
<p><b>Resource Implications:</b>                      This course will be part of a faculty member's teaching load and drawn from our current course allotment</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	





**COURSE CHANGE:** ELEC 6191      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsC, and PhD  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>ELEC 6191 Wireless Sensor and Actuator Networks (4.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: ELEC 6851.</p> <p><i>Description:</i> This course covers wireless sensor and actuator networks (WSAN) platforms in different domains including underwater, ground, and aerial networks. It covers sensors, actuators, and other hardware components in WSANs. Other topics include graph theory, connectivity and coverage, time synchronization and localization, power management, WSAN protocols, and quality of service (QoS). The course provides overview of tools relevant to WSANs. A project is required.</p> <p><i>Component(s):</i> Lecture.</p>

**Rationale:**  
 This is a new graduate course that covers the basics in the field of wireless sensor and actuator networks. The course falls under the topic area E42- COMMUNICATION SYSTEMS AND NETWORKS.

**Resource Implications:**  
 This course will be part of a faculty member's teaching load and drawn from our current course allotment.

**Other Programs within which course is listed:**  
 None.



**COURSE CHANGE:** ELEC 6291      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsC, and PhD  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>ELEC 6291 Radiation Detectors for Medical Imaging (4.00 credits)</b></p> <p><i>Description:</i> This course covers ionizing radiation and its sources; interactions of ionizing radiation with matter; principles and types of radiation detectors; semiconductor radiation detectors; X-ray imaging modalities and Flat-panel image sensors; photoconductor requirements; image quality metrics and cascaded system model; noise in imaging sensors and detective quantum efficiency; imaging detectors for nuclear medicine. A project is required.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>Students who have received credit for this topic under ELEC 691 (Radiation Detectors for Medical Imaging) may not take this course for credit.</li> </ul>

**Rationale:**  
 Medical imaging is a very attractive and rapidly developing field. Radiation imaging detector is the core of a medical imaging system. This graduate course covers principles and types of various radiation detector schemes, requirements, and their performance analysis. The course falls under the topic area E43 - MICRO-DEVICES AND FABRICATION PROCESSES.

**Resource Implications:**  
 This course will be part of a faculty member's teaching load and drawn from our current course allotment.

**Other Programs within which course is listed:**

None.

**COURSE CHANGE:** ELEC 6821      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsC, and PhD  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>ELEC 6821 Fundamentals of Network Security and Management (4.00 credits)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: ELEC 6851</p> <p><i>Description:</i> This course covers fundamental topics in network security and management, such as basic cryptography, authentication, message integrity, firewalls, security protocols, virtual private networks (VPNs), Management Information Bases (MIBs), and Simple Network Management Protocol (SNMP). It will also address emerging trends such as decentralized ledger techniques (blockchain and IOTA), and federated network management. A project is required.</p> <p><i>Component(s):</i> Lecture.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>This course is cross-listed with ELEC 465.</li> </ul>
<p>Rationale:</p>	

Network security and management are critical for today's networks. This course is introduced to teach these important topics to graduate students. The course falls under the topic area E42 - COMMUNICATION SYSTEMS AND NETWORKS.

**Resource Implications:**

This course will be part of a faculty member's teaching load and drawn from our current course allotment.

**Other Programs within which course is listed:**

None

**COURSE CHANGE:** ELEC 6861      New Course Number: COEN 6861

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng, MAsc, and PhD  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

- |  |   |                                       |                                       |
|--|---|---------------------------------------|---------------------------------------|
| <input checked="" type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value | <input type="checkbox"/> Prerequisite |
| <input checked="" type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input type="checkbox"/> New Course   |                                       |
| <input type="checkbox"/> Course Deletion               | <input type="checkbox"/> Other - Specify: |                                       |                                       |

Present Text (from 2020/2021) calendar	Proposed Text
<p><del>ELEC 6864</del> Higher Layer Telecommunications Protocols (4 credits)</p> <p>Prerequisite: ELEC 6851.</p> <p><del>Broadband communications: concept, issues, signaling techniques, examples. Multimedia communications: traffic characteristics, classes, issues (e.g. QOS) and architectures. Internetworking: issues, architectures (e.g. router, bridge, gateway), protocols and standards: ISO, IP and IPv6. Network Management: issues, architecture, management information base (MIBs), SNMP, TMN and CMIP. Advanced topics, such as policy approach for network management.</del> A project is required.</p>	<p><b><u>COEN 6861</u> Higher Layer Telecommunications Protocols (4.00 credits)</b></p> <p><u>Prerequisite/corequisite:</u> The following course must be completed previously: ELEC 6851</p> <p><u>The course starts with the review of the concepts of layered architectures, Open Systems Interconnection (OSI) and Transmission Control Protocol/Internet Protocol (TCP/IP) stacks. Topics covered include cross-layered protocol architectures, advanced transport layer protocols (e.g. Quick UDP Internet Connections (QUIC), Stream Control Transmission Protocol (SCTP), Datagram Congestion Control Protocol (DCCP), Domain Name Server (DNS) architecture, peer-to-peer communications and architectures, Electronic Mail protocols (i.e. Simple Mail Transfer Protocol (SMTP), Post Office Protocol (POP), Internet Message Access Protocol (IMAP), World Wide Web (WWW) architecture, programming, and technologies (e.g. browser, Web server, Hypertext Transfer Protocol (HTTP), static/dynamic pages, Java servlet, Representational State Transfer (REST), the Web of Things (e.g. Constrained Application Protocol (CoAP)), and content delivery over the Web (e.g. Content Delivery Network (CDN) architecture, Dynamic Adaptive Streaming over HTTP (DASH) framework). A project is required.</u></p> <p><u>Component(s):</u> Lecture.</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> <li><u>Students who have received credit for this topic under ELEC 6861 may not take this course for credit.</u></li> </ul>

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**Rationale:**

Update the course to its current contents and advances in the field of communication protocols and applications. The course falls under the topic area E42-COMMUNICATION SYSTEMS AND NETWORKS.

**Resource Implications:**

This course will be part of a faculty member's teaching load and drawn from our current course allotment.

**Other Programs within which course is listed:**

None.

**COURSE CHANGE:** ENCS 6201      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Department of Electrical and Computer Engineering  
**Program:** Electrical and Computer Engineering  
**Degree:** MEng  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

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|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>ENCS 6201 Ethics and Professionalism (1.00 credit)</b></p> <p><i>Description:</i> This course introduces students to the wide spectrum of roles and responsibilities that guide the professional practice of engineers. The course covers professionalism, the engineering code and ethical practice of engineers with special reference to Quebec and Canada. The course also provides students with a basic understanding of legal aspects such as intellectual property, occupational health and safety, contracts, and liability that are relevant to professional practice of engineers.</p> <p><i>Component(s):</i> Lecture, one hour per week.</p>
<p><b>Rationale:</b>                      Master of engineering is a professional program and this 1 credit course is required for making the students aware of Ethics and professionalism.</p>	
<p><b>Resource Implications:</b>                      This course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p><b>Other Programs within which course is listed:</b>                       May be added to other programs in the faculty.</p>	

Course number	Course Title	Term
COEN 6371	<b>Machine Learning for Cyber-Physical Systems</b>	

Course Instructor	Office	E-Mail	Office Hours
Dr. K. Khorasani	EV12-113	kash@ece.concordia.ca	

### COURSE OBJECTIVES

This course deals with the fundamental principles of machine learning for cyber-physical systems (CPS). It is expected that the course will provide the latest necessary background, training and information on the fast-evolving field of machine learning and cyber-physical systems. Impact on cyber-physical systems is only recently being understood. An important challenge in deployment of machine learning technologies to cyber-physical systems and industrial systems has been that these technologies have been developed with a computer science emphasis, where these applications in cyber-physical systems and industrial domains require significant domain knowledge. On the other hand, a large set of ready-to-use machine learning tools and libraries exist (such as those in MATLAB), and therefore the domain expert can be readily trained to use these tools and techniques for advancing their cyber-physical systems and industrial processes and design activities. This is precisely the main objective of this course.

### TEXTBOOK AND ADDITIONAL COURSE MATERIALS

- Required textbooks: S. Haykin, "Neural Networks and Learning Machines", 3rd Edition, 2009.
- Cyber-Physical Systems: Foundations, Principles and Applications (A volume in Intelligent Data-Centric Systems), 2017.
- Cyber-Physical Systems: From Theory to Practice, edited by Danda B. Rawat, Joel J.P.C. Rodrigues, Ivan Stojmenovic, 2016.
- Suggested Textbook: J. M. Zurada, "Artificial Neural Systems"
- Instructor's lecture notes: will be posted in Moodle course management site
- Software Use: Matlab

### GRADING POLICY

Evaluation Tool	Weight
Midterm	20%
Final	30%
Project	40%
Assignment	10%
Total	100%



**COURSE LEARNING OUTCOMES (CLOS)***By the end of this course students will be able to:*

(a) An ability to design and conduct experiments, as well as to analyze and interpret data. Students would be able to design controllers to achieve certain specific goals. (b) An ability to learn by self-study, to integrate knowledge into one's overall education, and to engage in life-long learning. Every technical professional must be able to learn independently. For example, some instruction would be given on how one can pick out and summarize the important points in a chapter in a textbook. Then students are responsible for certain material on an exam, without that material being lectured on. (c) An ability to function on a team. (d) An ability to communicate effectively. It is expected that the students prepare an acceptable written project report. (e) An ability to design a system, component, or process to meet desired needs. This includes instruction on the design processes appropriate for the systems under investigation.

**TENTATIVE COURSE OUTLINE**

<b>Topics</b>	<b>Week</b>
Introduction to Models of Cyber-Physical Systems	1
Machine Learning Tools and Techniques	2
Perceptron, Learning Discriminants, Delta Rule, Learning Paradigms	3
Layered Machines, Back Propagation, Generalized Delta Rule	4
Radial Basis Function Networks	5
Associative Memories, Adaptive Bidirectional Associative Memories	6
Support Vector Machines; Adaptive Resonance Theory	7
Self-Organization Maps, Spatio-Temporal Maps	8
Deep Learning Networks and Convolution Neural Networks & Reinforcement Learning	9
Cyber-Physical Systems with Machine Learning Components	10
Design Choices of Machine Learning Techniques for Cyber-Physical Systems	11
Machine Learning Challenges for Cyber-Physical Systems	12
Applications of Machine Learning for Cyber-Physical Systems and Case Studies	13

## **TERM PROJECT**

Applications topics that can be used for the term project can include diverse cyber-physical systems - smart buildings and grid, transportation, manufacturing, agriculture and energy systems. The project will be conducted in a team of two students. For the selected target application, students need to perform a number of tasks. All the teams are expected to complete a set of general requirements and expectation list of tasks. This list will be provided and distributed in Moodle. The project requires a written report from each team. The report should provide sufficient details regarding the design procedure, validation, verification, and evaluation through simulations and analysis. All the details corresponding to these may be included in an Appendix to ensure readability of the report. The main body of the report should address only your main observations, results, and discussions. Only ONE report is to be handed in for each group.

**Department of Electrical and Computer Engineering  
Concordia University**

**COEN 6731 Distributed Software Systems**

**Course Outline**

- **Potential Course Instructors**

Ferhat Khendek (ECE)  
Yan Liu (ECE)

- **Course Web page**

TBD

- **Prerequisite**

Communication Networks and Protocols (Equivalent to COEN 445) and Software Process (Equivalent to COEN6311)

- **Course Objectives**

The main objectives of the course are to introduce the programming paradigms such as functional programming, component and service-oriented programming, software design patterns, methods, quality control techniques for building up distributed software systems for cyber physical systems. The course equips students with **knowledge** of the lifecycle of distributed software system, **skills** for modular and component-oriented design, **techniques** for system integration through protocols, programming paradigms, frameworks, and **methodologies** for quality management such as performance, scalability, reliability and security. The evaluation includes one hands-on project, midterm and final exam.

- **Topics:**

- Week 1: Introduction to Computer Networks and Distributed Systems
- Week 2: Overview of Cloud Computing and Usage Examples
- Week 3: Data Models and Data Serialization/ Deserialization
- Week 4: Remote Procedure Call, HTTP/RESTFUL and Protocol Buffer
- Week 5: Multi-threading and I/O Concurrency
- Week 6: Pub-Sub, Message and Queue, Event Driven System
- Week 7: Midterm
- Week 8: Distributed Software System Design and Patterns - Modular Design, Components and Services
- Week 9: Distributed Software System Design and Patterns – API Design and Interoperation
- Week 10: Distributed Software System Development, Testing and Validation
- Week 11: Quality Management – Performance and Scalability
- Week 12: Quality Management – Fault Tolerance and Reliability

- Week 13: Final Project Presentation and Demo

- **Course Material**

Parts from the textbook:

- Distributed Systems: Principles and Paradigms, *Andrew Tanenbaum and Maarten van Steen, Prentice Hall.*
- Principles of Computer System Design. *Jerome Saltzer and M. Frans Kaashoek, Morgan Kaufmann*

*Other reference*

- A Vision of Cyber-Physical Cloud Computing for Smart Networked Systems, NISTIR 7951, *Eric D. Simmon, Kyoung-sook Kim, Eswaran Subrahmanian, Ryong Lee, Frederic J. de Vault, Yohei Murakami, Koji Zettsu, Ram D. Sriram,* August 26, 2013, Access online: <https://doi.org/10.6028/NIST.IR.7951>

- **Evaluation Scheme**

There will be a midterm exam, a final exam, and a project. The contribution of each course component to the final grade is:

- Midterm : 20%
- Final : 50%
- Project: 30% [with 2 intermediate deliverables + one final presentation and demo, 10% each]

**Department of Electrical and Computer Engineering  
Concordia University**

**COEN 6751 – CPS Modeling and Design**

**Course Outline**

- **Potential Course Instructors**

Ferhat Khendek (ECE)  
Jamal Bentahar (CIISE)

- **Course Web page**

TBD

- **Prerequisite**

Foundations of Cyber Physical Systems (COEN 6561, the graduate course cross-listed with COEN 422)

- **Course Objectives**

The main objectives of the course are to explore the CPS modeling formalisms and techniques, design and integration techniques, and apply them to real case studies with a hands-on project.

- **Topics:**

- Week 1: Review of CPS characteristics and applications
- Week 2: Modeling formalisms: Finite State Machines(FSM) /Extended Finite State Machines (EFSM), and applications.
- Week 3: Modeling formalisms continued: Petri nets, Timed Automata, Discrete and Continuous time models, hybrid models
- Week 4: Modeling Languages: SysML, CPS related UML profiles and modeling, and tools
- Week 5: CPS specification and requirements engineering (Functional and non-functional including safety and reliability)
- Week 6: Requirement engineering and analysis (continued) with applications
- Week 7: Midterm
- Week 8: CPS architectures
- Week 9 and 10: Model based design techniques for CPS, including simulation techniques
- Week 11: Integration and controller synthesis techniques
- Week 12: CPS modeling and design platforms
- Week 13: Project presentation and demos

- **Course Material**

Parts from the textbook: Edward A. Lee and Sanjit A. Seshia, Introduction to Embedded Systems, A Cyber-Physical Systems Approach, Second Edition, MIT Press, ISBN 978-0-262-53381-2, 2017, and lecture notes and research papers/tutorials provided by the instructor.

- **Evaluation Scheme**

There will be a midterm exam, a final exam, and a project. The contribution of each course component to the final grade is:

- Midterm : 20%
- Final : 50%
- Project : 30% [Presentations and Demos scheduled for Week 13]

Course number	Course Title	Term
COEN 6761	Software Testing and Validation	

Course Instructor	Office	E-Mail	Office Hours
Yan Liu Abdelwahab Hamou- Lhadj		<a href="mailto:yan.liu@concordia.ca">yan.liu@concordia.ca</a> <a href="mailto:wahab.hamou-lhadj@concordia.ca">wahab.hamou- lhadj@concordia.ca</a>	TBD

### Conditions Specific to Remote Teaching and Assessment

1. All students are expected to have access to a computer with following capabilities:
  - a. reliable internet connection
  - b. camera and microphone (your computer and/or cellphone)
  - c. document scanning application such as Adobe Scan app  
([https://play.google.com/store/apps/details?id=com.adobe.scan.android&hl=en\\_CA](https://play.google.com/store/apps/details?id=com.adobe.scan.android&hl=en_CA))
2. All students should install VPN for remote desktop access to Concordia University computer labs  
<https://www.concordia.ca/it/support/connect-from-home.html>  
Once you have VPN connection to Concordia University, you can access to all available software in Gina Cody School labs by following the process described in:  
<https://www.concordia.ca/ginacody/aits/support/faq/connect-from-home.html>
3. Download Microsoft Office 365: <https://www.concordia.ca/it/services/office-365-education.html>
4. Course specific software installation instructions:  
This is subject to lecture content and references. Please refer to information in the lecture content.
5. All students are expected to do online, timed exams
  - a. Both midterm and final exams will be through [Moodle Quiz](#) using a random question bank.
  - b. Course instructor reserves the right to conduct an individual oral examination to verify student's response to online exam questions
6. Academic Integrity  
Violation of the Academic Code of Conduct in any form will be severely dealt with. This includes copying (even with modifications) of program segments. You must demonstrate independent thought through your submitted work. The Academic Code of Conduct of Concordia University is available at:  
<https://www.concordia.ca/conduct/academic-integrity.html>

*It is expected that during class discussions and in your written assignments you will communicate constructively*

*and respectfully. Sexist, racist, homophobic, ageist, and ablest expressions will not be tolerated.*

*All students must read and sign the [Expectations of Originality](#) form and submit the signed copy to course instructor by September 14, 2020*

**7. Third-party software/website and personal information**

Note that, as a part of this course, some or all of the lectures and/or other activities in this course may be recorded. Recordings will be focused on the instructor and will normally exclude students. It is possible, however, that your participation may be recorded. If you wish to ensure that your image is not recorded, speak to your instructor as soon as possible.

Also, please note that you may not share recordings of your classes and that the instructor will only share class recordings for the purpose of course delivery and development. Any other sharing may be in violation of the law and applicable University policies, and may be subject to penalties.

**8. Third-party software/website usage for work submission**

*Students are advised that external software and/or websites will be used in the course and students may be asked to submit or consent to the submission of their work to an online service. Students are responsible for reading and deciding whether or not to agree to any applicable terms of use. Use of this software and service is voluntary. Students who do not consent to the use the software or service should identify themselves to the course instructor as soon as possible to discuss alternate modes of participation that do not require them to give copyright or the right to use their work to a third party.*

*By using the external software or websites, students agree to provide and share their work and certain personal information (where applicable) with the website/software provider. Students are advised that the University cannot guarantee the protection of intellectual property rights or personal information provided to any website or software company. Intellectual property and personal information held in foreign jurisdictions are subject to the laws of such jurisdictions.*

**9. Third-party software/website usage for work submission**

*Students are advised that external software and/or websites will be used in the course and students may be asked to submit or consent to the submission of their work to an online service. Students are responsible for reading and deciding whether or not to agree to any applicable terms of use. Use of this software and service is voluntary. Students who do not consent to the use the software or service should identify themselves to the course instructor as soon as possible to discuss alternate modes of participation that do not require them to give copyright or the right to use their work to a third party.*

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**CLASS, LAB AND TUTORIAL SCHEDULE**

Section	Day	Time	Location	Instructor	E-mail
Lecture		3 hours		Yan Liu	Yan.liu@concordia.ca

**COURSE CALENDAR DESCRIPTION**

The course covers software testing process and software testing methods and techniques. Topics include overview of software process; software verification and software validation; inspection and reviews, pair programming, software version control, validating testing vs defect testing, test driven development, development testing (including unit testing, component testing and integration



testing), regression testing, acceptance testing, release testing, user testing, performance testing, software metrics for testing purpose, configuration management, introduction to formal method. One course project is required.

Students will develop skills to identify, formulate, analyze, and solve complex problems.

Moodle Course website: Check frequently the website for announcements, course material, assignments, projects etc. All the assignments, project deliverables must be submitted through the Moodle course website.

**PREREQUISITE**

COEN 6311 Software Process

**TEXTBOOK AND ADDITIONAL COURSE MATERIALS**

- Suggested Textbook:

Software testing and analysis : process, principles, and techniques by Mauro Pezzè, Michal Young, Publication year: 2008

- Instructor’s lecture notes: will be posted in Moodle course management site
- Software Use: IDE for Java with unit test, checkstyle tools, CI/CD tools, and code coverage tools.

**KNOWLEDGE BASE FOR ENGINEERING PREREQUISITES:**

Software process, software lifecycle, IDE, documentation, requirement analysis, design, implementation, testing, deployment, validation and verification

**GRADING POLICY**

Evaluation Tool	Weight
Four Individual Assignments	25%
Project + Presentation: Attendance is mandatory	30%
Quiz + Attendance	10%
Final Exam	35%
Total	100%

**Passing Criteria:**

- If your total score before the final exam is less than 40% and you decide to defer the final

exam, you will receive an **R** grade which prevents you to defer the final exam.

- In order to pass the class, both your cumulative score and the final examination must be above 50%

### Course Learning Outcome

- A. Knowledge of the software testing objectives, concepts, processes and methods. Be familiar with technologies applied at different phases of software testing.
- B. Knowledge of the software validation/verification techniques and methods. Be familiar with technologies available to support software validation and verification.
- C. Demonstrate skills in test case design and programming
- D. Demonstrate skills in using unit and integrated testing tools within a team work development
- E. Knowledge of code coverage and measurement. Be familiar with quality control tools of code style check and code coverage scan
- F. Knowledge of continuous integration and continuous deployment, test driven design principles
- G. Knowledge of different test types and their usages under agile development
- H. Recognize insufficiency of testing case design
- I. Introduction to formal methods

### Topics

- Review of software process and software test overview (Week 1)
- Framework and basic principles and test activities (Week 2)
- Functional and structural testing (Week 3)
- Model-based testing (Week 4)
- Test driven development, test case design, test coverage metrics (Week 5, 6)
- Unit testing, component testing, integration testing (Week 7, 8)
- Regression testing, release testing (Week 9, 10)
- User testing, acceptance testing, performance testing (Week 11)
- DevOps and continuous development/continuous integration (Week 12)
- Quality control methods and tools (Week 13)

### PROJECT

This project has two phases. In the first phase, a team based project guides students to build up one application and test the application within the team with an internal testing report. In the second phase, teams test each other's solution with an external testing report. Two reports are developed by team members. The original team should document the difference between two reports and finally identify insufficiency in the test cases and provide a solution to fix the test cases.

# ON CAMPUS RESOURCES

<p><b>HEALTH SERVICES</b></p> <p>An on-campus health clinic and health promotion center with nurses and doctors.</p> <p>SGW 514-848-2424 ext. 3565          LOY 514-848-2424 ext. 3575</p>	<p><b>COUNSELLING AND PSYCHOLOGICAL SERVICES</b></p> <p>Counsellors (licensed mental health professionals) work with students to address their mental health and wellbeing needs.</p> <p>SGW 514-848-2424 ext. 3545          LOY 514 848-2424 ext. 3555</p>
<p><b>ACCESS CENTRE FOR STUDENTS WITH DISABILITIES</b></p> <p>Supports students with a variety of disability conditions (including temporary disabilities arising from illness or injury). Students receive academic support for their educational experience at Concordia.</p> <p><a href="mailto:acsinfo@concordia.ca">acsinfo@concordia.ca</a> 514-848-2424 ext. 3525</p>	<p><b>SEXUAL ASSAULT RESOURCE CENTRE</b></p> <p>Provides confidential and non-judgemental support and services to students, staff and faculty of all genders and orientations affected by sexual violence and/or harassment.</p> <p>Jennifer Drummond, Coordinator  <a href="mailto:jennifer.drummond@concordia.ca">jennifer.drummond@concordia.ca</a> <a href="mailto:sarc@concordia.ca">sarc@concordia.ca</a>          514-848-2424 ext. 3353</p>
<p><b>STUDENT SUCCESS CENTRE</b></p> <p>Support network from first-year to graduation. You'll find one-on-one tutors, study groups, workshops as well as learning and career advisors</p> <p>514-848-2424, ext. 3921</p>	<p><b>DEAN OF STUDENTS</b></p> <p>Supports students to enhance their Concordia experience by engaging in student life outside the classroom.</p> <p>Terry Kyle, Manager  <a href="mailto:deanofstudents.office@concordia.ca">deanofstudents.office@concordia.ca</a> SGW 514-848-2424 ext. 3517          LOY 514-848-2424 ext. 4239</p>
<p><b>ABORIGINAL STUDENT RESOURCE CENTRE</b></p> <p>An on-campus resource for First Nations, Métis and Inuit students that helps them make the most of the many resources available at the university.</p> <p>Orenda Konwawennotion Boucher-Curotte, Coordinator  <a href="mailto:orenda.boucher@concordia.ca">orenda.boucher@concordia.ca</a> 514-848-2424 ext. 7327</p>	<p><b>INTERNATIONAL STUDENTS OFFICE</b></p> <p>Supporting international students with immigration documents, health insurance, social events, and workshops.</p> <p><a href="mailto:iso@concordia.ca">iso@concordia.ca</a>          514-848-2424 ext. 3515</p>
<p><b>STUDENT ADVOCACY OFFICE</b></p> <p>Advocating for students facing charges under the Academic Code of Conduct or the Code of Rights and Responsibilities.</p> <p><a href="mailto:studentadvocates@concordia.ca">studentadvocates@concordia.ca</a> 514-848-2424, ext. 3992</p>	<p><b>MULTI-FAITH &amp; SPIRITUALITY CENTRE</b></p> <p>Provides a home for all those wishing to celebrate the human spirit in the widest sense of the word, through programs, events and a quiet space for reflection.</p> <p>Ellie Hummel, Coordinator  <a href="mailto:mfsc@concordia.ca">mfsc@concordia.ca</a>          514-848-2424, ext. 3593</p>
<p><b>CAMPUS SECURITY</b></p> <p>Ensures the safety of our members and campus property through prevention, surveillance, intervention, training, and education. Provides emergency medical services.</p> <p><a href="mailto:security@concordia.ca">security@concordia.ca</a> 514-848-3717          (dial 1 for urgent situations; dial 2 for non-urgent situations)</p>	<p><b>CONCORDIA UNIVERSITY STUDENT PARENTS CENTRE</b></p> <p>An accessible space for student parents to study, share interests and develop a support network.</p> <p>Sumaiya Gangat, Coordinator  <a href="mailto:cusp@concordia.ca">cusp@concordia.ca</a>          514-848-2424, ext. 2431</p>

## ACADEMIC HONESTY AND CODE OF CONDUCT

Violation of the Academic Code of Conduct in any form will be severely dealt with. This includes copying (even with modifications) of program segments. You must demonstrate independent thought through your submitted work. The Academic Code of Conduct of Concordia University is available at: <http://www.concordia.ca/students/academic-integrity/offences.html>

*It is expected that during class discussions and in your written assignments you will communicate constructively and respectfully. Sexist, racist, homophobic, ageist, and ablest expressions will not be tolerated.*

## ADDENDUM

### ACADEMIC CONDUCT ISSUES THAT APPLY IN GENERAL The basic ten rules that make you a good engineer

The B. Eng. program is set to satisfy most of the requirements for your education and prepares you for a professional engineering career that requires dedication and knowledge. What you learn, and how you learn, will be used extensively in your engineering profession for the next 30 to 40 years. Therefore, the four years spent in the engineering program are crucial towards your professional formation. The first step is for you to learn to “think like an engineer” which means:

- accept responsibility for your own learning
- follow up on lecture material and homework
- learn *problem-solving skills*, not just how to solve each specific homework problem
- build a body of knowledge integrated throughout your program
- behave responsibly, ethically and professionally

One of the mainstays of being a professional engineer is a professional code of conduct and as an engineering student this starts with the Academic Code of Conduct (Article 16.3.14 of the undergraduate calendar). However, you may encounter situations that fall outside the norm and in such cases, you use your common sense.

Further, the following issues should be given serious consideration:

- 1) Attendance at lectures and tutorials are major learning opportunities and should not be missed. The labs represent a unique opportunity for you to acquire practical knowledge that you will need in your career. Class and tutorial attendance is important for you to comprehend the discipline and make the connections between engineering skills. You are strongly encouraged to participate in the class, ask questions and answer the instructor’s questions. Tutorials are just extensions of the classes in which application of the concepts presented during the lectures are presented and problems are practically solved.
- 2) The decision to write tests that are not mandatory is entirely yours. For example, midterm tests are often stated in many courses as optional. However, one of the objectives of midterms is to check on your comprehension of the material and allow time for whatever action is necessary (from more study time to discontinuing a course). Plan to attend the class tests even if they are not mandatory. If you pay attention in the lectures, it will take you significantly shorter time to comprehend the material. **Note also** that if you

are in the unfortunate position of being unable to write a final exam due to medical reasons and seek a deferral, this may not be possible if the instructor has no information indicating that you have been attending the course and assimilating the material (ie through midterms, quizzes, assignments etc).

- 3) Homework is usually mandatory and it has some weight in the final grade (such information is given in the course outline). Homework may also be conceived as training material for the class tests. Under all circumstances, it is highly recommended to carry out the home work on time and submit it on the prescribed date. Late submissions are not granted to individual cases regardless of the reason. This is part of the training for being in the workforce where deadlines have to be met. Please, plan your work such that you submit all the assignments and lab reports on time and in the correct place (not in the corridor or on the street!).
- 4) Office hours with tutors, lab instructors or class instructors are listed in the course outline/website/office doors. Please respect these office hours and in case you have a serious conflict, contact the instructor asking for a special time arrangement.
- 5) Class tests (midterms, quizzes) are returned to the student. The final exams are not. If you wish to see your exam paper, be aware that most instructors allow only a narrow window of time for that purpose. For the fall term, exams may usually be reviewed in January and May for the spring term.
- 6) When you see your marked work (assignments, midterms, final exam etc), be aware that you are supposed to review your material and see the type of errors you made and if marks have been added incorrectly. This is not an opportunity to try and “negotiate” a higher grade with the instructor. If you believe that your grade is not right, you may apply for a formal Course Reevaluation through the Birks Student Centre.
- 7) Writing tests and exams represents a major component of your course work. These tests and exams have rigorous requirements such as:
  - **No cell phone or other communication enabling tool is allowed on the student** during the examination period.
  - Only **specified faculty calculators** are allowed during tests and exams unless otherwise indicated by the instructor.
  - Usually, **no materials** are allowed in the exam unless otherwise announced.Get used to signing in and out of your exam. Make sure that you leave your exam papers with the invigilator. There are rules concerning general exam issues in the UG Calendar. These requirements are there to eliminate any possible misunderstanding and you are asked to **respect the rules**. Disciplinary measures are taken when the rules are not followed.
- 8) Respect your colleagues and those that you meet during the class: tutors, instructors, lab instructors, technical personnel, assistants, etc. Use appropriate communication means and language. Be considerate for all human beings. This includes small things such as turning off cell-phones before a class begins. Concordia University is a very diverse group of people and a very large multicultural community.
- 9) Communication is part of your future profession. Learn how to communicate effectively and efficiently in the shortest time possible. Write short but meaningful e-mails, make effective phone calls, etc. If your instructor accepts emails make sure that your request is clear with the course number and your name in the *Subject* line. Do not ask for special treatment as instructors have to treat all students equitably.
- 10) Respect all the above and you will get closer to your future profession.

**Concordia University**  
**Department of Electrical and Computer Engineering**  
**COEN 6841: Internet of Things**

**Course Outline**

**Potential Instructor:**

Dr. Rodolfo Coutinho (rodolfo.coutinho@concordia.ca)

**Web-page:**

Moodle

**Reference Texts:**

1. "Internet of Things: Architectures, Protocols and Standards", by Simone Cirani, Gianluigi Ferrari, Marco Picone, LucaVeltri, 2018, ISBN 1119359678.
2. "Internet of Things Programming Projects", by Colin Dow, 2018, ISBN 978-1-78913-480-3

**Description:**

*Prerequisite:* ELEC 6851

This course covers the paradigm change from the Internet and devices to IoT and IoT business models and applications, including health monitoring and smart cities. Moreover, it covers the IoT characteristics, constraints and requirements, protocols stack and contrast with the TCP/IP protocol stack. Other topics include physical, link and networking layer protocols. Moreover, it covers the message queueing telemetry transport (MQTT) and constrained application (CoAP) application layer protocols, and efficient XML interchange (EXI). The course provides an introduction to security threats and privacy in IoT systems, IoT analytics, platforms and tools. A project is required.

**Course Topics:**

1. From internet and devices to Internet of Things (IoT)
2. IoT business models and applications including health monitoring and smart cities
3. Devices and their connection including Wireless Sensor Networks (WSN)
4. IoT characteristics, constraints and requirements
5. IoT protocol stack and contrast with TCP/IP stack
6. Physical layer protocols including IEEE 802.15.4 PHY, LoRaWAN and NB-IoT
7. MAC Layer protocols including IEEE 802.15.4 MAC
8. Network Layer protocols including ZigBee NWK, 6LoWPAN and RPL

9. Application layer protocols including ZigBee APL, Message Queuing Telemetry Transport (MQTT) and Constrained Application Protocol (CoAP)
10. Efficient XML Exchange (EXI)
11. Introduction to security threats in IoT
12. Introduction to IoT analytics
13. Introduction IoT design platforms and tools

**Grading Scheme:**

- Homework (Theory and Programming) Assignments: 10%
- Midterm exam: 25%
- Project/report: 20% [Presentation and demos scheduled for Week 13]
- Final project: 45%

**Plagiarism:**

You are subject to Concordia's Academic Code of Conduct. Learn more at <http://provost.concordia.ca/academicintegrity> All assignments and project reports must comply with the requirements of the "Expectations of Originality" form. This form concerns the issue of academic integrity. The students must read and fill out one copy of the form and submit it to the instructor by the first week of the course. Furthermore, the students are strongly encouraged to visit the following web page: <http://www.concordia.ca/students/academic-integrity.html>

Course number	Course Title	Term
ELEC 6031	<b>Fault Tolerance and Resilience of Cyber-Physical Systems</b>	

Course Instructors	Office	E-Mail	Office Hours
Dr. K. Khorasani Dr. R. Selmic	EV12-113 EV5-169	<a href="mailto:kash@ece.concordia.ca">kash@ece.concordia.ca</a> <a href="mailto:rastko.selmic@concordia.ca">rastko.selmic@concordia.ca</a>	

### COURSE OBJECTIVES

This course deals with the fundamental principles of fault tolerance and resilience control for cyber-physical systems (CPS). Interest in fault-tolerant and resilient control has been growing at a rapid rate over the past decade with numerous demonstrated applications to a large number of industrial problems. This course provides background, fundamental concepts and theories, in-depth training and the latest information for students planning to work in this evolving field with significant industrial interest. This course covers an overview of different techniques for constructing reliable and resilient control systems. It deals with the underlying mathematical theory, analysis, and design of fault- and attack-tolerant systems.

### TEXTBOOK AND ADDITIONAL COURSE MATERIALS

- ***Required textbooks:*** Fault-tolerant Control Systems, Noura, H., Theilliol, D., Ponsart, J.-C., Chamseddine, A., 2009.
- Fault-Diagnosis Systems, An Introduction from Fault Detection to Fault Tolerance, Rolf Isermann, 2006.
- Cyber-Physical Systems: Foundations, Principles and Applications (A volume in Intelligent Data-Centric Systems), 2017.
- Cyber-Physical Systems: From Theory to Practice, edited by Danda B. Rawat, Joel J.P.C. Rodrigues, Ivan Stojmenovic, 2016.
- *Instructor's lecture notes:* will be posted in Moodle course management site
- *Software Use:* Matlab

### GRADING POLICY

Evaluation Tool	Weight
Midterm	20%
Final	30%
Project	40%
Assignment	10%
Total	100%



**COURSE LEARNING OUTCOMES (CLOS)**

*By the end of this course students will be able to:*

(a) An ability to design and conduct experiments, as well as to analyze and interpret data. Students would be able to design controllers to achieve certain specific goals. (b) An ability to learn by self-study, to integrate knowledge into one's overall education, and to engage in life-long learning. Every technical professional must be able to learn independently. For example, some instruction would be given on how one can pick out and summarize the important points in a chapter in a textbook. Then students are responsible for certain material on an exam, without that material being lectured on. (c) An ability to function on a team. (d) An ability to communicate effectively. It is expected that the students prepare an acceptable written project report. (e) An ability to design a system, component, or process to meet desired needs. This includes instruction on the design processes appropriate for the systems under investigation.

**TENTATIVE COURSE OUTLINE**

<b>Topics</b>	<b>Week</b>
Model-based Techniques for Fault Diagnosis	1-2
Observers for Linear Systems with Unknown Inputs	3
Fault-Detection and Isolation Schemes	4
Reliable System Design	5
Control Over Packet-Dropping Channel	6
Information Dissemination in Distributed Systems and Networks	7
Structured System Theory	8-9
Networked Control Systems	10
Multi-agent Systems	11
Vulnerability of Large-Scale Complex Systems	12
Applications to Smart Grid, Autonomous Systems, Next-gen Transportation Systems	13

## **TERM PROJECT**

Applications topics that can be used for the term project include diverse cyber-physical systems such as smart buildings and grid, transportation, manufacturing, agriculture and energy systems. The project will be conducted in a team of two students. For the selected target application, students need to perform a number of tasks. All the teams are expected to complete a set of general requirements and expectation list of tasks. This list will be provided and distributed in Moodle. The project requires a written report from each team. The report should provide sufficient details regarding the design procedure, validation, verification, and evaluation through simulations and analysis. All the details corresponding to these may be included in an Appendix to ensure readability of the report. The main body of the report should address only main observations, results, and discussions. Only ONE report is to be handed in by each group.

Department of Electrical & Computer Engineering  
Concordia University

## ELEC 6191: Wireless Sensor and Actuator Networks Winter 2022

**Lectures:** TBD

**Instructors:** Dr. Rastko Selmic ([rastko.selmic@concordia.ca](mailto:rastko.selmic@concordia.ca))  
Dr. Rodolfo Coutinho ([rodolfo.coutinho@concordia.ca](mailto:rodolfo.coutinho@concordia.ca))

**Office Hours:** TBD

**Teaching Assist.:** TBD

**URL:** <http://users.encs.concordia.ca/~rselmic/teaching/coenxxxx>

### **Description:**

This course covers wireless sensor and actuator networks (WSAN) platforms in different domains including underwater, ground, and aerial networks. It covers sensors, actuators, and other hardware components in WSANs. Other topics include graph theory, connectivity and coverage, time synchronization and localization, power management, WSAN protocols, and quality of service (QoS). The course provides overview of simulation tools relevant to WSANs. A project is required.

### **Topics:**

Lecture 1 (RC): WSAN platforms in different domains

Lecture 2, 3 (RS): Sensors, actuators, and other hardware components

Lecture 4, 5 (RS): Graph theory

Lecture 6 (RS): Connectivity and coverage in WSAN

Lecture 7 (RS): Time synchronization and localization

Lecture 8 (RC): Power management

Lecture 9, 10 (RC): WSAN protocols

Lecture 11 (RC): QoS

Lecture 12 (RC): WSAN simulators

Lecture 13: Project presentations

**Prerequisites:** ELEC 6851 or an approval by the instructor.

**Reference Texts:**

1. I. F. Akyildiz and M. C. Vuran, *Wireless Sensor Networks*, Wiley, 2010.
2. R. Semic, V. Phoha, and A. Serwadda, *Wireless Sensor Networks: Security, Coverage, and Localization*, Springer, 2016.
3. M. Mesbahi and M. Egerstedt, *Graph Theoretic Methods for Multiagent Networks*, Princeton University Press, Princeton, NJ, 2010.

**Other Course Material:**

Homework and reading assignments will be distributed either during the lectures in classroom or posted on the course website.

**Grading Scheme:**

Each student will be awarded a letter grade based on the following weighting of grades:

- Homework: 15%
- Project and presentation: 35%
- Final Exam: 50%

**Homework:**

Homework will provide hands-on experiences related to the theoretical concepts covered in the class. Homework should be submitted before the start of the lectures. No late homework will be accepted.

**Final project and presentation:**

The final project will be assigned in class that will include simulation of a WSN. The project proposal is due on (TBA). Based on the project results, students will write a report in IEEE format and present it in class. The project report is due on (TBA). The report should be 4 pages long, double column, following the strict IEEE formatting standard including references.

**Expectations of Originality Form:**

The students are required to review, complete, and submit the Expectations of Originality form:

<https://www.concordia.ca/encs/students/sas/expectation-originality.html>

**Concordia University**  
**Department of Electrical and Computer Engineering**  
**Fall 2021-2022: Course outline**

## **ELEC 6291: Radiation Detectors for Medical Imaging**

**Instructor:** Dr. M. Z. Kabir  
Office S-EV 16.183;  
E-mail: kabir@ece.concordia.ca; <http://www.encs.concordia.ca/~kabir>  
Office hours:

**Course Web site:** <https://users.encs.concordia.ca/~kabir/ELEC691R.htm>

**Lectures:**

**Course Contents:**

This course covers ionizing radiation and its sources; interactions of ionizing radiation with matter; principles and types of radiation detectors; semiconductor radiation detectors; X-ray imaging modalities and Flat-panel image sensors; photoconductor requirements; image quality metrics and cascaded system model; noise in imaging sensors and detective quantum efficiency; imaging detectors for nuclear medicine. A project is required.

**Background Knowledge:** Basic understanding on atomic structures and semiconductor materials.

**Required Materials:**

- (1) Lecture notes
- (2) Text book: G. F. Knoll, *Radiation detection and measurement*, 4<sup>th</sup> edition (Publisher: Wiley, 2010, ISBN 978-0470131480)

**References:**

- (1) J. T. Bushberg, J. A. Seibert, E. M. Leidholdt Jr., J. M. Boone, *The Essential Physics of Medical Imaging*, 3<sup>rd</sup> edition (Publisher: Lippincott Williams & Wilkins, 2012, ISBN 978-0781780575)
- (2) J. Beutel et al., *Handbook of medical imaging*, vol. 1 (Publisher: SPIE press, 2000, ISBN 978-0-8194-3621-6)

**Learning outcomes:**

Upon successful completion of this course:

1. Students will learn the fundamental sciences on sources and interactions of ionizing radiations (X-rays, gamma rays, alpha and beta particles etc.) with matter.
2. They will learn the principles and types of various radiation detection schemes, and required photoconductor properties for various imaging detectors.
3. They will learn principles of imaging science, diagnostic imaging modalities and metrics of image quality.

4. They will get the state-of-the-art on diagnostic medical imaging (e.g., using X-rays) sensors and imaging detectors for nuclear medicine.
5. Students will be able to design an imaging detector based on specifications and application, and be able to analyze various imaging performances of their design.

**Detailed course Syllabus:**

1. *Radiation*: ionizing and nonionizing radiations, sources of electromagnetic (X-rays and  $\gamma$ -rays) and particulate radiation (electron, neutron, alpha and beta particles) and their interactions with matter, photoelectric effect, attenuations of X-rays and  $\gamma$ -rays and radiation doses (Text Ch 1 & 3, and Ref. 1)
2. *Counting statistics*: Characterization of data, review of statistical models (binomial, Poisson and normal distributions) and their applications (Text Ch 3)
3. *Principles and types of radiation detectors*: modes of detector operation, pulse height spectra, energy resolution, Gas-filled and Scintillator detectors (Text Ch 4 & 8, Ref. 1)
4. *Semiconductor detectors*: pn, pin and Schottky junction photodiodes, avalanche photodiode, photoconductive detectors, Ramo’s theorem and signal formation mechanism, vertical, coplanar and Frisch grid detectors (Text Ch 11 & 13)
5. *X-ray imaging technologies and Flat-panel image sensors*: X-ray tubes, Active-matrix arrays, direct and indirect conversion detectors, pixelated detectors, energy integration versus photon counting detectors, Photoconductor requirements, and design of detectors for general radiography, mammography, and fluoroscopy. (Refs. 2)
6. *Image quality*: X-ray sensitivity, modulation transfer function (MTF), cascaded system model, noises in digital imaging sensors, signal and noise propagations, and detective quantum efficiency (DQE) (Refs. 1 & 2)
7. *Nuclear medicine Imaging detectors*: gamma camera, silicon photomultiplier, and CdZnTe pixelated detectors (Text Ch 9, Refs. 1 and 2) for SPECT and PET.

**Tentative timetable:**

Weeks	Course materials	Reading
Week 1 & 2	1. Various radiation sources and their interaction with matter	Text Ch 1 & 3, and Ref. 1
Week 3	2. Counting statistics and their applications in radiation detectors	Text Ch 3

Week 4	3. Principles and types of radiation detectors	Text Ch 4 & 8, Ref. 1
Week 5 & 6	4. Semiconductor radiation detectors, their types and applications	Text Ch 11 & 13
Week 7, 8 & 9	5. X-ray imaging technologies and Flat panel image sensors	Refs. 1 & 2
Week 10 & 11	6. Image quality assessments: Sensitivity, MTF, DQE, noise	Refs. 1 & 2
Week 12	7. Nuclear medicine Imaging detectors	(Text Ch 9, Refs. 1 and 2)

### Grading Scheme (tentative)

Project	30 %
Assignments	20 %
Midterm exam (closed book)	20 %
Final exam (closed book)	30 %

**Project (Individual or a group of two students):** Students will have to do a design project. They have to select appropriate photoconductor material and design for an imaging detector based on required specifications and application. They will have to analyse the imaging performances of their detector design. They need to perform analytical and/or numerical simulation using MATLAB or other suitable software. They will have to present the project and submit a report. The report should include the justifications of the particular design and results of performance analysis.

**Assignment:** Assignments are compulsory. They have to submit approximately 6/7 assignments. Approximately half of the assignments are conventional design and problem solving types, and the other half are research-type. For the research type assignments, they will be given research papers, and a few specific problems and questions will be asked based on the paper. Assignments and their submission deadlines will be announced in the class.

**Midterm exam: This is closed book exam.** Students are permitted to bring one 8.5" × 11" sheet of notes. They can use one side. Notes must be hand written (original).

**Final exam: *The final exam will be closed book.*** Students are permitted to bring one 8.5" × 11" sheet of notes. They can use both sides. Notes must be hand written (original).

### Office hours:

Office hours are provided for any extra help. If anyone finds the time schedule inconvenient, he/she should contact the instructor for getting an appointment.

## **Expectations of originality and Professionalism:**

One important component of professionalism is academic integrity. Please pay attention to [academic integrity](#). The copying of materials from anywhere (internet, books, labs and assignments of other students) is not permitted, and is deemed a serious academic offence. *Plagiarism* is a common form of academic misconduct. There are many other forms of academic misconducts. Please consult Concordia Website for detailed descriptions of academic misconducts.

<http://www.concordia.ca/students/academic-integrity.html>

Cheating is a serious offence. You must abide by the [Academic Code of Conduct](#) as described in the University Calendar. *Any suspected violation of the Code will be reported* to the Associate Dean for investigation. Penalties can be as severe as dismissal from the University.

- 1. Submit the expectations of originality form with your signature, full name, ID #, and date and attach with your first assignment.**
- 2. Write “I certify that this submission is my original work and meets the faculty’s Expectations of originality” with your signature, full name, ID #, and date in all other assignments.**



**Department of Electrical and Computer Engineering  
Concordia University**

**ELEC6821 - Network Security and Management**

**COURSE OUTLINE**

**Instructor:**

TBD

Office Hours: TBD

Class Time and Location: TBD

**Books:**

*Network Security Essentials: Applications and Standards, 6th edition, W. Stallings*

*Cryptography and network security: Principles and Practice, 8th edition, W. Stallings*

*Network Management: Principles and Practice, 2nd edition, Mani Subramanian*

*SNMP, SNMPv2, SNMPv3 and RMON 1 and 2, 3rd edition, W. Stallings*

**Course Website:** Moodle course website

**Course Schedule (Tentative)**

Week	Topics
1	Internetworking: issues, architectures, protocol standards
2	Access Control: Firewalls
3	Principles of cryptography
4	Authentication
5	Message Integrity, Key distribution and certification
6	Attacks and Counter Measures
7	Secure E-mail and SSL, VPN, Network Layer Security, Securing wireless LANs
8	Distributed Network Security Using Decentralized Ledger Techniques
9	Network Management: issues, architectures and protocols
10	Abstract Syntax Notation One (ASN.1)
11	Management Information Base (MIB), SNMP
12	Emerging Trends: Cloud-based Networks, Distributed Sensor Networks
13	Emerging Trends: Federated Management of Networks

**Grading Scheme:**

Assignment	10%
Midterm1	30%
Midterm2	30%
Project	30%

# ENCS 6201 ETHICS & PROFESSIONALISM

## INTRODUCTION

This course will introduce students to the wide spectrum of professional responsibilities that guide the practice of engineers. In our contemporary world, engineers practice as professionals. Being a professional entails that individuals adhere to a body of laws called the Code of Engineers or the Professional Code. This code requires the professional to abide by different provisions that deal with duties and obligations to society. At the heart of this legal context are professional values of honesty, responsibility, trust, loyalty, and dignity. Students will be introduced to these professional values. In this class we shall understand professionalism, professional values, the engineering code and ethical practice of engineers with special reference to Québec and Canada.

Learning Objectives of this course are:

1. Understand what is entailed by a professional order and by professionalism.
2. Comprehend the utility of ethical frameworks in thinking through moral questions.
3. Gain familiarity with professional values, duties and obligations of engineers.
4. Become aware about the legal dimensions of professional practice.

**RECOMMENDED TEXT: *Engineer's Toolkit - A First Course in Engineering: Engineering Ethics* by Carl Mitcham and R Shannon Duval, 2008, Pearson.**

## CLASSROOM RULES

***Academic Integrity*** - The work students complete for this course will be their own, which is to say that cheating, plagiarism, and other forms of academic dishonesty will not be tolerated. Any written assignment that borrows from other sources without giving proper credit or that is plagiarized in whole or in part from another source (including other student's work) is grounds for an "F" on the assignment, or depending on the severity of the infraction, is grounds for an "F" in the course. Concordia University recognizes as a punishable offence "any form of cheating, plagiarism, personation, falsification of a document as well as any other form of dishonest behaviour related to the obtention of academic gain or the avoidance of evaluative exercises" (Code of Academic Conduct, Section 16.3.14, Paragraph III). For questions about the University's policy on cheating and plagiarism, please consult <https://www.concordia.ca/conduct/academic-integrity/plagiarism.html>

***Academic Support*** - The university acknowledges that students have diverse education needs. The university tries to accommodate a wide variety of such needs. Please do not hesitate to contact the following if you think you have a special need:

- Student Advocacy Office <https://www.concordia.ca/offices/advocacy.html>
- Student Success Centre <http://www.concordia.ca/students/success.html>
- Counselling and Psychological services <http://www.concordia.ca/students/counselling.html>
- New Student Program <http://www.concordia.ca/students/success/new.html>
- Access Centre for Students with Disabilities <http://www.concordia.ca/students/accessibility.html>
- Writing Assistance Program - <http://www.concordia.ca/students/success/learning-support/writing-assistance.html>

**SCHOOL OF GRADUATE STUDIES**

**MEMO TO:** Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning

**FROM:** Rachel Berger, Associate Dean, Academic Programs and Development  
School of Graduate Studies

**DATE:** September 30, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (ENCS-108)  
(CALENDAR – 2021/2022)  
DEPARTMENT OF CHEMICAL AND MATERIALS ENGINEERING  
GINA CODY SCHOOL OF ENGINEERING AND COMPUTER SCIENCE**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Gina Cody School of Engineering and Computer Science.

The Department of Chemical and Materials Engineering is proposing to add the Graduate Diploma in Chemical Engineering to the 'Note' of ENCS 6721 *Technical Writing and Research Methods for Scientists and Engineers*, thereby permitting students in the Graduate Diploma in Chemical Engineering to take the course for credit.

The GCC approved the curriculum changes with minor modifications. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.

cc: E. Shihab, Associate Dean, Graduate Programs and Research, Gina Cody School of Engineering and Computer Science  
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs

**INTERNAL MEMORANDUM**

**TO:** Dr. R. Berger  
Chair, Graduate Curriculum Committee  
School of Graduate Studies

**FROM:** Dr. E. Shihab  
Associate Dean, Graduate Programs and Research  
Faculty of Engineering and Computer Science

**CC:** Kristy Clarke  
Academic Programs and Development  
School of Graduate Studies

**DATE:** September 2, 2021

**RE:** **Graduate Curriculum Proposal for the 2022-23 Academic Year (ENCS-108)**  
**Gina Cody Council of Engineering and Computer Science**

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At its meeting on May 14, 2021, the Faculty Council of the Gina Cody School of Engineering and Computer Science reviewed and approved, as presented, the graduate curriculum changes proposed by the Department of Chemical and Materials Engineering (CME). Namely, the addition of the *Graduate Diploma in Chemical Engineering* to the **Note** of *ENCS 6721 Technical Writing and Research Methods for Scientists and Engineers*, allowing students in the Graduate Diploma in Chemical Engineering to take the course for credit.

No additional resources are required for these changes.

Details of the curriculum changes are indicated and explained in the internal memorandums and in the ENCS-108 dossier.

Thank you for your consideration of this proposal.

**INTERNAL MEMORANDUM**

**TO:** Dr. M. Debbabi  
Chair of the School Council  
Gina Cody School of Engineering and Computer Science

**FROM:** Dr. E. Shihab  
Associate Dean, Graduate Programs and Research  
Gina Cody School of Engineering and Computer Science

**DATE:** April 27, 2021

**RE:** **Graduate Curriculum Proposal for the 2022-23 Academic Year (ENCS-106)**  
**Departments of CES and Chemical and Materials Engineering (CME)**

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At its virtual meeting on April 26, 2021, the Gina Cody School Graduate Studies Committee (GCSGSC) reviewed and approved, with some corrections, the changes to the note of *ENCS 6721 Technical Writing and Research Methods for Scientists and Engineers*, allowing students in the Graduate Diploma in Chemical Engineering to take the course for credit.

Details of the proposed changes are indicated and explained in the Department's internal memorandum and in the ENCS-108 dossier.

We kindly request that this package be placed on the next agenda of the GCS Faculty Council for approval.

Thank you for your consideration of this proposal.

**Internal Memorandum**  
**Centre for Engineering in Society**

**To:** Dr. Emad Shihab, Associate Dean, Research and Graduate Programs  
**From:** Dr. Govind Gopakumar, Chair, Centre for Engineering in Society (CES)  
**CC:** Dr. Alex De Visscher, Chair, Chemical and Materials Engineering (CME)  
**Date:** April 12, 2021  
**Subject:** **Exception for Graduate Diploma in Chemical Engineering**

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On the basis of a request from CME, the CES Curriculum Committee wishes to propose an amendment to the calendar description for **ENCS 6721 Technical Writing and Research Methods for Scientists and Engineers** to allow students registered in the Graduate Diploma in Chemical Engineering to take this course for program credit.

Since the expected number of students in the Graduate Diploma in Chemical Engineering will not result in exceeding current capacity limits of the class, we do not anticipate any resource implications from this change.

The calendar description is attached.

We request that you consider this amendment for approval in the Graduate Curriculum Committee, and if granted, move it through the appropriate channels for inclusion in the graduate calendar.

**COURSE CHANGE:** ENCS 6721      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** May 2022

**Faculty/School:** Gina Cody School of Engineering and Computer Science  
**Department:** Chemical and Materials Engineering  
**Program:** Chemical Engineering  
**Degree:** Diploma  
**Calendar Section/Graduate Page Number:** Engineering Course Descriptions

**Type of Change:**

- Course Number                       Course Title                       Credit Value                       Prerequisite  
 Course Description                       Editorial                       New Course  
 Course Deletion                       Other - Specify: Exclusion note

Present Text (from 2021/2022) calendar	Proposed Text
<p><b>ENCS 6721 Technical Writing and Research Methods for Scientists and Engineers</b> (3 credits)                      This course provides graduate students with the research writing and presentation skills that are essential in academic and professional contexts. Students develop expertise and confidence in research methods, critical reading, crafting thesis statements, leading and participating in discussions, revision/editing and peer review, maintaining research dossiers and report writing.</p> <p><b>Note:</b> This course cannot be taken within the credit requirements of any graduate Engineering and Computer Science program, with the exception of the Diploma in Computer Science, the Master of Engineering and the Master of Applied Computer Science. <del>Students who have taken ENCS 591B (Technical Writing and Research Methods) may not take this course for credit.</del></p>	<p><b>ENCS 6721 Technical Writing and Research Methods for Scientists and Engineers</b> (3 credits)                      This course provides graduate students with the research writing and presentation skills that are essential in academic and professional contexts. Students develop expertise and confidence in research methods, critical reading, crafting thesis statements, leading and participating in discussions, revision/editing and peer review, maintaining research dossiers and report writing.</p> <p><b>Note:</b> This course cannot be taken within the credit requirements of any graduate Engineering and Computer Science program, with the exception of the Diploma in Computer Science, <a href="#">Graduate Diploma in Chemical Engineering</a>, the Master of Engineering and the Master of Applied Computer Science.</p>
<p><b>Rationale:</b>                      The proposed change will allow students registered in the Graduate Diploma in Chemical Engineering to take this course for program credit. In addition, there are no students admitted prior to 2008 who are still in the programs.</p>	
<p><b>Resource Implications:</b>                      None.</p>	
<p><b>Other Programs within which course is listed:</b>                      None.</p>	

If you have any special needs please contact me to discuss your situation.

## ASSIGNMENTS

1. Quizzes (2 ×25% of your grade): There will be **two** in-class quizzes in the semester. These quizzes will try to test your grasp of key concepts, your ability to analyze and your familiarity with the readings.
2. Final examination (50% of your grade): The final examination for the course will cover the entire portions taught in the term.

## COURSE PLAN

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### **Week 1: Introduction**

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Course Introduction

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### **Week 2: What is a Profession?**

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Lecture: Lesson 1 Professional Systems

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### **Week 3: Professional System in Quebec**

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Lecture: Lesson 2 Professional Systems

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### **Week 4: What are Ethics?**

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Lecture: Lesson 3 Ethics of Engineering

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### **Week 5: Ethical Reasoning**

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Lecture: Lesson 4 Ethics of Engineering

Quiz 1 Readings Lessons 1, 2, 3 & 4

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### **Week 6: Ethics & Institutions**

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Lecture: Lesson 5 Ethics of Engineering

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### **Week 7: Ethics & Professional Life: Loyalty & Trust**

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Lecture: Lesson 6 Professional Duties of the Engineer

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**Week 8: Duties to the Profession**

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Lecture: Lesson 7 Professional Duties of the Engineer

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**Week 9: Duties toward the Public**

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Lecture: Lesson 8 Professional Duties of the Engineer

Quiz 2

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**Week 10: Legal Issues**

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Lecture: Lesson 9 Legal Dimensions of Professional Practice

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**Week 11: Responsibility & Liability**

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Lecture: Lesson 10 Legal Dimensions of Professional Practice

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**Week 12: Issues in Professional Practice**

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Lecture: Lesson 11 Responsibility and risk in Professional Practice

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**Week 13: Review**

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**LIBRARY****REPORT TO SENATE  
FROM THE  
LIBRARY COMMITTEE**

(Senate Meeting – December 10<sup>th</sup>, 2021)

The first meeting of the LC for the academic year was held on November 1, 2021.

Library Budget and Collections Update (Presentation by Guylaine Beaudry & Pat Riva)

Dr. Beaudry and Pat Riva reported on the Library and Collections budget for 2020/21 and the current year 2021/22. A major focus area in 2020/21 was the acquisition of streaming media to meet teaching needs in a remote learning environment. The library acquired 733 individual titles, almost triple the total ever acquired up to April 2020 of 258, for a cost of \$178,909. In 2021/22 to date 127 titles have been acquired. On the Library's streaming server, Medial, 530 films were viewed 33,013 times (9,167 of these complete plays). The Library added access to 51,486 films through ten new platforms, to complement the 28,604 films already available through another ten platforms. The acquisition of streaming media represented some \$400,000 of the overall \$7.7M budget for Library Collections. In contrast to previous years, ebook packages and individual titles represented 14% of the collections purchasing, while print books were only 3%. Just a few years ago these two categories were approximately the same. Overall, online resources comprise 94% of the Collections spending. Funds available for the 2021/22 Collections budget are estimated at \$7.36M. For the future, the Library has examined additional budget required to fully support the School of Health, as well as identifying digitized archival resources to increase support for Indigenous Studies.

The Library is part of the Partenariat des bibliothèques universitaires du Québec through which the shared catalogue Sofia was implemented in summer 2020. The Partnership also includes collaboration on GeoIndex for geospatial data, and Dataverse for research data management. Upcoming collaborative projects include shared preservation of print collections, supporting university press open access ebooks and Open Educational Resources (textbooks). The renovation of the Vanier Library is still in the University's capital projects list at the funding stage.

*Respectfully submitted,  
Dr. Guylaine Beaudry  
University Librarian  
November 24, 2021*



**ACADEMIC PROGRAMS COMMITTEE  
REPORT TO SENATE (2/2)  
Sandra Gabriele, PhD  
December 10, 2021**

**The Academic Programs Committee requests that Senate consider the following changes for the Undergraduate and Graduate Calendars.**

Following approval of the Faculty Councils, APC members reviewed the undergraduate and graduate curriculum submissions listed below. As a result of discussions, APC resolved that the following curriculum proposals be forwarded to Senate for approval:

**Undergraduate proposals for the Fall 2022-23 Calendar**

**Faculty of Arts and Science**

Department of Mathematics and Statistics

MATH-33; APC-2021-7-D7 (For September 2022 Implementation)

*[The proposal involves the introduction of a new Minor in Quantitative Finance and Insurance, focussed on the development of quantitative skills in the insurance and financial sectors.]*

- New Program: Minor in Quantitative Finance and Insurance
- Requirements
- Courses

A handwritten signature in black ink that reads "S. Gabriele".

Sandra Gabriele, PhD  
Vice-Provost, Innovation in Teaching and Learning November 22, 2021

**INTERNAL MEMORANDUM**

**TO:** Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Office of the Provost and Vice-President, Academic Affairs  
Chair, Academic Programs Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 28, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Proposal  
Mathematics and Statistics (MATH-33)

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The following proposal was presented under ASFC-2021-6M-E and approved at the Arts and Science Faculty Council meeting of October 22, 2021. We request that this proposal be reviewed at the next meeting of the Academic Programs Committee.

The resource implications pertaining to this dossier were reviewed and approved prior to presentation at Council. As this dossier had not been submitted as a formal Letter of Intent, the Office of the Provost provided an *exceptional* approval to our request, so that this proposal could be seen as a regular dossier. The memo from the Vice-Provost, Innovation in Teaching and Learning, including the related recommendations, is attached as a supporting document.



## INTERNAL MEMORANDUM

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 6, 2021

**SUBJECT:** 2022-23 Undergraduate Calendar Curriculum Changes  
Department of Mathematics and Statistics  
**MATH-33**  
New Minor in Quantitative Finance and Insurance; new course MATH 336

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The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

The **Department of Mathematics and Statistics** is proposing a new Minor in Quantitative Finance and Insurance. The department recognizes the increasing importance and relevance of quantitative skills in insurance and financial sectors in current economies. As these sectors continue to become more complex students need a wider breadth of technical and quantitative skills to succeed. Students are often unaware of which courses offered at the University will help them achieve these complementary skills. Students in the Minor in Quantitative Finance and Insurance students will be provided with training in fundamental mathematical theories and applied topics that are specific to quantitative finance and insurance.

It is anticipated that many interested students will come from the John Molson School of Business (JMSB) and this minor was created in collaboration with the Finance Department (JMSB). In addition, prospective students could come from Economics and Political Science. The department has designed the minor so that students can complete the program without completing any additional requirements.

Additionally, the department is proposing a new course, MAST 336 *Insurance Mathematics* which will be added to both the Minor in Quantitative Finance and Insurance (core) as well as the existing Minor in Mathematics and Statistics (elective). This course concerns life and property insurance applications of mathematical methods.

In sum, the Department managed to coordinate this new minor without garnering major new resources. Thus, the resource implications pertaining to this proposal is the addition of one section (3 credits) for MAST 336 *Insurance Mathematics*, which has been factored in. Also, this new minor utilizes the course MACF 301 *Introduction to Quantitative Finance* which is proposed under MATH-34 (new course added to actuarial programs).

Thank you for your consideration of this proposal.

*Reference documents:*  
*FCC 2020.11-MATH-33*

## Department of Mathematics and Statistics

### MATH-33

#### **Memo from Chair**

#### **New Minor**

Minor in Quantitative Finance and Insurance

#### **New course**

MAST 336    *Insurance Mathematics*

## INTERNAL MEMORANDUM

**TO:** Richard Courtemanche, Associate Dean, Academic Programs, Faculty of Arts and Science

**FROM:** Cody Hyndman, Chair, Department of Mathematics and Statistics

**DATE:** October 6, 2021 (revised)  
March 10, 2021

**SUBJECT:** Minor in Quantitative Finance and Insurance

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Dear Dr. Courtemanche,

The Department of Mathematics and Statistics submits for consideration a proposal for a Minor in Quantitative Finance and Insurance. The insurance and financial sectors are very important in modern economies. These sectors continue to increase in complexity and newly graduating students need a larger breadth of technical and quantitative skills to be successful. However, despite the growing necessity of these quantitative skillsets in the insurance and financial sector, this program provides students in relevant undergraduate programs with the opportunity to take complementary quantitative courses to acquire these skillsets. The Minor also leverages the expertise of our faculty members, reputation, and existing programs in Actuarial Mathematics and Mathematical and Computational Finance.

Thus the Department of Mathematics and Statistics proposes the creation of a Minor in Quantitative Finance and Insurance. The Minor aims to provide training in fundamental mathematical theory, and applied content specific to quantitative finance and insurance for students who are pursuing a Major or Specialization outside of the Department of Mathematics and Statistics. Students pursuing a Finance degree from JMSB, as well as related disciplines including Management (JMSB), Economics (JMSB, and FAS), and Political Science (FAS) are the target audience.

As prospective students for this Minor can be from all departments and faculties across the university, we have designed these new options purposefully so that a student can complete the programs without any additional pre-requisites beyond MATH 203, 204 and 205. Nevertheless,



we believe the largest pool of prospective students will be from JMSB; thus this proposal was created in collaboration with Dr. Imants Paeglis (Chair, Finance Department, JMSB). The minimum mathematics prerequisites for students entering JMSB are MATH 208 and 209, and these courses are not sufficient for this Minor. However, we have verified with Dr. Jooseop Lim, the Associate Dean of Academic and Student Affairs, Undergraduate Programs, that in July of this year, approximately 600 of 1700 new entrants had completed the equivalent of MATH 203, 204 and 205, which are the required prerequisites. Dr. Lim and the current Chair of Finance, Dr. David Newton, strongly support this Minor and believe many students will take it, even though under current JMSB regulations they would have to exceed the 90 credits required for the degree by 6 credits. Through our consultations with JMSB, we have also learned that they are currently reviewing and revising their curriculum. We note that there is a need to consider a shorter program structure for JMSB students so that they could fit the minor into their program requirements. This may be proposed at a later date, in consultation with JMSB, and taking their new program structure into consideration once it has been finalized.

Students will receive training in the quantitative methods used by insurers and financial institutions. Concurrently, these students will develop mathematical skills necessary to understand the financial and insurance sector. This proposal primarily utilizes existing courses already offered for students in the Major of Mathematics and Statistics. Only one new course (and therefore one new course section) will be needed for the purposes of implementing this proposal. Thus students will receive training from well-established courses and the additional resource implications for this proposal are minimal. The new course will also provide an additional opportunity for students in our existing Minor in Mathematics and Statistics. Over time, as more students are attracted to this new Minor, we foresee the need to add 2 to 3 sections of existing courses.

Although undergraduate programs in financial mathematics already exist in Canada and the U.S., this Minor in Quantitative Finance and Insurance is intended for students who are pursuing an undergraduate degree outside of the Department of Mathematics and Statistics (such as Economics, or Business Administration). As the expectations of the minimum mathematics background will differ widely between these two student audiences, this Minor will provide a more general overview of the relevant topics, and will be the only one of its kind offered in Canada. The proposal was approved by the Department's Undergraduate Curriculum Committee on February 22, 2021, and approved by Department Council on March 8, 2021.

With the introduction of the new course MAST 336 in the proposed Minor in Quantitative Finance and Insurance (Dossier MATH-33), it makes sense to also allow this course to students in our existing Minor in Mathematics and Statistics. The proposal to make this change to our existing Minor program was also approved by the Department's Undergraduate Curriculum Committee on February 22, 2021, and approved by Department Council on March 8, 2021 (see MATH-37).

Lastly, another relevant dossier to this proposal is MATH-36, which requests some prerequisite modifications for two courses mentioned in this dossier (MACF 401 and MACF 402). The prerequisites for these courses in this dossier have been updated to be consistent with the proposed changes in the dossier MATH-36.

Sincerely,



Cody Hyndman  
Associate Professor and Chair  
Department of Mathematics & Statistics

## **Minor in Quantitative Finance and Insurance**

### **General description:**

The insurance and financial sectors are very important in modern economies. The insurance sector can transfer risk from individuals and companies to broader markets which are better able to absorb risk. The financial sector maximizes wealth generation in an economy by allocating financial resources in the most productive way. These sectors require a large number of qualified employees with strong technical skills. In fact, the practice of finance and insurance has only increased in complexity in recent years. For instance, the development of complicated financial instruments (such as derivatives) and financial liabilities (such as hybrid insurance and financial vehicles) requires more advanced training in complex quantitative models than ever before.

Given the growing necessity of these quantitative skillsets in the insurance and financial sector, this program provides students in relevant undergraduate programs with the opportunity to take complementary quantitative courses to acquire these skillsets. Thus in consultation with Dr. Rahul Ravi and Imants Paeglis, (previous, and current Chair of the Finance Department at JMSB, respectively), the Department of Mathematics and Statistics proposes the creation of a Minor in Quantitative Finance and Insurance. The purpose of the Minor in Quantitative Finance and Insurance is to train students from a variety of Specializations and Majors in the quantitative methods underlying the modern practice of insurance and finance.

### **Pedagogical goals and target audience:**

The Minor aims to provide training in fundamental mathematical theory, and insurance- or investment- specific applied content for students who are pursuing a Major or Specialization outside of the Department of Mathematics and Statistics. Students pursuing a Finance degree from JMSB, as well as related disciplines including Management (JMSB), Economics (JMSB, and FAS), and Engineering (Gina Cody School of Engineering and Computer Science) are the target audience. Additionally, the knowledge and analytical skills developed from the proposed Minor is applicable beyond the insurance and financial sector (e.g., managerial positions). The fundamental mathematical courses will help to develop the necessary theoretical knowledge and technical tools in order to better understand the subsequent more applied content specific to finance and insurance.

Through a limited number of courses, students of this Minor will get a high-level quantitative overview of methods used by insurers and financial institutions. The added value of these programs would be to allow students from different backgrounds to obtain the necessary knowledge in financial and insurance topics. Concurrently, these students will develop mathematical skills necessary for full understanding of the financial and insurance sector. Importantly, this proposal primarily utilizes existing courses already offered for students in the Major of Mathematics and Statistics. Only one new course will need to be developed for the purposes of this proposal. Thus students pursuing this Minor will receive training from well-established courses and the additional resource implications for this proposal are minimal.

### **Similar programs in Quebec/Canada:**

Similar undergraduate programs in financial mathematics are offered in Canada (University of Alberta, University of New Brunswick, University of Toronto, University of Victoria, University of Waterloo, Wilfred Laurier, York University) and the U.S. In Quebec, Concordia University is the only institution offering a related program (BSc and BA Specialization in Actuarial Mathematics, or Mathematical and Computational Finance). However, in contrast to all of these other programs, this Minor in Quantitative Finance and Insurance is intended for students who are pursuing an undergraduate degree outside of the Department of Mathematics and Statistics (such as Economics, or Business Administration). The expectations of the minimum mathematics background will differ widely between these two student audiences. In fact, we plan to propose a 30-credit Certificate program in the future to attract an audience of working professionals. Importantly, the program name was selected in consultation with JMSB and conveys this information: “Quantitative” emphasizes the valuable skillsets that students will learn from this degree while differentiating it from well-recognized program names geared toward students with a mathematics background; and “Quantitative Finance and Insurance” is standard terminology in the field and is aligned with graduate degrees at other universities (e.g., University of Waterloo). Thus, this Minor will provide a more general overview of a select number of topics open to students who are not in the Department of Mathematics and Statistics and will be the only one of its kind offered in Canada.

### **Program structure**

The Minor is a 24-credit program: core courses (18 credits) and electives (6 credits). The core courses are evenly split into mathematics and statistics content (MAST 218; MAST 221; MAST 333) and insurance- finance- specific quantitative courses (MACF 301; MAST 335; MAST 336). All courses are necessary for a strong foundation in the discipline-specific content knowledge and the underlying mathematical principles. Core courses require no prerequisites beyond the other core courses and basic CEGEP admission requirements (such as MATH 203, 204 and 205).

Some elective courses have additional prerequisites; thus these must be selected with department approval to ensure proper sequencing. In addition, four electives (out of the 11 suggested) are higher-level mathematics courses and require prerequisites beyond those from the core course listing. These are demarcated with an asterisk. We have left these suggested electives in the list for several reasons: (1) some students may wish for further advanced training in mathematics beyond the other elective suggestions, and (2) course equivalents required for a Major or Specialization will necessitate an alternative course for proper allocation of credits to the Minor. These are all described in later sections below.

### **Expected enrollment:**

We believe that students pursuing a Finance degree from JMSB will constitute one of the primary pools of interested students. About 10-20% of these students (n~60) would mean 10-15 JMSB students entering this Minor each year. Since we also anticipate that students outside of JMSB will be interested in this Minor (e.g., FAS Economics), this is a conservative estimate.

### **Core courses (18 credits):**

- MAST 218: Multivariable Calculus I (3 credits)
- MAST 221: Applied Probability (3 credits)
- MACF 301: Introduction to Quantitative Finance (3 credits)
- MAST 333: Applied Statistics (3 credits)
- MAST 335: Investment Mathematics (3 credits)
- MAST 336 (**New course**): Insurance Mathematics (3 credits)

### **Electives (6 credits):**

- \*MAST 223: Introduction to Stochastic Methods of Operations Research (3 credits)
- MAST 234: Linear Algebra and Applications I (3 credits)
- MAST 324: Introduction to Optimization (3 credits)
- STAT 380: Statistical Learning (3 credits)
- \*MAST 330: Differential Equations (3 credits)
- MAST 397: Topics in Mathematics and Statistics (3 credits)
- MAST 398: Reading Course in Mathematics and Statistics (3 credits)
- \*MACF 401: Mathematical and Computational Finance I (3 credits)
- \*MACF 402: Mathematical and Computational Finance II (3 credits)
- \*Any 400-level Finance course (3 credits)

\* additional prerequisites required

### **Core Course list:**

#### **MAST 218 *Multivariable Calculus I*** (3 credits)

*Prerequisite:* The following courses must be completed previously: MATH 204 and 205, or equivalent. Vector geometry; lines and planes; curves in  $\mathbb{R}^n$ ; vector functions; vector differential calculus; extrema and Lagrange multipliers. Introduction to multiple integrals and coordinate transformations. Problem solving with a symbolic computation system, e.g. MAPLE.

*Note:* Students who have received credit for MATH 264 may not take this course for credit.

#### **MAST 221 *Applied Probability*** (3 credits)

*Prerequisite:* The following courses must be completed previously: MATH 204 and 205, or equivalent; The following course must be completed previously or concurrently: MAST 218 or equivalent. Counting rules, discrete probability distributions; random sampling; conditional probability; means and variances, normal and other continuous sampling distributions. Applications. Use of statistical software, e.g. MINITAB.

*Note:* Students who have received credit for STAT 249, COMP 233 or ECON 221 may not take this course for credit.

*Note:* Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Please consult the Mathematics and Statistics undergraduate program advisor.

**MACF 301 Introduction to Quantitative Finance** (3 credits)

*Prerequisite:* The following courses must be completed previously:

MAST 218 or MATH 264; MAST 221 or STAT 249.

This course is an introduction to topics related to quantitative finance. Topics may include: financial derivatives, binomial option pricing models, Black-Scholes option pricing model, derivatives risk management, mean-variance portfolio theory, asset pricing models, investment risks, and behavioral finance.

*Note:* Students who have received credit for FINA 385 may not take this course for credit.

**MAST 333 Applied Statistics** (3 credits)

*Prerequisite:* The following course must be completed previously: MAST 221 or equivalent.

Graphical and numerical descriptive methods; Estimation and hypothesis testing; linear regression and correlation; one way ANOVA; contingency and goodness of fit tests. Use of statistical software, e.g. MINITAB.

*Note:* Students who have received credit for STAT 360, BIOL 322, COMM 214 or GEOG 362 may not take this course for credit.

*Note:* Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Please consult the Mathematics and Statistics undergraduate program advisor.

**MAST 335 Investment Mathematics** (3 credits)

*Prerequisite:* The following course must be completed previously: MAST 218 or equivalent.

Simple and compound interest; annuities; amortization and sinking funds; mortgage schemes; bonds and related securities; capital cost and depletion; spread-sheet implementation.

*Note:* Students who have received credit for MATH 326 may not take this course for credit.

*Note:* Only three credits will be awarded from MAST 335; ACTU 256.

**MAST 336 Insurance Mathematics** (3 credits) \*new course\*

*Prerequisite:* The following courses must be completed previously: MAST 221 or equivalent; MAST 335 or equivalent. This class provides an overview of techniques used by life insurers, pension plans and Property & Casualty insurers to quantify and measure their liabilities. The course is subdivided into two main parts. The first aims at studying life-contingent liabilities such as life insurance and annuities. The second part provides an overview of methods utilized by Property & Casualty insurers to represent their liabilities.

**Elective course list:**

**MAST 223 Introduction to Stochastic Methods of Operations Research** (3 credits)

*Prerequisite:* The following course must be completed previously: MAST 221 or equivalent;

The following courses must be completed previously or concurrently: MAST 219 or equivalent. Markov chains; queuing theory; inventory theory; Markov decision processes; applications to reliability.

*Note:* Students who have received credit for STAT 349 may not take this course for credit.

*Note:* Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Please consult the Mathematics and Statistics undergraduate program advisor.

**MAST 234 Linear Algebra and Applications I** (3 credits)

*Prerequisite:* The following course must be completed previously: MATH 204 or equivalent. System of linear equations, matrix operations, echelon forms and LU-factorization;  $\mathbb{R}^n$ : subspaces, linear dependence, basis, dimension, matrix transformations; eigenvalues and eigenvectors in  $\mathbb{R}^n$  and applications (e.g. Markov chains, dynamical systems). A symbolic computation system, e.g. MAPLE, is extensively used.

*Note: Students who have received credit for MATH 251 or ECON 325 may not take this course for credit*

**MAST 324 Introduction to Optimization** (3 credits)

*Prerequisite:* The following course must be completed previously: MATH 205 or equivalent. Introduction to the theory of optimization; linear programming; the simplex method; duality and transportation problem. Introduction to graphs and networks; applications. Use of computing softwares.

*Note: Students who have received credit for MAST 224 or MATH 361 may not take this course for credit.*

**STAT 380 Statistical Learning** (3 credits)

*Prerequisite:* The following course must be completed previously: MATH 251 or equivalent; The following courses must be completed previously or concurrently: STAT 360 or equivalent. Supervised learning methods for regression and classification include linear models, variable selection methods, shrinkage, linear and quadratic discriminant, classification and regression trees, K-nearest neighbours, support vector machines and neural networks. Unsupervised learning methods include clustering approaches and principal component analysis.

*Note: Students who have received credit for this topic under a STAT 497 number may not take this course for credit*

**MAST 330 Differential Equations** (3 credits)

*Prerequisite:* The following courses must be completed previously: MAST 219, 234 or equivalent. First order differential equations; second order differential equations; Laplace transform methods; mathematical models and numerical methods.

*Note: Students who have received credit for MATH 370 may not take this course for credit.*

**MAST 397 Topics in Mathematics and Statistics** (3 credits)

Topics may be selected from the following list: Portfolio Theory and Risk Management; Credit Risk; Energy Markets and Derivatives; Commodity Markets and Derivatives; Fixed Income Models and Derivatives and Equity Linked Insurance

**MAST 398 Reading Course in Mathematics and Statistics** (3 credits)

Specific topics for this course and relevant prerequisites are stated in the undergraduate class schedule.

**MACF 401 Mathematical and Computational Finance I** (3 credits)

*Prerequisite:* The following courses must be completed previously: MATH 264 or MAST 218; STAT 349 or MAST 223; MACF 301 or FINA 385.

This course is a rigorous introduction to the theory of mathematical and computational finance. Multi-period binomial model; state prices; change of measure; stopping times; European and American derivative securities; interest-rate models; interest-rate derivatives; hedging; convergence to the Black-Scholes model.<sup>1,2</sup>

### **MACF 402 *Mathematical and Computational Finance II* (3 credits)**

*Prerequisite:* The following courses must be completed previously: MACF 401. This course is a continuation of MACF 401 and focuses on modelling and computational techniques beyond the binomial model. Simulation; Monte-Carlo methods in finance; option valuation; hedging; heat equation; finite difference techniques; stability and convergence; exotic derivatives; risk management; calibration and parameter estimation.

### **400-level FINA courses (3.0 credits)**

Based on our consultations with JMSB, it was recognized that some 400-level Finance courses may be of interest to students pursuing this Minor (such as FINA 410 or FINA 411). Exceptions to this include FINA 412 and FINA 413, as we have been advised by JMSB that the content may be redundant based on the core courses in this Minor. In order to ensure that the majority of the courses are MAST/MACF courses, we've included a note that only six credits (maximum) from the JMSB elective listing is permitted.

### **Curriculum mapping:**

The following gives an example of typical course paths which can be followed by students of the various programs.

<b>Course Number</b>	<b>Arts &amp; Science<sup>1</sup></b>	<b>JMSB<sup>2</sup></b>	<b>GCS<sup>3</sup></b>
1	MAST 221	MAST 221	MAST 333
2	MAST 218	MAST 218	MAST 335
3	MAST 333	MAST 335	MAST 336
4	MAST 335	MAST 336	MACF 301
5	MAST 336	Elective	Elective
6	MACF 301	Elective	Elective
7	Elective	Elective	Elective
8	Elective	Elective	Elective

<sup>1</sup>Economics students may not take MAST 221

<sup>2</sup>Assuming COMM 215 and FINA 385 are already credited in the specialization program.

<sup>3</sup>Assuming ENGR233 and ENGR371 are already credited in the specialization program.

**Additional note:** This Minor could potentially allow students to take some 400-level courses from JMSB within their six credits of electives. This is possible due to JMSB recognizing the MACF 301 course as equivalent to their FINA 385.

### **Additional prerequisites:**

Out of the 11 suggested electives necessary to complete the elective block (6 credits) for the Minor, four electives have additional prerequisites beyond those from the core course listing. These are outlined in the table below. As previously mentioned, we include these as suggested electives for students who wish to pursue further advanced mathematics courses. As all of the suggested 11 electives are offered at least once a year, students should have ample electives to choose from without delaying their graduation.

<b>Minor Elective Course</b>	<b>Additional prerequisite(s)</b>
MAST 223	MAST 219
MAST 330	MAST 219
MACF 401	MAST 223
MACF 402	MACF 401



### Course equivalents:

Several of the courses in the Minor are offered in different programs or faculties. For instance, the core course 'MAST 333: Applied Statistics' is considered equivalent to STAT 360, BIOL 322, GEOG 362, as well as COMM 215 (from JMSB) and is stated as such on the undergraduate calendar. Thus any one of these can be credited to the Minor as applicable. All course equivalents are provided in the table below.

Minor Course	Core or Elective	Course equivalents
MAST 218	Core	MATH 264; ENGR 233
MAST 221	Core	STAT 249; COMP 233; ECON 221; ENGR 371
MAST 333	Core	STAT 360; BIOL 322; COMM 215; ECON 222; GEOG 362
MAST 335	Core	ACTU 256; MATH 326
MACF 301	Core	FINA 385
MAST 223	Elective	STAT 349
MAST 234	Elective	MATH 251; ECON 325
MAST 324	Elective	MATH 361; MAST 224
MAST 330	Elective	MATH 370; ENGR 213

### Allocation of credits:

An exception to the 'course equivalents' outlined in the previous section is when the course is mandatory for a student's Major or Specialization program. Examples of classes for which credits cannot be obtained for the Minor are provided in the table below.

Faculty	Program	Course(s) <sup>1</sup> that cannot be credited to the Minor
JMSB	BComm	COMM 215 (core) FINA 385 (core)
Gina Cody and FAS	BCompSc Mathematics and Statistics and Computer Applications	MAST 218 (core) MAST 333 (core) MAST 234 (elective) MAST 324 (elective)
Gina Cody	BEng Electrical Engineering, or Software Engineering	MAST 218 (core) MAST 221 (core) MAST 330 (elective)

<sup>1</sup>Including course equivalents

As these courses cannot be credited for both a Minor and a Major/Specialization, the necessary credits for the Minor can be obtained by completing additional courses from the elective course list. This is an additional rationale for the inclusion of the advanced mathematics courses which include additional pre-requisites in the elective course list. However, because only two of the suggested eleven electives are required for this Minor, students with overlap between their Major (or Specialization) and the Minor will have sufficient other electives to choose from.

**Resource implications:**

One new course in the Mathematics and Statistics department (MAST 336: Insurance Mathematics) would be needed for this Minor. Offering this course would require the addition of a course section (3 credits) to the department's current allocation. The rationale behind the inclusion of this class is to give the students an overview of quantitative concepts used in various branches of insurance and such as life insurance, Property and Casualty insurance and pension plans. The course may also be of interest to students in our other programs (BA/BSc Major in Mathematics and Statistics; Minor in Mathematics and Statistics). Several full-time faculty have been identified as potential instructors for the course (P. Gaillardetz, F. Godin, I. Groparu, Y. Lu, M. Mailhot). The course outline is included in the appendix.

**PROGRAM CHANGE:** Minor in Quantitative Finance and Insurance

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics & Statistics  
**Program:** Minor in Quantitative Finance and Insurance  
**Degree:** Minor  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>Minor in Quantitative Finance and Insurance (24 credits)</b></p> <p>18 credits:</p> <ul style="list-style-type: none"> <li>• MAST 218 Multivariable Calculus I (3.00)</li> <li>• MAST 221 Applied Probability (3.00)</li> <li>• MAST 333 Applied Statistics (3.00)</li> <li>• MAST 335 Investment Mathematics (3.00)</li> <li>• MAST 336 Insurance Mathematics (3.00)</li> <li>• MACF 301 Introduction to Quantitative Finance (3.00)</li> </ul> <p>6 credits of electives chosen with prior departmental approval from the following courses:</p> <ul style="list-style-type: none"> <li>• MACF 401 Mathematical and Computational Finance I (3.00)</li> <li>• MACF 402 Mathematical and Computational Finance II (3.00)</li> <li>• MAST 223 Introduction to Stochastic Methods of Operations Research (3.00)</li> <li>• MAST 234 Linear Algebra and Applications I (3.00)</li> <li>• MAST 324 Introduction to Optimization (3.00)</li> <li>• MAST 330 Differential Equations (3.00)</li> <li>• MAST 397 Topics in Mathematics and Statistics (3.00)</li> <li>• MAST 398 Reading Course in Mathematics and Statistics (3.00)</li> <li>• STAT 380 Statistical Learning (3.00)</li> <li>• 400-level Finance courses</li> </ul> <p><i>Notes:</i></p>

- *Students enrolled in a Mathematics and Statistics program who take probability/ statistics courses in other departments may not receive credit for this course.*
- *FINA 395, 412 and 413 can not be taken for credit toward this Minor.*
- *In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with an elective course relevant to the program, in consultation with an undergraduate program advisor. No more than six credits can be from FINA courses.*

**Rationale:**

The Minor aims to provide training in fundamental mathematical theory, and insurance- or investment- specific applied content for students who are pursuing a Major or Specialization outside of the Department of Mathematics and Statistics.

Similar undergraduate programs in financial mathematics are offered in Canada and the U.S. However, in contrast to all of these other programs, this Minor is intended for students who are pursuing an undergraduate degree outside of the Department of Mathematics and Statistics (such as Economics, or Business Administration). Thus the expectations of the minimum mathematics background differs widely between these two student audiences. This Minor will provide a more general overview of a select number of relevant topics, and will be the only one of its kind offered in Canada.

Note to calendar editor: MAST 336 is also added to the Minor in Mathematics and Statistics (see MATH-37).

**Resource Implications:**

One section will need to be added to the department's current allocation for the Minor. All other courses are from our current course offerings and the resource implications are minimal.

**COURSE CHANGE:** MAST 336      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics & Statistics  
**Program:** Minor in Quantitative Finance and Insurance  
**Degree:** Minor  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>MAST 336 Insurance Mathematics (3.00)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: MAST 221 or equivalent; MAST 335 or equivalent.</p> <p><i>Description:</i> This class provides an overview of techniques used by life insurers, pension plans and Property and Casualty insurers to quantify and measure their liabilities. The course is subdivided into two main parts. The first aims at studying life-contingent liabilities such as life insurance and annuities. The second part provides an overview of methods utilized by Property and Casualty insurers to represent their liabilities.</p> <p><i>Component(s):</i> Lecture.</p>
<p><b>Rationale:</b>                      This is a core course in Insurance Mathematics that is fundamental to training for careers in insurance companies. It is a required course in the Minor in Quantitative Finance and Insurance and is included as a course in a '6 credits chosen from' list for the Minor in Mathematics and Statistics.</p>	
<p><b>Resource Implications:</b>                      Current faculty members can teach this course, but a single section will need to be added to the department's current allocation. A TA (marker) will also be required.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	

## MEMO

DATE: October 20, 2021

TO: Dr. Richard Courtemanche, Associate Dean, Academic Programs, FAS

FROM: Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching & Learning

SUBJECT: Math Minor in Quantitative Finance and Insurance

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I am writing on behalf of Dr. Anne Whitelaw, Provost, to support the *exceptional* request by the Faculty of Arts and Science to approve the MATH-33 dossier which proposes a new Minor in Quantitative Finance and Insurance through the Department of Mathematics & Statistics.

The new minor is composed of 24 credits, 18-cr of which are core, required classes, with the remaining 6-cr as “electives”. The electives comprise a list of 11 possible courses from which student may choose two to complete the proposed minor requirements. The program focuses on math fundamentals to develop theoretical knowledge and technical tools to understand subsequent applied content in finance and insurance.

The program is designed for non-MATH majors, and the department undertook collaboration with the Department of Finance. The Department anticipates that the majority of interested students will come from Finance, Management, Economics and Engineering. Anticipated enrolment is between 10-15 students, though we note that these do not represent *net new students* to the University. To launch the program, the Department will use existing MATH and STAT courses, with the exception of one new course. As the Provost’s office was not asked to cover this course, we assume it is coming from the Faculty’s allocation of courses.

Given the relative low cost of the endeavour, we find the proposal an attractive one, and wish to see the enrolment grow beyond the anticipated 10-15 students, which is too low a target to easily justify a new course and TA resources. To achieve this goal, we would like the Department to modify the requirements for this minor within the next year such that JMSB students will not exceed their degree requirements by 6 credits. Should a student take some of the suggested electives, they would exceed their degree requirements by even more credits. We believe this will pose a barrier to enrolment and could potentially delay graduation for JMSB students.

To mitigate this issue, we recommend the following be implemented:

- Sufficient courses are offered throughout the summers so that students can complete their degree and minor requirements in the normal timeframe. This will require careful planning with the targeted Departments named in the proposal.
- We very strongly suggest that after the first year, a modified version of the minor should be created for JMSB students. In particular, we note that some of the required courses have equivalents in other programs, including COMM 214, FINA 385, ECON 221 and, COMP 233 which act as anti-requisites. Yet, some of these courses are requirements for students in their programs. Since they cannot both count towards their major and minor, the program structure will need to account for the requirements in their majors for students to successfully complete the minor. To use an example from the JMSB, since this is the target audience: FINA 385 is a required course for the minor, Major and Honours in Finance, yet is listed as an anti-requisite for MACF 301, a required course in the minor. One method for resolving this issue and alleviating the need to take an extra 6-credits would be to reduce the overall credit value of the minor.

The need to provide additional training and specialized knowledge in this area also suggests that an *expanded* certificate program (30-cr) should be explored. This could target recent graduates of the JMSB and related fields and could provide *new* revenue streams to the university as part of a lifelong learning strategy. We suspect Economics students are also likely to be interested in this type of a certificate, though we are less convinced by the argument that current or graduated Engineering students would be interested in either a certificate or minor program. There may also be great potential for exploring some experiential learning opportunities within a Certificate, particularly if the Department was to pair with an external industry partner. We encourage the Department to consider an expansion into a certificate after the first year of its introduction and we offer resources within the Provost's office (i.e., Curriculum Developers to explore the specific market needs; the University Curriculum Administrator's assistance; and, the resources of the Experiential Learning office) to support its development.

cc: Dr. Anne Whitelaw, Provost & Vice-President, Academic  
Dr. Pascale Sicotte, Dean, Faculty of Arts & Science  
Dr. Cody Hyndman, Chair, Department of Mathematics & Statistics  
Ms. Julie Johnston, University Curriculum Administrator  
Mr. Graham Maisonneuve, Director, Finance & Budgets, Office of the Provost  
Dr. Nadia Bhuiyan, Vice-Provost, Experiential Learning and Partnerships

## MAST 336: Insurance Mathematics

### CLASS OUTLINE

#### General description

This class provides an overview of techniques used by life insurers, pension plans and Property & Casualty insurers to quantify and measure their liabilities. The course is subdivided into two main parts. The first aims at studying life-contingent liabilities such as life insurance and annuities. Life distribution related probabilities are studied and utilized to measure the actuarial present value of cash flows generated by life-contingent insurance contracts. The second part provides an overview of methods utilized by Property & Casualty insurers to represent their liabilities. Frequency and severity models are discussed. Aggregate claims models are illustrated. Incurred but not reported (IBNR) loss triangle are introduced.

#### Prerequisites

- MAST 221 (or STAT 249): Applied Probability
- MAST 335 (or ACTU 256): Investment Mathematics

#### Topics covered

##### Life contingencies part

- Survival distributions
  - Probability of age at death
  - Survival Function
  - Curtate lifetime
  - Mortality tables
  - Select and ultimate
  - Intra-year mortality interpolation
- Insurance benefits valuation
  - Term insurance
  - Whole-life insurance
- Annuities and endowment valuation
  - Lifetime annuities
  - Temporary annuities
  - Deferred annuity
  - Non-level annuities
- Pension plans
  - Liability specification and measurement

##### Property & Casualty part

- Frequency and severity distributions



- Frequency: Poisson, Negative Binomial
  - Severity: Exponential, Gamma, Inverse Gaussian
- Modifications to loss distributions
  - Deductible, Franchise, Co-insurance, Limits
- Aggregate claims models
  - Compound-Poisson distributions
- IBNR Loss triangles
  - Chain-ladder methods
- Economic capital
  - Risk measures: Value-at-Risk, Tail Value-at-Risk

## INTERNAL MEMORANDUM

**TO:** Dr. Cody Hyndman, Chair, Department of Mathematics & Statistics

**FROM:** Imants Paeglis, Interim Chair, Department of Finance

*Imants Paeglis*

**DATE:** February 17, 2021

**SUBJECT:** Letter of Support - Minor

I would like to express the support of the Finance Department Curriculum Committee for your proposal on the creation of Minor (and Elective Group) in Quantitative Finance and Insurance. It has been long time in coming and is a welcome and necessary addition (and complement) to the Concordia's offerings in Finance. I believe it will be of interest to our more quantitatively inclined students.

**LIBRARY****REPORT TO SENATE  
FROM THE  
LIBRARY COMMITTEE**

(Senate Meeting – December 10<sup>th</sup>, 2021)

The first meeting of the LC for the academic year was held on November 1, 2021.

Library Budget and Collections Update (Presentation by Guylaine Beaudry & Pat Riva)

Dr. Beaudry and Pat Riva reported on the Library and Collections budget for 2020/21 and the current year 2021/22. A major focus area in 2020/21 was the acquisition of streaming media to meet teaching needs in a remote learning environment. The library acquired 733 individual titles, almost triple the total ever acquired up to April 2020 of 258, for a cost of \$178,909. In 2021/22 to date 127 titles have been acquired. On the Library's streaming server, Medial, 530 films were viewed 33,013 times (9,167 of these complete plays). The Library added access to 51,486 films through ten new platforms, to complement the 28,604 films already available through another ten platforms. The acquisition of streaming media represented some \$400,000 of the overall \$7.7M budget for Library Collections. In contrast to previous years, ebook packages and individual titles represented 14% of the collections purchasing, while print books were only 3%. Just a few years ago these two categories were approximately the same. Overall, online resources comprise 94% of the Collections spending. Funds available for the 2021/22 Collections budget are estimated at \$7.36M. For the future, the Library has examined additional budget required to fully support the School of Health, as well as identifying digitized archival resources to increase support for Indigenous Studies.

The Library is part of the Partenariat des bibliothèques universitaires du Québec through which the shared catalogue Sofia was implemented in summer 2020. The Partnership also includes collaboration on GeoIndex for geospatial data, and Dataverse for research data management. Upcoming collaborative projects include shared preservation of print collections, supporting university press open access ebooks and Open Educational Resources (textbooks). The renovation of the Vanier Library is still in the University's capital projects list at the funding stage.

*Respectfully submitted,  
Dr. Guylaine Beaudry  
University Librarian  
November 24, 2021*



**ACADEMIC PROGRAMS COMMITTEE  
REPORT TO SENATE (2/2)  
Sandra Gabriele, PhD  
December 10, 2021**

**The Academic Programs Committee requests that Senate consider the following changes for the Undergraduate and Graduate Calendars.**

Following approval of the Faculty Councils, APC members reviewed the undergraduate and graduate curriculum submissions listed below. As a result of discussions, APC resolved that the following curriculum proposals be forwarded to Senate for approval:

**Undergraduate proposals for the Fall 2022-23 Calendar**

**Faculty of Arts and Science**

Department of Mathematics and Statistics

MATH-33; APC-2021-7-D7 (For September 2022 Implementation)

*[The proposal involves the introduction of a new Minor in Quantitative Finance and Insurance, focussed on the development of quantitative skills in the insurance and financial sectors.]*

- New Program: Minor in Quantitative Finance and Insurance
- Requirements
- Courses

A handwritten signature in black ink that reads "S. Gabriele".

Sandra Gabriele, PhD  
Vice-Provost, Innovation in Teaching and Learning November 22, 2021



### INTERNAL MEMORANDUM

**TO:** Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning  
Office of the Provost and Vice-President, Academic Affairs  
Chair, Academic Programs Committee

**FROM:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**CC:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 28, 2021

**SUBJECT:** Undergraduate Calendar Curriculum Proposal  
Mathematics and Statistics (MATH-33)

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The following proposal was presented under ASFC-2021-6M-E and approved at the Arts and Science Faculty Council meeting of October 22, 2021. We request that this proposal be reviewed at the next meeting of the Academic Programs Committee.

The resource implications pertaining to this dossier were reviewed and approved prior to presentation at Council. As this dossier had not been submitted as a formal Letter of Intent, the Office of the Provost provided an *exceptional* approval to our request, so that this proposal could be seen as a regular dossier. The memo from the Vice-Provost, Innovation in Teaching and Learning, including the related recommendations, is attached as a supporting document.



## INTERNAL MEMORANDUM

**TO:** Dr. Pascale Sicotte, Dean, Faculty of Arts and Science  
Chair, Arts and Science Faculty Council

**FROM:** Dr. Richard Courtemanche, Associate Dean, Academic Programs  
Faculty of Arts and Science

**DATE:** October 6, 2021

**SUBJECT:** 2022-23 Undergraduate Calendar Curriculum Changes  
Department of Mathematics and Statistics  
**MATH-33**  
New Minor in Quantitative Finance and Insurance; new course MATH 336

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The Faculty Curriculum Committee has reviewed and approved the following proposal and requests that it be considered at the next Arts and Science Faculty Council.

The **Department of Mathematics and Statistics** is proposing a new Minor in Quantitative Finance and Insurance. The department recognizes the increasing importance and relevance of quantitative skills in insurance and financial sectors in current economies. As these sectors continue to become more complex students need a wider breadth of technical and quantitative skills to succeed. Students are often unaware of which courses offered at the University will help them achieve these complementary skills. Students in the Minor in Quantitative Finance and Insurance students will be provided with training in fundamental mathematical theories and applied topics that are specific to quantitative finance and insurance.

It is anticipated that many interested students will come from the John Molson School of Business (JMSB) and this minor was created in collaboration with the Finance Department (JMSB). In addition, prospective students could come from Economics and Political Science. The department has designed the minor so that students can complete the program without completing any additional requirements.

Additionally, the department is proposing a new course, MAST 336 *Insurance Mathematics* which will be added to both the Minor in Quantitative Finance and Insurance (core) as well as the existing Minor in Mathematics and Statistics (elective). This course concerns life and property insurance applications of mathematical methods.

In sum, the Department managed to coordinate this new minor without garnering major new resources. Thus, the resource implications pertaining to this proposal is the addition of one section (3 credits) for MAST 336 *Insurance Mathematics*, which has been factored in. Also, this new minor utilizes the course MACF 301 *Introduction to Quantitative Finance* which is proposed under MATH-34 (new course added to actuarial programs).

Thank you for your consideration of this proposal.

*Reference documents:*  
*FCC 2020.11-MATH-33*

## Department of Mathematics and Statistics

### MATH-33

#### Memo from Chair

#### New Minor

Minor in Quantitative Finance and Insurance

#### New course

MAST 336    *Insurance Mathematics*



## INTERNAL MEMORANDUM

**TO:** Richard Courtemanche, Associate Dean, Academic Programs, Faculty of Arts and Science

**FROM:** Cody Hyndman, Chair, Department of Mathematics and Statistics

**DATE:** October 6, 2021 (revised)  
March 10, 2021

**SUBJECT:** Minor in Quantitative Finance and Insurance

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Dear Dr. Courtemanche,

The Department of Mathematics and Statistics submits for consideration a proposal for a Minor in Quantitative Finance and Insurance. The insurance and financial sectors are very important in modern economies. These sectors continue to increase in complexity and newly graduating students need a larger breadth of technical and quantitative skills to be successful. However, despite the growing necessity of these quantitative skillsets in the insurance and financial sector, this program provides students in relevant undergraduate programs with the opportunity to take complementary quantitative courses to acquire these skillsets. The Minor also leverages the expertise of our faculty members, reputation, and existing programs in Actuarial Mathematics and Mathematical and Computational Finance.

Thus the Department of Mathematics and Statistics proposes the creation of a Minor in Quantitative Finance and Insurance. The Minor aims to provide training in fundamental mathematical theory, and applied content specific to quantitative finance and insurance for students who are pursuing a Major or Specialization outside of the Department of Mathematics and Statistics. Students pursuing a Finance degree from JMSB, as well as related disciplines including Management (JMSB), Economics (JMSB, and FAS), and Political Science (FAS) are the target audience.

As prospective students for this Minor can be from all departments and faculties across the university, we have designed these new options purposefully so that a student can complete the programs without any additional pre-requisites beyond MATH 203, 204 and 205. Nevertheless,

we believe the largest pool of prospective students will be from JMSB; thus this proposal was created in collaboration with Dr. Imants Paeglis (Chair, Finance Department, JMSB). The minimum mathematics prerequisites for students entering JMSB are MATH 208 and 209, and these courses are not sufficient for this Minor. However, we have verified with Dr. Jooseop Lim, the Associate Dean of Academic and Student Affairs, Undergraduate Programs, that in July of this year, approximately 600 of 1700 new entrants had completed the equivalent of MATH 203, 204 and 205, which are the required prerequisites. Dr. Lim and the current Chair of Finance, Dr. David Newton, strongly support this Minor and believe many students will take it, even though under current JMSB regulations they would have to exceed the 90 credits required for the degree by 6 credits. Through our consultations with JMSB, we have also learned that they are currently reviewing and revising their curriculum. We note that there is a need to consider a shorter program structure for JMSB students so that they could fit the minor into their program requirements. This may be proposed at a later date, in consultation with JMSB, and taking their new program structure into consideration once it has been finalized.

Students will receive training in the quantitative methods used by insurers and financial institutions. Concurrently, these students will develop mathematical skills necessary to understand the financial and insurance sector. This proposal primarily utilizes existing courses already offered for students in the Major of Mathematics and Statistics. Only one new course (and therefore one new course section) will be needed for the purposes of implementing this proposal. Thus students will receive training from well-established courses and the additional resource implications for this proposal are minimal. The new course will also provide an additional opportunity for students in our existing Minor in Mathematics and Statistics. Over time, as more students are attracted to this new Minor, we foresee the need to add 2 to 3 sections of existing courses.

Although undergraduate programs in financial mathematics already exist in Canada and the U.S., this Minor in Quantitative Finance and Insurance is intended for students who are pursuing an undergraduate degree outside of the Department of Mathematics and Statistics (such as Economics, or Business Administration). As the expectations of the minimum mathematics background will differ widely between these two student audiences, this Minor will provide a more general overview of the relevant topics, and will be the only one of its kind offered in Canada. The proposal was approved by the Department's Undergraduate Curriculum Committee on February 22, 2021, and approved by Department Council on March 8, 2021.

With the introduction of the new course MAST 336 in the proposed Minor in Quantitative Finance and Insurance (Dossier MATH-33), it makes sense to also allow this course to students in our existing Minor in Mathematics and Statistics. The proposal to make this change to our existing Minor program was also approved by the Department's Undergraduate Curriculum Committee on February 22, 2021, and approved by Department Council on March 8, 2021 (see MATH-37).

Lastly, another relevant dossier to this proposal is MATH-36, which requests some prerequisite modifications for two courses mentioned in this dossier (MACF 401 and MACF 402). The prerequisites for these courses in this dossier have been updated to be consistent with the proposed changes in the dossier MATH-36.

Sincerely,



Cody Hyndman  
Associate Professor and Chair  
Department of Mathematics & Statistics

## **Minor in Quantitative Finance and Insurance**

### **General description:**

The insurance and financial sectors are very important in modern economies. The insurance sector can transfer risk from individuals and companies to broader markets which are better able to absorb risk. The financial sector maximizes wealth generation in an economy by allocating financial resources in the most productive way. These sectors require a large number of qualified employees with strong technical skills. In fact, the practice of finance and insurance has only increased in complexity in recent years. For instance, the development of complicated financial instruments (such as derivatives) and financial liabilities (such as hybrid insurance and financial vehicles) requires more advanced training in complex quantitative models than ever before.

Given the growing necessity of these quantitative skillsets in the insurance and financial sector, this program provides students in relevant undergraduate programs with the opportunity to take complementary quantitative courses to acquire these skillsets. Thus in consultation with Dr. Rahul Ravi and Imants Paeglis, (previous, and current Chair of the Finance Department at JMSB, respectively), the Department of Mathematics and Statistics proposes the creation of a Minor in Quantitative Finance and Insurance. The purpose of the Minor in Quantitative Finance and Insurance is to train students from a variety of Specializations and Majors in the quantitative methods underlying the modern practice of insurance and finance.

### **Pedagogical goals and target audience:**

The Minor aims to provide training in fundamental mathematical theory, and insurance- or investment- specific applied content for students who are pursuing a Major or Specialization outside of the Department of Mathematics and Statistics. Students pursuing a Finance degree from JMSB, as well as related disciplines including Management (JMSB), Economics (JMSB, and FAS), and Engineering (Gina Cody School of Engineering and Computer Science) are the target audience. Additionally, the knowledge and analytical skills developed from the proposed Minor is applicable beyond the insurance and financial sector (e.g., managerial positions). The fundamental mathematical courses will help to develop the necessary theoretical knowledge and technical tools in order to better understand the subsequent more applied content specific to finance and insurance.

Through a limited number of courses, students of this Minor will get a high-level quantitative overview of methods used by insurers and financial institutions. The added value of these programs would be to allow students from different backgrounds to obtain the necessary knowledge in financial and insurance topics. Concurrently, these students will develop mathematical skills necessary for full understanding of the financial and insurance sector. Importantly, this proposal primarily utilizes existing courses already offered for students in the Major of Mathematics and Statistics. Only one new course will need to be developed for the purposes of this proposal. Thus students pursuing this Minor will receive training from well-established courses and the additional resource implications for this proposal are minimal.

### **Similar programs in Quebec/Canada:**

Similar undergraduate programs in financial mathematics are offered in Canada (University of Alberta, University of New Brunswick, University of Toronto, University of Victoria, University of Waterloo, Wilfred Laurier, York University) and the U.S. In Quebec, Concordia University is the only institution offering a related program (BSc and BA Specialization in Actuarial Mathematics, or Mathematical and Computational Finance). However, in contrast to all of these other programs, this Minor in Quantitative Finance and Insurance is intended for students who are pursuing an undergraduate degree outside of the Department of Mathematics and Statistics (such as Economics, or Business Administration). The expectations of the minimum mathematics background will differ widely between these two student audiences. In fact, we plan to propose a 30-credit Certificate program in the future to attract an audience of working professionals. Importantly, the program name was selected in consultation with JMSB and conveys this information: “Quantitative” emphasizes the valuable skillsets that students will learn from this degree while differentiating it from well-recognized program names geared toward students with a mathematics background; and “Quantitative Finance and Insurance” is standard terminology in the field and is aligned with graduate degrees at other universities (e.g., University of Waterloo). Thus, this Minor will provide a more general overview of a select number of topics open to students who are not in the Department of Mathematics and Statistics and will be the only one of its kind offered in Canada.

### **Program structure**

The Minor is a 24-credit program: core courses (18 credits) and electives (6 credits). The core courses are evenly split into mathematics and statistics content (MAST 218; MAST 221; MAST 333) and insurance- finance- specific quantitative courses (MACF 301; MAST 335; MAST 336). All courses are necessary for a strong foundation in the discipline-specific content knowledge and the underlying mathematical principles. Core courses require no prerequisites beyond the other core courses and basic CEGEP admission requirements (such as MATH 203, 204 and 205).

Some elective courses have additional prerequisites; thus these must be selected with department approval to ensure proper sequencing. In addition, four electives (out of the 11 suggested) are higher-level mathematics courses and require prerequisites beyond those from the core course listing. These are demarcated with an asterisk. We have left these suggested electives in the list for several reasons: (1) some students may wish for further advanced training in mathematics beyond the other elective suggestions, and (2) course equivalents required for a Major or Specialization will necessitate an alternative course for proper allocation of credits to the Minor. These are all described in later sections below.

### **Expected enrollment:**

We believe that students pursuing a Finance degree from JMSB will constitute one of the primary pools of interested students. About 10-20% of these students (n~60) would mean 10-15 JMSB students entering this Minor each year. Since we also anticipate that students outside of JMSB will be interested in this Minor (e.g., FAS Economics), this is a conservative estimate.

### **Core courses (18 credits):**

- MAST 218: Multivariable Calculus I (3 credits)
- MAST 221: Applied Probability (3 credits)
- MACF 301: Introduction to Quantitative Finance (3 credits)
- MAST 333: Applied Statistics (3 credits)
- MAST 335: Investment Mathematics (3 credits)
- MAST 336 (**New course**): Insurance Mathematics (3 credits)

### **Electives (6 credits):**

- \*MAST 223: Introduction to Stochastic Methods of Operations Research (3 credits)
- MAST 234: Linear Algebra and Applications I (3 credits)
- MAST 324: Introduction to Optimization (3 credits)
- STAT 380: Statistical Learning (3 credits)
- \*MAST 330: Differential Equations (3 credits)
- MAST 397: Topics in Mathematics and Statistics (3 credits)
- MAST 398: Reading Course in Mathematics and Statistics (3 credits)
- \*MACF 401: Mathematical and Computational Finance I (3 credits)
- \*MACF 402: Mathematical and Computational Finance II (3 credits)
- \*Any 400-level Finance course (3 credits)

\* additional prerequisites required

### **Core Course list:**

#### **MAST 218 *Multivariable Calculus I*** (3 credits)

*Prerequisite:* The following courses must be completed previously: MATH 204 and 205, or equivalent. Vector geometry; lines and planes; curves in  $\mathbb{R}^n$ ; vector functions; vector differential calculus; extrema and Lagrange multipliers. Introduction to multiple integrals and coordinate transformations. Problem solving with a symbolic computation system, e.g. MAPLE.

*Note:* Students who have received credit for MATH 264 may not take this course for credit.

#### **MAST 221 *Applied Probability*** (3 credits)

*Prerequisite:* The following courses must be completed previously: MATH 204 and 205, or equivalent; The following course must be completed previously or concurrently: MAST 218 or equivalent. Counting rules, discrete probability distributions; random sampling; conditional probability; means and variances, normal and other continuous sampling distributions. Applications. Use of statistical software, e.g. MINITAB.

*Note:* Students who have received credit for STAT 249, COMP 233 or ECON 221 may not take this course for credit.

*Note:* Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Please consult the Mathematics and Statistics undergraduate program advisor.

**MACF 301 Introduction to Quantitative Finance** (3 credits)

*Prerequisite:* The following courses must be completed previously:

MAST 218 or MATH 264; MAST 221 or STAT 249.

This course is an introduction to topics related to quantitative finance. Topics may include: financial derivatives, binomial option pricing models, Black-Scholes option pricing model, derivatives risk management, mean-variance portfolio theory, asset pricing models, investment risks, and behavioral finance.

*Note:* Students who have received credit for FINA 385 may not take this course for credit.

**MAST 333 Applied Statistics** (3 credits)

*Prerequisite:* The following course must be completed previously: MAST 221 or equivalent.

Graphical and numerical descriptive methods; Estimation and hypothesis testing; linear regression and correlation; one way ANOVA; contingency and goodness of fit tests. Use of statistical software, e.g. MINITAB.

*Note:* Students who have received credit for STAT 360, BIOL 322, COMM 214 or GEOG 362 may not take this course for credit.

*Note:* Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Please consult the Mathematics and Statistics undergraduate program advisor.

**MAST 335 Investment Mathematics** (3 credits)

*Prerequisite:* The following course must be completed previously: MAST 218 or equivalent.

Simple and compound interest; annuities; amortization and sinking funds; mortgage schemes; bonds and related securities; capital cost and depletion; spread-sheet implementation.

*Note:* Students who have received credit for MATH 326 may not take this course for credit.

*Note:* Only three credits will be awarded from MAST 335; ACTU 256.

**MAST 336 Insurance Mathematics** (3 credits) \*new course\*

*Prerequisite:* The following courses must be completed previously: MAST 221 or equivalent; MAST 335 or equivalent. This class provides an overview of techniques used by life insurers, pension plans and Property & Casualty insurers to quantify and measure their liabilities. The course is subdivided into two main parts. The first aims at studying life-contingent liabilities such as life insurance and annuities. The second part provides an overview of methods utilized by Property & Casualty insurers to represent their liabilities.

**Elective course list:**

**MAST 223 Introduction to Stochastic Methods of Operations Research** (3 credits)

*Prerequisite:* The following course must be completed previously: MAST 221 or equivalent;

The following courses must be completed previously or concurrently: MAST 219 or equivalent. Markov chains; queuing theory; inventory theory; Markov decision processes; applications to reliability.

*Note:* Students who have received credit for STAT 349 may not take this course for credit.

*Note:* Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Please consult the Mathematics and Statistics undergraduate program advisor.

**MAST 234 Linear Algebra and Applications I** (3 credits)

*Prerequisite:* The following course must be completed previously: MATH 204 or equivalent. System of linear equations, matrix operations, echelon forms and LU-factorization;  $\mathbb{R}^n$ : subspaces, linear dependence, basis, dimension, matrix transformations; eigenvalues and eigenvectors in  $\mathbb{R}^n$  and applications (e.g. Markov chains, dynamical systems). A symbolic computation system, e.g. MAPLE, is extensively used.

*Note: Students who have received credit for MATH 251 or ECON 325 may not take this course for credit*

**MAST 324 Introduction to Optimization** (3 credits)

*Prerequisite:* The following course must be completed previously: MATH 205 or equivalent. Introduction to the theory of optimization; linear programming; the simplex method; duality and transportation problem. Introduction to graphs and networks; applications. Use of computing softwares.

*Note: Students who have received credit for MAST 224 or MATH 361 may not take this course for credit.*

**STAT 380 Statistical Learning** (3 credits)

*Prerequisite:* The following course must be completed previously: MATH 251 or equivalent; The following courses must be completed previously or concurrently: STAT 360 or equivalent. Supervised learning methods for regression and classification include linear models, variable selection methods, shrinkage, linear and quadratic discriminant, classification and regression trees, K-nearest neighbours, support vector machines and neural networks. Unsupervised learning methods include clustering approaches and principal component analysis.

*Note: Students who have received credit for this topic under a STAT 497 number may not take this course for credit*

**MAST 330 Differential Equations** (3 credits)

*Prerequisite:* The following courses must be completed previously: MAST 219, 234 or equivalent. First order differential equations; second order differential equations; Laplace transform methods; mathematical models and numerical methods.

*Note: Students who have received credit for MATH 370 may not take this course for credit.*

**MAST 397 Topics in Mathematics and Statistics** (3 credits)

Topics may be selected from the following list: Portfolio Theory and Risk Management; Credit Risk; Energy Markets and Derivatives; Commodity Markets and Derivatives; Fixed Income Models and Derivatives and Equity Linked Insurance

**MAST 398 Reading Course in Mathematics and Statistics** (3 credits)

Specific topics for this course and relevant prerequisites are stated in the undergraduate class schedule.

**MACF 401 Mathematical and Computational Finance I** (3 credits)

*Prerequisite:* The following courses must be completed previously: MATH 264 or MAST 218; STAT 349 or MAST 223; MACF 301 or FINA 385.

This course is a rigorous introduction to the theory of mathematical and computational finance. Multi-period binomial model; state prices; change of measure; stopping times; European and American derivative securities; interest-rate models; interest-rate derivatives; hedging; convergence to the Black-Scholes model.<sup>1,2</sup>



### **MACF 402 *Mathematical and Computational Finance II* (3 credits)**

*Prerequisite:* The following courses must be completed previously: MACF 401. This course is a continuation of MACF 401 and focuses on modelling and computational techniques beyond the binomial model. Simulation; Monte-Carlo methods in finance; option valuation; hedging; heat equation; finite difference techniques; stability and convergence; exotic derivatives; risk management; calibration and parameter estimation.

### **400-level FINA courses (3.0 credits)**

Based on our consultations with JMSB, it was recognized that some 400-level Finance courses may be of interest to students pursuing this Minor (such as FINA 410 or FINA 411). Exceptions to this include FINA 412 and FINA 413, as we have been advised by JMSB that the content may be redundant based on the core courses in this Minor. In order to ensure that the majority of the courses are MAST/MACF courses, we've included a note that only six credits (maximum) from the JMSB elective listing is permitted.

### **Curriculum mapping:**

The following gives an example of typical course paths which can be followed by students of the various programs.

<b>Course Number</b>	<b>Arts &amp; Science<sup>1</sup></b>	<b>JMSB<sup>2</sup></b>	<b>GCS<sup>3</sup></b>
1	MAST 221	MAST 221	MAST 333
2	MAST 218	MAST 218	MAST 335
3	MAST 333	MAST 335	MAST 336
4	MAST 335	MAST 336	MACF 301
5	MAST 336	Elective	Elective
6	MACF 301	Elective	Elective
7	Elective	Elective	Elective
8	Elective	Elective	Elective

<sup>1</sup>Economics students may not take MAST 221

<sup>2</sup>Assuming COMM 215 and FINA 385 are already credited in the specialization program.

<sup>3</sup>Assuming ENGR233 and ENGR371 are already credited in the specialization program.

**Additional note:** This Minor could potentially allow students to take some 400-level courses from JMSB within their six credits of electives. This is possible due to JMSB recognizing the MACF 301 course as equivalent to their FINA 385.

### **Additional prerequisites:**

Out of the 11 suggested electives necessary to complete the elective block (6 credits) for the Minor, four electives have additional prerequisites beyond those from the core course listing. These are outlined in the table below. As previously mentioned, we include these as suggested electives for students who wish to pursue further advanced mathematics courses. As all of the suggested 11 electives are offered at least once a year, students should have ample electives to choose from without delaying their graduation.

<b>Minor Elective Course</b>	<b>Additional prerequisite(s)</b>
MAST 223	MAST 219
MAST 330	MAST 219
MACF 401	MAST 223
MACF 402	MACF 401

### Course equivalents:

Several of the courses in the Minor are offered in different programs or faculties. For instance, the core course 'MAST 333: Applied Statistics' is considered equivalent to STAT 360, BIOL 322, GEOG 362, as well as COMM 215 (from JMSB) and is stated as such on the undergraduate calendar. Thus any one of these can be credited to the Minor as applicable. All course equivalents are provided in the table below.

Minor Course	Core or Elective	Course equivalents
MAST 218	Core	MATH 264; ENGR 233
MAST 221	Core	STAT 249; COMP 233; ECON 221; ENGR 371
MAST 333	Core	STAT 360; BIOL 322; COMM 215; ECON 222; GEOG 362
MAST 335	Core	ACTU 256; MATH 326
MACF 301	Core	FINA 385
MAST 223	Elective	STAT 349
MAST 234	Elective	MATH 251; ECON 325
MAST 324	Elective	MATH 361; MAST 224
MAST 330	Elective	MATH 370; ENGR 213

### Allocation of credits:

An exception to the 'course equivalents' outlined in the previous section is when the course is mandatory for a student's Major or Specialization program. Examples of classes for which credits cannot be obtained for the Minor are provided in the table below.

Faculty	Program	Course(s) <sup>1</sup> that cannot be credited to the Minor
JMSB	BComm	COMM 215 (core) FINA 385 (core)
Gina Cody and FAS	BCompSc Mathematics and Statistics and Computer Applications	MAST 218 (core) MAST 333 (core) MAST 234 (elective) MAST 324 (elective)
Gina Cody	BEng Electrical Engineering, or Software Engineering	MAST 218 (core) MAST 221 (core) MAST 330 (elective)

<sup>1</sup>Including course equivalents

As these courses cannot be credited for both a Minor and a Major/Specialization, the necessary credits for the Minor can be obtained by completing additional courses from the elective course list. This is an additional rationale for the inclusion of the advanced mathematics courses which include additional pre-requisites in the elective course list. However, because only two of the suggested eleven electives are required for this Minor, students with overlap between their Major (or Specialization) and the Minor will have sufficient other electives to choose from.

**Resource implications:**

One new course in the Mathematics and Statistics department (MAST 336: Insurance Mathematics) would be needed for this Minor. Offering this course would require the addition of a course section (3 credits) to the department's current allocation. The rationale behind the inclusion of this class is to give the students an overview of quantitative concepts used in various branches of insurance and such as life insurance, Property and Casualty insurance and pension plans. The course may also be of interest to students in our other programs (BA/BSc Major in Mathematics and Statistics; Minor in Mathematics and Statistics). Several full-time faculty have been identified as potential instructors for the course (P. Gaillardetz, F. Godin, I. Groparu, Y. Lu, M. Mailhot). The course outline is included in the appendix.

**PROGRAM CHANGE:** Minor in Quantitative Finance and Insurance

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics & Statistics  
**Program:** Minor in Quantitative Finance and Insurance  
**Degree:** Minor  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

Editorial       Requirements       Regulations       Program Deletion       New Program

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>Minor in Quantitative Finance and Insurance (24 credits)</b></p> <p>18 credits:</p> <ul style="list-style-type: none"> <li>• MAST 218 Multivariable Calculus I (3.00)</li> <li>• MAST 221 Applied Probability (3.00)</li> <li>• MAST 333 Applied Statistics (3.00)</li> <li>• MAST 335 Investment Mathematics (3.00)</li> <li>• MAST 336 Insurance Mathematics (3.00)</li> <li>• MACF 301 Introduction to Quantitative Finance (3.00)</li> </ul> <p>6 credits of electives chosen with prior departmental approval from the following courses:</p> <ul style="list-style-type: none"> <li>• MACF 401 Mathematical and Computational Finance I (3.00)</li> <li>• MACF 402 Mathematical and Computational Finance II (3.00)</li> <li>• MAST 223 Introduction to Stochastic Methods of Operations Research (3.00)</li> <li>• MAST 234 Linear Algebra and Applications I (3.00)</li> <li>• MAST 324 Introduction to Optimization (3.00)</li> <li>• MAST 330 Differential Equations (3.00)</li> <li>• MAST 397 Topics in Mathematics and Statistics (3.00)</li> <li>• MAST 398 Reading Course in Mathematics and Statistics (3.00)</li> <li>• STAT 380 Statistical Learning (3.00)</li> <li>• 400-level Finance courses</li> </ul> <p><i>Notes:</i></p>

- *Students enrolled in a Mathematics and Statistics program who take probability/ statistics courses in other departments may not receive credit for this course.*
- *FINA 395, 412 and 413 can not be taken for credit toward this Minor.*
- *In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with an elective course relevant to the program, in consultation with an undergraduate program advisor. No more than six credits can be from FINA courses.*

**Rationale:**

The Minor aims to provide training in fundamental mathematical theory, and insurance- or investment- specific applied content for students who are pursuing a Major or Specialization outside of the Department of Mathematics and Statistics.

Similar undergraduate programs in financial mathematics are offered in Canada and the U.S. However, in contrast to all of these other programs, this Minor is intended for students who are pursuing an undergraduate degree outside of the Department of Mathematics and Statistics (such as Economics, or Business Administration). Thus the expectations of the minimum mathematics background differs widely between these two student audiences. This Minor will provide a more general overview of a select number of relevant topics, and will be the only one of its kind offered in Canada.

Note to calendar editor: MAST 336 is also added to the Minor in Mathematics and Statistics (see MATH-37).

**Resource Implications:**

One section will need to be added to the department's current allocation for the Minor. All other courses are from our current course offerings and the resource implications are minimal.

**COURSE CHANGE:** MAST 336      New Course Number:

**Proposed**  Undergraduate or  Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023  
**Implementation Month/Year:** September 2022

**Faculty/School:** Arts and Science  
**Department:** Mathematics & Statistics  
**Program:** Minor in Quantitative Finance and Insurance  
**Degree:** Minor  
**Calendar Section/Graduate Page Number:** 31.200

**Type of Change:**

- |   |   |  |                                       |
|---|---|--|---------------------------------------|
| <input type="checkbox"/> Course Number      | <input type="checkbox"/> Course Title     | <input type="checkbox"/> Credit Value          | <input type="checkbox"/> Prerequisite |
| <input type="checkbox"/> Course Description | <input type="checkbox"/> Editorial        | <input checked="" type="checkbox"/> New Course |                                       |
| <input type="checkbox"/> Course Deletion    | <input type="checkbox"/> Other - Specify: |  |                                       |

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p><b>MAST 336 Insurance Mathematics (3.00)</b></p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: MAST 221 or equivalent; MAST 335 or equivalent.</p> <p><i>Description:</i> This class provides an overview of techniques used by life insurers, pension plans and Property and Casualty insurers to quantify and measure their liabilities. The course is subdivided into two main parts. The first aims at studying life-contingent liabilities such as life insurance and annuities. The second part provides an overview of methods utilized by Property and Casualty insurers to represent their liabilities.</p> <p><i>Component(s):</i> Lecture.</p>
<p><b>Rationale:</b>                      This is a core course in Insurance Mathematics that is fundamental to training for careers in insurance companies. It is a required course in the Minor in Quantitative Finance and Insurance and is included as a course in a '6 credits chosen from' list for the Minor in Mathematics and Statistics.</p>	
<p><b>Resource Implications:</b>                      Current faculty members can teach this course, but a single section will need to be added to the department's current allocation. A TA (marker) will also be required.</p>	
<p><b>Other Programs within which course is listed:</b>                       None.</p>	

## MEMO

DATE: October 20, 2021

TO: Dr. Richard Courtemanche, Associate Dean, Academic Programs, FAS

FROM: Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching & Learning

SUBJECT: Math Minor in Quantitative Finance and Insurance

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I am writing on behalf of Dr. Anne Whitelaw, Provost, to support the *exceptional* request by the Faculty of Arts and Science to approve the MATH-33 dossier which proposes a new Minor in Quantitative Finance and Insurance through the Department of Mathematics & Statistics.

The new minor is composed of 24 credits, 18-cr of which are core, required classes, with the remaining 6-cr as “electives”. The electives comprise a list of 11 possible courses from which student may choose two to complete the proposed minor requirements. The program focuses on math fundamentals to develop theoretical knowledge and technical tools to understand subsequent applied content in finance and insurance.

The program is designed for non-MATH majors, and the department undertook collaboration with the Department of Finance. The Department anticipates that the majority of interested students will come from Finance, Management, Economics and Engineering. Anticipated enrolment is between 10-15 students, though we note that these do not represent *net new students* to the University. To launch the program, the Department will use existing MATH and STAT courses, with the exception of one new course. As the Provost’s office was not asked to cover this course, we assume it is coming from the Faculty’s allocation of courses.

Given the relative low cost of the endeavour, we find the proposal an attractive one, and wish to see the enrolment grow beyond the anticipated 10-15 students, which is too low a target to easily justify a new course and TA resources. To achieve this goal, we would like the Department to modify the requirements for this minor within the next year such that JMSB students will not exceed their degree requirements by 6 credits. Should a student take some of the suggested electives, they would exceed their degree requirements by even more credits. We believe this will pose a barrier to enrolment and could potentially delay graduation for JMSB students.

To mitigate this issue, we recommend the following be implemented:

- Sufficient courses are offered throughout the summers so that students can complete their degree and minor requirements in the normal timeframe. This will require careful planning with the targeted Departments named in the proposal.
- We very strongly suggest that after the first year, a modified version of the minor should be created for JMSB students. In particular, we note that some of the required courses have equivalents in other programs, including COMM 214, FINA 385, ECON 221 and, COMP 233 which act as anti-requisites. Yet, some of these courses are requirements for students in their programs. Since they cannot both count towards their major and minor, the program structure will need to account for the requirements in their majors for students to successfully complete the minor. To use an example from the JMSB, since this is the target audience: FINA 385 is a required course for the minor, Major and Honours in Finance, yet is listed as an anti-requisite for MACF 301, a required course in the minor. One method for resolving this issue and alleviating the need to take an extra 6-credits would be to reduce the overall credit value of the minor.

The need to provide additional training and specialized knowledge in this area also suggests that an *expanded* certificate program (30-cr) should be explored. This could target recent graduates of the JMSB and related fields and could provide *new* revenue streams to the university as part of a lifelong learning strategy. We suspect Economics students are also likely to be interested in this type of a certificate, though we are less convinced by the argument that current or graduated Engineering students would be interested in either a certificate or minor program. There may also be great potential for exploring some experiential learning opportunities within a Certificate, particularly if the Department was to pair with an external industry partner. We encourage the Department to consider an expansion into a certificate after the first year of its introduction and we offer resources within the Provost's office (i.e., Curriculum Developers to explore the specific market needs; the University Curriculum Administrator's assistance; and, the resources of the Experiential Learning office) to support its development.

cc: Dr. Anne Whitelaw, Provost & Vice-President, Academic  
Dr. Pascale Sicotte, Dean, Faculty of Arts & Science  
Dr. Cody Hyndman, Chair, Department of Mathematics & Statistics  
Ms. Julie Johnston, University Curriculum Administrator  
Mr. Graham Maisonneuve, Director, Finance & Budgets, Office of the Provost  
Dr. Nadia Bhuiyan, Vice-Provost, Experiential Learning and Partnerships



## MAST 336: Insurance Mathematics

### CLASS OUTLINE

#### General description

This class provides an overview of techniques used by life insurers, pension plans and Property & Casualty insurers to quantify and measure their liabilities. The course is subdivided into two main parts. The first aims at studying life-contingent liabilities such as life insurance and annuities. Life distribution related probabilities are studied and utilized to measure the actuarial present value of cash flows generated by life-contingent insurance contracts. The second part provides an overview of methods utilized by Property & Casualty insurers to represent their liabilities. Frequency and severity models are discussed. Aggregate claims models are illustrated. Incurred but not reported (IBNR) loss triangle are introduced.

#### Prerequisites

- MAST 221 (or STAT 249): Applied Probability
- MAST 335 (or ACTU 256): Investment Mathematics

#### Topics covered

##### Life contingencies part

- Survival distributions
  - Probability of age at death
  - Survival Function
  - Curtate lifetime
  - Mortality tables
  - Select and ultimate
  - Intra-year mortality interpolation
- Insurance benefits valuation
  - Term insurance
  - Whole-life insurance
- Annuities and endowment valuation
  - Lifetime annuities
  - Temporary annuities
  - Deferred annuity
  - Non-level annuities
- Pension plans
  - Liability specification and measurement

##### Property & Casualty part

- Frequency and severity distributions

- Frequency: Poisson, Negative Binomial
  - Severity: Exponential, Gamma, Inverse Gaussian
- Modifications to loss distributions
  - Deductible, Franchise, Co-insurance, Limits
- Aggregate claims models
  - Compound-Poisson distributions
- IBNR Loss triangles
  - Chain-ladder methods
- Economic capital
  - Risk measures: Value-at-Risk, Tail Value-at-Risk

## INTERNAL MEMORANDUM

**TO:** Dr. Cody Hyndman, Chair, Department of Mathematics & Statistics

**FROM:** Imants Paeglis, Interim Chair, Department of Finance

*Imants Paeglis*

**DATE:** February 17, 2021

**SUBJECT:** Letter of Support - Minor

I would like to express the support of the Finance Department Curriculum Committee for your proposal on the creation of Minor (and Elective Group) in Quantitative Finance and Insurance. It has been long time in coming and is a welcome and necessary addition (and complement) to the Concordia's offerings in Finance. I believe it will be of interest to our more quantitatively inclined students.



**SENATE  
OPEN SESSION  
Meeting of December 10, 2021**

**AGENDA ITEM:** Progress report of the working group on Pass/DISC (Pass/Fail)

**ACTION REQUIRED:** For approval

**SUMMARY:** The Concordia Student Union (CSU) would like to pass a motion to reinstate the temporary Pass/DISC (also often referred to as Pass/Fail) option offered at the beginning of the pandemic.

**BACKGROUND:**

At its meeting of December 10, 2021, Senate will be updated on the report of the working group on Pass/DISC. Following the presentation of the recommendations from the working group, Senate will be asked to vote on the CSU proposed motion.

The CSU is seeking Senate's approval to bring back the Pass/DISC option for the 2021-22 academic year as an accommodation measure for students.

**DRAFT MOTION:**

Whereas the Covid-19 pandemic is still ongoing;

Whereas the mental health of students is still negatively affected despite the return to campus;

Whereas student's ability to succeed is still heavily affected by the impacts of the pandemic;

Whereas Concordia announced recently that students are able to discontinue their course up until the last day before the exam period for this current academic year which is a first step in supporting students who are struggling under high workload;

Whereas some students may not be able to use the late discontinue option as it might affect subsequent immigration processes or loans, as well as having financial impacts;

Whereas in a survey conducted by the CSU, a majority of student respondents asked for the return of Pass/DISC (also often referred to as Pass/Fail) as a means to alleviate stress and anxiety;

Whereas in the recent CSU Byelections, 93.8% of voters voted yes to the question “Do you believe Concordia University should implement the pass/fail option for this academic year and until the end of the pandemic?”;

Whereas Concordia has stated its commitment to accessibility, addressing the diverse needs of students, and to listening to and working with students, as presented at the October Senate meeting; and

Whereas the mental health of our students has been consistently deemed an important topic to be addressed and prioritized by the administration;

Be it resolved:

That a Pass/DISC ("Pass/Fail") option be implemented for the 2021-22 academic year.

**PREPARED BY:**

Name: Shelina Houssenaly

Date: December 2, 2021



**SENATE  
OPEN SESSION  
Meeting of December 10, 2021**

**AGENDA ITEM:** Presentations and motion regarding proposed Bill 2

**ACTION REQUIRED:** For approval

**SUMMARY:** In response to concerns expressed by members of the Concordia community regarding the implications of the proposed Bill 2, at the suggestion of the CSU, it is proposed that Senate adopt a resolution reaffirming its values.

**DRAFT MOTION:**

Whereas Concordia University's Mission, Vision and Values statement expressly refers to:

- Valuing the openness and respect necessary to provide opportunities to a highly diverse student and faculty population;
- Diversity at Concordia being interpreted broadly and embracing diversity in ethnicity, gender, language and accessibility; and
- Enabling faculty, staff and students to make a progressive impact on their world in ways that respect and engage the uniqueness of each individual;

Whereas Concordia University is committed to promoting a healthy, secure, respectful and sustainable learning environment and workplace;

Whereas Concordia has often shown support for trans students and the Centre for Gender Advocacy, a Concordia student fee-levy group, has played a leading role in fighting for trans rights in Montreal and Quebec for many years;

Whereas Quebec Justice Minister Simon Jolin-Barrette has introduced Bill 2, *An Act respecting family law reform with regard to filiation and amending the Civil Code in relation to personality rights and civil status* ("Bill 2");

Whereas members of the Concordia community have expressed concerns that as drafted, certain provisions contained in Bill 2 could have the effect of:

- Violating principles of self-determination, bodily autonomy, privacy, liberty and equality;
- Discriminating against and harming trans individuals; and
- Creating additional obstacles for trans individuals.

Be it resolved:

That Senate reaffirm the unifying values of Concordia University as an open, inclusive, highly diverse, respectful, secure, sustainable, accessible and progressive university which is profoundly dedicated to these values as well as to recognizing the intersectionality of our community members;

That Concordia University further commit to supporting its trans students, faculty, and staff; and

That Senate object to any actions that infringe upon those values or that commitment.

**PREPARED BY:**

Name: Shelina Houssenaly

Date: December 1, 2021