# UNIVERSITÉ Concordia UNIVERSITY

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

Held on Friday, March 19, 2021, at 2 p.m.
via Zoom Video Conferencing

*Join Zoom Meeting:* [https://concordia-ca.zoom.us/j/92591397110](https://concordia-ca.zoom.us/j/92591397110)
*Meeting ID: 925 9139 7110*
*Passcode: 376861*
*Join by conference call: 1-438-809-7799 Canada*

| **Item** | | **Presenter/s** | **Action** |
|---|---|---|---|
| 1. | Call to order | G. Carr | |
| 1.1 | Adoption of the Agenda | G. Carr | Approval |
| 1.2 | Adoption of February 19, 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 (US-2021-2-D1) | A. Whitelaw | Information |
| **CONSENT AGENDA** | | G. Carr | |
| 5. | Academic Planning and Priorities report (US-2021-2-D2) | | Information |
| 6. | Academic Programs Committee – Report and recommendations (US-2021-2-D3) | | Approval |
| 6.1 | Undergraduate curriculum proposals – Faculty of Arts and Science | | |
| 6.1.1 | Department of Theology (US-2021-2-D4) | | |
| 6.1.2 | Department of Education (US-2021-2-D5) | | |

6.2   Graduate curriculum proposals – John Molson School of Business

6.2.1  Master's programs – Co-op (US-2021-2-D6)

6.2.2  Master of Science (Finance) (US-2021-2-D7)

6.2.3  Master of Science (Administration, Decision Sciences and Management Information Systems) Option (US-2021-2-D8)


**REGULAR AGENDA**


7.    Proposal regarding Fall Reading Week (US-2021-2-D9)      A. Whitelaw       Approval


8.    Question period *(maximum - 15 minutes)*


9.    Other business


10.   Adjournment                                              G. Carr

# MINUTES OF THE OPEN SESSION
# OF THE MEETING OF SENATE

Held on Friday, February 19, 2021,
immediately following the meeting of the Closed Session
via Zoom Video Conferencing

PRESENT

Voting members:  Graham Carr *(Chair)*; Md Foysal Ahmed; Adewunmi Ajike; Ali Akgunduz; Shimon Amir; Nicholas Bailey; Leslie Barker; Matthew Barker; Guylaine Beaudry; Elizabeth Bloodgood; Catherine Bolton; Christopher Brett; Sally Cooke; Frank Crooks; Anne-Marie Croteau; Selvadurai Dayanandan; Mourad Debbabi; Alex De Visscher; Effrosyni Diamantoudi; Sri Divya Doppalapudi; Linda Dyer; Mary Esteve; Ariela Freedman; Annie Gérin; Vince Graziano; Fiona Harrison-Roberts; Safwan Hye; Debra Irabor; Hannah Jamet-Lange; Isaiah Joyner; Samantha Leger; Colin Long; Sarah Mazhero; Christopher Moore; Catherine Mulligan; Helena Osana; Virginia Penhune; Gilles Peslherbe; Duraichelvan Raju; Praneetha Reddy; Pascale Sicotte; Reza Soleymani; Robert Soroka; Ron Stern; Kelly Thompson; Guylaine Vaillancourt; Anne Whitelaw; Paula Wood-Adams; Radu Zmeureanu

Non-voting members:  Paul Chesser; Stéphanie de Celles; Michael Di Grappa; Isabel Dunnigan; Nadia Hardy; Tom Hughes; Frederica Jacobs

Also attending:  William Cheaib, Jason Ens, Sabrina Lavoie, Monica Mulrennan, Lisa Ostiguy, Lisa White

ABSENT

Voting members:  Mehdi Farashahi; Elizabeth Fast; James Hanna; Alexander Stojda

Non-voting members:  Philippe Beauregard; Denis Cossette; Candace Jacobs

1.    **Call to order**

The meeting was called to order at 2:09 p.m.

**1.1 Adoption of the Agenda**

R-2021-1-3     *Upon motion duly moved and seconded, it was unanimously resolved that the Agenda of the Open Session be approved.*

**1.2 Adoption of December 4, 2020 Minutes**

R-2021-1-4     *Upon motion duly moved and seconded, it was unanimously resolved that the Minutes of the Open Session meeting of December 4, 2020.*

**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 conveyed the following to Senators:

- The death of Brian Gallery, a Loyola alumnus, philanthropist and pivotal figure in founding and sustaining the Irish Studies program.

- The appointment of Lisa White as the first Executive Director of the University's newly formed Equity Office, whose mission is to develop and implement the University's equity, diversity and inclusion action plan.

- Concordia was named a top Montreal employer for a sixth year in a row by the editors of Canada's Top 100 Employers.

- The undergraduate virtual Open House will take place this weekend.

- Earlier this week, a town hall was held, attended by over 350 faculty, researchers, staff and students, to seek community input regarding a proposal to create a School of Health at Concordia.  The objective is to hold a series of consultations in the coming months and to bring the proposal for approval by Senate and the Board, in May and June, respectively.

- In response to the Minister of Higher Education's press conference a few weeks ago, Dr. Carr reiterated the University's previously announced approach that courses will continue to be delivered remotely this winter while more opportunities will be provided for students to come voluntarily to campus in small groups, respecting health and safety measures, for non-course specific activities.  Similarly, online course delivery will continue in summer while opportunities of campus access will be further offered, depending on how the public health situation evolves.

- Dr. Carr spoke briefly about what does and should the future hold for how Concordia intends to perform its activities as a future-oriented university in

the post-pandemic context which, effectively, is about designing our new normal. Anne Whitelaw and Michael Di Grappa will co-preside this initiative, which will be comprised of a steering committee, a suite of working groups with broad representation across the community but also drawing on external expertise. We will be building on some of the lessons learned over the last several months through various surveys, consultations, town halls, together with a series of community consultations and a website where people can make suggestions and follow evolution of planning. The objective is to present a preliminary report and proposed action plan in September. Dr. Carr added that he was bringing the matter to the attention of Senate at this point so that Senate was aware at an early stage of how the University intended to proceed in the months ahead.

**4.    Academic update** (US-2021-1-D1)

Noting that she had no additional comments to her written report, Dr. Whitelaw thanked everyone who contributed to the report.

*CONSENT*

**5.    Committee appointments** (US-2021-1-D2)

*R-2021-1-5    That the committee appointments be approved.*

**6.    Academic Planning and Priorities Committee report** (US-2021-1-D3)
**7.    Research Committee report** (US-2021-1-D4)
**8.    Registrar's report on Fall 2020 graduation statistics** (US-2021-1-D5)

These reports were provided for information.

**9.    Academic Programs Committee – Report and recommendations** (US-2021-1-D6)

**9.1    Undergraduate curriculum proposal – Faculty of Arts and   Science – Liberal Arts College** (US-2021-1-D7)

*R-2021-1-6    That the undergraduate curriculum proposal in the Faculty of Arts and Science be approved.*

**9.2    Undergraduate curriculum proposal – Gina Cody School of Engineering and Computer Science – Department of Computer Science and Software Engineering** (US-2021-1-D8)

*R-2021-1-7    That the undergraduate curriculum proposal in the Gina Cody School of Engineering and Computer Science be approved.*

**9.3    Undergraduate curriculum proposal – Office of the Provost – Recognition of SKIL courses under the program title Humanities+** (US-2021-1-D9)

*R-2021-1-8*    *That the undergraduate curriculum proposal in the Office of the Provost be approved.*

**9.4**    **Graduate curriculum proposals – Faculty of Arts and Science**
**9.4.1**  **Department of Economics** (US-2021-1-D10)
**9.4.2**  **Department of Philosophy** (US-2021-1-D11)

*R-2021-1-9*    *That the graduate curriculum proposals in the Faculty of Arts and Science be approved.*

**9.5**    **Graduate curriculum proposals – Gina Cody School of Engineering and Computer Science**
**9.5.1**  **MASc and MCompSc programs** (US-2021-1-D12)
**9.5.2**  **Department of Computer Science and Software Engineering** (US-2021-1-D13)

*R-2021-1-10*  *That the graduate curriculum proposals in the Gina Cody School of Engineering and Computer Science be approved.*

**9.6**    **Graduate curriculum proposals – John Molson School of Business**
**9.6.1**  **MBA programs** (US-2021-1-D14 and D15)
**9.6.2**  **MSc in Management** (US-2021-1-D16)

*R-2021-1-11*  *That the graduate curriculum proposals in the John Molson School of Business be approved.*

**9.7**    **Graduate curriculum proposal – School of Graduate Studies - Graduate Certificate in University Teaching (UNIT)** (US-2021-1-D17)

*R-2021-1-12*  *That the graduate curriculum proposal in the School of Graduate Studies be approved.*

## *REGULAR*

**10.**    **Presentation on Sustainable Development Goals**

During the course of a presentation given by William Cheaib, Monica Mulrennan, Jason Ens and Sabrina Lavoie, Senators were provided with an overview of Concordia's commitment to Sustainable Development Goals (SDGs) and the Voluntary University Review (VUR) process.

Mr. Cheaib recalled that the SDGs were adopted by the United Nations in 2015 to provide a framework for sustainable development by setting 17 goals, while the purpose of a VUR is to determine the best way for the university to contribute to achieving the SDGs. Concordia's commitment to the SDGs came at the beginning of the United Nation's *Decade of Action* to attain the goals; this commitment broadens

the scope of the university's efforts, joining with governments, businesses, and civil society organizations to take urgently needed action over the next decade to put our societies on more sustainable trajectories.

Dr. Mulrennan noted that the SDGs serve to remind us that economies and societies are embedded within, rather than separate from, the biosphere.  They help deepen our understanding of interconnections within and across these domains while highlighting the critical role of partnerships in advancing sustainable thinking and action.

The SDGs help researchers find and forge new connections, fostering collaborative transdisciplinary research inside our institution as well as with researchers but also practitioners, policymakers, and organizations beyond Concordia. This growing prominence of SDGs as a framework for collaborative impact-oriented research is reflected in the increased attention the SDGs are beginning to receive from research funding agencies.

The SDGs also help us benchmark and chart our progress, providing common objectives, targets and language around which to partner and collaborate and provide a framework for the Times Higher Education University Impact Ranking, one where Concordia has done well.  Concordia is well positioned to engage the SDGs and to contribute to the urgent, integrated and transformative actions needed to shift the world onto a more sustainable, just and resilient path.

Dr. Ens explained that a voluntary review is a focused form of self-assessment that helps us understand how we can connect and contribute to the SDGs.  Doing a VUR echoes work done by countries and cities to do rigorous self-assessment with respect to the SDGs.  Corporations have also begun to report on their performance in relation to the SDGs as part of their ESG (environmental, social, and governance) commitments.  Recently some universities, such as Carnegie Mellon University and the University of Toronto, have begun to do VURs or equivalent exercises.

University reviews differ from national or local reviews in that universities do not hold primary accountability for performance on the SDGs.  VURs are efforts to think about how universities can align with, contribute to, and help catalyze efforts to achieve the SDGs, even if primary accountability is held elsewhere.  Dr. Ens outlined the highlights of the sustainability assessment undertaken in 2015 and the preliminary report on SDG-related activity produced in December 2020.  In sum, a VUR is an exercise focused on taking stock and goal setting in relation to the 17 SDGs.

Mr. Cheaib made the point that the University's commitment to the SDGs aligns tightly and naturally with its nine strategic directions, in particular, *Get our hands dirty*, *Mix it up, Embrace the city, embrace the world*, and *Go beyond*.  They fit with many of our research priorities, provide useful objectives around which to build meaningful partnerships and collaborations and underscore and reinforce many of the University's current efforts and initiatives.

Ms. Lavoie conveyed how the five-year Concordia Sustainability Action Plan, launched last November, aligns perfectly with the SDGs initiatives. Many connections can be made between the Action Plan's objectives and the SDGs, in particular around food and hunger, sustainable education, clean energy, sustainable production and consumption and climate action. The Sustainable Action Plan thus provides a solid foundation for Concordia's broader efforts around the SDGs. She noted the plan to re-engage students groups that are heavily involved in sustainability efforts in our SDG effort, underlining their valuable participation in the sustainability efforts.

Mr. Ens summarized the VUR process, which consists of documenting current activities, identifying gaps and opportunities, articulating goals and objectives and identifying priority actions and partnerships. Analysis will include a gap analysis to help us understand what we are already doing to advance the SDGs. A report will be widely circulated and brought back to Senate for discussion, which will contain our SDG-based self-assessment as well as recommended goals, objectives, and priority actions.

Mr. Cheaib concluded the presentation by apprising Senators of the composition of the Steering Committee, Student Advisory Committee, VUR Planning Team and of the individuals identified as Key Liaisons.

## 11. Presentation on Equity, Diversity and Inclusion Plan

During the course of a presentation given by Lisa Ostiguy and Lisa White, Senate was updated on the Equity, Diversity and Inclusion (EDI) working group recommendations and the EDI office.

Dr. Ostiguy spoke of a three-phase process (consultations, recommendations, and implementation). During Phase 1, from January to June 2019, the Advisory Group on EDI, composed of a cross-section of students, faculty and staff selected on a voluntary call, consulted the University community about the processes and existing practices, needs and suggestions related to EDI. Those consultations included hosting open IDEAS cafés, collecting "sense of belonging" stories from students in a conversation pod, testing staff and faculty's level of agreement with EDI statements as well as a scan of EDI practices in North American universities, call for online submissions and interviews with university stakeholders.

During Phase 2, from September 2019 to August 2020, the Working Group on EDI, composed of a cross-section of students, faculty and staff representative of the diverse areas of the University, addressed priorities stemming from community consultations in Phase 1 and developed a strategy for advancing EDI in all aspects of life at Concordia, with the goal of coordinating and enhancing on-going initiatives. The priorities identified in Phase 1 were tested via a university-wide EDI survey, a series of EDI conversations and meetings with units and departments across the University. Dr. Ostiguy provided some highlights of the survey results.

Following the consultations, the Working Group generated five guiding principles and 115 recommendations. These recommendations are organized into three pillars which provide a foundation for a coordinated EDI strategy. The three pillars addressed five areas of discrimination and harassment reported by members of the University community and include gender, race/ethnicity, disability, sexual orientation and religion.

Ms. White said that an immediate priority identified by the EDI Working Group was the need to establish an Equity Office. Now established, the Equity Office, in collaboration with partners, will develop a strategic plan to advance equity, diversity, accessibility and inclusion at all levels of the University. Priorities, informed by the EDI Working Group recommendations include education and training, advising and support, and response and intervention. The five guiding principles of the Equity Office are equity, diversity, inclusion, accessibility, and intersectionality.

Ms. White concluded by speaking of the Equity Office's approach, which will be informed by research and data, consultative, engaged with the community and partner with other specialized units, such as the Office of Indigenous Directors, Black Perspectives Office, etc.

Following the presentation, Ms. White, Drs. Ostiguy, Carr and Whitelaw responded to comments and questions of clarification.

**12.    Question period**

Referring to the recent announcement of hybrid learning for the fall semester, Dr. Freedman voiced concerns about the impact on the mental health of students and wondered if Concordia is pivoting toward becoming more of an online university. Dr. Carr explained that the hybrid model was announced because, while the goal is obviously to enable more in-person courses and activities, at this stage, in February, it is impossible to forecast the health situation for fall and what guidelines and restrictions may be imposed by public health authorities. He added that there is no plan or ambition that Concordia will become an online university and expressed some surprise that he should even have to say this.

That said, it is clear from the experience of the past eleven months that some activities can effectively be delivered in an online environment. Consultations and reflections are ongoing with the Deans and Department Chairs about priorities for fall.

With respect to the student mental health issue, it is also the case that the negative impact of the lack of face-to-face encounters and attendant social dynamics must be balanced by an approach which is respectful of physical health and safety. The University has committed many additional resources to support student mental

health and all of higher education is going to have to reflect and figure out what it wants to do in the future.

Dr. Whitelaw added that the Advisory Committee for Teaching and Learning (ACTL) is looking into how activities are delivered now while leading a university-wide conversation and consultation about pedagogy in order to identify the best approach for teaching and learning in the future. Dr. Carr noted that this initiative is ongoing and the ACTL report and proposals will be presented to Senate in due course.

Ms. Ajike asked whether a graduation ceremony will be held this spring.
Dr. Whitelaw replied that the health situation does not permit holding an in-person ceremony but added that a virtual celebration is being planned, in consultation with students, Laura Mitchell and Andrew Woodall.

## 13. Other business

There was no other business to bring before the meeting.

## 14. Adjournment

The meeting adjourned at 3:40 p.m.


Danielle Tessier
Secretary of Senate

**Internal Memorandum**

| | |
|---|---|
| **To:** | Members of Senate |
| **From:** | Anne Whitelaw, Interim Provost and Vice-President, Academic |
| **Date:** | March 10, 2021 |
| **Re:** | Academic Update |

I hope everyone had a restful break. Judging from all the activities and new initiatives on campus, the Concordia community has been very busy, and it was certainly a well-deserved break.

Concordia's newly formed Equity Office has appointed Lisa White as its inaugural executive director, effective May 1st. Lisa brings to her role deep knowledge and expertise in applying and administering Concordia's Code of Rights and Responsibilities, a strong focus on outreach and education and close to a decade of experience working to address issues of discrimination and equity within the university community. The Equity Office will serve as an umbrella unit to develop and implement the university's equity, diversity and inclusion action plan, coordinate and harmonize related resources and initiatives across the university and provide services and support to the community.

To support the mandate of the Equity Office to see all community members not only reflected but welcomed, included and supported in their efforts to contribute to all areas of university life, Concordia conducted a confidential equity census for faculty and staff. One of Concordia's challenges in advancing equity, diversity and inclusion is a lack of institutional data. Demographic information is an essential first step for the university to meaningfully discuss faculty and staff underrepresentation, design and conduct equitable search processes, and examine institutional barriers for faculty and staff to fully participate in university life.

Starting on March 8th, students, faculty and staff can book spaces for social-distancing activities (SDA) on both campuses. With the Government of Quebec easing some restrictions for postsecondary institutions, on-campus social distancing activities can help reduce the sense of isolation felt by many Concordians. Available on the Sir George Williams and Loyola campuses, SDA spaces have been carefully configured to enable participants to maintain a distance of at least two metres from others and will be sanitized between bookings to help reduce the risk of COVID-19 transmission. Bookings must be made a minimum of three business days in advance of the scheduled activity for one of two daily available timeslots. Space can be booked from 9 a.m. to noon or from 1 to 4 p.m.

The Department of Journalism has officially launched its Minor in Science Journalism. The 24-credit minor in science journalism will be available to all undergraduate students in a Bachelor of Science program. These students will have access to hands-on reporting and multimedia courses in the department, capped off with two dedicated courses in science journalism. The goal is to significantly enhance the communication skills of undergraduate science students at the university. It's an added plus for their BSc degree and a chance to shape public discussions about pandemics, climate change, health, genetic engineering, synthetic biology, sustainability and more.

The Professional Goal-Centric Certified Coach program (PGCC), offered by the John Molson Executive Centre, has been approved by the International Coaching Federation (ICF). As such, it enables participants

to master the ICF's core coaching competencies, thereby equipping participants to perform effectively as a certified coach. Through program work and supervised practice, it is anticipated that students will develop the requisite perspectives and skills to function effectively in coaching relationships. Practical coaching assignments will deepen students' experiential foundation for working with future clients. Successful completion of PGCC as an ICF-approved ACTP program qualifies participants for PCC-level accreditation from the ICF.

During Montreal's fall 2020 lockdown, 25 second-year communication studies students turned their cameras on family and close friends whose livelihoods had been affected by the COVID-19 pandemic. Normally, the class project for Moving Images II (COMS 384) calls for students to work in small groups to film portraits of working professionals. But the public health measures necessitated adapting the assignment to ensure student safety. More details here.

The School of Graduate Studies led the Global Impact Project to glean greater insight into the types of careers our PhDs pursue after graduation.  The study tracks the career development and current employment of PhDs who earned their degree at Concordia between 2009 and 2019, and successfully located 92% of our PhD graduates from that period. The results tell a compelling story of individuals pursuing rewarding careers in all sectors of society. As interdisciplinary artists, software developers, climate scientists and senior executives, Concordia PhDs are using their creative and critical capabilities to tackle some of today's most pressing global challenges.

In an effort to support student success while promoting University-wide initiatives and research-creation projects, 4<sup>TH</sup> SPACE partnered with the Concordia University Centre for Creative Reuse (CUCCR), the Curating and Public Scholarship Lab (CaPSL) and the Studio Arts MFA program to activate three month-long series of live events. CUCCR's weekly making sessions invited community members to learn about creative reuse through experiential learning activities; CaPSL's major international residency project brought together over 300 participants to experience a virtual exhibition and conversation series centered on questions of Caribbean identity, migration, and water; and each MFA stream found fun and creative ways to walk potential students, established artists and other art world professionals through their research practices.

The Institute for Investigative Journalism has launched its latest collaborative project which looks at Indigenous communities' water and health. The IIJ also received funding from Google GNI Innovation challenge to launch a data hub for Concordia-led, Canada-wide journalism collaborations and information sharing.  And in more IIJ news, the Inspirit Foundation awarded the IIJ a $110,000 gift that will fund a two-year, full-time position to amplify Indigenous voices.

Continuing Concordia graduate students' growing recognition at the provincial level, Mohamed Amine Arfaoui (PhD candidate, Information and Systems Engineering) has been awarded February's *Relève étoile Louis-Berlinguet by the Fonds de recherche du Québec – Nature et technologies* (FRQNT) for his research article *Physical Layer Security for Visible Light Communication Systems: A Survey,* which was published in IEEE Communications Surveys and Tutorials.

In early March, 4<sup>TH</sup> SPACE collaborated with CISSC, FAS and FOFA to facilitate three public engagement events as part of Pablo Gershanik's week-long residency at Concordia.  The actor, director and professor presented his work on intimate models, object theatre, memory and resilience in a virtual artist residency March 8<sup>th</sup> to 12<sup>th</sup>. Gershanik was in conversation with FAS and Fine Arts faculty in live events hosted by 4<sup>TH</sup> SPACE as well as visiting classes in departments in Fine Arts and to the Centre for Oral  History and

Digital Storytelling. Check out the website for the news story, event links and registration, and two pre-recorded conversations with Pablo – one with Patrick Leroux in French and the other in English with Mark Sussman. Hosted by the Faculty of Arts and Science, the Faculty of Fine Arts, the Centre for Interdisciplinary Studies in Society and Culture and 4<sup>TH</sup> SPACE.

As part of the ongoing celebrations of the 20th anniversary of the renaming of the John Molson School of Business, the faculty is hosting a series of speaking events (four in total). Each presentation in this series highlights one of the four research clusters at the business school. The third event in the series, titled *The quest for transparency:  The importance of governance and accountability in both public and private sector organizations,* took place on March 16<sup>th</sup>, 2021, from 12-1 p.m. Guest speakers included: Karen Hogan, BComm 95, CPA, CA, Auditor General of Canada; Michel Magnan, PhD, FRSC, FCPA Auditor, FCA, ASC, C.Dir, Professor, Accountancy, Stephen A. Jarislowsky Chair in Corporate Governance; Emilio Boulianne, PhD, FCPA, FCGA, CITP, ICD.D, Professor, Accountancy, Director, KPMG-JMSB Entrepreneurial Indices research centre.

The annual John Molson Undergraduate Case Competition (JMUCC) is the largest of its kind in the world. For its 13<sup>th</sup> year, the organizers of the international competition adapted the event to run entirely online, to respect COVID-19 health and safety measures. "This year will test delegates on a whole new level," explains Charles Roy, president of JMUCC. "With the new work reality, this case competition is going to be a great opportunity for delegates to showcase their innovative spirit and what they can achieve in a virtual setting." Between February 28<sup>th</sup> and March 6<sup>th</sup>, the competition virtually hosted 150 participants from 28 schools across 13 countries.

There are lots of programs and services on offer at D3. Most recently, they hosted Investor Connect - U.S. Fintech edition, supporting high-potential Canadian fintech startups--Penfield AI, Willful, among others. Over four weeks, the startups met with D3 coaches, partners Enjoy The Work and Venture Out, international advisors and experts to refine their pitch before meeting with U.S. investors.  They have also recruited for the winter cohort of the **Quebec Scientific Entrepreneurship Program (QcSE)**, an online lab-to-market program in partnership with the *Fonds de recherche du Québec* to help scientists explore entrepreneurship and assess the market viability of their research.

In addition, D3 is hosting its first Bio Innovation Conference April 6<sup>th</sup> to 7<sup>th</sup>. This is Canada's innovation-driven event focused on the future of bioengineering and biomanufacturing for clean and sustainable technologies, agri-food, and biomaterials fields. Ticket sales began on March 3<sup>rd</sup>.

D3 is working with Concordia as an organizing partner and running workshops at the life sciences conference, **Effervescence.** This is an international conference bringing together investors, entrepreneurs, scientists, and professionals in life sciences and health technology.

PERFORM held the colloquium *Engaging performance audiences as listeners of a restorative justice process in the context of sexual abuse* with guest speaker Luis Sotelo Castro, Associate Professor, Theatre, on February 24<sup>th</sup>. Emily Coffey, Department of Psychology and PERFORM research member, also gave a brief talk on her research. On March 10<sup>th</sup>, PERFORM held *Wearable Sleep Technologies: Toward Pervasive Health Management* with guest speaker Mohamad Forouzanfar *École de technologie supérieure, Université du Québec.* Christophe Grova, Department of Physics and PERFORM research member, also gave a brief talk on his research.

On February 11th, the Ellen Gallery re-opened to the public with the exhibition *Going to, Making Do, Passing Just the Same* by artists Edith Brunette and François Lemieux. The week of February 1st, the Gallery launched the online version of Sightings. *Sightings 31 What is a weed?* is a collaborative project by Eve Tagny and Io Makandal that aims to challenge Western perceptions of and relationships with nature.

On February 8th, the Gallery launched the second part of *Terms* on vulnerabilty. *Terms* is a new program presented online twice a year that looks at terms that circulate in society and affect culture and the arts. It brings together two essays and an artwork in a PDF format that is both readable online and printable. One term each year will be addressed from two different angles in two editions of *Terms*. The term for 2020-21 is *vulnerability*.

That same week the Gallery launched the publication *Vincent Meessen. Blues Klair*, a 312-page fully illustrated bilingual book with essays by six different authors on the project Blues Klair that investigates the presence of colonialism in modernity.

The Department of Psychology's first two videos in its wellness series are now available. The series is designed to support student success through the remote learning and social isolation challenges of the COVID-19 pandemic and beyond.

The Office of Community Engagement (OCE) continues its impactful work on student internship placements with community organizations in Montreal. With funding from the *Ministère de l'Enseignement supérieur,* the OCE will offer 10 student placements for the summer.

The OCE is supporting financially the Moosehide Tanning Project, led by Concordia MA student Autumn Godwin. The project will take place at *Bâtiment 7* this spring and will include a workshop, which will begin with an Elder-led ceremony and traditional introduction to the moose hide. The workshop will then guide students through the process of tanning the moose hide over a span of three weeks. Elders will facilitate conversations with the students and with the community of volunteers who have expressed the desire to gain traditional knowledge in this working space. This project is part of Godwin's thesis project entitled "Decolonizing Education: Land-Based Pedagogy and Indigenous Cultural Resurgence."

*Café Rencontres*, another project receiving financial support from the OCE, is underway. In collaboration with several community organizations in the Parc-Extension neighbourhood, the project offers a series of informal discussions intended to address urgent needs that neighbourhood residents, women in particular, are currently facing, such as domestic violence, depression, isolation, finding employment, legal papers, food security, etc. The aim is to create a safe environment where women can share their stories and concerns followed by a collective problem-solving session with the help of a facilitator invited to each session.

The second round of SHIFT's Funding and Support Program concluded at the end of January. Eight socially transformative projects will receive funding across three separate streams, each tailored to a different level of funding. A description of each of the funded teams and their inspiring work is available on SHIFT's website.

While there are always many worthy ways Concordians give back to the community, I thought I would close this report by mentioning that CASA Cares student group is collaborating with Miracle Montreal for its upcoming citywide food drive. The grassroots initiative allows Montrealers to safely participate in helping eliminate food insecurity across the city. The second Miracle Montreal food drive starts on March

13<sup>th</sup> at 10 a.m. Residents of Greater Montreal, including those living on the island and in north shore and south shore suburbs, can contribute by placing non-perishable food items on their doorsteps. Volunteers will then collect the items. CASA Cares, a non-profit branch of the John Molson School of Business's undergraduate student association, aims to improve lives through fundraising and inspire students to get involved in the community.

**ACADEMIC PLANNING AND PRIORITIES COMMITTEE**
**REPORT TO SENATE**
**Dr. Anne Whitelaw**
**March 19, 2021**

*The Academic Planning and Priorities Committee met on February 3, 2021.*

The Academic Planning and Priorities committee (APPC) met on February 3, 2021.  Ms. Julie Johnston, University Curriculum Administrator, joined the meeting to discuss the document entitled, *Alternate Grading Policies at Canadian Universities*.  The meeting was a continuation of the subject from the last meeting on December 10, 2020 where Dr. Whitelaw explained that it has become clear that not having a pass/fail or successful/unsuccessful notation in the Academic Calendar is a problem. In particular, this underscores the challenges the University faces in supporting student experimentation and curiosity in their learning journey by allowing them to take courses outside their program with no impact on the GPA.  Ms. Johnston had incorporated the comments from the last meeting to allow the members to expand further on their recommendations.  The committee continued to discuss the policy and offered more recommendations.  The APPC will continue to review this mandate at the next meeting.

**ACADEMIC PROGRAMS COMMITTEE**
**REPORT TO SENATE**
**Sandra Gabriele, PhD**
**March 19, 2021**

**The Academic Programs Committee requests that Senate consider the following changes for the Fall 2022 Undergraduate Calendar:**

Following approval of Faculty Councils, on February 18, 2021, APC members reviewed the following undergraduate curriculum submissions. As a result of discussions, APC resolved that the following curriculum proposals be forwarded to Senate for approval:

**Faculty of Arts and Science**

Department of Theology
US-2021-2-D4 (For September 2021 Implementation)
*[The proposal involves changes to course titles and descriptions following recommendations from the 2015 External Evaluator's report.]*
- Courses
- Requirements

Department of Education
US-2021-2-D5 (For September 2021 Implementation)
*[The proposal involves modifications to the program requirements for the BA in Child Studies, as well as modifications to course prerequisites.]*
- Courses
- Requirements

**The Academic Programs Committee requests that Senate consider the following changes for the Fall 2021 Graduate Calendar:**

Following approval of the Graduate Curriculum Committee, on January 21 and February 18, 2021, APC members reviewed the following graduate curriculum submissions. As a result of discussions, APC resolved that the following curriculum proposals be forwarded to Senate for approval:

**John Molson School of Business**
US-2021-2-D6 (For September 2021 Implementation)
*[The proposal involves the addition of a faculty level section summarizing the work-integrated options available to graduate students, as well as the addition of graduate Co-op options for the MSc in Finance and the Master of Supply Chain Management.]*
- Courses

- Requirements
- New Co-op options: MSc Finance, and Master of Supply Chain Management


US-2021-2-D7 (For May 2021 Implementation)
*[The proposal involves changes to core courses, the addition of a professional development requirement, editorial changes to the admission requirements and academic regulations, and revisions to course descriptions for the MSc in Finance.]*
- Courses
- Requirements


US-2021-2-D8 (For September 2021 Implementation)
*[The dossier proposes to re-open admissions to the Master of Science, Administration, Decision Sciences and Management Information Systems Option, the addition of two core courses, one elective course and a professional development requirement to the degree requirements, as well as the deletion of obsolete elective courses.]*
- Courses
- Requirements

Sandra Gabriele, PhD
Vice-Provost, Innovation in Teaching and Learning
March 1, 2021

**INTERNAL MEMORANDUM**

| | |
|---|---|
| **TO:** | Dr. Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning<br>Office of the Provost and Vice-President, Academic Affairs<br>Chair, Academic Programs Committee |
| **FROM:** | Dr. Pascale Sicotte, Dean, Faculty of Arts and Science<br>Chair, Arts and Science Faculty Council |
| **CC:** | Dr. Richard Courtemanche, Associate Dean, Academic Programs<br>Faculty of Arts and Science |
| **DATE:** | December 22, 2020 |
| **SUBJECT:** | Undergraduate Calendar Curriculum Changes<br>Department of Theological Studies (THEO-24) |

The following proposal was presented under ASFC-2020-8M-B and approved at the Arts and Science Faculty Council meeting of December 18, 2020. 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.

# UNIVERSITÉ Concordia UNIVERSITY

## 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:**   December 3, 2020

**SUBJECT:** 2022-2023 Undergraduate Calendar Curriculum Changes
            Department of Theological Studies
            **THEO-24**
            Changes to THEO 203, 206, 302, 311, 317, 319, 320, 322, 333, 406

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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 Theological Studies** is proposing title and description changes to selected courses. Following an External Evaluator's report in 2015 the Department Curriculum Committee found that course titles and descriptions contained terminology that was outdated. Proposed changes will not affect the course content, rather will update as well as clarify what is taught in the courses.

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

*Reference documents:*
*FCC 2020.4_THEO-24*

# Department of Theological Studies

## THEO-24

**Memo from Chair**

**Course title change**

    THEO 203    *Introduction to the New Testament*

    THEO 317    *Paul's Letters*

**Course description change**

    THEO 206    *Introduction to Christian Origins*

    THEO 320    *History of Christianity: The Medieval Period*

    THEO 322    *History of Christianity: Reformation and Modernity*

    THEO 333    *Jesus Christ in History and Faith*

**Course title and description change**

    THEO 302    *Historiographies in the Bible*

    THEO 311    *John's Writings and the Apocalypse*

    THEO 319    *Extra-Biblical Literature*

    THEO 406    *The History of Biblical Research*

# I N T E R N A L   M E M O R A N D U M

**TO**: Dr. Richard Courtemanche, Associate Dean Academic Programs

**FROM**: Dr. Marie-France Dion, Chair, Department of Theological Studies

**DATE**: October 28, 2020

**SUBJECT**:  Undergraduate Calendar Curriculum changes

On October 19, 2020, Faculty members of the Department of Theological Studies unanimously approved, through secret ballot, the curriculum changes proposed by the Department Curriculum Committee (DCC) in the areas of Biblical Studies and Historical Theology.

These changes were proposed following the 2015 External Evaluator's Report related to Department appraisal and so were long overdue. Some of the changes pertain to course titles. Students found the terminology in some of the course titles complicated, thus the report suggested to use terms understood by all students. The DCC also revised course descriptions. Although some of these descriptions may appear completely changed, the contents of the courses remain the same. Changes proposed provide a more accurate description of what is being taught in the course. For example, the new description for THEO 302 makes explicit that there are multiple *Historiographies in the Bible* and these often pertain to the same historical period but are adapted and modified for new communities. In other cases, the course description is changed to avoid using a terminology that students have yet to learn. This is the case, for example, in THEO 311 where terms like 'Johannine literature' or 'synoptic traditions' were removed and replaced by a more accessible language.

The current changes pertain to two of the six areas of specialization in Theological Studies. The DCC is at present going through all its courses to update descriptions as deemed necessary.

Thank-you for your consideration and please do not hesitate to contact me if further information or clarifications are required.

Sincerely,

Marie-France Dion
Chair, Department of Theological Studies

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **THEO-24** VERSION: 3

**COURSE CHANGE:** THEO 203          New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

<div align="right">

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

</div>

**Faculty/School:**                    Arts and Science
**Department:**                        Theological Studies
**Program:**                           Honours, Major, Minor in Theological Studies
**Degree:**                            BA
**Calendar Section/Graduate Page Number:** 31.330


**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [X] Course Title | [ ] Credit Value | [ ] Prerequisite |
| [ ] Course Description | [ ] Editorial | [ ] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| Present Text (from 2021/2022) calendar | Proposed Text |
|---|---|
| **THEO 203 Introduction to New Testament** (3 credits)<br><br>*Description:* This course deals with the writings of the New Testament with an emphasis on both content and form. As well, students are introduced to the socio-political, economic, and cultural backdrops within which earliest Christianity arose and began to spread.<br><br>*Component(s):* Lecture. | **THEO 203 Introduction to <u>the</u> New Testament** (3 credits)<br><br>*Description:* This course deals with the writings of the New Testament with an emphasis on both content and form. As well, students are introduced to the socio-political, economic, and cultural backdrops within which earliest Christianity arose and began to spread.<br><br>*Component(s):* Lecture. |
| Rationale:<br>The proposed title is correcting an error in the present title, that is the omission of the article before New Testament. | |
| Resource Implications:<br>None | |
| Other Programs within which course is listed:<br><br>None | |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **THEO-24** VERSION: 3

**COURSE CHANGE:** THEO 206          New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

**Faculty/School:**                    Arts and Science
**Department:**                        Theological Studies
**Program:**                           Honours, Major in Theological Studies; Certificate in Pastoral Care
**Degree:**                            BA, Certificate
**Calendar Section/Graduate Page Number:** 31.330

**Type of Change:**

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

| Present Text (from 2021/2022) calendar | Proposed Text |
|---|---|
| **THEO 206 Introduction to Christian Origins** (3 credits)<br><br>*Description:* This course is a study of the historical origins of ~~the Church~~ with a view to understanding the creative originality of the Christian tradition. ~~It explores possibilities for the rethinking of contemporary Christianity in light of the common sources of diverse Christian traditions~~.<br><br>*Component(s):* Lecture. | **THEO 206 Introduction to Christian Origins** (3 credits)<br><br>*Description:* This course is a study of the historical origins of <u>Christianity</u> with a view to understanding the creative originality of the Christian tradition. <u>The course focuses on the ways in which communities and individuals in the first six centuries Common Era understood the Bible and interpreted its traditions to address their historical, social, and theological contexts, and their spiritual needs</u>.<br><br>*Component(s):* Lecture. |
| Rationale:<br>The description is updated to reflect what is actually taught in the course. ||
| Resource Implications:<br>None ||
| Other Programs within which course is listed:<br><br>None ||

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **THEO-24** VERSION: 3

**COURSE CHANGE:** THEO 302          New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

<div align="right">

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

</div>

**Faculty/School:**              Arts and Science
**Department:**                 Theological Studies
**Program:**                    Honours, Major in Theological Studies
**Degree:**                     BA
**Calendar Section/Graduate Page Number:** 31.330

**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [X] Course Title | [ ] Credit Value | [ ] Prerequisite |
| [X] Course Description | [ ] Editorial | [ ] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| **Present Text (from 2021/2022) calendar** | **Proposed Text** |
|---|---|
| **THEO 302 Historiographies in the ~~Hebrew~~ Bible** (3 credits)<br><br>*Description:* Beginning with an introduction to biblical historiographies, this course discusses the ~~Deuteronomistic historiography (Joshua, Judges, Books of Samuel, Books of Kings) and compares it to the historiography of Ezra/Nehemiah and Chronicles. Literary and theological issues are discussed throughout the course.~~<br><br>*Component(s):* Lecture. | **THEO 302 Historiographies in the Bible** (3 credits)<br><br>*Description:* Beginning with an introduction to biblical historiographies, this course discusses <u>how the Bible provides different perspectives of Israel's history. It focuses on the rereading of the past as a means of actualizing traditions, concepts, prophecies, and stories to make these relevant to communities living in a new and different social, political and cultural context.</u><br><br>*Component(s):* Lecture. |

| Rationale: |
|---|
| We simplified the description for better understanding of the course material, which includes the New Testament and Deuterocanonical books. The term Old Testament is used since the texts studied include what are commonly referred to as the Deuterocanonical books and/or Apocrypha (such as the Maccabees) which are not included in the Hebrew Bible Canon of Scripture and are not part of the New Testament Canon of Scripture. For the same reason, the term Hebrew is eliminated in the title. |

| Resource Implications: |
|---|
| None |

| Other Programs within which course is listed:<br><br>None |
|---|

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **THEO-24** VERSION: 3

**COURSE CHANGE:** THEO 311          New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

<div align="right">

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021
</div>

**Faculty/School:**                    Arts and Science
**Department:**                        Theological Studies
**Program:**                           Honours, Major in Theological Studies; Certificate in Pastoral Care
**Degree:**                            BA, Certificate
**Calendar Section/Graduate Page Number:** 31.330

**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [X] Course Title | [ ] Credit Value | [ ] Prerequisite |
| [X] Course Description | [ ] Editorial | [ ] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| Present Text (from 2021/2022) calendar | Proposed Text |
|---|---|
| **THEO 311** ~~Johannine Literature~~ (3 credits)<br><br>*Description:* This course offers an in-depth study of the Gospel of John ~~and~~ the three letters of John. ~~The differences between the Johannine school of thought and the Synoptic tradition (Matthew, Mark, and Luke) with respect to christology, faith, salvation,~~ and the role of the ~~s~~pirit ~~are examined~~.<br><br>*Component(s):* Lecture. | **THEO 311 John's Writings and the Apocalypse** (3 credits)<br><br>*Description:* This course offers an in-depth study of the Gospel of John, the three letters of John and the Book of Revelation (the Apocalypse). Attention is given to Christology, salvation, belief and the role of the Spirit. The Book of Revelation is studied from a historical perspective with some discussion about its contemporary reception.<br><br>*Component(s):* Lecture. |
| Rationale:<br>The title is changed to make it more understandable for students unfamiliar with the term "Johannine". The course content now includes the Book of Revelation (the Apocalypse), which is part of the "Johannine tradition." | |
| Resource Implications:<br>None | |
| Other Programs within which course is listed:<br><br>None | |

<div align="right">

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</div>

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **THEO-24** VERSION: 3

**COURSE CHANGE:** THEO 317          New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

<div align="right">

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

</div>

**Faculty/School:**                    Arts and Science
**Department:**                        Theological Studies
**Program:**                           Honours, Major in Theological Studies; Certificate in Pastoral Care
**Degree:**                            BA, Certificate
**Calendar Section/Graduate Page Number:** 31.330


**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [X] Course Title | [ ] Credit Value | [ ] Prerequisite |
| [ ] Course Description | [ ] Editorial | [ ] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| Present Text (from 2021/2022) calendar | Proposed Text |
|---|---|
| **THEO 317** ~~The~~ **Paul~~ine~~ Letters** (3 credits)<br><br>*Description:* This course is an introduction to Paul and his letters. In studying these writings, students engage in close examination of parts of the text (exegesis) and also discover the history and context of earliest Christianity.<br><br>*Component(s):* Lecture. | **THEO 317 Paul'<u>s Letters</u>** (3 credits)<br><br>*Description:* This course is an introduction to Paul and his letters. In studying these writings, students engage in close examination of parts of the text (exegesis) and also discover the history and context of earliest Christianity.<br><br>*Component(s):* Lecture. |

Rationale:
A title change is proposed as the adjective 'Pauline' is not known to prospective students.

Resource Implications:
None

Other Programs within which course is listed:

None

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **THEO-24** VERSION: 3

**COURSE CHANGE:** THEO 319          New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

**Faculty/School:**          Arts and Science
**Department:**             Theological Studies
**Program:**               n/a
**Degree:**                BA
**Calendar Section/Graduate Page Number:** 31.330

**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [X] Course Title | [ ] Credit Value | [ ] Prerequisite |
| [X] Course Description | [ ] Editorial | [ ] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| **Present Text (from 2021/2022) calendar** | **Proposed Text** |
|---|---|
| **THEO 319 ~~Gnosticism and the New Testament~~** (3 credits)<br><br>*Description:* This course ~~introduces various Gnostic texts which are then compared and contrasted with the canonical Gospels of~~ the New Testament. Themes such as salvific knowledge, cosmogony and creation, anthropogony, Christology, and soteriology are also considered from a comparative perspective.<br><br>*Component(s):* Lecture.<br><br>*Notes:*<br><br>• Students who have received credit for this topic under a THEO 298 number may not take this course for credit. | **THEO 319 <u>Extra-Biblical Literature</u>** (3 credits)<br><br>*Description:* This course <u>explores extra-biblical texts relevant to the study of the Old Testament as well as to </u>the New Testament. <u>Texts may include the Dead Sea Scrolls, Old Testament Pseudepigrapha, the Nag Hammadi corpus, and Christian Apocrypha.</u> Themes such as salvific knowledge, cosmogony and creation, anthropogony, Christology, and soteriology are also considered from a comparative perspective.<br><br>*Component(s):* Lecture.<br><br>*Notes:*<br><br>• Students who have received credit for this topic under a THEO 298 number may not take this course for credit. |
| Rationale:<br>This course was already focusing on extra-biblical literature, but was too restrictive in terms of corpora. | |
| Resource Implications:<br>None | |

Other Programs within which course is listed:

None

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **THEO-24** VERSION: 3

**COURSE CHANGE:** THEO 320          New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

<div align="right">

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

</div>

**Faculty/School:**                  Arts and Science
**Department:**                      Theological Studies
**Program:**                         Honours, Major in Theological Studies; Certificate in Pastoral Care
**Degree:**                          BA, Certificate
**Calendar Section/Graduate Page Number:** 31.330

**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [ ] Course Title | [ ] Credit Value | [ ] Prerequisite |
| [X] Course Description | [ ] Editorial | [ ] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| Present Text (from 2021/2022) calendar | Proposed Text |
|---|---|
| **THEO 320 History of Christianity: The Medieval Period** (3 credits)<br><br>*Description:* This course ~~explores the history~~ of Christianity from ~~the fall of the Western Roman Empire in the fifth century~~ to the ~~beginning~~ of the ~~Renaissance in the 15th century. The diverging experiences~~ of the ~~churches~~ in East ~~and West are studied, with attention to~~ the development of Christian ~~beliefs, art, philosophy, and institutions, and the major religious and political~~ figures ~~who influenced these developments~~.<br><br>*Component(s):* Lecture. | **THEO 320 History of Christianity: The Medieval Period** (3 credits)<br><br>*Description:* This course <u>offers a study</u> of Christianity from <u>Late Antiquity</u> to the <u>dawn</u> of the <u>Reformation. It explores the history</u> of the <u>Christian Church</u> in <u>the West and in the</u> East, the development of Christian <u>thought and the formation of doctrine focusing on the most important theological</u> figures <u>of the period and history of movements and ideas. Students work with primary sources on diverse topics including but not limited to the conversion of Europe; religious acculturation of pagan peoples; the power and appeal of Christian saints; Christian kingship; monastic, scholastic, and lay piety; pilgrimage; Crusade; dissent and institutional response; and the relationship to those outside the faith.</u><br><br>*Component(s):* Lecture. |
| Rationale:<br>The description is updated to reflect what is actually taught in the course. | |
| Resource Implications:<br>None | |
| Other Programs within which course is listed:<br><br>None | |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **THEO-24** VERSION: 3

**COURSE CHANGE:** THEO 322       New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

<div align="right">

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

</div>

**Faculty/School:**            Arts and Science
**Department:**            Theological Studies
**Program:**            Honours and Major in Theological Studies; Certificate in Pastoral Care
**Degree:**            BA, Certificate
**Calendar Section/Graduate Page Number:** 31.330

**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [ ] Course Title | [ ] Credit Value | [ ] Prerequisite |
| [X] Course Description | [ ] Editorial | [ ] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| Present Text (from 2021/2022) calendar | Proposed Text |
|---|---|
| **THEO 322 History of Christianity: Reformation and Modernity** (3 credits)<br><br>*Description:* This course ~~explores~~ the ~~history of Christianity from the reformation through to the closing decades of the 20th century, with special attention given to the~~ Protestant Reformation and ~~to the~~ impact of the ~~Enlightenment on the theology, institutions, ethics, and intellectual life of modern Christians~~.<br><br>*Component(s):* Lecture. | **THEO 322 History of Christianity: Reformation and Modernity** (3 credits)<br><br>*Description:* This course <u>examines</u> the <u>16th-century</u> Protestant Reformation and <u>its</u> impact on the <u>modern world, in the areas of religion, politics, economics, science and the arts. The first part of the course focuses on the Reformation theologians and their revolutionary ideas. The second part traces the influence that the Reformation has had on the world up to the present.</u><br><br>*Component(s):* Lecture. |
| Rationale:<br>The new description more accurately reflects what is taught in the course. | |
| Resource Implications:<br>None | |
| Other Programs within which course is listed:<br><br>None | |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **THEO-24** VERSION: 3

**COURSE CHANGE:** THEO 333          New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

**Faculty/School:**                     Arts and Science
**Department:**                         Theological Studies
**Program:**                            Honours and Major in Theological Studies; Certificate in Pastoral Care
**Degree:**                             BA, Certificate
**Calendar Section/Graduate Page Number:** 31.330

**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [ ] Course Title | [ ] Credit Value | [ ] Prerequisite |
| [X] Course Description | [ ] Editorial | [ ] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| Present Text (from 2021/2022) calendar | Proposed Text |
|---|---|
| **THEO 333 *Jesus Christ in History and Faith*** (3 credits)<br><br>*Description:* This course studies the biblical and later traditions about the person, nature, and work of Christ ~~in the Christian tradition.~~ Texts studied include the Bible, theological texts from a variety of historical periods as well as ~~some~~ literary and artistic presentations of Christ.<br><br>*Component(s):* Lecture. | **THEO 333 *Jesus Christ in History and Faith*** (3 credits)<br><br>*Description:* This course studies the biblical and later traditions about the person, nature, and work of <u>Jesus</u> Christ<u>, from historical and doctrinal perpectives. The course examines the central role of Jesus Christ in ancient, medieval, and modern theology and culture.</u> Texts studied include the Bible, theological texts from a variety of historical periods as well as <u>other</u> literary and artistic <u>re</u>presentations of Christ.<br><br>*Component(s):* Lecture. |

| Rationale: |
|---|
| The new description more accurately reflects what is taught in the course. |

| Resource Implications: |
|---|
| None |

| Other Programs within which course is listed: |
|---|
| None |

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PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **THEO-24** VERSION: 3

**COURSE CHANGE:** THEO 406          New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

**Faculty/School:**                    Arts and Science
**Department:**                        Theological Studies
**Program:**                           Honours, Major, Minor in Theological Studies
**Degree:**                            BA
**Calendar Section/Graduate Page Number:** 31.330

**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [X] Course Title | [ ] Credit Value | [X] Prerequisite |
| [X] Course Description | [ ] Editorial | [ ] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| Present Text (from 2021/2022) calendar | Proposed Text |
|---|---|
| **THEO 406 ~~Scriptural Exegesis~~** (3 credits) | **THEO 406 The History of Biblical Research** (3 credits) |
| *Prerequisite/corequisite:* The following course must be completed previously: THEO 202 or THEO 203~~, THEO 301~~. | *Prerequisite/corequisite:* The following course must be completed previously: THEO 202 or THEO 203. |
| *Description:* ~~This course initiates students in the historical-critical methodology used in the study of the Bible and familiarizes them with biblical research tools.~~ | *Description:* In this advanced biblical studies course, students explore the history of biblical interpretation from Late Antiquity to the variety of exegetical approaches which emerged since the Enlightenment. |
| *Component(s):* Lecture. | *Component(s):* Lecture. |

| Rationale: |
|---|
| The title and the description of the course now proposed reflect what is actually taught in this course. We reduced the number of prerequisite credits because it limits student registration for no valuable reason. The title was modified for comprehension purposes. |

| Resource Implications: |
|---|
| 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:**      December 22, 2020

**SUBJECT:**  Undergraduate Calendar Curriculum Changes
Department of Education (EDUC-78)

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The following proposal was presented under ASFC-2020-8M-A and approved at the Arts and Science Faculty Council meeting of December 18, 2020. 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.

# UNIVERSITÉ Concordia UNIVERSITY

## 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:**    December 3, 2020

**SUBJECT:** 2022-2023 Undergraduate Calendar Curriculum Changes
            Department of Education
            **EDUC-78**
            Changes to BA in Child Studies; new course EDUC 359; changes to
            EDUC 464

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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 proposing the addition of a new compulsory course, EDUC 359 *Understanding and Supporting Children with Challenging Behaviours,* to their BA in Child Studies program. The addition of this course will allow graduates of the program entering the work force to more effectively work with and support children who display challenging behaviours.

In addition, the department is proposing that EDUC 250 *Introductory Information Literacy Skills in Education* be moved from a required course to an elective course. Students entering the Child Studies program often have previously studied topics that are covered in this course, particularly Québec CEGEP students from the Social Sciences program. The course will remain as an elective option for students who have no prior knowledge of the topics covered in this course.

Finally, the department proposes lowering the prerequisite credits for EDUC 464 *Research Methods in Child Studies* from 60 to 30 and including EDUC 210 *Psychology of Education* and EDUC 211 *Child Development I* as additional prerequisite courses. These changes will allow students to be better prepared for future research work and/or working with children in professional settings.

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

# Department of Education

# EDUC-78

**Memo from Chair**

**Program change**

Major in Child Studies

**New course**

EDUC 359 *Understanding and Supporting Children with Challenging Behaviours*

**Prerequisite and course description change**

EDUC 464 *Research Methods in Child Studies*

**INTERNAL MEMORANDUM**

**TO:**        Richard Courtemanche, Associate Dean, Academic Programs, FAS

**FROM:**    Sara Kennedy, Chair, Department of Education

**DATE:**    November 4, 2020

**SUBJECT:**  **EDUC-78: BA Child Studies – New Course (EDUC 359) Curriculum Change**

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The Department proposes for consideration, the attached dossier (EDUC-78), which was approved at Department of Education Council meeting on October 14, 2020, with the following modifications to the BA in Child Studies:

- Adding a new course: EDUC 359 *Understanding and Supporting Children with Challenging Behaviours* (3 credits). Graduates of the Child Studies program work in childhood settings, such as daycares, preschools, community centres, rehabilitation centres, schools, etc., where they will be working directly with or assisting children with significant behavioural challenges.  Therefore, it is imperative that they have the requisite knowledge and skills to  intervene and to support these children effectively.   In addition, research indicates that the ability to manage children's challenging behaviours is an important indicator of educators' sense of efficacy and competence.   Based on these reasons, the department strongly supports the addition of this course as a compulsory course for students in the Child Studies program.
- Changing the designation of EDUC 250 from a required to an elective course to accommodate the addition of the new compulsory course EDUC 359.
- Updating the course description and prerequisite requirements for EDUC 464 *Research Methods in Child Studies* (3 credits) to make the course more assessible to students preparing for graduate studies and those interested in working with children in child-care and professional settings.

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **EDUC-78** VERSION: 3

**PROGRAM CHANGE:** BA in Child Studies

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

**Faculty/School:**               Arts and Science
**Department:**                   Education
**Program:**                      Major in Child Studies
**Degree:**                       BA
**Calendar Section/Graduate Page Number:** 31.090

**Type of Change:**

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

| Present Text (from 2021/2022) calendar | Proposed Text |
|---|---|

**Present Text (from 2021/2022) calendar**

**BA Major in Child Studies (45 credits)**

*24 Credits:*

| EDUC 210 | Psychology of Education | 6 |
|---|---|---|
| EDUC 211 | Child Development I | 3 |
| ~~EDUC 250~~ | ~~Introductory Information Literacy Skills in Education~~ | ~~3~~ |
| EDUC 260 | Historical and Current Curriculum Models for Early Childhood and Elementary Education | 3 |
| EDUC 302 | Working in Childhood Settings: Leadership and Organizational Issues | 3 |
| EDUC 311 | Child Development II: Ecology of the Family | 3 |
| EDUC 360 | Introduction to Inclusive Practices | 3 |

*15 Credits from one of the following areas of concentration:*

A. Early Childhood Settings

B. Exceptionality and Diversity in Childhood Settings

*6 Credits chosen from:*

| EDUC 230 | Introduction to Philosophy of Education | 3 |
|---|---|---|
| EDUC 305 | Technology for Educational Change | 3 |
| EDUC 307 | Integrating Digital Technologies and Social Media in Learning Environments | 3 |
| EDUC 315 | Sexual Health Education for Children and Youths | 3 |

**Proposed Text**

**BA Major in Child Studies (45 credits)**

*24 Credits:*

| EDUC 210 | Psychology of Education | 6 |
|---|---|---|
| EDUC 211 | Child Development I | 3 |
| EDUC 260 | Historical and Current Curriculum Models for Early Childhood and Elementary Education | 3 |
| EDUC 302 | Working in Childhood Settings: Leadership and Organizational Issues | 3 |
| EDUC 311 | Child Development II: Ecology of the Family | 3 |
| EDUC 359 | Understanding and Supporting Children with Challenging Behaviours | 3 |
| EDUC 360 | Introduction to Inclusive Practices | 3 |

*15 Credits from one of the following areas of concentration:*

A. Early Childhood Settings

B. Exceptionality and Diversity in Childhood Settings

*6 Credits chosen from:*

| EDUC 230 | Introduction to Philosophy of Education | 3 |
|---|---|---|
| EDUC 250 | Introductory Information Literacy Skills in Education | 3 |
| EDUC 305 | Technology for Educational Change | 3 |

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| | | |
|---|---|---|
| EDUC 321 | Gender Socialization in Education | 3 |
| EDUC 405 | Children and Technology | 3 |
| EDUC 411 | Toys, Media Literacy and Children's Popular Culture | 3 |
| EDUC 422 | Sociology of Education I | 3 |
| EDUC 426 | Comparative Education I | 3 |
| EDUC 464 | Research Methods in Child Studies | 3 |
| EDUC 498 | Advanced Topics in Education | 3 |

**A. Early Childhood Settings (15 credits)**

| | | |
|---|---|---|
| EDUC 303 | Children, Families, and Social Policy | 3 |
| EDUC 304 | Play in Childhood Settings | 3 |
| EDUC 406 | Physical Activity: Health and Well-being in Early Childhood Settings | 3 |
| EDUC 460 | Child Studies Field Experience: Early Childhood Settings | 3 |
| EDUC 461 | Child Studies Seminar: Early Childhood Settings | 3 |

A minimum "C+" grade is required for all Field Placement courses for the Child Studies program, i.e. EDUC 460, EDUC 461. Students who obtain a grade below the minimum "C+" are allowed to repeat the course(s) in question only once. Students who achieve a final grade below C+ in the same Field Placement course(s) twice are asked to withdraw from the Major in Child Studies program (see Section 16.2.6).

**B. Exceptionality and Diversity in Childhood Settings (15 credits)**

| | | |
|---|---|---|
| EDUC 361 | Inclusive Practices in Early Childhood Settings | 3 |
| EDUC 362 | Inclusive Practices for School-Aged Populations | 3 |
| EDUC 402 | Diversity Issues in Childhood | 3 |
| EDUC 462 | Child Studies Field Experience: Inclusive Practices in Childhood Settings | 3 |
| EDUC 463 | Child Studies Seminar: Inclusive Practices in Childhood Settings | 3 |

| | |
|---|---|
| Notes: | A minimum "C+" grade is required for all Field Placement courses for the Child Studies program, i.e. EDUC 462, EDUC 463. Students who obtain a grade below the minimum "C+" are allowed to repeat the course(s) in question only once. Students who achieve a final grade below C+ in the same Field Placement course(s) twice are asked to withdraw from the Major in Child Studies program (see Section 16.2.6). |

| | | |
|---|---|---|
| EDUC 307 | Integrating Digital Technologies and Social Media in Learning Environments | 3 |
| EDUC 315 | Sexual Health Education for Children and Youths | 3 |
| EDUC 321 | Gender Socialization in Education | 3 |
| EDUC 405 | Children and Technology | 3 |
| EDUC 411 | Toys, Media Literacy and Children's Popular Culture | 3 |
| EDUC 422 | Sociology of Education I | 3 |
| EDUC 426 | Comparative Education I | 3 |
| EDUC 464 | Research Methods in Child Studies | 3 |
| EDUC 498 | Advanced Topics in Education | 3 |

**A. Early Childhood Settings (15 credits)**

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| EDUC 303 | Children, Families, and Social Policy | 3 |
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| EDUC 461 | Child Studies Seminar: Early Childhood Settings | 3 |

*A minimum "C+" grade is required for all Field Placement courses for the Child Studies program, i.e. EDUC 460, EDUC 461. Students who obtain a grade below the minimum "C+" are allowed to repeat the course(s) in question only once. Students who achieve a final grade below C+ in the same Field Placement course(s) twice are asked to withdraw from the Major in Child Studies program (see Section 16.2.6).*

**B. Exceptionality and Diversity in Childhood Settings (15 credits)**

| | | |
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| EDUC 361 | Inclusive Practices in Early Childhood Settings | 3 |
| EDUC 362 | Inclusive Practices for School-Aged Populations | 3 |
| EDUC 402 | Diversity Issues in Childhood | 3 |
| EDUC 462 | Child Studies Field Experience: Inclusive Practices in Childhood Settings | 3 |
| EDUC 463 | Child Studies Seminar: Inclusive Practices in Childhood Settings | 3 |

| | *Notes:* | *A minimum "C+" grade is required for all Field Placement courses for the Child Studies program, i.e. EDUC 462, EDUC 463. Students who obtain a grade below the minimum "C+" are allowed to repeat the course(s) in question only once. Students who achieve a final grade below C+ in the same Field Placement course(s) twice are asked to withdraw from the Major in Child Studies program (see Section 16.2.6).* |
|---|---|---|

Rationale:

1. Addition of the newly created core course: EDUC 359 *Understanding and Supporting Children with Challenging Behaviours* (3 credits)

2. The department is changing the designation of EDUC 250 from a required to an elective course.   The vast majority of students entering the Child Studies program are from Quebec CEGEP's Social Science Program, and have been introduced to basic research practices used in the field of education and its related disciplines through courses in quantitative methods and research methods.   These students are already familiar with basic search strategies, as well as the use and evaluation of the information sources.  In addition, research studies from a variety of information sources are discussed in the context of several of our core courses, notably in EDUC 210, 211, 311 and 360, which provide students with ample opportunities for in-depth analysis and synthesis of research.  The department will continue to offer EDUC 250  as an elective course for students who do not have prior knowledge of information literacy related to education and its related disciplines.

Resource Implications:
EDUC 359 will be scheduled as part of the department's regular section allotment.

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **EDUC-78** VERSION: 3

**COURSE CHANGE:** EDUC 359          New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

**Faculty/School:**                    Arts and Science
**Department:**                        Education
**Program:**                           Major in Child Studies
**Degree:**                            BA
**Calendar Section/Graduate Page Number:** 31.090

**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [ ] Course Title | [ ] Credit Value | [ ] Prerequisite |
| [ ] Course Description | [ ] Editorial | [X] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| Present Text (from 20XX/20XX) calendar | Proposed Text |
|---|---|
| | **EDUC 359 Understanding and Supporting Children with Challenging Behaviours (3.00)**<br><br>*Prerequisite/corequisite:* The following courses must be completed previously: EDUC 210 and EDUC 211. Enrolment in the Major in Child Studies is required. Students must have completed 30 credits prior to enrolling.<br><br>*Description:* This course explores evidence-based approaches for working with children with challenging behaviours, with an emphasis on child-centered approaches. Topics may include the cognitive, affective, and motivational processes that underlie children's challenging behaviours, and inclusive practices that support children's engagement in meaningful learning experiences and positive relationships. The course also addresses intervention approaches and resources for teachers, families and communities, aimed at promoting children's resilience, self-regulation and positive classroom experiences.<br><br>*Component(s):* Lecture. |

Rationale:
Graduates of the Child Studies program work in childhood settings, such as daycares, preschools, community centres, rehabilitation centres, schools, etc., where they will be working directly with or assisting children with significant behavioural challenges. Therefore, it is imperative that they have the requisite knowledge and skills to intervene and to support these children effectively. In addition, research indicates that the ability to manage children's challenging behaviours is an important indicator of educators' sense of efficacy and competence. Based on these reasons, the department strongly supports the addition of this course as a compulsory course for students in the Child Studies program.

Resource Implications:
This course will be scheduled as part of the department's regular section allotment.

Other Programs within which course is listed:

n/a

*D4*

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **EDUC-78** VERSION: 3

**COURSE CHANGE:** EDUC 464        New Course Number:

**Proposed** [X] Undergraduate or [ ] Graduate Curriculum Changes

**Calendar for academic year:** 2022/2023
**Implementation Month/Year:** September 2021

**Faculty/School:**        Arts and Science
**Department:**        Education
**Program:**        Specialization Early Childhood and Elementary Education, Major in Child Studies
**Degree:**        BA
**Calendar Section/Graduate Page Number:** 31.090

**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [ ] Course Title | [ ] Credit Value | [X] Prerequisite |
| [X] Course Description | [ ] Editorial | [ ] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| **Present Text (from 2021/2022) calendar** | **Proposed Text** |
|---|---|
| **EDUC 464**      **Research Methods in Child Studies (3.00)** | **EDUC 464**      ***Research Methods in Child Studies*** **(3.00)** |
| *Prerequisite/corequisite:* Students must have competed ~~60~~ credits in the Early Childhood and Elementary Education Specialization, or the Major in Child Studies prior to enrolling. <br><br> *Description:* This course introduces students to ~~quantitative, qualitative, and mixed-methods~~ research ~~designs used by researchers~~ in child studies and education. Students learn how research studies are conceptualized and conducted, ~~and~~ how data are analyzed and interpreted, and gain experience in the critical evaluation and application of research. ~~Students complete a series of assignments during a lab section of the course. This course is primarily intended as a foundation for students who are preparing for graduate school.~~ <br><br> *Component(s):* Lecture. | *Prerequisite/corequisite:* <u>The following courses must be completed previously: EDUC 210 and EDUC 211.</u> Students must have competed <u>30</u> credits in the Early Childhood and Elementary Education Specialization, or the Major in Child Studies prior to enrolling. <br><br> *Description:* This course introduces students to research <u>approaches</u> in child studies and education. Students learn how research studies are conceptualized and conducted, <u>the similarities and differences between quantitative, qualitative and mixed-methods research designs,</u> how data are analyzed and interpreted, and gain experience in the critical evaluation and application of research. <br><br> *Component(s):* Lecture. |

| Rationale: |
|---|
| By changing the 60-credit prerequisite to 30 credits and adding EDUC 210 and EDUC 211 (core courses in ECEE and Child Studies), students would be able to enrol in this course after receiving some of the core knowledge and skills in both programs. In addition, students who are preparing for graduate studies and those who are interested in working with children in child-care and professional settings would also benefit from developing competencies for critical analysis and evaluation or research.The reference to the lab section is removed from the course description as a laboratory component was never offered in this course or intended. |

| Resource Implications: |
|---|
| n/a |

| Other Programs within which course is listed: |
|---|
| None. |

# Concordia University
# Department of Education

## EDUC 359
### Understanding and Supporting Children with Challenging Behaviours

## UNDERGRADUATE CALENDAR DESCRIPTION

Prerequisite: EDUC 210 and EDUC 211; enrolment in Major in Child Studies. This course explores evidence-based approaches for working with children with challenging behaviours, with an emphasis on child-centered approaches. Topics examined include the cognitive, affective, and motivational processes that underlie children's challenging behaviours, and inclusive practices that support children's engagement in meaningful learning experiences and positive relationships. The course also addresses intervention approaches and resources for teachers, families and communities, aimed at promoting children's resilience, self-regulation and positive classroom experiences.

## ADDITIONAL DESCRIPTION

This is a compulsory course for students in the B.A. Major in Child Studies Program.  The main objective of this course is to explore the nature of children's challenging behaviours as well as evidence-based approaches to support children's adaptive functioning and development.   In addition to examining the clinical correlates of behavioural difficulties (such as developmental disorders or trauma), students will critically examine the impact of  family life, parenting issues, and educational practices in children's abilities to self-regulate their social emotions and behaviour.  To develop students' abilities to support children who are vulnerable to behavioural challenges, this course will cover approaches that are grounded in emotionally-safe relationships and environments, effective communication between children and their parents and educators, and understanding of the affect and cognition associated with the challenging behaviours.

The learning outcomes for you, as a student, are:
- to become familiar with the clinical diagnosis and etiology of children's behavioural challenges;
- to understand the complexity of children's needs and behaviours, notably their relationships and attachment with caregiver and adults who support them; their developmental readiness, temperament, cognitive abilities, and communication styles; as well as their unmet needs;
- to become familiar with the observational strategies and rating scales that can be used to provide data-based descriptions and understanding of children's challenging behaviours, including:
  - Functional Behavioural Assessment,
  - Event sampling,

- o Time sampling,
- o Running records,
- o Structured or semi-structured interviews, etc.
- o Questionnaires (e.g. BASICS Behavioural Adjustment Scale; Achenbach Child Behavioural Checklist; Barkley's Home and School Situations Questionnaires)
- to explore the theoretical approaches and models for behavioural support including cognitive behavioural strategies, positive-behavioural support, mentalization approach, family-based interventions, support for educators and teachers, as well as community-based services;
- to strengthen communication and collaboration between families and educators/teachers;
- to apply theories and approaches to analyze and to evaluate case-studies;
- to use objective and respectful language that communicates the strengths and needs of children and their families in non-judgmental ways;
- to evaluate appropriate interventions and support services, keeping in mind developmentally appropriate practices.

## EVALUATIONS

| Total Grade | Evaluations | Due Date | What is involved and how I will be graded? |
|---|---|---|---|
| 15% | Attendance and Participation | Immediately and within 20 minutes after each class | What are "**My Three Take-Aways**" from today's class? |
| 30% | Reading Reflections (6 in total) | Before each of the designated topics | Demonstrate your understanding of the assigned readings and reflect on the issues discussed 5% each x 6 = 30% |
| 30% | In-class Quizzes | TBA | Quizzes will include Multiple Choice questions (50%) and short-answer questions and case analysis (50%) |
| 25% | Theory-to-Practice/Research Project: 30% | End of term | You will choose one of the following options: Option 1: Interview/Observation Paper  Option 2: Research Paper |

# Tentative Course Topics

| Class | Topic | Learning Activities |
|---|---|---|
| Week 1 | Introduction | |
| Week 2 | The compassionate educator – What are our ethical, moral and professional responsibilities towards children? | • Reading Reflections<br>• Analysis of case synopsis |
| Week 3 | Clinical profiles of children with behavioural challenges | • Analysis of case studies through videos |
| Week 4 | Correlates of behavioural challenges – cognitive, emotional, temperament, and relational needs and unmet needs | • Reading Reflections<br>• Analysis of case synopsis |
| Week 5 and 6 | Observing children:<br>• Standardized measures<br>• Observation instruments<br>• Ecologically-based observations | • Analysis of case studies through videos<br>• Demonstrations and guided practices using videos (e.g. Sirens films) |
| Week 7 | Theories and approaches I: Influences of behavioural and cognitive theories | • Reading Reflections<br>• Analysis of case synopsis and videos |
| Week 8 and 9 | Theories and approaches II: Influences of child-centred approaches | • Reading Reflections<br>• Analysis of case synopsis and videos |
| Week 10 and 11 | Theories and approaches III: Mentalization approaches and psychodynamic theories | • Reading Reflections<br>• Analysis of case synopsis and videos |
| Week 12 | Working with families and communities | • Reading Reflections<br>• Guest speaker |
| Week 13 | Developing our selves throughout our careers: Integrating compassion and evidence-based practices as professionals | • Analysis of case synopsis<br>• Role-playing |

**SCHOOL OF GRADUATE STUDIES**

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

**FROM:**        Brad Nelson, Associate Dean, Academic Programs and Development
                 School of Graduate Studies

**DATE:**        February 9, 2021

**SUBJECT:**     **GRADUATE CURRICULUM CHANGES (JMSB-19)**
                 **(CALENDAR – 2020/2021)**
                 **MASTER'S PROGRAMS – CO-OP**
                 **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 two items:
1. To consolidate the information in their Graduate Calendar entry relating to the work-integrated learning options offered by the Institute for Co-operative Education at the master's level.
2. Co-op options for the Master in Supply Chain Management and for the Master of Science (MSc).

The School of Graduate Studies approached the ministère de l'Enseignement supérieur (MES) to inquire about their openness to fund research master's co-op options and MES was amenable to this possibility. The co-op options for the Master in Supply Chain Management and for the MSc in Finance were approved by MES on November 25, 2020.

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**: | Dr. Bradley Nelson, Associate Dean, Academic Programs and Development<br>Chair, Graduate Curriculum Committee |
| **Cc**: | Ms. Gina Beltran, Developer, Graduate Academic Programs<br>School of Graduate Studies |
| | Ms. Julie Johnston, University Curriculum Administrator |
| **FROM**: | Dr. Anne-Marie Croteau, Dean,<br>Chair of the John Molson School of Business Faculty Council |
| **DATE**: | January 15th, 2020 |
| **SUBJECT**: | Consolidate Co-op Information for master's programs (JMSB-19) |

Please find attached the proposal to consolidate Co-op Information for master's degree programs in the graduate calendar. (JMSB-19).

This dossier was approved by the John Molson School of Business Faculty Council on December 6th, 2019.

I kindly request this document to be presented at next meeting of the Graduate Curriculum Committee on February 10th, 2020.

Attachment

**TO**:        Anne-Marie Croteau, Dean, John Molson School of Business

**Cc:**        Barbara Henchey, Director, Office of the Dean, JMSB

**FROM:**     Sandra Betton, Associate Dean, Professional Graduate Programs
              Chair of the Faculty Academic Programs Committee, JMSB

**DATE**:      December 2, 2019

**SUBJECT**:   Consolidated Co-op Information for master's programs (JMSB-19)

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Please find attached the proposal to consolidate the information about the work-integrated learning options offered by the Institute for Co-operative Education at the master's level (JMSB-19).

The JMSB Faculty Academic Programs Committee reviewed and approved this document on December 2, 2019.

I respectfully request that the proposed change be presented at the December 2019 meeting of the Faculty Council of the John Molson School of Business for consideration.


Attachment

# Internal Memorandum

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**To:**        Dr. Sandra Betton, Chair, Faculty Academic Program Programs Committee (JMSB)

**From:**      Dr. Claude Martel, Director, Institute for Co-operative Education

**Date:**      November 28 2019

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Following multiple discussions with different graduate program directors, the Co-op Institute proposes the addition of a faculty level section summarizing the work-integrated options available to graduate students at JMSB. This faculty level section will simplify the management and application of work-integrated learning for the John Molson School of Business and 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,

Claude Martel, Ph. D.
Director of Institute for Co-operative Education
Concordia University
1550 De Maisonneuve West, suite 430

# Concordia
UNIVERSITÉ · UNIVERSITY

To:             Dr. Sandra Betton, Chair, Faculty Academic Program Programs Committee (JMSB)

Date:           February 9th 2021

Object:         Letter of support for the addition of a faculty level section summarizing the work-integrated options available to graduate students at JMSB and the creation of a Graduate Co-op options for the MSc in Finance and the Master in Supply Chain Management

Dear Dr. Betton,

It is with great pleasure that I write this letter to support for the proposed addition of a faculty level section summarizing the work-integrated options available to graduate students at JMSB. This dossier also proposes the addition of graduate Co-op options for the MSc in Finance and the Master in Supply Chain Management.

This faculty level section will simplify the management and application of work-integrated learning for the John Molson School of Business and the Institute of Co-operative Education.

It is also our pleasure to support the creation of a graduate Co-op options for the MSc in Finance and the Master in Supply Chain Management. Two programs where we see great potential.

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,

Claude Martel, Ph. D.
Director of Institute for Co-operative
Education Concordia University
1550 De Maisonneuve West, suite 430

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **JMSB-19** VERSION: 2

**PROGRAM CHANGE:** Work-Integrated Learning Options

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

**Calendar for academic year:** 2020/2021
**Implementation Month/Year:** September 2021

**Faculty/School:** John Molson School of Business
**Department:** John Molson School of Business
**Program:** All
**Degree:** MBA, MBA-Investment Management Option, MSc, MSCM
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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

| Present Text (from 2019/2020) calendar | Proposed Text |
|---|---|
| **John Molson School of Business** | **John Molson School of Business** |
| **Doctor/Doctorate** | **Doctor/Doctorate** |
| • Business Administration PhD | • Business Administration PhD |
| **Master/Magisteriate** | **Master/Magisteriate** |
| • Administration, Decision Sciences and Management Information Systems Option (DS/MIS) MSc<br>• Executive MBA (EMBA)<br>• Finance MSc<br>• Investment Management MIM<br>• Investment Management Option (GIIM) MBA<br>• Management MSc<br>• Marketing MSc<br>• MBA<br>• MSc<br>• Supply Chain Management MSCM | • Administration, Decision Sciences and Management Information Systems Option (DS/MIS) MSc<br>• Executive MBA (EMBA)<br>• Finance MSc<br>• Investment Management MIM<br>• Investment Management Option (GIIM) MBA<br>• Management MSc<br>• Marketing MSc<br>• MBA<br>• MSc<br>• Supply Chain Management MSCM |
| **Graduate Diploma** | **Graduate Diploma** |
| • Business Administration Graduate Diploma<br>• Chartered Professional Accountancy Diploma<br>• Investment Management (DIM) Diploma | • Business Administration Graduate Diploma<br>• Chartered Professional Accountancy Diploma<br>• Investment Management (DIM) Diploma |

**Graduate Certificate**

- Business Administration Graduate Certificate
- Entrepreneurship Graduate Certificate
- Quantitative Business Studies Graduate Certificate

**Work-Integrated Learning Options**

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 (concordia.ca/academics/co-op) for information regarding membership.

**Admission Criteria**

In addition to the general requirements for entrance into the Institute for Co-operative Education, JMSB has these additional requirements:

- 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.
- Students must maintain a cumulative GPA of 3.30 or better throughout their studies. Some programs may have different GPA standards or additional 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**

*D2*

| | Master of Business Administration (MBA) |
|---|---|
| | <ul><li>Students accepted into the Co-op must have completed 24 credits.</li></ul> Master of Business Administration - Investment Management Option (GIIM MBA) <ul><li>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.</li><li>In special cases, students may complete a second term with the permission of the Program Director and the Institute for Co-operative Education.</li><li>Students must return to full-time study for their last term.</li></ul> |

Rationale:
Including this section in the JMSB programs section minimizes duplications of material in the Graduate Calendar, refers to the Institute's section for general requirements/admissions, process and still allows individual programs to provide specific requirements if necessary. This section also includes specific program requirements. The co-op text will be deleted from the following program sections: MBA program (MBA-30) and the MBA in Investments Management Option.(GIIM-17).

Resource Implications:
The growth & workload will be carefully monitored.  The Institute and Faculty will collaborate in setting quotas per year for entry.
A Faculty member will need to be appointed as a 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.

**SCHOOL OF GRADUATE STUDIES**

| | |
|---|---|
| **MEMO TO:** | Sandra Gabriele, Vice-Provost, Innovation in Teaching and Learning |
| **FROM:** | Brad Nelson, Associate Dean, Academic Programs and Development<br>School of Graduate Studies |
| **DATE:** | December 14, 2020 |
| **SUBJECT:** | **GRADUATE CURRICULUM CHANGES (MSCA-16)**<br>**(CALENDAR – 2021/2022)**<br>**MASTER OF SCIENCE (FINANCE)**<br>**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).

Subsequent to a full review of the MSc in Finance, JMSB is proposing a two-stage program renewal over two years. Part One of these changes found in the present dossier include changes to core courses and the addition of a professional development requirement. Additionally, there are editorial changes to the admission requirements and the academic regulations as well as a number of course description revisions.

The GCC approved the curriculum changes with minor editorial 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**: Dr. Bradley Nelson, Associate Dean, Academic Programs and Development
Chair, Graduate Curriculum Committee

**Cc:** Ms. Gina Beltran, Developer, Graduate Academic Programs
School of Graduate Studies

Ms. Julie Johnston, University Curriculum Administrator

**FROM:** Dr. Anne-Marie Croteau, Dean,
Chair of the John Molson School of Business Faculty Council

**DATE**: November 20, 2020

**SUBJECT**: Proposed changes to the Master of Science in Finance (MSCA-16)

A full review of the Master of Science in Finance program has been completed. Even though the analysis and the record of the process is included, this proposal only concerns the changes for the first year of the two-year implementation period. Main changes for the core courses are: the update of the course description of Financial Economics, the removal of MSCA 602 Applied Linear Statistical Models from this program, the deletion of MSCA 611 Research Methodology course; and the addition of MSCA 610 and MSCA 617, Financial Data Analysis I and II. A new professional development requirement has also been added.

It includes editorial changes to admission requirements and academic regulations and updated course descriptions. The proposal also includes a revision to the statistical requirements for the program and the addition of a professional development requirement. A new zero-credit course, MSCA 655 Professional Development, has been created to ensure students complete the required workshops.

There are no resource implications at the faculty level. There were two courses offered earlier (MSCA 602 and MSCA 611) and two courses will continue to be offered (MSCA 610 and MSCA 617). There will be a shift in resources at the department level. The Department of Finance will now offer one more course and the Department of Supply Chain and Business Technology Management will now offer one less. The proposed workshops are already offered by GradProSkills or available through our Bloomberg subscription.

The JMSB Faculty Academic Programs Committee approved these changes unanimously on November 6, 2020.

I kindly request the Graduate Curriculum Committee to review this dossier on its next committee meeting on December 7, 2020.

Attachment

| **To:** | Anne-Marie Croteau, Dean, John Molson School of Business |
| --- | --- |
| **From:** | Sandra Betton, Associate Dean, Professional Graduate Programs, Chair of the Faculty Academic Programs Committee, JMSB |
| **Date**: | October 27, 2020 |
| **Subject:** | Proposed changes to the Master of Science in Finance (MSCA-16) |

The Master of Science in Finance Curriculum Committee completed a full review of the program and proposes a two-stage curriculum revision. The current proposal includes the first phase and includes editorial changes to admission requirements and academic regulations and updated course descriptions. In addition, the proposal includes a revision to the statistical requirements for the program (MSCA 610 and 617) and the addition of a professional development requirement.

The JMSB Faculty Academic Programs Committee approved these changes unanimously on October 16, 2020.

I kindly request to submit this proposal during the next meeting of the JMSB Faculty Council.

Thank you.

# 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:**    September 14, 2020

**Re:**       **Proposed changes to the Master of Science in Finance (MSCA-16)**

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Dear Sandra,

I respectfully request that the proposed changes be submitted to the next Faculty Academic Programs Committee meeting.

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. A detailed schedule of change implementation is included in the proposal. Specifically, for the Master of Science in Finance, we are proposing to implement the changes according to the following schedule:

Year 1:
- Updating of existing course description for one of the three current core courses (MSCA 601)
- Removal of MSCA 602 from the program, deletion of MSCA 611, and the creation of two of the three-credit courses (MSCA 610 and MSCA 617)
- Add professional development requirement (MSCA 655)
- Make MSCA 610 the prerequisite for MSCA 617

Year 2:
- Add three core courses for a total of six core courses (18 credits), and decrease number of electives accordingly

**INTERNAL MEMORANDUM**

To:         Kathleen Boies, Associate Dean, Research and Research Programs

From:       Imants Paeglis, Department of Finance     *Imants Paeglis*

**Date:**       August 17, 2020

**Subject:**    **Departmental Approval on the MSc in Finance Curriculum Revision Proposal**

The Department of Finance met on June 19, 2020 to review the proposed curriculum changes to the MSc in Finance. At the end of the meeting, the proposal was supported and approved with a majority vote: twenty-eight (28) in favor, one (1) against, and zero (0) abstention. The proposed changes are outlined in the attached documents and memo from the Graduate Program Director.

cc: N. Basu, Graduate Program Director

# Internal Memorandum

To:          Rahul Ravi, Chair, Department of Finance

Cc:          David Newton, Member of the Curriculum Review Committee for the M.Sc. in Finance

             Parianen Veeren, Member of the Curriculum Review Committee for the M.Sc. in Finance

From:        Nilanjan Basu, Director, Master of Science in Finance

Date:        June 10, 2020

Subject:     Proposed changes to the Master of Science in Finance

Dear Dr. Ravi,

Based on the review of the M.Sc. in Finance program undertaken during the academic year 2019-2020, the curriculum review committee for the M.Sc. in Finance program would like to propose the following changes to the program.

1. Increase the number of mandatory courses from three to four in this first stage.

2. Replace the current methodology courses, by removing MSCA 602 (Applied Linear Statistical Models) from this program, deleting MSCA 611 (Research Methodology, Finance), and adding a two-course sequence that integrates statistical concepts, computational tools, methodology, and applications in Finance, MSCA 610 & MSCA 617 (Financial Data Analytics I & II).

3. Update the course description of MSCA 601 and create new mandatory courses. Where applicable, such updates reflect an increasing need to equip our students with applied data analysis tools that are relevant to the Finance discipline.

4. Require the students to take the mandatory and elective courses in a specific sequence.

5. Require the students to take an additional zero-credit course (MSCA 655). This course will be evaluated on a Pass/Fail basis. In order to obtain a passing grade, students will have to complete a minimum of three specified workshops that complement their formal coursework requirements.

6. Make small changes to our admissions (process and qualifying courses), orientation, and course numbering in order to support the delivery of the updated curriculum.

We have proposed implementing the changes in two phases. Detailed descriptions of the rationale and all proposed changes, a proposed implementation plan that recommends implementation in two phases, and the first phase of proposed changes in the graduate calendar are provided in the attached documents.

The committee would like to thank staff members at JMSB, current and former students, and faculty members in the Finance department who have generously helped with their advice.

I request that the proposed changes be submitted to the next Department meeting on June 19, 2020.

Sincerely,


Nilanjan Basu

Proposed curriculum review for the Master of Science in Finance at the John Molson School of Business

Academic year 2020-2021

Members of the curriculum review committee:

Nilanjan Basu

David Newton

Parianen Veeren

# Table of Contents

## 1. RATIONALE

The M.Sc. in Finance was first created as an option in the M.Sc. in Administration program in 1989 and in 2014, became a standalone degree program. Although one of the reasons for this separation was to enable the program to better meet the academic needs of our students, the M.Sc. Finance program has had no serious curricular revisions done since then or, for that matter, in the last 20 years. Although the program has tried to adapt to changing student needs by small changes in the coursework requirements as well as individual, instructor-driven changes to specific course content, these changes have been small in scope and piecemeal in nature. As a result, we have lost, to some extent, an overall sense of what the program hopes to achieve for our students. The aforementioned shortcomings that we see as faculty members are echoed to some extent in the feedback we receive from our students (see Appendix 1 for a summary of feedback from our alumni).

The primary goal of the present exercise is to assess the program as a whole and revise the course offerings such that the individual parts of the M.Sc. program are well aligned with each other in order to deliver a coherent and valuable learning experience to our students. Secondary goals include developing guidelines for individual courses to support this objective as well as extending the program beyond formal coursework and thesis requirements to also include mandatory workshops that are smaller in scope but are able to complement the more formal aspects of the program.

Finally, it is worth noting that these goals need to align with our core strengths as a department. The Finance Department at the John Molson School of Business has faculty members with vibrant research agendas in various areas of Finance. The M.Sc. Finance program aims to build on this strength by creating a balanced program that covers all the core areas in Finance and complements that with rigorous training in data management and analysis. As noted by one of our alumni, our program structure is excellent at building research skills for future researchers and PhD applicants while the Masters in Financial Engineering at HEC Montreal offers a better path to a position as a quantitative analyst specializing in computational finance. While our new curriculum will prepare students considerably better for some of these job opportunities, we remain a balanced program that provides a rigorous background in all areas of Finance rather than a specialized one focusing on Financial Engineering.[1] Should we choose to focus in that area, it may require a partnership with the Mathematical and Computational Finance group in the Department of Mathematics at Concordia to create an entirely different program. That is not the goal of this exercise.

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[1] See Appendix 2 for sample of job postings relevant to our M.Sc. students. As discussed in this document, the updated program will provide them considerably more training in the tools required for such positions. Our mission, however, continues to be one of providing an education in all core areas in Finance and not one focused on computational methods.

## 2. PROCESS

The members of this curriculum review committee are Dr. Nilanjan Basu, Dr. David Newton, and Dr. Parianen Veeren. The curriculum review committee met in early July of 2019 to discuss the background information with respect to the existing curriculum and the context of the program. This review included a discussion of competing programs, competitive strengths of the Finance department in comparison with competitor schools, student objectives, the existing course outlines as representations of the current curriculum, and the overall nature of changes that are needed. Three subsequent meetings were held with Ms. Frederica Martin and Mr. Malcolm MacPhail in November to discuss additional data put together by them, including feedback from alumni and job postings from CMS, and to get the benefit of their expertise in structuring program goals. Ms. Kelly Nolan, our Graduate Program Assistant, assisted this phase of the review by taking minutes of the three meetings. An additional meeting was held with representatives from Fintech Cadence with Finance department faculty member Dr. Yu Shan to gauge the potential for incorporating additional material related to Fintech education. A final meeting was held in February to summarize everything into an overall curriculum description, making sure to include sample course schedules that would provide clarification to the proposed calendar descriptions. The conclusions and recommendations from these discussions are summarized in this document.

## 3. PROGRAM GOALS AND OBJECTIVES

### 3.1.    Current MSc Programs' Goals and Objectives

| Goals | Objectives |
|---|---|
| 1. Demonstrate specialized knowledge in the field of study | 1.1: Demonstrate knowledge of core concepts in the area of specialization<br><br>1.2: Demonstrate knowledge and understanding of recent research advances in field of specialization<br><br>1.3: Generate research ideas<br><br>1.4: Evaluate, assess, and critique existing and on-going research |

| | |
|---|---|
| 2. Identify and apply appropriate research methodology to a research problem | 2.1: Demonstrate understanding of the research methodologies used in the area of specialization |
| | 2.2: Identify the appropriate research methodology for a research problem |
| | 2.3: Use appropriate research software and information technology (IT) |
| | 2.4: Apply appropriate research methodology to a research problem |
| 3. Communicate knowledge and research results effectively | 3.1: Produce and deliver high-quality business presentations |
| | 3.2: Produce high-quality business documents |
| 4. Demonstrate understanding of ethical issues relevant in research and scholarship | 4.1: Demonstrate understanding of plagiarism and its consequences |
| | 4.2: Demonstrate understanding of ethical issues related to human subjects |
| | 4.3: Demonstrate understanding of ethical issues of data collection and analysis |
| | 4.4: Demonstrate understanding of ethical issues related to reporting of research results |

The existing program goals were created for a unified M.Sc. program that included students in Marketing, Finance, and Management. As a result, they do not reflect the specific goals of the Finance M.Sc. program. The proposed revised learning goals are provided below.

## 3.2. Revised Learning Goals and Objectives for M.Sc. Finance

| Goals | Objectives |
|---|---|
| | |

| | |
|---|---|
| 1. Demonstrate understanding of the core bodies of knowledge in Finance. | 1.1 Explain the core concepts and findings related to corporate finance<br><br>1.2 Explain the core concepts and findings related to financial economics<br><br>1.3 Explain the core concepts and findings related to asset pricing and mathematical finance |
| 2. Generate research ideas drawing upon core concepts and findings in the student's area of research | 2.1 Explain the core concepts and findings related to the student's area of research<br><br>2.2. Evaluate recent research advances in the student's area of research<br><br>2.3. Generate hypotheses in the student's area of research<br><br>2.4 Select appropriate method(s) to test hypothesis (or multiple hypotheses) |
| 3. Apply key quantitative methods to an analytical problem and follow ethical guidelines as related to data collection and analyses | 3.1 Explain key quantitative methods (e.g. OLS regressions, logistic regressions, and event studies)<br><br>3.2 Use software to apply a combination of quantitative methods to propose a solution to an analytical problem<br><br>3.3 Acquire and/or convert data into information<br><br>3.4 Demonstrate the ability to follow ethical guidelines when collecting and/or analyzing data |

| 4. Communicate knowledge and research evidence orally and in writing | Communicate knowledge and research evidence in an oral presentation |
| --- | --- |
| | 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 for practice |
| | Communicate knowledge and research evidence in writing |
| | 4.2.1 Coherently convey all components of the project in writing |
| | 4.2.2 Use appropriate vocabulary and grammar |
| | 4.2.3 Use citations and quotes appropriately |
| | 4.2.4 Use appropriate formatting principles (e.g. tables, graphs, and exhibits). |

## 4. OVERVIEW OF PROPOSED CHANGES

The proposed changes in the curriculum extend beyond adjustments to the coursework. In addition to proposed changes to the coursework, they include modifications to the admission process, changes to the scheduling of coursework, and changes to supporting activities in the form of new workshops and modifications to the program orientation. The goal is to integrate each of these aspects into a comprehensive plan. A detailed overview of each of these aspects is provided in this section.

### 4.1. Admissions

4.1.1. Rationale

We have three issues that require us to update our admission norms. The first issue relates to the evaluation of applicants. In observing the applications that we receive from all over the world, our traditional yardsticks of GPA and GMAT scores have become less precise signals of quality. The problems arise from the fact that grades are not similarly assigned across or even within countries. For example, a numerically lower GPA from a highly selective institution may indicate higher capability than a somewhat high GPA from a far less selective institution. In addition, as GMAT prep courses have become a worldwide industry, some applicants appear to have access to superior GMAT preparation, and their GMAT scores are not always reflected in their achievement in our program. It is worth noting that in spite of these shortcomings, the GPA and transcript remain informative about student's past academic performance and the GMAT provides useful information helping us to compare candidates from different countries. Finally, our traditional criteria do not provide much room for academic achievements outside the classroom. In particular, our admission process does not consider highly-regarded industry certifications, such as the CFA or the CPA, which signal applicant quality with relative clarity. In light of these developments, we propose moving to a more holistic approach whereby we rely on a more comprehensive evaluation of applicants.

The second issue facing us relates to candidates who apply without a sufficient background in all pre-requisite topics. We currently have the option to allow such candidates to be admitted in a qualifying program, whereby they take certain undergraduate courses to compensate for this deficiency. As of now, we are using FINA 385, FINA 395, FINA 410, and FINA 411 as our standard qualifying courses. This mix of courses has two problems. First, FINA 410 and FINA 411 are not required in the majority of situations. The core theory courses of FINA 385 and FINA 395 cover the vast majority of any deficiencies, and it is almost never necessary to prescribe FINA 410 or FINA 411. Second, some candidates apply with deficiencies in areas other than Finance. For example, there have been candidates who have completed minimal meaningful coursework in accounting, core microeconomic theory, or statistics, and we require qualifying courses that will mitigate this deficiency.

The third issue is the result of course sequencing. In general, it is not very meaningful to require a student to take an undergraduate course (FINA 395 for corporate finance or FINA 385 for asset pricing) as preparation for the M.Sc. work in that area if they end up taking the M.Sc. course before the qualifying course.

4.1.2. Proposed changes

We propose that for qualifying program students, we specify a schedule – this is further clarified in section 4.3, where we discuss the scheduling of coursework. Finally, we adjust the list of typical qualifying program coursework by keeping FINA 385 and FINA 395, excluding FINA 410 and FINA 411, and including COMM 217, COMM 220, and COMM 215 (corresponding to accounting, microeconomics, and, statistics respectively).

**4.2. Coursework**

4.2.1. Rationale

We have two issues with our current coursework that need attention. First, our current coursework has been developed over time, but never as an integrated body of knowledge. Instead of this piecemeal approach, we hope to develop courses that are designed to work more efficiently as part of an integrated program. Second, in our current setup, there are no Finance courses that are mandatory. Therefore, any M.Sc. student can graduate with no training whatsoever in one or more of the core areas of asset pricing, corporate finance, and mathematical finance. The goal here is to require students to take mandatory courses in each core area before they move on to taking elective courses and working on their thesis. In order to better address these issues, we propose updated descriptions of each course.

4.2.2. Proposed changes

First, we propose a new framework of courses such that we have six mandatory courses. These mandatory courses will be Financial Economics, Asset Pricing, Corporate Finance, Mathematical Finance I, and a two-course sequence on Financial Data Analytics. Note that although this looks like a big change from the current three mandatory courses, in practice, the difference will be small. The reason is that for several years, we have offered six elective courses (seven on rare occasions) of which students have been required to take five. As a result, students have rarely had too much choice in coursework. This proposed change can streamline the coursework and provide clarity without substantially changing the practical experience of the student.

In addition, a version of the proposed courses already exists. Financial Economics and Corporate Finance are already being delivered as part of the program, and the new courses are actually updated versions of pre-existing courses (MSCA 601 and MSCA 623 respectively). Asset Pricing is an update to the existing course MSCA 622 (Investment Analysis) that has not been offered in the past few years. Mathematical Finance I is a slightly modified version of MSCA 621 (Investment Theory). Finally, the two course sequence in Financial Data Analytics replaces Applied Linear Statistical Models (MSCA 602) and Research Methodology (MSCA 611). Apart from integrating the topics, the updated versions focus more on research methods as applied in Finance as opposed to a more conventional pure statistics course. We believe that at the M.Sc. level, the learning goals of students are much better served by this integrated and applied approach.

The remaining elective courses are left unchanged. The goal for these courses was and continues to be to provide options for interested students to explore specialized topics in Finance and to help them develop necessary skills for their chosen thesis topic. Detailed course descriptions are provided in Appendix 3.

Our proposed changes are summarized as follows:

| Old course | New course | Change |
|---|---|---|
| *Core* | | |
| MSCA 601: Financial Economics | MSCA 601: Financial Economics | Minor change. Slight reorganization and updating of the existing course |
| MSCA 623 Seminar in Financial Theory and Corporate Policy | MSCA 623: Corporate Finance | Some restructuring and updating of the existing course; the majority of the course remains same |
| MSCA 622 Seminar in Investment Management | MSCA 622: Asset Pricing | Some restructuring and updating of the existing course; the majority of the course remains same |
| MSCA 621 Seminar in Investment Theory | MSCA 621: Mathematical Finance I | Restructuring and significant updating of the existing course; some portions of the course remain the same |

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| MSCA 602: Applied Linear Statistical Models MSCA 611: Research Methods in Finance | MSCA 610and MSCA 617: Financial Data Analytics I & II | The content of these two courses is incorporated into the two new courses (about half the new courses). The rest of the change is realigning the courses with Finance concepts. As a result, a little over half the content is changed |
|---|---|---|
| *Elective* | | |
| MSCA 624 Seminar in Mergers, Restructuring, and Corporate Control | MSCA 624: Seminar in Mergers, Restructuring, and Corporate Control | Same course |
| MSCA 625 Seminar in Options and Futures | MSCA 625: Seminar in Options and Futures | Same course |
| MSCA 632 Seminar in Special Topics in Finance | MSCA 632: Corporate Governance | Same course |
| MSCA 632 Seminar in Special Topics in Finance | MSCA 632: Real Estate | Same course |
| MSCA 632 Seminar in Special Topics in Finance | MSCA 632: Market Microstructure | Same course |
| MSCA 632 Seminar in Special Topics in Finance | MSCA 632: Financial Institutions | Same course |

### 4.3. Schedule of coursework and thesis

4.3.1. Rationale

Our current system grants students almost complete control over the order in which they complete their coursework. As a result, instructors are unable to assume knowledge of other M.Sc. courses when they plan their course outline. This is clearly neither desirable nor in line with our stated objective of creating an integrated curriculum where each course is well aligned with other courses.

4.3.2. Proposed changes

Regular admissions will be only for the Fall semester, as the program structure builds on certain Fall semester courses to develop concepts in Winter semester courses.

Students who enter the program with insufficient background in relevant undergraduate topics will be required to take qualifying courses. Typically, these courses will be on Finance (FINA 385 or FINA 395), Accounting (COMM 217), Economics (COMM 220), or Statistics (COMM 215).

In order to further specify the structure of the coursework, the following subsections provide detailed schedules for specific groups of students. Note that this proposed schedule has no additional implications for the ongoing pilot Co-op program.

*4.3.2.1. Standard schedule for full-time students with no qualifying courses*

|  | Term 1 (Fall) | Term 2 (Winter) | Term 3 (Summer) |
|---|---|---|---|
| Year 1 | Courses:<br>• MSCA 601: Financial Economics (3 credits)<br>• MSCA 610: Financial Data Analytics I (3 credits)<br>• MSCA 622: Asset Pricing (3 credits)<br>• MSCA 623: Corporate Finance (3 credits)<br><br>Other:<br>• Orientation and workshops | Courses:<br>• MSCA 621: Mathematical Finance I (3 credits)<br>• MSCA 617: Financial Data Analytics II (3 credits)<br>• MSCA 6XX: Finance seminar 1 (3 credits)<br>• MSCA 6XX: Finance seminar 2 (3 credits) | Other:<br>• Thesis proposal and link-up form submission – there is no formal thesis proposal requirement. Instead, students are expected to complete a short written document including a brief literature review, statement of hypotheses and a plan for analysis. A copy of this document should be submitted to the program office and this document should form the basis for discussions with potential thesis supervisors with the goal of agreeing on a topic and supervisor that can be submitted as a link up form.<br>• Thesis – on the basis of the thesis proposal students should have commenced work on their thesis before the end of the summer term. |
| Year 2 | Other:<br>• Thesis | Other:<br>• Thesis / early thesis defense | Other:<br>• Thesis / thesis defense |

- Possible elective seminars offered in the program may include: Mergers and Acquisitions, Corporate Governance, Real Estate, Options and Futures, and Financial Institutions.
- Upon approval of the program director and the instructor, the six credits of electives may include the following:
  - Seminars in any other JMSB MSc program;
  - PhD seminars in Finance (ADMI 840-849);
  - Cognate graduate seminars offered by other departments within the university.

*4.3.2.2. Standard schedule for part-time students with no qualifying courses*

|  | Term 1 (Fall) | Term 2 (Winter) | Term 3 (Summer) |
|---|---|---|---|
| Year 1 | Courses:<br>• MSCA 601: Financial Economics (3 credits) | Courses:<br>• MSCA 621: Mathematical Finance I (3 credits) | Other:<br>• Summer workshops |

| | | | |
|---|---|---|---|
| | • MSCA 610: Financial data analytics I (3 credits)<br><br>Other:<br>• Orientation and workshops | • MSCA 617: Financial data analytics II (3 credits) | |
| Year 2 | Courses:<br>• MSCA 622: Asset pricing (3 credits)<br>• MSCA 623: Corporate Finance (3 credits)<br><br>Other:<br>Workshops if any | Courses:<br>• MSCA 6XX: Finance seminar 1 (3 credits)<br>• MSCA 6XX: Finance seminar 2 (3 credits) | Other:<br>• Thesis proposal and link-up form submission – there is no formal thesis proposal requirement. Instead, students are expected to complete a short written document including a brief literature review, statement of hypotheses and a plan for analysis. A copy of this document should be submitted to the program office and this document should form the basis for discussions with potential thesis supervisors with the goal of agreeing on a topic and supervisor that can be submitted as a link up form.<br>Thesis – on the basis of the thesis proposal students should have commenced work on their thesis before the end of the summer term. |
| Year 3 | Other:<br>• Thesis | Other:<br>• Thesis / early thesis defense | Other:<br>• Thesis / thesis defense |

- Possible elective seminars offered in the program may include: Mergers and Acquisitions, Corporate Governance, Real Estate, Options and Futures, and Financial Institutions.
- Upon approval of the program director and the instructor, the six credits of electives may include the following:
  - Seminars in any other JMSB MSc program;
  - PhD seminars in Finance (ADMI 840-849);
  - Cognate graduate seminars offered by other departments within the university.

*4.3.2.3. Notes for students with qualifying courses*

Students who are required to take two qualifying courses should complete Financial Economics (MSCA601) and Financial Data Analytics I (MSCA610) along with their qualifying courses in their first term. In the second term, they should take the same courses that are taken by students admitted without qualifying program requirements. Any remaining courses should then be completed in the first term of their second year.

Students who are required to take one qualifying course should complete Financial Economics (MSCA601) and Financial Data Analytics I (MSCA610) along with one of the two M.Sc. Finance core courses offered in tandem with their qualifying course in their first semester. In the second term, they should take the same courses that are taken by students admitted without qualifying program requirements. Any students admitted part time with qualifying course requirements should consult with the program director at the time of admission to finalize their course schedule.

## 4.4. Orientation and supplementary workshops

### 4.4.1. Rationale

In addition to the proposed coursework, students can benefit from acquiring additional skills that do not require the time commitment of a full 3-credit course but are nevertheless extremely useful for their professional success. These needs can best be accommodated through mandatory workshops. Specifically, we propose targeting the following skills and resources:

Project management: GPLD 653 (Project Management Fundamentals for Immediate Application) is currently a workshop run by GradProSkills. The goal of this workshop is to familiarize our students with the basics of project management both as a tool to better manage their research projects and as a skill that they may require in their professional lives.

Programming / Applied Excel: different students come to the program with very different levels of ability in these areas. As a result, it is difficult to prescribe one set of requirements for all of them. The goals here are first, to ensure that they improve their existing skills and second, to ensure that they become aware of the support Concordia provides to students in developing these skills.

Research data sources: While many of the M.Sc. Finance courses use the Wharton Research Data Services (WRDS), it is more efficient for instructors to welcome students to their classes with the knowledge that the students already have a WRDS account created before the first day of class.

Practitioner data sources: While research data sources are extensively explored in the coursework, the goal here is to expose the students to at least one of the data sources widely used in industry. Since we have access to Bloomberg, that is the proposed one.

Career Management Services (CMS): These services are a valuable resource for the students, and students should be made aware of them when they start their M.Sc. program.

### 4.4.2. Proposed changes

#### 4.4.2.1 Workshops

As part of a mandatory zero credit course, students must complete a minimum of three workshops specified in this section over the course of their first year in the program. These include one workshop on project management, one workshop on data sources, and one workshop on a programming language of their choice.

*Mandatory GradProSkills workshops*

- Students must take GPLD 653 offered by GradProSkills to students in the M.Sc. Finance program in the Fall semester of their first year.

- Students must take at least one of the following Workshops offered by GradProSkills before the end of their first year in the program:
  - o GPDI 510 Advanced Excel
  - o GPDI 513 Get Started Coding with Python
  - o GPDI 515 Beginner's guide to R *or* GPDI 517 Reproducible Scientific Analysis with R if qualified

*Other requirements*

Before May following the completion of the courses on Asset Pricing and Corporate Finance, students must remit a short research proposal to the program director. The proposal should include a tentative topic, associated JEL codes, and a project timeline for thesis completion.

*Mandatory workshop on data sources*

Bloomberg Market Concepts: Students are required to complete the Bloomberg Market Concepts e-learning workshop in the John Dobson – Formula Growth Investment Room before the end of their first year in the program.

All workshops and requirements described in section 4.4.2.1 will be part of a zero credit mandatory Pass/Fail course. This course will be administered by the program director as part of their regular workload, and the students must complete each of these requirements to receive a passing grade.

*4.4.2.2. Orientation and induction into the program*

Attending the orientation for M.Sc. Finance students is strongly recommended. In addition to topics already covered in the existing M.Sc. orientation, the students will be reminded of the following:

Students are required to register for a WRDS account in preparation for the first week of class

The orientation will have a presentation from Career Management Services wherein the students are reminded to visit CMS and take their workshops on Resume and Cover Letter Writing and Interviewing Skills.

## 5. TRANSITION TO THE NEW CURRICULUM

### 5.1. Courses

Since the six new core courses correspond exactly to six existing courses, continuing students will not be able to take both the older and the newer version for credit. Similarly, students will be allowed to take only one out of the older and the newer versions of elective courses. The descriptions of the new courses will include this restriction.

### 5.2. Other

The remaining changes to the program (workshops, requirement of six mandatory courses, and specified sequencing of courses) will not apply to students who are admitted to the program before these changes receive final approval for implementation.

## 6. PROPOSED GRADUATE CALENDAR DESCRIPTION

**Admission Requirements**
- 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 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).

**Proficiency in English.** 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.

Applicants with insufficient prior training in their expected area of specialization will 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.

**Fast-Track to PhD in Business Administration**
Meritorious students enrolled in a JMSB Master of Science program who have completed all degree 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. In all such cases, the decision of the PhD Admissions Committee shall be final.

**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.

**18 credits – Core Courses**
MSCA 601 - Financial Economics (3 credits)
MSCA 610 - Financial Data Analytics I (3 credits)
MSCA 617 - Financial Data Analytics II (3 credits)
MSCA 621 – Mathematical Finance I (3 credits)
MSCA 622 – Asset Pricing (3 credits)
MSCA 623 – Corporate Finance (3 credits)
MSCA 655 – Professional Development Workshops (0 credits)

**6 credits – Finance Seminars**

Upon approval of the MSc Finance Program Director and the instructor, up to six credits of electives may include the following:

- Seminars in any other JMSB MSc program;
- PhD seminar in Finance (ADMI 840-849);
- Cognate graduate seminars offered by other departments within the university.

**21 credits – Thesis**

MSCA 699 - Research Thesis (21 credits)

**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 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.
3. Time Limit. Time Limit. Please refer to the Academic Regulation page for further details regarding the Time Limit requirements.
4. Graduation Requirement. To graduate, students must have completed all course requirements with a cumulative GPA of at least 2.70.

**Courses and workshops**

Students will be required to take six core courses, two elective courses, and professional development workshops as listed below.

**Core seminar descriptions**

MSCA 601 Financial Economics (3 credits)

Business recommendations ultimately come down to building a model and assessing the implied optimal action. This course will introduce students to seminal concepts on decision-making including utility theory, safety-first, optimization and stochastic dominance. Students will apply a selection of equilibrium models including No-arbitrage, Pareto and Nash using both linear algebra and calculus. In preparation for more advanced courses, this class will also introduce the concepts of information asymmetry, costly signaling, and agency theory. Time permitting, special topics in behavioral and neuro economics may be introduced.

MSCA 610 Financial Data Analytics I (3 credits)

The need for data analysis in business only continues to grow as computational resources increase and big data becomes more commonplace. To help meet the demand for data-driven recommendations, students in this course will gain experience cleaning and producing large

structured datasets and conducting statistical analysis on such datasets. Students will use structured query language (SQL) commands to construct relevant datasets and then use these datasets to conduct meaningful analyses of relevant economic relationships. The course will make heavy use of statistical software such as SAS and/or R and will have applied assignments using conventional frequentist analysis used in Finance research. These may include univariate tests, ordinary least squares, regressions with clustered standard errors, two stage least squares, quantile regressions, event studies, categorical choice models such as Logit/Probit, and hazard rate models.

NOTE: Students who have received credit for MSCA 602 may not take this course for credit.

MSCA 617 Financial Data Analytics II (3 credits)

Some problems in business analysis require less common and/or more technical approaches to develop a quantitatively derived recommendation. Building on the base of Financial Data Analytics I, students in this course will learn GARCH and ARIMA modeling as well as Generalized Method of Moments (GMM) and Markov Chain Monte Carlo (MCMC). Students will also learn about certain ethical aspects of data analysis (p-hacking, data mining) when working with data and conducting hypothesis testing. Assignments will focus on forecasting, derivative pricing and Value at Risk (VaR) and will make use of Matlab, R, and/or SAS. Time permitting, machine learning and neural nets may be introduced.

Prerequisites: MSCA610 or equivalent

NOTE: Students who have received credit for MSCA 611 may not take this course for credit.

MSCA 621 Mathematical Finance I (3 credits)

A significant part of the body of knowledge in Finance involves using mathematical relations based on the principal of no-arbitrage to describe the properties of financial securities and price them. This course will provide an introduction to the core mathematical concepts that underlie this approach and then introduce students to certain applications of such methods in pricing derivative securities. Computational exercises may be used to explore numerical methods used in the application of the course concepts to pricing.

Co-requisites: MSCA 617 or equivalent

MSCA 622 Asset Pricing (3 credits)

One of the most common tasks of an analyst is to price a security. In this course students will be exposed to various pricing methodologies, including a brief review of relative valuation and discounted cash-flow methods, followed by a thorough exposition of pricing kernel and multifactor models. Repeated exercises will make use of the no-arbitrage method of pricing and students will be taught how to create hedged positions. Various methods of investment performance measurement will be introduced, and recent research findings on stock return predictability will be discussed.

Prerequisites / Co-requisites: MSCA 601 or equivalent

MSCA 623 Corporate Finance (3 credits)

The work of many financial analysts starts with the evaluation of corporate decisions. This course will focus on how corporations make financial decisions, be it on which projects to invest, how to compensate executives or how the company should be best financed. Students will be introduced to the core theoretical and empirical results on capital structure, equity and debt issuance, mergers, corporate restructuring, and payout policy and be expected to use their learning from Financial Data Analytics I in order to carry out applied empirical exercises on these topics. Time permitting, recent research findings on other topics such as corporate governance and internal capital markets may be reviewed.

Prerequisites / Co-requisites: MSCA601 or equivalent

MSCA 655 Professional Development (0 credit)

Students are required to attend a minimum of three professional development workshops approved by the Graduate Program Director and offered in collaboration with different partners (e.g. GradProSkills). These workshops complement students' academic training and provide them with technical skills that help them succeed professionally and academically. Students must complete these workshops in the first year of the program.

**Elective Finance Seminars**

Each year a selection of specialized seminars will be offered on a rotating basis from those listed below.

MSCA 624 Seminar in Mergers, Restructuring, and Corporate Control
MSCA 625 Seminar in Options and Futures
MSCA 632 Seminar in Special Topics in Finance

Note: More than one topic can be offered under MSCA 6632. In such cases, the name of the topic will be indicated on the class schedule (under Topic e.g. Financial institutions).

Upon approval of the program director and the instructor, the six credits of elective courses may include the following:

o   Seminars in any other JMSB MSc program;
o   PhD seminars in Finance (ADMI 840-849);
o   Cognate graduate courses offered by other departments within the university.

**MSCA 699 Research Thesis** (21 credits)

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.

| Competencies | Degree Requirements | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. Demonstrate understanding of the core bodies of knowledge in Finance. | MSCA 601 | MSCA 623 | MSCA 622 | MSCA 621 | MSCA 610 | MSCA 617 | Electives | Thesis |
| • 1.1 Explain the core concepts and findings related to corporate finance | | M | | | R | | R | |
| • 1.2 Explain the core concepts and findings related to financial economics | M | | | | | | R | |
| • 1.3 Explain the core concepts and findings related to asset pricing | | | M | | R | R | R | |
| • 1.4 Explain the core concepts and findings related to mathematical finance | | | | M | R | | | |
| 2. Generate research ideas drawing upon core concepts and findings in the student's area of research | | | | | | | | |
| • 2.1 Explain the core concepts and findings related to the student's area of research | | I | I | I | | | R | R,M |
| • 2.2. Evaluate recent research advances in the student's area of research | | I | I | I | | | R | R,M |
| • 2.3. Generate hypotheses in the student's area of research | | | | | I | I | | R,M |
| • 2.4 Select appropriate method(s) to test hypothesis (or multiple hypotheses) | | | | | I | I | | R,M |
| 3. Apply key quantitative methods to an analytical problem and follow ethical guidelines as related to data collection and analyses | | | | | | | | |
| • 3.1 Explain key quantitative methods (e.g. OLS regressions, logistic regressions, and event studies) | | | | | I | | | R,M |
| • 3.2 Use software to apply a combination of quantitative methods to propose a solution to an analytical problem | | | | | I | I | | R,M |
| • 3.3 Acquire and/or convert data into information | | I | I | | R | R | R | M |
| • 3.4 Demonstrate the ability to follow ethical guidelines when collecting and/or analyzing data | | | | | | I,R | | M |
| Communicate knowledge and research evidence orally and in writing | | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| • 4.1.1 Clearly convey key components of the project orally | | I | I | R | I | R | R | M |
| • 4.1.2 Use appropriate data visualisation | | I | I | R | I | R | R | M |
| • 4.1.3 Effectively respond to questions | | I | I | R | I | R | R | M |
| • 4.1.4 Clearly state the implications of the project for research and/or for practice | | I | I | R | I | R | R | M |
| • 4.2.1 Coherently convey all components of the project in writing | | I | I | R | I | R | R | M |
| • 4.2.2 Use appropriate vocabulary and grammar | | I | I | R | I | R | R | M |
| • 4.2.3 Use citations and quotes appropriately | | I | I | R | I | R | R | M |
| • 4.2.4 Use appropriate formatting principles (e.g. tables, graphs, and exhibits). | | I | I | R | I | R | R | M |

I: Introduced  R: Reinforced  M: Mastered

## 8. RESOURCE IMPLICATIONS

8.1.    Resource implications for the M.Sc. in Finance program

- No extra resources required – may need reorganization of resources committed to the program.
    - The existing program offers eight courses and requires a supervised thesis and the proposed curriculum will continue to do the same.
    - With respect to the list of courses offered, in the past, students have been offered nine or ten courses in the program as well as the possibility of taking one or two cognate courses outside the program. The proposal leaves this unchanged as well.
    - Due to better integration of Finance concepts with data analytics, one course previously offered by the SCBTM department will now be offered by the Finance department. The implication is a shift in the distribution of resource requirements but no change in the total.
    - Of the proposed workshops, two are offered by Grad Pro Skills already and the change is requiring the M.Sc. Finance students to take them. The third is a self-taught e-learning program that is included in the Bloomberg terminal already available from JMSB resources.

8.2.    Resource implications for the Finance department

- The Finance department will now teach one more course than earlier. This course was earlier taught by SCBTM department

8.3.    Implementation Timetable for the Program

- The earliest possible implementation of the program is in Fall 2021 if the proposal is passed at all levels prior to summer 2021. More realistically, the implementation is expected in Fall 2022 or after.

8.4.    Summary of departmental teaching resources

The department of Finance believes it has sufficient faculty members with the relevant expertise to teach all required courses. An estimate of the number of faculty members qualified to teach each of the core courses is as follows:

| Proposed mandatory courses | Credits | Department resources to teach |
|---|---|---|
| Financial Economics | 3 | At least 3 qualified |
| Financial Data Analytics I | 3 | At least 9 qualified |
| Financial Data Analytics II | 3 | At least 4 qualified |
| Mathematical Finance I | 3 | At least 5 qualified |
| Asset Pricing | 3 | At least 6 qualified |
| Corporate Finance | 3 | At least 9 qualified |

**9. IMPLEMENTATION OF CHANGES PROPOSED FOR THE M.SC. IN FINANCE**

Due to potential implementation problems with widespread changes in the existing program, we propose phasing in the curriculum updates. This document provides a summary implementation plan by scheduling the proposed changes over two years.

Year 1 corresponds to 2022-2023—in order to give the department enough time to develop the new courses and given the current circumstances around the pandemic and its associated difficulties (additional sabbaticals, etc.), the department evaluates that it is better to implement those changes as of Sept. 2022.

**1. Change in the number of core courses**

*Year 1*

None this year. The number of core courses stays at 3. The courses are:

Financial Economics

Financial Data Analytics I

Financial Data Analytics II

*Year 2*

Increase the number of core courses from three to six. The final list of courses is as follows:

Financial Economics

Financial Data Analytics I

Financial Data Analytics II

Asset Pricing

Corporate Finance

Mathematical Finance

**2. Sequencing of courses**

*Year 1*

Financial Data Analytics I is now a prerequisite for Financial Data Analytics II

*Year 2*

Complete schedule implementation

## 3. Revision of existing course names and descriptions

*Year 1*

Financial Economics

Financial Data Analytics I

Financial Data Analytics II

*Year 2*

Asset Pricing

Corporate Finance

Mathematical Finance I

## 4. Creation of new courses

*Year 1*

None

*Year 2*

None planned at this point. Depending on the success of Mathematical Finance I, we may consider introducing Mathematical Finance II as a continuation course.

## 5. Change in the admission requirements

*Year 1*

All changes

*Year 2*

None

## 6. Mandatory zero credit workshops

*Year 1*

All workshops integrated in program

*Year 2*

None

## 7. Orientation

*Year 1*

All changes

*Year 2*

None

## 8. Course renumbering

*Year 1*

All changes

*Year 2*

None

**Appendix 1: Feedback from alumni interviews**

As part of the curriculum review, alumni of the M.Sc. Finance program who volunteered their time were interviewed to assess the strengths and weaknesses of our program. Their responses are summarized below.

1) **What helped/hindered your progress through the program?**

**Alumnus A**

(+)

- nothing in particular

(-)

- the nature of the program is to be research-based, relied a lot on seminars but a lot of the students had weak English so was difficult to engage in interesting conversations during the classes, the seminar format wasn't very effective
- Learning objectives were either inexistent or were not put into place, unclear
- Too many survey courses, focus on comprehension and modelisation, didn't explain applications
- Need to limit the scope of the research project.

**Alumna B**

(-)

- very time consuming to do research; the prof wanted a PhD level thesis

**Alumnus C**

(+)

- small classes, more time with profs;
- MSC lab helped bring students together; studied together

(-)

- lost finding supervisor;
- came right out of the Concordia BCOMM, had gap in knowledge in math, at the MSc level it was complex and never covered during the BCOMM

**Alumna D**

(+)

- 8 courses, provided a good foundation for the research
- Enjoyed the thesis, helped her to study for the CFA program, especially the methodology part, learned how to do research

**Alumna E**

(+)

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- critical thinking, was stimulated in class because professor would ask challenging questions; would read existing research and see what could be improved.
- Great data sources available to students at Concordia.

(-)

- It is a prep program for the PhD. Trained to do purely academic research, not how to approach work in industry.
- There is no clear career path for others.

**Alumnus F**

(+)

- nothing in particular

(-)

- was left alone during the second year which impacted his momentum
- There was a very diverse crowd who weren't particularly interested in local industry, in North-America; they wanted to move back home.

2) **Do you feel that you lacked certain essential skills when entering the job market after graduation?**

**Alumnus A**

- No, because he did the CFI by himself. Allowed him to understand how markets work, management, touched upon in papers but not in detail.

**Alumna B**

- She would have needed an internship or coop experience. After her first job in Canada, it was much easier getting a second one.

**Alumnus C**

- In corporate banking he was over prepared, value added, had an edge but training during MSc was way more technical than what was needed.

**Alumna D**

- She is working in the IT industry field – she had to learn about programming and coding

**Alumnus F**

- It is a very technical MSc, not enough information about what the real world was about. Would be helpful to work on a smaller, work-related project, would have made him a stronger candidate, would have liked both an internship and a thesis.

3) **Looking back at your career, what do you feel is the most valuable skill/lesson you developed during the program?**

**Alumnus A**

- Ability to understand, read papers, critical thinking, Developed during the research

**Alumna B**

- The research part has helped her to learn new things, is able to read papers. If she had known, she would have chosen a course-based program.

**Alumna D**

- Analytical skills, running regressions on data
- A few course – Investment series
- David Newton's course on Financial Economics, she found useful
- During the thesis, learned Matlab, programming skills, and a little coding

**Alumna E**

- Critical thinking
- Statistics; she has an instinct for numbers, is detail oriented
- Read a lot of papers, got a lot of depth, very specific information, not much breadth.

**Alumnus F**

- Hard work
- Technical quantitative aspect
- Understanding that research is done in a perfect world, not real life

4) **To what extent have you used your research skills during your career?**

**Alumnus A**

- A little, it depends on the project. Ability to understand theoretical concepts that are applied in the modelisation.

**Alumna B**

- Not at all, but helps to learn new things.

**Alumnus C**

- Ability to find, analyze and process information. Analyzes data.

**Alumna D**

- Yes, deals with a lot of data. Needs to analyze.

**Alumna E**

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- No. More of a way of thinking. She questions the statements she receives from firms, is able to identify if the information that is sent is true, is able to challenge the information and explain why she might agree or disagree

**Alumnus F**

- To some extent, on the soft side, understand what lies under the scene.

5) **Why would you recommend/not recommend the MSc Management program, and to whom?**

**Alumnus A**

- Yes if interested in research.
- If want to go on the job market, go to HEC.

**Alumna B**

- For those who want to immigrate to Canada. Montreal is a second choice after Toronto. But if you are going to Montreal, JMSB is a good choice.

**Alumnus C**

- For those who want a technical type of job or more research oriented.
- Not for those who want to work with clients.

**Alumna D**

- People who want to do research, because it could take more than one year to do the thesis
- People who want to do a PhD.

**Alumna E**

- Those who want to do research or a PhD
- Those who want a job where you need to know something very deeply.

**Alumnus F**

- For those who are strong in quant
- Interested in software
- Interested by empirical research
- One way to elevate yourself, to go over and above the competition, in Montreal there are many very qualified people in the market.

6) **What changes to the program would you recommend to the curriculum committee? Why?**

**Alumnus A**

- There is a lot of math in the MSC. If no background in math, should provide a bootcamp, because there is none in the BCOM.
- Identify structure and objectives of the programme, which should be reflected in the course outlines.

**Alumna B**

- Have a choice between thesis and course-based program
- Encourage students to learn French, promote this during orientation
- Offer coop or internships
- Offer more programming (computer).

**Alumnus C**

- Took class in the MBA that wasn't credited. It would be good to open up electives, get to know other students.
- Offer guidance for the job market. More contact with employers, career orientation.

**Alumna D**

- Develop a course that is related to big data and AI – will be required in the Finance industry.

**Alumna E**

- Include course work from the Van Berkom program, equity research; this would open doors for many students
- Take courses with PhD students; get to see if you like the PhD, network; challenging, learn a lot
- Concordia is specialized in the field of social responsibility; should inform student about the opportunities, existence of MBA courses or certificate.

**Alumnus F**

- Getting corporate sponsors, getting topics
- Do activities like consultant work, present to corporations
- Add a few more courses about the business  side of things (eg MBA courses)
- More well-rounded like at HEC

**Appendix 2: Sample job postings from CMS**

**Example 1: P&L Junior Analyst**

**BNP Paribas - Montréal, QC**

**Business Overview:**

The PCM & G10 Rates P&L Team provides a robust and dedicated support to the Credit & G10 Rates Trading businesses. We are looking for a Montreal based Product Controller / P&L Analyst to support the New York Credit and G10 Rates Trading desk. The selected candidate will report to the local P&L Team Supervisor.

The role will encompass daily P&L responsibilities and the successful candidate will need to fully understand and explain the key P&L drivers. The individual will be required to establish effective working relationships with both Front Office and other areas of support. (E.g. Trade Support, VR&C, Market Risk, Finance & IT) - allowing for an integrated and proactive approach to the business requirements, understanding the lifecycles of the products traded and the systems and reporting mechanisms required to enable full control and accurate and appropriate information to be supplied. The Individual will join a split team organization with team members located in both Montreal and NewYork City, under a functional management located in New York.

**Responsibilities:**

Departmental Objectives

- Reconcile daily FO P&L to the Official P&L
- Produce daily MO forecast and reconcile to the traders forecast after the close
- Analyze, understand, and attribute daily P&L, e.g. Greeks, new trades / amends
- Explain and comment on economic P&L using P&L Explain Tools
- Produce a Step Reval Explain and Risk based P&L Explain on a daily basis
- Engage trade support and Front Office to resolve operational and booking issues
- Work with Front Office, Finance, and Market Risk to finalize month end P&L
- Discuss and review trading P&Ls with management
- Ensure all appropriate controls and processes are executed and well documented
- Substantiate and resolve Back office inquiries, ledger vs. P&L systems
- Contribute to ongoing process and control improvements / efficiencies

**Trader Support & Customer Service**

- Liaise with trading floor personnel and ensure a satisfactory resolution of all FO inquiries
- Interact with Operations functions and other infrastructure groups to support a one team approach
- Resolve all issues / conflicts and strive to meet or surpass the service level agreement
- Manage deadlines and objectivesCommunication
- Ensure timely and efficient dissemination of data and the resolution of inquiries
- Identify and escalate time / risk sensitive issues to the team supervisor
- Cohesively explain and maintain own position, logically, in light of differing views Culture
- Focus on the needs of the business
- Act with integrity, accepting responsibility for actions
- Recognize opportunities for creativity and development of processes

- Achieve a sensible work/life balance.
- Applicable to All
- Ensure the business area conducts its activity in accordance with all relevant external regulators and internal policies.

**Minimum Required Qualifications:**

- Bachelors degree or equivalent required
- Previous experience (Two+ years) in P&L Control, Financial Control, or a Middle Office environment
- Superior attention to detail and accuracy
- Strong interpersonal and communication skills a must
- Ability to work in a fast paced environment
- Ability to work as part of a team in a split team organization
- Strong Excel & PC skills with proven ability to work with multiple systems
- Spirit of continuous improvement
- Display good relationship qualities, team spirit, and ability to work across teams

**Preferred Qualifications:**

- Graduate degree in Finance, Math or Engineering or other quantitative disciplines
- Fluency in financial markets with an emphasis on Fixed Income
- Solid understanding of the following products: CDS, CDX,IRS, FRAs, Caps/Floors, Swaptions, Treasuries, Corporate Bonds, Repos, and Futures
- Knowledgeable of the Greeks
- Working knowledge of Programming languages such as VBA, SQL & Python
- Experience in pricing, valuation or hedging of derivatives

Job Types: Full-time, Permanent

Experience:

- P&L Control: 2 years (Required)
- Solid understanding of the following products: CDS, CDX,IR: 2 years (Required)
- Knowledgeable of Greeks: 1 year (Required)
- Banking Environment: 2 years (Required)

Education:

- Bachelor's Degree (Required)

Location:

- Montréal (Required)

Language:

- English and French (Required)

**Example 2: Treasury Analytics Developer - Toronto, ON**

Job Type:        Permanent        .

Job Location:    Toronto, Ontario, Canada

Job Salary:      Competitive

Main Industry:  Advertising, Marketing & PR

Other Industries and Skills:        Education & Training, Engineering, Finance, Banking & Insurance, Information Technology, Management & Executive, Science

**Job Description:**

**Job Purpose**

Be part of a dynamic and innovative analytics team where you will be directly involved in developing high performance analytics that support traders, strategists, and senior management in Scotiabank's head office Treasury.  Our team consists of quantitatively minded people with diverse backgrounds in engineering, physics, finance, and computer science, who bring fresh ideas and perspectives to the projects we work on. Working within a top-tier Canadian bank treasury unit, you will be in a unique position to learn all aspects of how the bank operates and your contributions will directly be used to provide truly valuable insights into managing a large international bank's balance sheet.

Scotiabank Treasury has undertaken a multi-year technology transformation to create new value-added analytics and to create a leading, best-in-class Treasury unit. As a member of the Treasury Analytics & Development team, the incumbent will be conceptualizing, developing, and deploying state-of-the art analytical models, high performance simulation systems, and front-end graphical solutions to support new balance sheet forecasting and optimization models.   The analytical solutions developed by the team are directly used by local Treasury stakeholders and by key international units.

We are looking for a passionate developer to join the team who is quick at learning new concepts, demonstrates curiosity, enjoys research, and who is a creative problem solver.  The ideal candidate also shows a strong interest in developing elegant software tools with a focus on end-user experience, implements efficient coding practices, and creates pragmatic, results-focused analytics.  This position is ideal for a person with a strong technical background, with previous experience working in software development, quantitative model development, optimization techniques and machine learning.  The ideal candidate will have prior work experience within the field of quantitative finance.  Experience with data visualization and customer/user experience (Cx/Ux) interface design using latest web technologies would be an asset.

**Key Accountabilities**

-Develop, test, and deploy production-ready analytical tools and the technology framework to measure, forecast, and simulate balance sheet structural interest rate risk exposures, margin analysis, and portfolio stress testing

-Create new web-based, user-focused tools and reports for market facing trading desk and senior management

-Provide technical expertise and support technical deployment within the team

-Collaborate with multiple stakeholders to drive agile product version releases and faster user adoption

-Provide timely analysis of balance sheet exposures and what-if scenario testing

-Work closely with market-facing, risk management, and finance teams on the various analytical, reporting and exposure measurement issues

-Write, implement, test, and utilize sophisticated quantitative models for hedging and balance sheet forecasting purposes

-Present to other Treasury colleagues regarding new analytics and methodology impact testing

-Identify efficiency opportunities by working with business lines in the development of new and/or changes to existing products

**Functional Competencies**

The incumbent must have:

-Strong technical knowledge in programming languages and data management software, including MATLAB, Python (Including being familiar with packages like Flask and Pandas/Numpy), SQL, C++, and Visual Basic

-Experience in full stack development utilizing technologies such as JQuery/Javascript, Vue.js, React.js and back-end tools such as node.js and Flask would be an asset

-Creative problem solver with strong analytical skills

-Experience in developing highly interactive, user-centric front-end web applications

-Working understanding of interest rate market dynamics

-Solid knowledge of financial and management accounting principles

-Understanding and practical experience in Interest Rate Sensitivities

-Strong presentation and communication skills, both oral and written

-Excellent analytical, problem-solving, conceptualization, and strategic thinking skills

-Ability to communicate technical and analytical concepts to a broad range of stakeholders

-Strong customer-focus with a proven ability to translate complex customer requirements into user-focused final product

**Education/Experience**

-At least one Masters-level degree in Financial Engineering or highly technical disciplines (i.e. engineering, physics, or applied mathematics) with an undergraduate degree in physics, engineering, or computer science

-Minimum 2 years of experience at a financial institution, preferably with knowledge in interest rate products, asset liability management, and risk management

-Previous model development experience and proven ability to assess, interpret, and implement financial theories, concepts, and models

-Advanced experience in computer programming, distributive computing, database management, machine learning, and development of analytical tools

-Solid understanding of statistics, mathematical finance, derivatives concepts, as well as interest rate sensitive products

Location(s):  Canada : Ontario : Toronto

**Example 3: Mackenzie Investments**

**Investment Analyst, Multi-Asset Strategies**

Job LocationCA-ON-Toronto

**Job Description**

Mackenzie Investments was founded in 1967 and is a leading investment management firm providing investment advisory and related services to retail and institutional clients. As part of IGM (a subsidiary of the Power Financial Group of Companies), it is the largest independent asset manager in Canada.

**At Mackenzie Investments you can Build Your Career with Confidence by:**

**Changing the Game:** We have a vision and a strategy that will challenge the way business in this industry is done and help investors be successful.

**Making a Smarter World**: We believe in continuous learning, understanding what is most important and sharing the benefits of that knowledge.

**Being Proud**: As a part of our team you will do some of your best work, develop some of your most valuable skills and give back in ways that make a difference in the lives of Canadians.

**Joining an Unstoppable Team**: We build teams that look out for each other, ask the best of each other and deliver the finest work.

**Learning and Growing:** We offer an environment where you can indulge your curiosity to learn; getting the challenges and feedback you need to refine your skills and abilities.

**Thriving in a Supportive Environment**: We have created a workplace where your efforts and career are supported by your team and your leader.

**THE ROLE**
Mackenzie Investments is looking to add an Investment Analyst to its Multi-Asset Strategies team in the Investment Management department. Reporting to the Head of Multi-Asset Strategies, the candidate will be responsible for conducting  research in asset allocation, quant equities, and systematic macro, as well as advancing portfolio management analytics and supporting portfolio management activities.

The ideal candidates are passionate about portfolio management, innovative, intellectually rigorous, curious, productive, and humble, and have the highest standard of honesty and integrity. They are motivated by achieving excellence and by being part of a team who strives continuously to be the best in its field. The successful candidate will gain valuable knowledge and skills by being part of a team that make investments decisions on a large breadth of asset classes, geographies and investment strategies.

**The main responsibilities of the role:**

- Conduct research to forecast the risk and returns of all major asset classes such as stocks, bonds, currencies and commodities and related derivatives
- Conduct research to forecast the risk and return of equity factors such as value, momentum, quality

- Enhance the quantitative tools and infrastructure used to construct portfolios, conduct research, and monitor portfolios
- Support day-to-day portfolio management activities

**Minimum requirements for this role include:**

- At least 2 years of relevant experience, including experience at a world-class asset manager, directly involved with quantitative research, portfolio construction and asset allocation
- Master degree or above in Finance, Economics, Computer Science, Statistics, or related discipline
- Demonstrated interest financial markets, portfolio management, multi-asset class investing and market savvy
- Advanced knowledge of programming (Python), optimizers (CVXPY) and MS Office; databases knowledge (Mongodb, SQL) would be an asset
- Ability to produce work with a high degree of accuracy

- High performing team player

- Excellent communication skills both written and verbal

**Appendix 3: Course Outlines**

The course schedules provided below serve to illustrate and provide more detail on the brief, formal course descriptions provided earlier. They serve to provide a guide for first time instructors and a starting point from which subsequent instructors may refine and update the course contents.

FINANCIAL ECONOMICS [CORE]

Business recommendations ultimately come down to building a model and assessing the implied optimal action. This course will introduce students to seminal concepts on decision-making including utility theory, safety-first, optimization and stochastic dominance. Students will apply a selection of equilibrium models including No-arbitrage, Pareto and Nash using both linear algebra and calculus. In preparation for more advanced courses, this class will also introduce the concepts of information asymmetry, costly signaling, and agency theory. Time permitting special topics in behavioral and neuro economics may be introduced.

| Week | Learning objectives |
|---|---|
| 1 | Course introduction, Researching articles (Google Scholar, Library, JSTOR, Proquest), Notation (demonstration of proof) |
| 2 | Nash, Pareto, No-arbitrage Equilibria |
| 3 | Decision making under risk – Utility theory, Risk premia in the large |
| 4 | Optimization (Lagrange, shadow pricing, principal agent problem with executive compensation and optimal process control) |
| 5 | Introduction and application to asset pricing kernel (Arrow Debreu), motivated by DCF examples |
| 6 | Ross APT (Linear algebra) |
| 7 | Midterm 1/Evaluation/Other |
| 8 | Market efficiency & Anomalies |
| 9 | Behavioral Finance & Economics |
| 10 | Alternative decision theories – Safety first, Stochastic dominance, Value at Risk |
| 11 | Information economics & signaling, Bayesian statistics |
| 12 | Contemporary topics in literature |
| 13 | Midterm 2/Evaluation/Other |

## FINANCIAL DATA ANALYTICS I [CORE]

The need for data analysis in business only continues to grow as computational resources increase and big data becomes more commonplace. To help meet the demand for data-driven recommendations, students in this course will gain experience cleaning and producing large structured datasets and conducting statistical analysis on such datasets. Students will use structured query language (SQL) commands to construct relevant datasets and then use these datasets to conduct meaningful analyses of relevant economic relationships. The course will make heavy use of statistical software such as SAS and/or R and will have applied assignments using conventional frequentist analysis used in Finance research. These may include univariate tests, ordinary least squares, regressions with clustered standard errors, two stage least squares, quantile regressions, event studies, categorical choice models such as Logit/Probit, and hazard rate models.

| Week | Learning objectives |
|------|---------------------|
| 1 | Course introduction, Software introduction (SAS/R) (applications: open SAS, setup wrds, download and import datasets) |
| 2 | Linear regression & multiple linear regression (OLS) (in SAS run proc reg, interpret findings) [Assignment 1, due week 3: run regression, interpret output, submit results & logs for evaluation] |
| 3 | Data sets & data cleaning (SQL), summary statistics (In SAS use SQL to filter/clean data, produce summary statistics with proc mean/univariate) |
| 4 | Common Finance datasets and merging (permno/permco/cik/cusip/gvkey/sedol) and ANOVA test statistics (Proc anova) [Assignment 2, due week 5: merge & clean data, produce summary, interpret output, submit stats & logs for evaluation] |
| 5 | Dummy variables, Logit/Probit, Multinomial logit/categorical or level regressions |
| 6 | Fixed & Random effect models |
| 7 | Non-normality diagnostics & corrections (Jarque Bera, heteroscedasticity, white standard errors) |
| 8 | Cluster regressions [Assignment 3 starts: instructor choice, submit results & logs for evaluation] |
| 9 | Event study (finance application) |
| 10 | 2SLS (finance application) [Assignment 4 starts: instructor choice, interpret output, submit results & logs for evaluation] |
| 11 | Review |
| 12 | In lab evaluation/exam |
| 13 | Intro to Data Analytics II software (Matlab/Python) |

## ASSET PRICING [CORE]

One of the most common tasks of an analyst is to price a security. In this course students will be exposed to various pricing methodologies including a brief review of relative valuation and discounted cash-flow followed with a thorough exposition of pricing kernel and multifactor models. Repeated exercises will make use of the no-arbitrage method of pricing and students will be taught how to create hedged positions. Various methods of investment performance measurement will be introduced and recent research findings on stock return predictability will be discussed.

Prerequisites / Co-requisites: Financial Economics or equivalent

| Week | Learning objectives |
|---|---|
| 1 | Course introduction, Data acquisition in empirical asset pricing (CRSP/TAQ) |
| 2 | Market background (securitized products, instruments, investment classes, etc.) |
| 3 | CAPM |
| 4 | Consumption CAPM (Habit formation) |
| 5 | Factor models (empirical applications as well) |
| 6 | Factor models continued :Time varying Beta/Premia |
| 7 | Midterm 1/ Evaluation/Other |
| 8 | Return predictability (applied long-short strategy exercise) |
| 9 | Dynamic portfolio Optimization |
| 10 | Volatility modeling |
| 11 | Topics in applied asset pricing (limits to arbitrage, heterogeneous beliefs, frictions, etc.) |
| 12 | Contemporary topics in literature |
| 13 | Midterm 2/ Evaluation/Other |

## CORPORATE FINANCE [CORE]

The work of many financial analysts starts with the evaluation of corporate decisions. This course will focus on how corporations make financial decisions be it on which projects to invest, how to compensate executives and how the company should be best financed. Students will be introduced to the core theoretical and empirical results on capital structure, equity and debt issuance, mergers, corporate restructuring, and payout policy and be expected to use their learning from Financial Data Analytics 1 in order to carry out applied empirical exercises on these topics. Time permitting, recent research findings on other topics such as corporate governance and internal capital markets may be reviewed.

Prerequisites / Co-requisites: Financial Economics or equivalent

| Week | Learning objectives |
|---|---|
| 1 | Course intro, Data acquisition in empirical corporate finance (WRDS/Compustat), Accounting statement review |
| 2 | DCF valuation exercise |
| 3 | Methods (Barber & Lyon accounting measures, natural experiments, Tobin's Q) |
| 4 | Governance (Agency conflict) |
| 5 | Capital structure |
| 6 | Payout |
| 7 | Midterm 1/Evaluation/Other |
| 8 | IPO & SEO, Venture capital (market timing) |
| 9 | M & A |
| 10 | Restructuring (diversification, internal markets, carve-outs, etc.) |
| 11 | Cash holdings |
| 12 | Contemporary topics in literature (Intangibles, R&D, CEO characteristics, boards, etc.) |
| 13 | Midterm 2/Evaluation/Other |

FINANCIAL DATA ANALYTICS II [CORE]

Some problems in business analysis require less common and/or more technical approaches to develop a quantitatively derived recommendation. Building on the base of Data Analytics 1, students in this course will learn GARCH and ARIMA modeling as well as Generalized Method of Moments (GMM) and Markov Chain Monte Carlo (MCMC). Students will also learn about certain ethical aspects of data analysis (p-hacking, data mining) when working with data and conducting hypothesis testing. Assignments will focus on forecasting, derivative pricing and Value at Risk (VaR) and will make use of Matlab and/or R. Time permitting machine learning and neural nets may be introduced.

Prerequisites: Financial Data Analytics I or equivalent

| Week | Learning objectives |
|------|---------------------|
| 1 | Course introduction, Software introduction (Matlab) |
| 2 | Writing your first .m file |
| 3 | Optimization toolbox [Assignment 1: Optimization, submit optimal policy and code] |
| 4 | GMM and topics in derivative pricing/risk management |
| 5 | Markov Chain Monte Carlo methods |
| 6 | Neural nets/Machine learning/AI [Assignment 2: Machine learning exercise, submit price and code] |
| 7 | Midterm/Evaluation/Other |
| 8 | SAS: Fama MacBeth regression |
| 9 | SAS: Time series forecasting (ARIMA) Assignment 3: ARIMA, submit forecasts and code] |
| 10 | SAS: Time series (ARCH/GARCH) |
| 11 | SAS: PCA/Other/Non-parametrics (instructor choice) |
| 12 | In lab evaluation |
| 13 | Ethics (p-hacking, data mining) & research agenda |

MATHEMATICAL FINANCE I [CORE]

A significant part of the body of knowledge in Finance involves using mathematical relations based on the principal of no-arbitrage to describe the properties of financial securities and price them. This course will provide an introduction to the core mathematical concepts that underlie this approach and then introduce students to certain applications of such methods in pricing derivative securities. Computational exercises may be used to explore numerical methods used in the application of the course concepts to pricing.

Prerequisites / Co-requisites: Financial Data Analytics II or equivalent

| Week | Learning objectives |
| --- | --- |
| 1-2 | Course intro, mathematical review |
| 3-6 | Mathematical finance concepts in discrete time using the Binomial model: replicating portfolio, risk-neutral valuation, change of measure, Radon-Nikodym derivative, sigma-fields and filtration, conditional expectation, discrete time martingales, Markov processes, stopping times |
| 7 | Need for stochastic calculus in finance, continuous time martingales, description of Brownian motion and its path properties, modes of convergence of random variables |
| 8 | Stochastic integration, Ito's lemma and Taylor series motivation of its derivation |
| 9 | Stochastic differential equations |
| 10 | Change of measure, Girsanov theorem, martingale representation theorem |
| 11 | Two alternative derivations of the Black-Scholes formula: derivation of the Black-Scholes PDE and the Black-Scholes formula, using martingale methods to derive the formula |
| 12-13 | Review |

The evaluation in this course will include three assignments on theory and practical applications using Matlab as well as a final exam. .

**Appendix 4: AOL Assessment Recommendations for Each MSc Learning Goal (2014; 2016)**

| Goals | Objectives | Recommendations | Proposed curriculum |
|---|---|---|---|
| 1. Demonstrate specialized knowledge in the field of study | 1.1: Demonstrate knowledge of core concepts in the area of specialization<br><br>1.2: Demonstrate knowledge and understanding of recent research advances in field of specialization<br><br>1.3: Generate research ideas<br><br>1.4: Evaluate, assess and critique existing and on-going research | 1.Introduce specialized knowledge in the field of study<br>Special seminar on how to critique and evaluate research – mandatory<br>Addition of more assignments in the research methodology courses | The corporate finance, asset pricing, and mathematical finance required seminars will each have this.<br>Research methods course replaced by Data Analytics 1 and 2 which are more focused and will involve more hands on work. |
| 2. Identify and apply appropriate research methodology to a research problem | 2.1: Demonstrate understanding of the research methodologies used in the area of specialization<br><br>2.2: Identify the appropriate research methodology for a research problem<br><br>2.3: Use appropriate research software and information technology (IT)<br><br>2.4: Apply appropriate research methodology to a research problem | Demonstrate proficiency in research skills in the field of study<br>Addition of more assignments in the research methodology courses<br>Enable students to engage and promote their research ideas (AGRE)<br>Creation of Academic English course for Business Students to address deficiencies in English (Cont. Ed.)<br>Students who do not meet minimum requirements of English test in one or more sections must take the language course.<br>Requirement that score on IELTS English test be increased to a minimum of 7.5 for writing and speaking at admission. | Research methods course replaced by Data Analytics 1 and 2 which are more focused and will involve more hands on work.<br>A remedial short English course was attempted but there is not enough time to bring students with poor language skills up to requisite standards in a month. Issue is now addressed at the admission level with IELTS testing and interviewing to confirm language skills.<br><br>Currently ongoing pilot project to incorporate interviews in the admission process – this helps assess discipline specific English proficiency (general proficiency as well as familiarity with discipline terminology) |

| 3. Communicate knowledge and research results effectively | 3.1: Produce and deliver high quality business presentations<br><br>3.2: Produce high quality business documents | Demonstrate the competence to effectively communicate knowledge and research results<br>Addition of two 3-hour tutorials to help students acquire the necessary skills to employ statistical software (SAS, SPSS, STATA).<br>Creation of Academic English course for Business Students to address deficiencies in English (Cont. Ed.)<br>Students who do not meet minimum requirements of English test in one or more sections must take the language course.<br>Recommend to take GradProSkills workshops for writing and speaking. | The SAS tutorial was introduced on a trial bases. It is now proposed to be integrated into the Data Analytics courses for superior learning outcomes.<br>A remedial short English course was attempted but there is not enough time to bring students with poor language skills up to requisite standards in a month. Issue is now addressed at the admission level with IELTS testing and interviewing to confirm language skills. |
|---|---|---|---|
| 4. Demonstrate understanding of ethical issues relevant in research and scholarship | 4.1: Demonstrate understanding of plagiarism and its consequences<br><br>4.2: Demonstrate understanding of ethical issues related to human subjects<br><br>4.3: Demonstrate understanding of ethical issues of data collection and analysis<br><br>4.4: Demonstrate understanding of ethical issues related to reporting of research results | Demonstrate an understanding of ethical issues relevant in research and scholarship.<br>Special seminar on how to critique and evaluate research – mandatory<br>Difficult for all members of committee to judge the extent to which students have adhered to ethics principles.  (In PhD assessment report, recommendation is to separate proposal from thesis). | Not assessed in thesis. A basic primer on issues in ethical data analysis is proposed to be incorporated into the coursework. |

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## Consolidated View of Proposed Changes - MSCA-16 - Finance

| Course | New course | Course Removal from program | Course deletion | Editorial | Addition/ change of course description to the calendar | Addition/ Change of note | Addition of Credit Value to the calendar |
|---|---|---|---|---|---|---|---|
| MSCA 601 | | | | | x | | x |
| MSCA 602 | | x | | | | | |
| MSCA 610 | x | | | | | | |
| MSCA 611 | | | x | | | | |
| MSCA 617 | x | | | | | | |
| MSCA 621 | | | | | | | x |
| MSCA 622 | | | | | | | x |
| MSCA 623 | | | | | | | x |
| MSCA 624 | | | | | | | x |
| MSCA 625 | | | | | | | x |
| MSCA 632 | | | | | | x | x |
| MSCA 655 | x | | | | | | |
| MSCA 699 | | | | | | | |

**PROGRAM CHANGE:** Admission Requirements

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                John Molson School of Business
**Department:**                    Finance
**Program:**                       Finance MSc
**Degree:**                        Master of/Magisteriate in Science (Finance)
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **Finance MSc**<br><br>**Admission Requirements**<br><br>• 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.<br><br>• 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).<br><br>• **Proficiency in English**. 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.<br><br>~~Concordia Comprehensive ESL Placement Test (ConCEPT).~~ ~~Applicants who have been admitted by a program and whose test results fall within the range requiring a~~ | **Finance MSc**<br><br>**Admission Requirements**<br><br>• 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.<br>• Applicants with insufficient prior training in their expected area of specialization may be required to take qualifying courses in addition to the required coursework in the graduate program. The specific courses to be taken are determined by the Graduate Program Director depending upon the student's background and area of specialization.<br>• 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).<br>• **Proficiency in English**. 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.<br><br>The program is open to both full-time and part-time students.<br><br><br>D1 |

~~language placement test are required to write the Concordia Comprehensive ESL Placement Test (ConCEPT).~~

The program is open to both full-time and part-time students.

~~Applicants with a bachelor's degree in other than Commerce or Business Administration will 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 Department MSc Advisor with the approval of the Associate Dean, Research and Research Programs depending upon the student's background and area of specialization.~~

~~**Fast-Track to PhD in Business Administration**~~

~~Meritorious students enrolled in a JMSB Master of Science program who have completed all degree 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. In all such cases, the decision of the PhD Admissions Committee shall be final.~~

Rationale:

- The Concordia Comprehensive ESL Placement Test is no longer in use.

- The text about applicants with insufficient prior training in their specialization is modified to align with current practices, and for consistency with other MSc programs.

- The structure of the MSc program administration has been permanently changed - the program director is now responsible for these decisions.

Resource Implications:
None. This change has already been made.

**PROGRAM CHANGE:** Degree Requirements

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

| | |
|---|---|
| **Faculty/School:** John Molson School of Business | **Calendar for academic year:** 2022/2023 |
| **Department:** Finance | **Implementation Month/Year:** September 2022 |

**Program:** Finance MSc
**Degree:** Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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

| **Present Text (from 2020/2021) calendar** | **Proposed Text** |
|---|---|
| **Degree Requirements** | **Degree Requirements** |
| Fully-qualified candidates are required to complete a minimum of 45 credits. | 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. | In the first year of the program, candidates are strongly encouraged to complete a minimum of 24 credits and MSCA 655. |
| Please see the MSCA Courses section for course descriptions. | Please see the MSCA Courses section for course descriptions. |

Present Text:

**45     Finance MSc**

9     *Credits of ~~Required~~ Courses*

| MSCA 601 | Financial Economics | 3.00 |
|---|---|---|
| ~~MSCA 602~~ | ~~Applied Linear Statistical Models~~ | ~~3.00~~ |
| ~~MSCA 611~~ | ~~Research Methodology - Finance~~ | ~~3.00~~ |

15     *Credits chosen from the* Finance Seminars list
*Upon approval of the ~~Department~~ MSc Finance ~~Advisor~~ and the instructor, up to six credits of electives may include the following:*
*- Seminars in any other John Molson School of Business MSc program;*
*- PhD Seminars in Finance*
*- Cognate graduate seminars offered by other departments within the university.*

| 21 | MSCA 699 | Research Thesis | 21.00 |
|---|---|---|---|

**Finance Seminars**

*Each year a selection of specialized seminars will be offered on a rotating basis from those listed below.*

| MSCA 621 | Seminar in Investment Theory |
|---|---|
| MSCA 622 | Seminar in Investment Management |

Proposed Text:

**45     Finance MSc**

9     *Credits of Core Courses*

| MSCA 601 | Financial Economics | 3.00 |
|---|---|---|
| MSCA 610 | Financial Data Analytics I | 3.00 |
| MSCA 617 | Financial Data Analytics II | 3.00 |
| MSCA 655 | Professional Development | 0.00 |

15     *Credits chosen from Elective Finance Seminars list.*

*Upon approval of the Graduate Program Director and the instructor, up to six credits of electives may include the following:*
*- Seminars in any other John Molson School of Business MSc program;*
*- PhD Seminars in Finance;*
*- Cognate graduate seminars offered by other departments within the university.*

| 21 | MSCA 699 | Research Thesis | 21.00 |
|---|---|---|---|

**Elective Finance Seminars**          D3

| MSCA 623 | Seminar in Financial Theory and Corporate Policy | Each year a selection of specialized seminars will be offered on a rotating basis from those listed below. | |
| MSCA 624 | Seminar in Mergers, Restructuring, and Corporate Control | | |
| MSCA 625 | Seminar in Options and Futures | MSCA 621 Seminar in Investment Theory | 3.00 |
| MSCA 632 | Seminar in Special Topics in Finance | MSCA 622 Seminar in Investment Management | 3.00 |
| | | MSCA 623 Seminar in Financial Theory and Corporate Policy | 3.00 |
| | | MSCA 624 Seminar in Mergers, Restructuring, and Corporate Control | 3.00 |
| | | MSCA 625 Seminar in Options and Futures | 3.00 |
| | | MSCA 632 Seminar in Special Topics in Finance | 3.00 |

Rationale:

- The two-course sequence in Financial Data Analytics replaces Applied Linear Statistical Models (MSCA 602) and Research Methodology (MSCA 611) in this program. Apart from integrating the topics, the updated versions focus more on research methods as applied in Finance as opposed to a more conventional pure statistics course. We believe that at the M.Sc. level, the learning goals of students are much better served by this integrated and applied approach.

- The structure of the MSc program administration has been permanently changed - the program director is now responsible for these decisions.

- In addition to the proposed coursework, students can benefit from acquiring additional skills that do not require the time commitment of a full 3-credit course but are nevertheless extremely useful for their professional success. These needs can best be accommodated through mandatory workshops.

**PROGRAM CHANGE:** Academic Regulations

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**          John Molson School of Business
**Department:**              Finance
**Program:**                 Finance MSc
**Degree:**                  Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **Academic Regulations**<br><br>1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.<br>2. **Residence.** ~~In accordance with standard university policy, t~~he 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.~~<br>3. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements.<br>4. ~~**Credit Load: Full-time Students.** 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.~~<br>5. ~~**Credit Load: Part-time Students.** 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.~~<br>6. ~~**Course Reduction.** In exceptional circumstances, students may be granted permission to reduce their course load below the normal specified above while remaining in good standing.~~<br>7. ~~**Program and Course Withdrawal.** 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~~ | **Academic Regulations**<br><br>1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.<br>2. **Residence.** The minimum residence requirement for this master's degree is three terms of full-time study, or the equivalent in part-time study.<br>3. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements.<br>4. **Graduation Requirement.** In order to graduate, students must have a cumulative GPA of at least 2.70. |
| | 5 |
| | D5 |

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~~in an MSc program will be required~~ to observe the following rules.

8. **Graduation Requirement.** In order to graduate, students must have a ~~minimum~~ cumulative GPA of 2.70.

---

Rationale:

Edited for clarity and to avoid duplicates. The general academic regulations for graduate programs already appear in the Graduate Calendar.

Resource Implications:

None

**COURSE CHANGE:** MSCA 601          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**          John Molson School of Business
**Department:**              Finance
**Program:**                 Finance MSc
**Degree:**                  Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **Seminar Descriptions** | **Core Seminar Descriptions** |
| **MSCA 601 Financial Economics**<br><br>*Description:* ~~This course introduces the theory of financial decision making. The fundamental issue to be addressed in finance is the allocation of scarce resources between current consumption and future consumption (investment). The interesting questions will arise when one considers the valuation of risky investment opportunities. An additional objective of the seminar is to learn how to conduct and present research.~~<br><br>*Component(s):* Seminar. | **MSCA 601 Financial Economics (3.00 credits)**<br><br>*Description:* Business recommendations ultimately come down to building a model and assessing the implied optimal action. This course will introduce students to seminal concepts on decision-making including utility theory, safety-first, optimization and stochastic dominance. Students will apply a selection of equilibrium models including No-arbitrage, Pareto and Nash using both linear algebra and calculus. In preparation for more advanced courses, this class will also introduce the concepts of information asymmetry, costly signaling, and agency theory. Time permitting, special topics in behavioral and neuro economics may be introduced.<br><br>*Component(s):* Seminar. |
| Rationale:<br>The course description is updated and made more specific and informative. | |
| Resource Implications:<br>None | |
| Other Programs within which course is listed:<br><br>None | |

**COURSE CHANGE:** MSCA 610          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**          John Molson School of Business
**Department:**              Finance
**Program:**                 Finance 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             [X] New Course
[ ] Course Deletion         [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
|  | **MSCA 610 Financial Data Analytics I (3.00 credits)** |
|  | *Description*: The need for data analysis in business only continues to grow as computational resources increase and big data becomes more commonplace. To help meet the demand for data- driven recommendations, students in this course will gain experience cleaning and producing large structured datasets and conducting statistical analysis on such datasets. Students will use structured query language (SQL) commands to construct relevant datasets and then use these datasets to conduct meaningful analyses of relevant economic relationships. The course will make heavy use of statistical software such as SAS and/or R and will have applied assignments using conventional frequentist analysis used in Finance research. These may include univariate tests, ordinary least squares, regressions with clustered standard errors, two stage least squares, quantile regressions, event studies, categorical choice models such as Logit/Probit, and hazard rate models. |
|  | *Component(s):* Seminar. |
|  | *Notes*: |
|  | ▪ Students who have received credit for MSCA 602 may not take this course for credit. |

Rationale:
Finance will be offering its own stats courses: 610 and 617. The new two-course sequence in Financial Data Analytics replaces Applied Linear Statistical Models (MSCA 602) and Research Methodology (MSCA 611) in this program. Apart from integrating the topics, the updated versions focus more on research methods as applied in Finance as opposed to a more conventional pure statistics course. We believe that at the M.Sc. level, the learning goals of students are much better served by this integrated and applied approach.

Resource Implications:
None at the faculty and university levels. There were two courses offered earlier and two courses will continue to be offered. There will be a shift in resources at the department level. The Department of Finance will now offer one more course and the Department of Supply Chain and Business Technology Management will now offer one less.

Other Programs within which course is listed:

None

**COURSE CHANGE:** MSCA 611          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                    John Molson School of Business
**Department:**                        Finance
**Program:**                           Finance 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
[X] Course Deletion               [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| ~~MSCA 611 Research Methodology - Finance~~<br>~~This seminar studies several approaches that are used in conducting research in finance.~~<br>~~There are three main objectives for this seminar: a) to provide guidance and experience in~~<br>~~the design and critique of empirical research; b) to provide an introduction to the use of~~<br>~~financial data bases; and c) to provide experience in the conduct of an empirial research~~<br>~~project. Specific topics addressed include: event study methodologies, time-series issues~~<br>~~including unit root problems and time varying volatility estimation, as well as qualitative~~<br>~~choice methods, performance appraisal tests, and simultaneous equation estimation.~~ | . |

Rationale:
Course deletion. Finance will be offering its own stats courses: 610 and 617. The new two-course sequence in Data Analytics will better serve the needs of MSc Finance students.

Resource Implications:
None at the faculty and university levels. There were two courses offered earlier (MSCA 602 and MSCA 611) and two courses will continue to be offered (MSCA 610 and MSCA 617). There will be a shift in resources at the department level. The Department of Finance will now offer one more course and the Department of Supply Chain and Business Technology Management will now offer one less.

Other Programs within which course is listed:

None

6

**COURSE CHANGE:** MSCA 617          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                      John Molson School of Business
**Department:**                          Finance
**Program:**                             Finance 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                 [X] New Course
[ ] Course Deletion              [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| | **MSCA 617 Financial Data Analytics II (3.00 credits)**<br><br>*Prerequisite/corequisite*: The following course must be completed previously: MSCA 610 or equivalent.<br><br>*Description*: Some problems in business analysis require less common and/or more technical approaches to develop a quantitatively derived recommendation. Building on the base of Financial Data Analytics I, students in this course will learn GARCH and ARIMA modeling as well as Generalized Method of Moments (GMM) and Markov Chain Monte Carlo (MCMC). Students will also learn about certain ethical aspects of data analysis (p-hacking, data mining) when working with data and conducting hypothesis testing Assignments will focus on forecasting, derivative pricing and Value at Risk (VaR) and will make use of Matlab, R, and/or SAS. Time permitting, machine learning and neural nets may be introduced.<br><br>*Component(s):* Seminar.<br><br>*Notes*:<br><br>    ▪ Students who have received credit for MSCA 611 may not take this course for credit. |
| Rationale:<br>The two-course sequence in Financial Data Analytics replaces Applied Linear Statistical Models (MSCA 602) and Research Methodology (MSCA 611) in this program. Apart from integrating the topics, the updated versions focus more on research methods as applied in Finance as opposed to a more conventional pure statistics course. We believe that at the M.Sc. level, the learning goals of students are much better served by this integrated and applied approach. | |
| Resource Implications:<br>None at the faculty and university levels. There were two courses offered earlier and two courses will continue to be offered. There will be a shift in resources at the department level. The Department of Finance will now offer one more course and the Department of Supply Chain and Business Technology Management will now offer one less. | |

Other Programs within which course is listed:
1212

None

**COURSE CHANGE:** MSCA 632          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

<div align="right">

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

</div>

**Faculty/School:**                     John Molson School of Business
**Department:**                         Finance
**Program:**                            Finance 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: | | |
| | Note | | |

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **MSCA 632 Seminar in Special Topics in Finance** | **MSCA 632 Seminar in Special Topics in Finance (3.00 credits)**<br><br>*Component(s):* Seminar.<br><br>*Notes*:<br><br>▪ More than one topic can be offered under this course. In such cases, the name of the topic will be indicated on the class schedule (under Topic e.g. Financial institutions). |
| Rationale:<br>We removed the course note from under the Degree requirements section, updated it and placed it here. | |
| Resource Implications:<br>None | |
| Other Programs within which course is listed:<br><br>MSc and MSCM | |

**COURSE CHANGE:** MSCA 655        New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

**Faculty/School:**                          John Molson School of Business
**Department:**                              Finance
**Program:**                                 Finance 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                [X] New Course
[ ] Course Deletion                  [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
|  | **MSCA 655 Professional Development (0.00 credits)**<br><br>*Prerequisite/corequisite:* Permission of the Graduate Program Director is required.<br><br>*Description* Students are required to attend a minimum of three professional development workshops approved by the Graduate Program Director and offered in collaboration with different partners (e.g. GradProSkills). These workshops complement students' academic training and provide them with technical skills that help them succeed professionally and academically.<br><br>*Component:* Workshop.<br><br>*Notes***:**<br><br>• This course is assessed on a pass/fail basis. |

Rationale:
In addition to the proposed coursework, students can benefit from acquiring additional skills that do not require the time commitment of a full three-credit course but are nevertheless extremely useful for their professional success. These needs can best be accommodated through mandatory workshops.

Resource Implications:
None. The proposed workshops are already offered by GradProSkills or available through our Blomberg subscription. The completion of this requirement will be checked by the Graduate Program Director.

Other Programs within which course is listed:

It will be listed under the revised MSc Administration, Decision Sciences and Management Information Systems Option (DS/MIS) and MSc Management.

June 3, 2020

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 Administration, the Master of Science in Finance and the Master of Science in Management**

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 Administration MSc, Finance MSc and Management 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

**SCHOOL OF GRADUATE STUDIES**

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

**FROM:** Brad Nelson, Associate Dean, Academic Programs and Development
School of Graduate Studies

**DATE:** December 14, 2020

**SUBJECT:** **GRADUATE CURRICULUM CHANGES (MSCA-18)**
**(CALENDAR – 2021/2022)**
**MASTER OF SCIENCE (ADMINISTRATION, DECISION SCIENCES AND**
**MANAGEMENT INFORMATION SYSTEMS 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).

Subsequent to a full curricular review, the Department of Supply Chain and Technology Management is proposing to re-open admissions to the Master of Science, Administration, Decision Sciences and Management Information Systems Option. The present dossier, which also includes the addition of two core courses and one elective, a professional development requirement and the deletion of obsolete elective courses, is the first of a two-stage launch plan to take place over two years.

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: 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**:      Dr. Bradley Nelson, Associate Dean, Academic Programs and Development
Chair, Graduate Curriculum Committee

**Cc:**      Ms. Gina Beltran, Developer, Graduate Academic Programs
School of Graduate Studies

Ms. Julie Johnston, University Curriculum Administrator

**FROM:**      Dr. Anne-Marie Croteau, Dean,
Chair of the John Molson School of Business Faculty Council

**DATE**:      November 20, 2020

**SUBJECT**:      Proposed changes to the Master of Science, Administration, Decision Sciences and Management Information Systems Option (MSCA-18)

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After careful curriculum review, the Department of Supply Chain and Technology Management proposes to re-launch the Master of Science, Administration, Decision Sciences and Management Information Systems Option. This dossier only comprises the first stage of a two-year implementation plan: the reactivation of the program itself, the addition of two core courses, one elective, one professional development requirement, and the deletion of outdated electives.

The program will offer five core courses and four elective courses. The department does not need additional resources to staff these courses. The professional requirement, MSCA 655, will not require any additional resources as the workshops are offered by GradProSkills.

The overall resource implications of the re-launch of the Master of Science, Administration, Decision Sciences and Management Information Systems option must be considered together with the changes to the MSC Finance and the MSC Management. In addition, several of the courses offered by the SC/BTM Department will service both the MSCA DS/MIS and the MSCM programs. A summary of the resource implications are below:

- MSCA 602 – historically, the department offered 4 sections to service all the MSC programs at JMSB (MSCM, MSC Finance, MSC Management). With the curriculum changes to MSC Finance and MSC Management, the department will only have to offer

two sections – only 1 section will be required for the MSCA DS/MIS. A net change to the department of -2 three-credit courses.

- MSCA 615 – historically, this course has been offered by MSC Marketing or MSC Management. The department will now be offering a course dedicated to the MSCA DS/MIS and MSCM students. A net change to the department of +1 three-credit course.
- Changes to core of MSCA DS/MIS – two new courses added. A net change to the department of +2 three-credit courses.
- Electives in program – one new elective required.
- In sum, the SC/BTM department will need to staff three additional three-credit courses.
- Regarding the mandatory workshops, there are no resource implications as the follow up is done by the Graduate Program Director.
- The total change in resource requirements for the department:
  SC/BTM does not need additional resources in order to staff the courses. The department has been building faculty capacity in this area and the MSCA will support the research interests of the department.

The additional courses will be offered from the regular course allocation of the department.

The John Molson School of Business Faculty Council approved the proposed changes on November 6th, 2020.

I respectfully submit this proposal to the Graduate Curriculum Committee to be reviewed at its next committee meeting on December 7th, 2020.

Attachment

**INTERNAL MEMORANDUM**

| | |
|---|---|
| **To:** | Anne-Marie Croteau, Dean, John Molson School of Business |
| **From:** | Sandra Betton, Associate Dean, Professional Graduate Programs, Chair of the Faculty Academic Programs Committee, JMSB |
| **Date**: | October 27, 2020 |
| **Subject:** | Proposed changes to the Master of Science, Administration, Decision Sciences and Management Information Systems Option (MSCA-18) |

The Supply Chain and Business Technology Management Department is proposing to re-launch the Master of Science, Administration, Decision Sciences and Management Information after an extensive analysis of the current and future demand for graduate level expertise in the field. The proposal contains the first of a two-step curriculum revision and implementation plan. The attached proposal updates the admission requirements and academic regulations to harmonize with the other JMSB MSc programs and the School of Graduate Studies. The current proposal includes the the addition of two core courses, one elective and a professional development requirement.

The JMSB Faculty Academic Programs Committee approved these changes on October 16, 2020 unanimously.

I kindly request to submit this proposal during the next meeting of the JMSB Faculty Council.

Thank you.

# 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:**   August 19, 2020

**Re:**     **Proposed changes to the Master of Science, Decision Sciences and Management Information Systems Option (MSCA-18)**

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Dear Sandra,

I respectfully request that the proposed changes be submitted to the next Faculty Academic Programs Committee meeting.

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, Decision Sciences and Management Information Systems Option, we are proposing to implement the changes according to the following schedule:

Year 1: re-launch the program, add 2 core courses, add one elective, add professional development requirement, removal of old electives

Year 2: split the thesis credits in order to give 3 credits to the proposal defence and 18 credits to the thesis.

# Internal Memorandum

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**To:**     Dr. Kathleen Bois, Associate Dean, Research Programs, Graduate Program Director

**From:**  Rustam Vahidov, Interim Chair of Supply Chain and Business Technology Management Department

**Date:**    June 3rd, 2020

**Subject:**  Re-opening of the MSc in Decision Sciences & MIS

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Dear Dr. Boies,

The Department of Supply Chain and Business Technology Management met on June 2nd, 2020 to consider re-opening the revised MSc in Decision Sciences and Management Information Systems program. The Department had voted unanimously in favour of re-opening the revised program.

Therefore, I am asking you to consider the Department's request to offer the proposed program to the prospective graduate students.

Kind Regards,


Rustam Vahidov

# MSc Decision Sciences and Management Information Systems

# Curriculum Revision Proposal

## Table of Contents

## 1. SUMMARY

The Department of Supply Chain & Business Technology Management wishes to reopen admissions to the MSc Administration (Decision Sciences and Management Information Systems Option) with the following changes:

- The addition of two mandatory core courses: Foundations of Business Technology Management and Foundations of Data Mining;
- Reduction in the number of elective courses from to 6 to 4 electives;
- The addition of one new elective to the existing elective list: MSCA 691 Advanced Data Mining
- The addition of a mandatory professional development seminar (0-credit, pass/fail);
- An updated set of programme goals and objectives;
- Updates to the admission requirements in light of changes to the administration of the MSc programs.
- A change in credit distribution for the thesis component of the program:  proposal (3-credits) and thesis (18 credits) [to be implemented next year]
- Removal of old electives

## 2. RATIONALE

The reopening and update of the MSc Administration (Decision Sciences and Management Information Systems Option) is timely. Businesses today consume huge amounts of data, and the management and analysis of such data is essential to support efficient decision making. The growth of interest in the fields of big data, data mining, business technology, and data intelligence is reflected in: student enrollment in related undergraduate programs; current student interest in a related MSc program; and employers' hiring trends.

- There have been very healthy increases in the enrollment of the Business Technology Major and Minor, and the Data Intelligence Minor over the last 5 years (see Appendix).
- Interest of students – survey confirming interest of JMSB students.
- Labor Insight™, a job market data platform was used to locate a range of jobs posted in the last 12 months in Canada using key words such as "master degree specified", "skill with business analytics" and "0-2 years' experience". Fifty-two job titles appeared; most common titles included "Data Analyst", "Data Scientist", "Business Systems Analyst", "Technology Manager/Business Liaison", and "Business Analyst" (see Appendix 4 for examples of job postings).
- The school administration will commit the marketing of this program in a way that will highlight it as an opportunity for potential applicants to specialize in business analytics and technology management.

Given the increased importance of big data, data analytics, digital innovation and transformation, and technology management in business processes, by reopening and updating this MSc, JMSB would be responding to the needs of local, provincial, and national business, thus contributing to one of its strategic imperatives: to offer a continuously relevant curriculum. Moreover, big data, data analytics, digital innovation, digital transformation, and technology management are also increasingly relevant to other fields in JMSB, such as marketing, finance, and supply chain management. There are therefore foreseeable links to other MSc programs, such as the creation of cross-listed courses and the co-supervision of research projects.

Although it is possible to consider multiple master programs such as business analytics, and business technology or information technology as other business schools do, the master of science in business analytics and technology management will be a unique program providing the students with advantages of both as they are required in today's business landscape.

While data analytics provides hands-on skills and in-demand training to students, business technology management introduces them to strategic and functional challenges that organizations encounter as they try to leverage analytics and other emerging digital technologies for innovation and value generation. Thus, this program offers an exceptional coverage of traditional and contemporary issues in management of business technology and data analytics that would be beneficial for entry-level and advanced employees of modern organizations.

### 3. REVISION PROCESS

A curriculum committee was mandated by the Chair of the Department of Supply Chain & Business Technology Management to work on the redesign of the MSc in the summer of 2019. Its three members, Anton Shevchenko (Assistant Professor), Suchit Ahuja (Assistant Professor), and Mohsen Farhadloo (Assistant Professor) worked with Malcolm MacPhail (Head Educational Technologist), and Frederica Martin (Senior Advisor, Academic Programs and Development) receiving feedback from Raafat Saade (Chair), Kathleen Boies (Associate Dean, Research & Research Programs) and Sandra Betton (Associate Dean, Professional Graduate Programs).

Different sources of data were used to inform the curriculum revision: the AOL assessment results; comparative analysis of other Canadian programs; job skills analyses gleaned from Labor Insight™ (see Appendices). Unlike most similar programs offered in other Canadian universities, this program has a thesis project. This format will ensure that students are prepared to conduct both applied and academic research. They will receive sufficient knowledge of business technology and analytics during their course work. Students will then have an opportunity to work individually, under supervision, during their thesis on an empirical research project. They, therefore, will be in a good position to apply for a PhD program or conduct applied research related to Business Analytics and Technology Management. Students will be able to apply business technology and analytics tools in such contexts as supply chain management, information technology strategy, governance, implementation, and data intelligence, or other management fields. Furthermore, this program is unique because it offers students a rare opportunity to not only study data analytics but also learn the underlying aspects of business technology management that allow organizations to leverage analytics and other emerging technologies for innovation and value generation.

### 4. PROGRAM GOALS AND OBJECTIVES

**a) Suspended MSc Programs' Goals and Objectives**

| Goals | Objectives |
|---|---|
| 1. Demonstrate specialized knowledge in the field of study | 1.1: Demonstrate knowledge of core concepts in the area of specialization |
| | 1.2: Demonstrate knowledge and understanding of recent research advances in field of specialization |
| | 1.3: Generate research ideas |
| | 1.4: Evaluate, assess and critique existing and on-going research |
| 2. Identify and apply appropriate research methodology to a research problem | 2.1: Demonstrate understanding of the research methodologies used in the area of specialization |
| | 2.2: Identify the appropriate research methodology for a research problem |
| | 2.3: Use appropriate research software and information technology (IT) |
| | 2.4: Apply appropriate research methodology to a research problem |
| 3. Communicate knowledge and research results effectively | 3.1: Produce and deliver high quality business presentations |
| | 3.2: Produce high quality business documents |
| 4. Demonstrate understanding of ethical issues relevant in research and scholarship | 4.1: Demonstrate understanding of plagiarism and its consequences |
| | 4.2: Demonstrate understanding of ethical issues related to human subjects |
| | 4.3: Demonstrate understanding of ethical issues of data collection and analysis |
| | 4.4: Demonstrate understanding of ethical issues related to reporting of research results |

**b) Revised Program Learning Goals and Objectives**

| Goals | Objectives |
|---|---|
| 1. Describe fundamental and specialized knowledge in the areas of business analytics and technology management | 1.1 Explain core concepts in business analytics and technology management |
| | 1.2 Identify recent advances in the area of research specialization |
| | 1.3 Identify ethical issues in business analytics and technology management (e.g.: data fraud, data security, |

| | data collection) |
|---|---|
| 2. Effectively analyze big business data | 2.1 Describe the steps for preparing data sets for exploration <br> 2.2 Propose appropriate analytical tool(s) <br> 2.3 Apply analytical skills appropriately <br> 2.4 Use appropriate data visualisation <br> 2.5 Demonstrate ability to follow ethical guidelines when collecting data and/or analyzing data. |
| 3. Apply research skills to identify and address business issues | 3.1  Summarize relevant research <br> 3.2  Critique relevant research <br> 3.3  Generate research questions of theoretical and practical significance <br> 3.4  Identify appropriate research method(s) for addressing area of specialization <br> 3.5  Propose data-driven solutions to add stakeholder value to add stakeholder value |
| 4. Communicate knowledge and research evidence orally and in writing | <u>Communicate knowledge and research evidence in an oral presentation</u> <br> 4.1.1 Clearly convey key components of the project orally <br> 4.1.2 Effectively respond to questions <br> 4.1.3 Clearly state the implications of the project for research and/or for practice <br> <u>Communicate knowledge and research evidence in writing</u> <br> 4.2.1 Convey coherently all components of the project in writing <br> 4.2.2 Use appropriate vocabulary and grammar <br> 4.2.3 Use citations and quotes appropriately <br> 4.2.4 Use appropriate formatting principles (e.g. tables, graphs, exhibits) |
| 5. Interpret results and provide solutions to the problem(s) | 5.1 Describe how research outcomes might affect stakeholders such as managers, consumers, employees, broader society <br> 5.2 Develop recommendations based on research findings that could benefit stakeholders <br> 5.3 Address the extent to which research results may apply to/impact other populations (e.g., countries and communities) and various types of organizations |

### 5. PROGRAM DESCRIPTION AND REQUIREMENTS

### a) Suspended MSc Program's Admission Requirements and Degree Requirements

The program is open to both full-time and part-time students.

- Bachelor's degree with high academic standing serves as a prerequisite for the program.

- 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 a bachelor's degree in other than Commerce or Business Administration will be required to take qualifying courses in addition to the required coursework in the graduate program. The specific courses to be taken are determined by the Department MSc Advisor with the approval of the Associate Dean, Research and Research Programs depending upon the student's background and area of specialization.

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).

Proficiency in English. 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.

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).

Fast-Track to PhD in Business Administration

Meritorious students enrolled in a JMSB Master of Science program who have completed all degree 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. In all such cases, the decision of the PhD Admissions Committee shall be final.

Fully-qualified candidates are required to complete a minimum of 45 credits.

| SUSPENDED PROGRAM: CREDIT REQUIREMENTS | CREDITS |
|---|---|
| Core Course: MSCA 602 Applied Linear Statistical Model | 3 |
| Core Course: MSCA 615  Research Methodology | 3 |
| Elective Courses: To be chosen from list | 18 |
| Thesis | 21 |
| TOTAL | 45 |

**List of Elective Courses**

MSCA 682 - Seminar in Sampling Theory
MSCA 683 - Applied Multivariate Data Analysis
MSCA 685 - Enterprise Systems and Process Integration
MSCA 686 - Competitive Advantage through Information Technology

MSCA 690 - Data Management
MSCA 692 - Intelligent Applications for Business
MSCA 693 - Seminar in Special Topics in Decision Sciences and Management Information Systems
MSCA 694 - Knowledge Management
MSCA 695 - Outsourcing of Information Service
MSCA 696 - Adoption, Use and Appropriation of Information Technologies
MSCA 697 - Advanced Topics in Information Systems Development
MSCA 698 - E-Business

## b) Revised Admission Requirements and Degree Requirements

### Admission Requirements

- 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 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).

**Proficiency in English.** 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.

Applicants with insufficient prior training in their expected area of specialization will 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.

### Fast-Track to PhD in Business Administration
Meritorious students enrolled in a JMSB Master of Science program who have completed all degree 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. In all such cases, the decision of the PhD Admissions Committee shall be final.

### 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.

Fully-qualified candidates are required to complete a minimum of 45 credits and any mandatory workshops. Students will be required to complete four core courses (12 credits), four elective courses

(12 credits), a Professional Development Seminar (0-credit, pass/fail), a thesis proposal (3-credits) and a thesis (18 credits).

| REVISED CREDIT REQUIREMENTS | CREDITS |
|---|---|
| Core Course: MSCA 680 Foundations of Business Technology Management | 3 |
| Core Course: MSCA 681 Foundations of Data Mining | 3 |
| Core Course: MSCA 602 Applied Linear Statistical Model | 3 |
| Core Course: MSCA 615 Research Methodology | 3 |
| Elective Courses: To be chosen from list | 12 |
| Professional Development Seminar: MSCA655 | 0 |
| Thesis Proposal + Thesis | 3 + 18 = 21 |
| TOTAL | 45 |

**List of Elective Courses**

MSCA 683 Applied Multivariate Data Analysis
MSCA 686 Competitive Advantage through Information Technology
MSCA 690 Data Management
MSCA 691 Advanced Data Mining
MSCA 693 Seminar in Special Topics in Decision Sciences and Management Information Systems
MSCA 697 Advanced Topics in Information Systems Development

### c) Revised Program Schedule

**Semester 1**

| MSCA 602 Applied Linear Statistical Models | 3 credits |
|---|---|
| MSCA 680 Foundations of Business Technology Management | 3 credits |
| Elective | 3 credits |
| MSCA 655 Professional Development | 0 credits |

**Semester 2**

| MSCA 615 Research Methodology | 3 credits |
|---|---|
| MSCA 681 Foundations of Data Mining | 3 credits |
| Elective | 3 credits |
| MSCA 655 Professional Development | 0 credits |

**Semester 3**

| Research for proposal development | |
|---|---|
| MSCA 655 Professional Development | 0 credits |

**Semester 4**

| Elective | 3 credits |
|---|---|
| Elective | 3 credits |
| Thesis Proposal | 3 credits |
| MSCA 655 Professional Development | 0 credits |

**Semester 5**

| Research + Thesis Defence | |
|---|---|
| MSCA 655 Professional Development | 0 credits |

**Semester 6**

| Thesis Defence | 18 credits |
|---|---|

## 6. PROPOSED CALENDAR DESCRIPTIONS

### MSCA 602 Applied Linear Statistical Models (3 credits)
The course focuses on systematic treatments of linear statistical models for regression, analysis of variance and experimental design with special emphasis on applications in business and economics. Topics include regression analysis: inference, model building, diagnostics, remedial measures and validation, single-factor and two-factor ANOVA models, and analysis of covariance. Other statistical tools for specialized applications discussed may include logistic regression, path analysis and time series regression. Case studies are employed to illustrate tools for fitting, checking, validating and interpreting linear models.

### MSCA 615 Research Methodology - Administrative Sciences (3 credits)
This seminar provides 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 is 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.

### MSCA 655 Professional Development (0 credits)

Students are required to attend a minimum of three professional development workshops approved by the Graduate Program Director and offered in collaboration with different partners (e.g.: GradProSkills, CMS, Departments). These workshops complement students' academic training and provide them with technical and soft skills that help them succeed professionally and academically. Students must complete these workshops before the fifth semester of the program. The course is graded on a pass/fail basis.

### MSCA 680 Foundations of Business Technology Management (3 credits)

This course provides students with an overview of the BTM literature in a range of research areas, exposing students to classic and modern BTM literature that has been influential in the development of the field. Very early articles and more recent articles are reviewed. The main course objectives are to help students develop an understanding of the evolution of the BTM discipline and identify major research areas, including ethical issues in business technology management. The course will follow a seminar format and will focus on the discussion of assigned readings.

### MSCA 681 Foundations of Data Mining (3 credits)

The course covers essential ideas and techniques for analyzing and extracting information from large amounts of data. The course begins with the discussion of ethical issues in business analytics. It then discusses both supervised and unsupervised methods, and cover topics such as dimension reduction, classification and regression trees, K-nearest neighbors, neural networks, association rules and collaborative filtering, cluster analysis, ensemble methods, boosting and bagging. Illustrations of the concepts and methods are given, and students gain practical experience in data mining with the use of popular data mining software.

**MSCA 683 Applied Multivariate Data Analysis (3 credits)**

Prerequisite: MSCA 602 or equivalent previously or concurrently.
The course is planned to provide students with practical knowledge of analyzing multivariate data arising in business applications and research. The multivariate methods of data analysis provide an effective approach to describe and understand structure and the relationships between variables of interest. A wide range of statistical methods most commonly used in practice are introduced. The topics covered include methods of dimensionality reduction to better visualize and understand complex data, structured approaches in studying inter-relationships between the measured variables, analysis of their dependency and various classification techniques. Extensions of the analyses of experimental designs to include multi-dimensional responses are also considered. Examples from business and other disciplines will be analyzed with the extensive use of statistical software. The focus of the course is on data analysis and results' interpretation rather than the mathematical theory of multivariate methods.

**MSCA 686 Competitive Advantage through Information Technology (3 credits)**

This course investigates how organizations compete by leveraging digital technology and transformative IT strategy. The course will cover topics such as strategic management of IT, digital strategy, and digital innovation and transformation. The course will offer an opportunity to explore traditional and contemporary literature in IT strategy formulation and implementation. The course will follow a research seminar format and include discussion of academic as well as practitioner issues.

**MSCA 690 – Data Management (3 credits)**

This course provides a comprehensive foundation for designing, building, and working with databases, enabling students to understand and use commercially available database products effectively. The course examines different models of representing data with emphasis on the relational model. Topics include data modeling, database design, queries, transaction management, implementation issues, and an overview of distributed database management systems, data warehouses, databases in electronic commerce, database administration, and knowledge management. Examples are drawn from various functional and operational areas including enterprise and supply chain operations, management, and planning.

**MSCA 691 Advanced Data Mining (3 credits)**

This course covers advanced data mining concepts and algorithms for analyzing and extracting information from large amounts of data. The course covers topics such as deep neural networks, text mining, social media analytics, graphical models and Bayesian learning. In addition, the course will cover advanced data visualization techniques. The course will include the discussion of theoretical concepts and analysis based on real-world data.

**MSCA 693 Seminar in Special Topics in Decision Sciences and Management Information Systems (3 credits)**

More than one topic can be offered under MSCA 693. In such cases, the name of the topic will be indicated on the class schedule under Topic.

**MSCA 697 Advanced Topics in Information Systems Development (3 credits)**

This course covers advanced topics in information systems design, development, and implementation. Topics include information systems development lifecycle, information systems development methodologies, information/data management, information security, and information systems deployment and implementation techniques. The course will include the discussion of theoretical concepts and analysis based on academic and practitioner literature.

**Thesis Proposal (3 credits)**

Students are required to select their research topic and formulate a research proposal under the supervision of a thesis supervisor and with input from two other faculty members from the thesis committee. The students should include in the proposal a rationale for the proposed research, a literature review, a description of the proposed research design and methodology and a timeline for completing their thesis. It is a pass/fail course. To obtain 'pass' grade, the thesis proposal should be evaluated and approved by the thesis committee. Work on the thesis proposal should begin after a minimum of 18 credits in the Program have been taken.

**Research Thesis (18 credits)**

The MSc thesis is intended to provide candidates with an opportunity to carry out an investigation in-depth in a particular area of interest and to contribute 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.

[please note that the split of the 21-credit thesis into proposal and thesis will be implemented only next year and is therefore not contained in the current Provotrack documents]

## 7. TWO-STAGE IMPLEMENTATION PLAN

In order to harmonize the changes in the various MSc programs, which are all undergoing important curriculum revisions, the proposed revisions will be implemented in two stages. Specifically, for the Master of Science, Decision Sciences and Management Information Systems Option, we are proposing to implement the changes according to the following schedule:

### Stage 1:

The addition of two core courses:

- MSCA 680 Foundations of Business Technology Management (3 credits)
- MSCA 681 Foundations of Data Mining (3 credits)

The addition of one elective course to the list of electives:

- MSCA 691 Advanced Data Mining (3 credits)

The addition of a professional Development Seminar:

- MSCA 655 Professional Development Seminar

Removal of several old electives

- MSCA682
- MSCA685
- MSCA694
- MSCA695
- MSCA696
- MSCA698

### Stage 2:

A separation of the thesis credits in order to give 3 credits to the proposal defence and 18 credits to the thesis:

- Thesis Proposal (3 credits)
- Research Thesis (18 credits)

## 8. ASSESSMENT OF LEARNING OUTCOMES

| Objectives | Core courses | | | | Electives | Proposal | Thesis |
|---|---|---|---|---|---|---|---|
| | MSCA 602 | MSCA 615 | Data Mining | Business Tech | | | |
| 1.1 Explain core concepts in business analytics and technology management | - | I | I | I | R | R | M |
| 1.2 Identify recent advances in the area of research specialization | I | - | I | I | R | R | M |
| 1.3 Identify ethical issues in business analytics and technology management (e.g.: data fraud, data security, data collection) | - | - | I | I | - | R | M |
| 2.1 Describe the steps for preparing data sets for exploration | I | - | I | - | R | R | M |
| 2.2 Propose appropriate analytical tool(s) | I | I | I | - | R | M | - |
| 2.3 Apply analytical skills appropriately | I | - | I | - | R | - | M |
| 2.4 Use appropriate data visualisation | I | - | I | - | R | - | M |
| 2.5 Demonstrate ability to follow ethical guidelines when collecting data and/or analyzing data | I | - | I | - | R | - | M |
| 3.1 Summarize relevant research | - | I | - | - | R | R | M |
| 3.2 Critique relevant research | - | I | - | - | R | R | M |
| 3.3 Generate research questions of theoretical and practical significance | - | I | - | - | R | R | M |
| 3.4 Identify appropriate research method(s) for addressing area of specialization | I | I | I | - | R | R | M |
| 3.5 Propose data-driven solutions to add stakeholder value to add stakeholder value | I | - | I | - | - | R | M |
| 4.1.1 Clearly convey key components of the project orally | I | I | I | I | R | R | M |
| 4.1.2 Effectively respond to questions | I | I | I | I | R | R | M |
| 4.1.3 Clearly state the implications of the project for research and/or for practice | I | I | I | I | R | R | M |
| 4.2.1 Convey coherently all components of the project in writing | I | I | I | I | R | R | M |
| 4.2.2 Use appropriate vocabulary and grammar | I | I | I | I | R | R | M |
| 4.2.3 Use citations and quotes appropriately | I | I | I | I | R | R | M |
| 4.2.4 Use appropriate formatting principles (e.g. tables, graphs, exhibits) | I | I | I | I | R | R | M |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5.1 Describe how research outcomes might affect stakeholders such as managers, consumers, employees, broader society | I | - | I | - | R | R | M |
| 5.2 Develop recommendations based on research findings that could benefit stakeholders | I | - | I | - | R | R | M |
| 5.3 Address the extent to which research results may apply to/impact other populations (e.g., countries and communities) and various types of organizations | I | - | I | - | R | R | M |

I: Introduced        R: Reinforced      M: Mastered

## 9. RESOURCE IMPLICATIONS

Two (2) three-credit courses were added as core courses, for a total of 4. The two new core courses each require one instructor to be assigned, resulting in the department needing to staff two additional three-credit courses (+2 courses).

This program has been suspended for a number of years. However, during this time, the Department of Supply Chain and Business Technology Management (SC/BTM) continued to offer statistical courses that were either required or electives in other MSc programs. Every year, the department of SC/BTM offers 4 sections of MSCA602 (core in other MSc programs until now), and one section of MSCA683 (elective in other MSc programs and cross-listed with the PhD). Thus, every year, the department staffs 5 three-credit courses in the MSc programs.

In addition, the department of SC/BTM offers the Master of Supply Chain Management, which offers 5 three-credit courses. These courses will continue to be offered. There is no change.

MSCM students also take MSCA615 offered by the Dept. of Management or Marketing, but in this new structure this will no longer be the case: SC/BTM will have to assign one instructor to teach MSCA615. Of note, MSCA602 and MSCA615 will be offered each by one instructor from SC/BTM but will be offered to both MSc DS/MIS students and to MSCM students. As such, SC/BTM will have to staff one additional three-credit course, since they were already providing MSCA602 (+1 course).

The curriculum revisions in MSc Finance and MSc Management propose that MSCA602 will now be offered by Finance and Management faculty members, respectively. Because MSc Marketing has not yet completed its curriculum revision, it will continue, at least for now, to require MSCA602. As such, this "frees up" two resources (who previously taught 2 sections of MSCA602) from SC/BTM to be re-allocated to other courses in the revised MSc DS/MIS. As such, two less three-credit courses will need to be staffed by SC/BTM (-2 courses).

In addition, the program will offer a maximum of 4 elective courses every year, which will need to be staffed. As MSCA683 was already offered as an elective to all other MSc programs on a regular basis, the net change in the number of courses to be staffed by the department is 3 additional (+3 courses).

Thus, at the departmental level, the net contribution to this program is four additional three-credit courses. This will not be pure reallocation of faculty members to new courses, however, as expertise required to teach previous courses may or may not be what is needed for the new courses.

This table summarizes the number of potential instructors among current SCBTM faculty who can teach core courses of the program:

| Core courses | Number of Potential Instructors |
| --- | --- |
| MSCA 602 Applied Linear Statistical Models | 5 |
| MSCA 615 Research Methods | 4 |
| MSCA 680 Foundations of Data Mining | 4 |
| MSCA 681 Foundations of Business Tech | 4 |

The department is confident that they can cover these courses (and electives) without needing additional resources. It is of note that two new Assistant Professors just started in August, both qualified to teach in this program.

**APPENDIX 1: Enrollment numbers for BTM Major and Minor and DI Minor**

| Program | 2014 | 2015 | 2016 | 2017 | 2018 | Five-year change |
|---|---|---|---|---|---|---|
| **BTM Major** | 180 | 237 | 282 | 345 | 411 | 128% |
| **BTM Minor** | 63 | 71 | 89 | 99 | 122 | 94% |
| **DI Minor** | 31 | 52 | 124 | 165 | 215 | 594% |
| **Total** | 274 | 360 | 495 | 609 | 748 | 173% |

## APPENDIX 2: AOL Assessment Comments and Recommendations for each MSc Learning Goal

Introduce specialized knowledge in the field of study
Special seminar on how to critique and evaluate research – mandatory
Addition of more assignments in the research methodology courses

Demonstrate proficiency in research skills in the field of study
Addition of more assignments in the research methodology courses
Enable students to engage and promote their research ideas (AGRE)
Creation of Academic English course for Business Students to address deficiencies in English (Cont. Ed.)
Students who do not meet minimum requirements of English test in one or more sections must take the language course.
Requirement that score on IELTS English test be increased at admission to a minimum of 7.5 for writing and speaking sections.

Demonstrate the competence to effectively communicate knowledge and research results
Addition of two 3-hour tutorials to help students acquire the necessary skills to employ statistical software (SAS, SPSS, STATA).
Creation of Academic English course for Business Students to address deficiencies in English (Cont. Ed.)
Students who do not meet minimum requirements of English test in one or more sections must take the language course.
Recommend to take GradProSkills workshops for writing and speaking.

Demonstrate an understanding of ethical issues relevant in research and scholarship.
Special seminar on how to critique and evaluate research – mandatory
Difficult for all members of committee to judge the extent to which students have adhered to ethics principles. (In PhD assessment report, recommendation is to separate proposal from thesis).

## APPENDIX 3: BENCHMARK—COMPARATIVE ANALYSES

| Institution | Programme name | Number of credits | Track | Mandatory courses | Electives | Capstone | Admission requirements |
|---|---|---|---|---|---|---|---|
| **HEC** | Maîtrise en gestions (MSc) - science des données et analytique d'affaires | 45 | Mémoire | 7 cours (21 crédits): 6 crédits de la spécialisation + 6 crédits méthodologie + 3 crédits du programme | 6 crédits parmi choix de 6 cours | Atelier de recherche; rédaction de mémoire (24 crédits) | BAA, CGPA of 3.0; TAGE MAGE or GMAT (630) or GRE |
| | | | Projet supervisé | 12 cours (36 crédits): 24 crédits de la spécialisation + 6 crédits méthodologie + 3 crédits du programme | 3 crédits au choix | Projet supervisé : mandat d'intervention, rédaction d'un cas d'envergure, mandat de recherche, avis d'expert, projet entrepreneurial. (9 crédits) | |
| **McGill** | Masters of Management in Analytics (MMA) (12 months programme) | 45 | course-based | 21 credits | 15 credits from choice of 21 courses | 9 credits experiential: 3 credits Analytics study trip + 6 credits capstone (work with industry to solve live data-drive problem) | Any bachelor degree + GMAT or GRE |
| **Laval** | Only an MBA in Business Analytics | | | | | | |

| Institution | Programme name | Mandatory courses | Electives | Capstone | Admission requirements |
|---|---|---|---|---|---|
| Simon Fraser | N/A | | | | |
| UBC | Master of Business Analytics (12 months programme) | 2 courses in Data management + 5 courses in Data analytics + 5 courses in Decision analytics + 6 courses in Business context + 4 courses in Business skills | N/A | Analytics consulting internship | Bachelor with B+ average; GMAT 550, or GRE |
| UVictoria | N/A | | | | |
| URegina | N/A | | | | |
| USaskatchewan | N/A | | | | |
| UCalgary | Diploma in Data Science and Analytics | | | | |
| UAlberta | N/A | | | | |
| Uof Ottawa | N/A | | | | |
| Queens | MSc in Accounting (12 months programme) | 6 courses | N/A | Major research project | 4-year undegrad; B+ CGPA; GMAT or GRE |
| | Master of Management Analytics (blended online or evening + weekend format) | 16 courses/modules | N/A | Project (for blended online format only) | |
| Ryerson | MSc Data Science and Analytics (12 months programme - interdisciplinary from 4 Faculties) | 4 courses + 2 seminar courses | 2 electives | Major research project | 4 yr bachelor degree, B CGPA; 3 prerequisites or working knowledge of statistics, data structures and algorithms, databases and R software packages |
| York | MBAN Master of Business Analytics (12 months programme) | 12 courses | 2 electives | N/A | 4 yr undergrad; B+ CGPA; GRE or GMAT; A strong quantitative background demonstrated by course work in statistics, math, economics and research methods during undergraduate studies |

| | | | | | |
|---|---|---|---|---|---|
| **UofToronto** | Master of Management Analytics | 10 courses + 1 colloquium made up of mini-courses + 1 practicum course | Bootcamps (SAS, SQL, R, Python) | N/A | 4 yr undergrad in relevant degree; B CGPA; Evidence of a high level of proficiency (a GPA of at least 3.0) in quantitative courses that cover subjects such as Calculus, Linear Algebra, and Statistics or Econometrics is required; Demonstrated proficiency in computer programming |
| **Western** | MSc in Management, Business Analytics (16 months programme) | 8 core courses + 8 weeks Analytics Lab practicum | 4 electives | Optional dual degree with NHH in Bergen; NHH portion in terms 3 & 4 includes a mandatory research-based thesis | undergrad during last 2 years in engineering, science, computer science, statistics, mathematics, or economics with emphasis on quantitative analysis; Strong course work in: Calculus, Linear Algebra, Statistics and Computer Science (with programming focus) |

# APPENDIX 4: EXAMPLES OF JOB POSTINGS

## Job Posting Example 1

ABOUT US

CI Investments Inc. is one of the countrys largest investment fund companies, managing over $180 billion on behalf of two million Canadian investors (March 31, 2018). CI is known for its innovation and ability to adapt quickly to the changing needs of Canadian investors. It provides employees with a fast-paced and challenging work environment with opportunities for advancement. CI is part of CI Financial, a diverse group of financial services firms.

POSITION: Data Analyst
LOCATION: Toronto (M5J 0A3)
STATUS: Full-time

JOB OVERVIEW

We are currently seeking a Data Analyst to join our Client Reporting and Data Management team. The successful candidate will work closely with our data science team on the development of our centralized predictive analytics function. In this role, you will assist with solving high-value business problems by extracting and manipulating large, complex datasets, and creating data visualizations for use by stakeholders across our business.

WHAT YOU WILL DO

Collaborate with business analysts, data scientists, software engineers, and solution architects to develop data pipelines to feed our data marketplace
Extract, analyze & interpret large, complex datasets for use in our predictive modelling
Assist with the integration of tools across our data pipeline, including integrating databases with our machine learning tools, and integrating machine learning tools with data visualization tools
Develop intuitive data visualizations for use by stakeholders across our organization

WHAT YOU WILL BRING

Experience
At least one year of work experience in quantitative analysis
Experience working with large, complex datasets
Previous experience with Cloud Data storage is an asset
Experience using Business Intelligence tools like Tableau is an asset
Experience working with data preparation tools like Talend is an asset
Experience in the Financial Services Industry is an asset
Education/Training
Post-secondary degree in a quantitative discipline (Masters Degree is preferred)
Knowledge, Skills, and Abilities
In depth knowledge of and experience with relational, SQL and NoSQL databases
Fluency with SQL and either Python or R
Experience working with large, complex datasets
Excellent communication, writing and interpersonal skills
Familiarity with relational, SQL and NoSQL databases
Familiarity working with data preparation tools like Talend is an asset

**Job Posting Example 2**

Business Analyst, Field Services
Location: Montreal, QC, CA

Bells Field Services team is proud to be the face of the Bell brand, performing the best installation and repair services and maintaining Bells network for our residential and business customers. The Field Services Performance Analytics team is seeking an innovative, creative and dynamic individual to provide analytical consultation, conduct advanced analytics and data mining and generate business insights to support optimal decisions and strategic planning for Bell Field Services. In this role, you will have the opportunity to communicate your analytical findings on trends, risks and opportunities for gains in productivity and quality of service in Field Operations to executive upper management. You will also drive significant process improvements, be involved in change management and execute on key reporting initiatives. This is an excellent opportunity if you are looking to work in a high profile and challenging environment. You will have opportunities to apply and expand your skills by working with experts in the field, using state of the art BI tools.

Responsibilities:
Exercise leading edge analytics skills working with large data sets to explain and predict field technician behaviour using predictive modeling, text mining, optimization, segmentation and other data mining techniques
Design, track and interpret key performance indicators and analytical models driving Field Operations strategy and productivity
Recommend and establish action plans based on such indicators/models to mitigate risks and optimize Field performance
Analyze complex cross functional business processes and identify opportunities to improve technician effectiveness through process and systems enhancements
Prepare upper management for strategy discussions by developing reporting/ packages to provide high level strategic views of business performance
Build partnerships with leadership teams in Field Services

Required Skills/Experience:
Bachelors Degree OR Masters in a discipline such as: Business Analytics, Mathematics, Economics, Engineering, Computer science, or quantitative discipline
Minimum 2 years of experience in analytics role
Excellent skills in Excel, SAS and SQL
Highly analytical mind and solid understanding of the basic principles of working with large and complex data sets
Demonstrated application of a wide range of analytical techniques to solve a variety of business problems
Proficient with statistics
Knowledge of, and preferably experience with leveraging visualization tools, predictive analytics, text analytics and other data mining or Big Data tools and techniques
Strong working knowledge of PowerPoint with ability to quickly build a clear presentation for an executive audience that graphically explains issues and opportunities
Communication (spoken & written) skills suitable for executive audience
Deadline driven with excellent project and time management skills
Highly motivated, proactive, self driven, dynamic and results-oriented with desire to influence and promote change
Flexible and able to tackle duties outside of their usual scope of work when called upon

Preferred Qualifications/Competencies:
Strong preference for experience in Field Operations and/or Network
Experience with database systems such as SQL server, Teradata, Oracle
Experience with programming languages such as Python, R, etc.
Experience in machine learning methods and their implementation
Experience in developing fully automated reports
Experience in forecasting and/or workforce management
 Bilingualism is required (English and French); adequate knowledge of French is required for positions in Quebec.

**Job Posting Example 3**

Groupe Dynamite
Montréal, QC
Permanent
Data Scientist
Groupe Dynamite is a global fashion retailer with two brands at the heart of its success, Garage and Dynamite. We operate close to 400 stores in Canada and worldwide, and employ over 6,000 people. We have our roots planted firmly in the terrain of fashions retail landscape.
Role Summary:
We are looking for a Data Scientist that will help us discover vital information hidden in vast amounts of data, to help us better understanding how the business performs, and to build AI tools that automate certain processes within the company. He/she will also be responsible for modeling complex business problems, discovering business insights and identifying opportunities through the use of statistical, algorithmic, mining and visualization techniques. In addition to advanced analytics skills, this role is also proficient at integrating and preparing large, varied datasets, architecting specialized databases and computing environments, and communicating results.
Main Responsibilities:
- Build personalized recommendations engine and multi-level based on purchase preferences, online data, smart phone apps, etc.; * Sentiment analysis of social media streams, call center records, product reviews, etc., for customer feedback and market insights;
- Predictive analytics for the enhancement of the customer experience across all channels and devices, online and offline;
- Selecting features, building and optimizing classifiers using machine learning techniques;
- Create Algorithms to automate business processes;
- Data mining using state-of-the-art methods;
- Extending companys data with third party sources of information when needed;
- Enhancing data collection procedures to include information that is relevant for building analytic systems;
- Processing, cleansing, and verifying the integrity of data used for analysis;
- Doing ad-hoc analysis and presenting results in a clear manner;
- Creating automated anomaly detection systems and constant tracking of its performance.
Qualifications and Competencies:
- Education (include professional designation)
- Bachelor or Masters degree in Mathematics or Computer Science
Experience
- to 5 years of experience in a similar role;
Experience with:
- common data science toolkits, such as R, Weka, NumPy, MatLab, etc.;
- application of statistical-based big data analytics and BI solutions;
- NoSQL databases, such as MongoDB, Cassandra, etc.;
- data visualization tools, such as D3.js, GGplot, etc.
Technical Skills
- Proficiency in using query languages such as SQL, Hive, Pig, etc.;
- Strong computer programming skills using Python, R, VB, and C#.
Competencies
- Excellent understanding of machine learning techniques and algorithms, such as k-NN, Naive Bayes, SVM, Decision Forests, etc.;
- Good oral and written communication skills;
- Data-oriented personality;
- Good applied statistics skills, such as distributions, statistical testing, regression, etc.;
- Great communication skills.

**Example 4**

Data Scientist ( Telco Experience Required)
Create better business outcomes with your analytical acumen and creativity.

Join our team

We are a team of focused, and passionate individuals who leverage Big Data tools and analytics to support network reporting and significant decision making at the executive level. As a Design Specialist in Network Capacity Management you will be part of a national team responsible for the analyzing, reporting and forecasting of traffic and usage in the National IP/MPLS, Access and Transport Networks, helping define the future architecture and capital investment strategy for TELUS. You will help create competitive advantage, enable profitable growth, drive operational efficiency, and inspire a highly-engaged culture. You will help evolve our teams skill and toolsets to enable big data analytics across multiple complex networks.

Here's how

You will provide leadership and support to a team accountable for:
Monitoring, Analyzing and reporting traffic, services and port utilization across multiple networks and stakeholders to support the development of annual budgets and Network tactical plans
Leverage databases, analytics and BI tools including R software for statistical data analysis, prediction, simulation and optimization
Chairing Action Registers with Stakeholders and tracking capacity execution plans through to completion
Analyzing and creating business cases to be used for corporate investment decision making
Developing recommendations for Network capacity and utilization optimization
Coaching, mentoring and developing team members
Working collaboratively across teams and business units
Working collaboratively with 3rd party external vendors to support benchmark data and analytics
Adopting best practices but also drive new best practices
You're the missing piece of the puzzle
You are regarded as an expert in IP, Access (WLN and WLS) and Transport Networks, analytical, traffic modelling and big data processing tools
You have practical experience in databases and bi tools including the use of Tableau for data analytics and dashboard design
You have a 5+ year track record of high performance in a similar role leveraging big data, an automation tools to influence business cases and capital management decisions
You have a passion for leadership, and are seen on the team as a mentor and educator
You demonstrated an ability to influence all levels of management and are comfortable presenting to senior leadership and the executive team
Strong track record of delivering on goals and objectives in a fast changing environment
Demonstrated track record of high team engagement
Education:
You possess a Bachelors degree in Engineer, Business administration or an equivalent discipline
Great-to-haves
Masters/Ph.D. in Data Analytics, Network Modelling & Forecasting
2+ years experience in a Data Science role an asset
P.Eng certification in Canada is an asset

**APPENDIX 5: COURSE DESCRIPTIONS**

## MSCA 680: Foundations of Business Technology Management

**Course Objectives**

This course is designed to provide students with an overview of the BTM literature in a range of research areas, exposing students to classic and modern BTM literature that has been influential in the development of the field. Very early articles and more recent articles are reviewed, including ethical issues in business technology management. The main course objectives are to help students develop an understanding of the evolution of the BTM discipline and identify major research areas.

The course follows a seminar format and focuses on the discussion of assigned readings. Please see the list of course topics and assigned readings below. Supplemental articles are listed. While there is no requirement that students read supplemental articles carefully, they are beneficial and will often be discussed by the instructor. Quickly skimming these articles before class may help with class participation and your understanding of the topic being studied.

**Participation & Research Paper**

Active participation in the general discussion is essential.  Prior to class, you should prepare notes (which need not be shared with the instructor) in order to highlight major issues. Ask: What are the primary research questions? What are the most interesting findings or thought-provoking statements? What are important research opportunities? Constructive critical thinking/discussion is encouraged.

1. For each article, using a couple of sentences, summarize what the authors accomplished. If appropriate, outline the theories they used and/or developed. What were the articles' main contributions?
2. Summarize the session's "golden nuggets" for you – interesting, intriguing or surprising findings. Were there new insights? Did you uncover new approaches? Has an article or the session changed the way you view certain topics or methods? What do you know now that you did not know before?
3. List any questions or concerns you have with the set of assigned articles. Was there anything that you did not understand? Was there something you missed? Is there something else that you would like to read or explore?

Each student is given an opportunity to select a topic that is of particular interest that the student wishes to study in detail. The paper allows the student to go "deep" in this one area, and review and critically assess the related literature. The student is encouraged to explore a possible area for future research. The literature review must (1) summarize important concepts, findings and issues in this BTM research area, (2) provide suggestions for future research and (3) represent new work by the student.  That is, although it may relate to a paper previously written, or currently being written, by the student, there must be substantial new thought and new contributions.  All related work by the student must be referenced in the paper.

**Topics**

1. Early history and emergence of Individual-level BTM research
2. Group and Organizational-level BTM issues
3. Ethical issues in BTM
4. Knowledge Management & Project Management
5. Organizing & Governing Information Systems
6. Information Systems Strategy
7. IT Capabilities & Alignment - RBV, KBV, Dynamic Capabilities
8. IT Agility & Ambidexterity
9. Digital Innovation and Value Creation
10. Business Value of IT and Knowledge Management Strategy
11. Digital Platforms
12. Global Digital Innovation
13. Societal issues and digital technology

Each session will cover a mix of research and practitioner articles. Students who lead the discussion in the class are expected to cover both academic and practitioner perspectives.

**MSCA 681 Foundation of Data Mining**

The course covers essential ideas and techniques for analyzing and extracting information from large amounts of data. The course begins with the discussion of ethical issues in business analytics. It then discusses both supervised and unsupervised methods, and covers topics such as dimension reduction, classification and regression trees, K-nearest neighbors, neural networks, association rules and collaborative filtering, cluster analysis, ensemble methods, boosting and bagging. Illustrations of the concepts and methods are given, and students gain practical experience in data mining with the use of popular data mining software.

Topics

1. Ethical issues in business analytics
2. Dimension reduction
3. Classification and regression trees
4. K-nearst neighbor algorithms
5. Neural networks
6. Association rules and collaborative filtering
7. Cluster analysis
8. Ensemble methods
9. Boosting and bagging

# MSCA 690 Advanced Data Mining

**Prerequisite: MSCA 681**

The objective of this course is to cover essentials of some of the advanced data mining techniques and models used by business analysts for handling big-data problems. With the rapid developments in computational resources, we rely increasingly more on data analysis and statistical models to exploit the vast amounts of data at our fingertips. This course will focus on advanced topics in data mining such as: bootstrap, cross-validation, and permutation methods; regularized linear models: ridge, lasso, elastic net; ensemble learning: bagging, boosting, stacking; unsupervised methods: clustering (prototype, hierarchical, spectral and others), principal components and other low-rank methods, sparse decompositions; support-vector machines and kernel methods; deep learning and neural networks. Illustrations if the concepts and methods are given, and students are expected to work on hands-on data mining assignments and projects using real-life data sets from different functional areas of business with the use of popular data mining software.

## Topics

1. Bootstrapping
2. Cross-validation, and permutation methods
3. Regularized linear models: ridge, lasso, and elastic net
4. Ensemble learning: bagging, boosting, and stacking
5. Unsupervised methods: clustering (prototype, hierarchical, spectral and others), principal components and other low-rank methods, and sparse decompositions
6. Support-vector machines and kernel methods
7. Deep learning and neural networks

Examples of Workshops for the Professional Development Seminar (**MSCA 655 PROFESSIONAL DEVELOPMENT**)

| Goals | Early program | Mid program | Near completion |
|---|---|---|---|
| **1. Demonstrate understanding of fundamentals in business analytics and technology management** | GPLL233 - Business Research Essentials<br>GPLL24 -  Effective Reading Strategies<br>GPLL250 - Ethics in Research Involving Human Participants | Guest lectures from recent Alumni about various advancement in the field | GPLL250 - Ethics in Research Involving Human Participants<br>Participate in case studies at graduate level in interdisciplinary teams<br>Poster presentations (JMSB) |
| **2.  Effectively analyze big business data** | GPDI513 - Get Started Coding with Python x2<br>GPDI515 - Beginner's Guide to the R Programming Language x2 | GPDI544 - R Bootcamp<br>GPDI517 - Reproducible Scientific Analysis with R<br>GPDI543 - Introduction to Spatial data in R | |
| **3.  Apply research skills to identify and address complex business issues and/or global challenges** | GPLD 650, 653 - Project Management<br>GPLL231 - Library Skills & Resources: Maximize Your Graduate Research Potential<br>GPLL37 - Writing a Literature Review | (Mind mapping: from an idea to a research paper or project) to come<br>Present research proposal at graduate seminar in your faculty | GPSC416 - Communicating your research to public media<br>GPLL12 - From Scholarly Research to Crafting an Op-Ed |
| **4. Communicate knowledge and research results and implications orally for multiple audiences** | GPSC28 - Graduate Presentation Skills Essentials<br>GPLT 319 & 321 - English Pronunciation | GPSC476 - Practical Course in Public Speaking & Leading in Meetings<br>GPSC431 - Designing an Academic Poster<br>GPSC421 - Talk the Walk: Becoming a better communicator | GPSC405 - Concordia Three Minute Thesis and Project Competition Orientation Session<br>GPSC464 - Spark! Articulate and communicate your skills<br>CMS-communication- elevator pitch<br>GPCB635 - Networking Strategies |
| **5.  Communicate knowledge and research results and implications in written form** | GPLL32 - Avoiding Plagiarism at the Graduate Level<br>GPSC 482 & 484 - English Grammar<br>GPSC483 - Editing Principles for Graduate Students<br>GPLL243 - Using Zotero for Grads<br>GPSC415 - Professional and Effective Email Writing | GPDI542 - Introduction to LaTeX: a document preparation system<br>GPLL51 - Perfecting the Paragraph<br>GPSC26 - Writing Compelling Abstracts<br>GPSC36 - Crafting Strong Thesis Statements and Introductions<br>GPLL35 - Getting published: The peer review journal process<br>GPSC416 - Communicating your research to public media | GPLL249 - Thesis Boost: 3-day writing retreat<br>GPLL241 - Copyright and your thesis |
| **6. Personal and career management** | GPLL50 - Increasing your Productivity in Grad School<br>GPWL901 - Stress Management: A Practical Guide<br>GPSC491 - Embracing our Intercultural Community<br>GPWL909 - How to Stay Healthy in Grad School | GPLD 140-146 - Leadership Essentials Series (Leadership foundation, Emotional Intelligence, Leading Teams<br><br>GPWL905 - The Healthy Mind: Taking Care of your Mental Health in Grad School Mindfulness (to come)<br>Join Graduate students associations and | GPWL970 - Imposter Syndrome in Graduate School<br><br>GPCB609 - Interview 101: The Art of Communicating Your Skills to an Employer<br>GPWL913 - Eating Well with Little Time or Money |

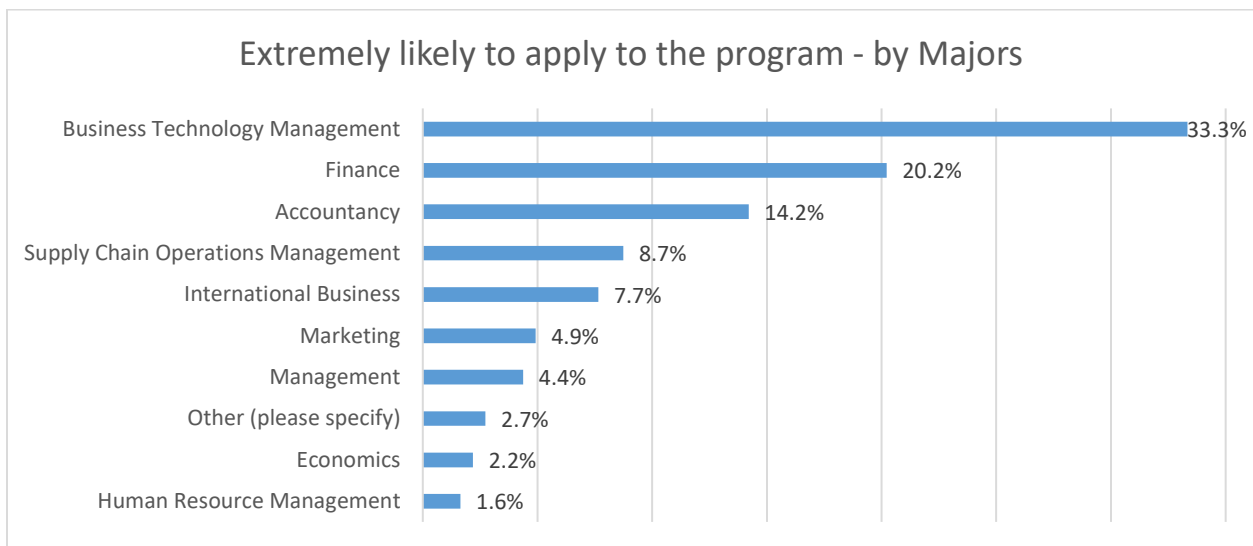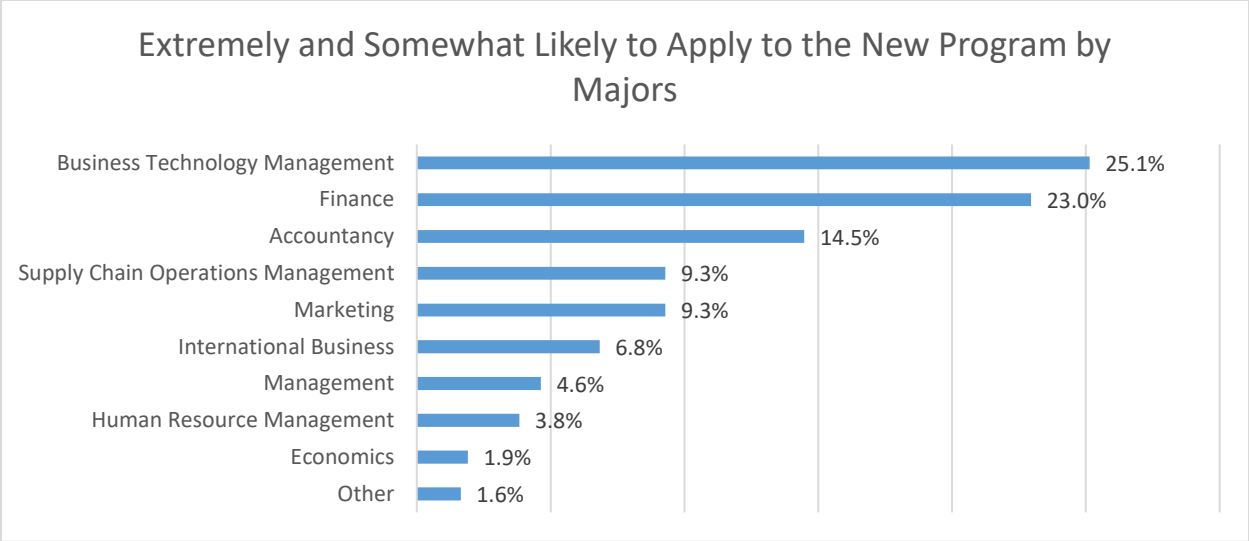| | GPLL10 - Graduate School Success: How to Make the Most of Your Education<br>GPLL20 - Graduate School Base Camp<br>GPCB610 - Introduction to Career Planning for Graduate Students<br>GPLL18 - Building an Effective Graduate Student - Supervisor Relationship | volunteer | GPCB631 - Negotiating Your Job Offers |
| --- | --- | --- | --- |

## APPENDIX 6: REPORT – MSc DSMIS New Program Survey

1. There were 473 responses, out of which 188 alumni (40%) and 285 current students (60%).
2. The majors represented, in decreasing order, are:

| | | |
|---|---|---|
| Finance | 22.0% | 114 |
| Business Technology Management | 21.4% | 111 |
| Accountancy | 16.8% | 87 |
| Marketing | 12.1% | 63 |
| Supply Chain Operations Management | 8.5% | 44 |
| International Business | 6.9% | 36 |
| Management | 4.8% | 25 |
| Human Resource Management | 4.4% | 23 |
| Economics | 1.5% | 8 |

3. The likelihood of respondents to apply to the new program was as follows:

| | | |
|---|---|---|
| Extremely likely | 34.66% | 165 |
| Somewhat likely | 34.87% | 166 |
| Neither likely nor unlikely | 11.13% | 53 |
| Somewhat unlikely | 9.03% | 43 |
| Extremely unlikely | 8.19% | 39 |
| Don't know | 2.10% | 10 |

Extremely likely to apply to the program - by Majors

| Major | Percentage |
|---|---|
| Business Technology Management | 33.3% |
| Finance | 20.2% |
| Accountancy | 14.2% |
| Supply Chain Operations Management | 8.7% |
| International Business | 7.7% |
| Marketing | 4.9% |
| Management | 4.4% |
| Other (please specify) | 2.7% |
| Economics | 2.2% |
| Human Resource Management | 1.6% |

## Extremely and Somewhat Likely to Apply to the New Program by Majors

| Major | Percentage |
|---|---|
| Business Technology Management | 25.1% |
| Finance | 23.0% |
| Accountancy | 14.5% |
| Supply Chain Operations Management | 9.3% |
| Marketing | 9.3% |
| International Business | 6.8% |
| Management | 4.6% |
| Human Resource Management | 3.8% |
| Economics | 1.9% |
| Other | 1.6% |

4.  The timeline of when they are more likely to apply to the new program is as follows:

| | | |
|---|---|---|
| 2020 | 10.8% | 46 |
| 2021 | 32.1% | 137 |
| 2022 | 25.8% | 110 |
| Later than 2022 | 13.4% | 57 |
| Don't know | 11.7% | 50 |
| Would not apply | 6.3% | 27 |

5.  In what ways do you see this program advancing your academic and professional goals?

93% of respondents believe that specialized expertise in business analytics and technology management will increase their career prospects.

Other responses are below:

| |
|---|
| It will also make me more valuable. My company has A LOT of data not being used, and many problems to address. This is a skill in greater demand than people realize. |
| The analytic skills will help me to better solve problems |
| I do a lot of data analysis in my current job and this could help me strengthen my skills & increase my value as an employee. |
| Offers skills and techniques that can be applied in other/related jobs |
| Specialized Knowledge in business analytics and technology management is the way of modern business. It will be useful skills to manage one's own enterprise and to manage decisions in supply chain field. |
| Understanding how to apply Artificial Intelligence (specifically Machine Learning) to make analyses on data that is generated within the firm. |
| Consulting |

| |
|---|
| Increase marketing decision making skills. Decision Science in every area is extremely interesting to me ! I feel these are the skills that could never be replace by robots. Critical thinking and ethical decision are so important in the business world. |
| I'm applying to Concordia masters of computer science because this course is currently not offered |
| Be able to go into further research like a PhD, or gain more experience for a job |
| Mixing business technology management and analytics/data science are the jobs I am interested in and look for. I believe this would lead to great career opportunities in the technology fields and could help achieve my goal of one day becoming a CIO or CTO |
| I think data and technology is becoming increasingly important especially in business domains. As an accounting student who will be at a disadvantage without this sort of knowledge of technology and data, I think a program like this will put me ahead of the curve. |
| Combining Financial analytics with a focus in BTM |
| Better understanding of statistics and computer science. |
| it will allow individuals and myself to lean business analytic tools that are currently in high demand |
| Continuous improvement on my analytics skill as I already work in the field. |
| This degree is exactly what I would have chosen had the option been available to me as an undergraduate. It will not only enable applicative learning through case-based research and a thesis, but will also better prepare students interested in high-level strategic consulting and decision sciences. Hence, I believe it would contribute greatly to my goal of becoming a strategic marketing & business consultant. |
| Using different types of coding for analytics to further my skills and to apply to a wide array of jobs |
| Developing managerial skills specific to my expertise (business technology management) |
| Just adding an MSc |
| This MSc sounds like a unique field of study for Concordia |
| It's super interesting |
| Analytics experience that severely lacked in my undergraduate degree. |

6. What drawbacks or disadvantages can you foresee in the proposed program with regard to your academic and professional goals? (Please select all that apply.)

## Possible Downfalls of the Program

| Category | Percentage |
|---|---|
| Other | 38% |
| The program may narrow my employment options. | 37% |
| The program is too specialized. | 26% |
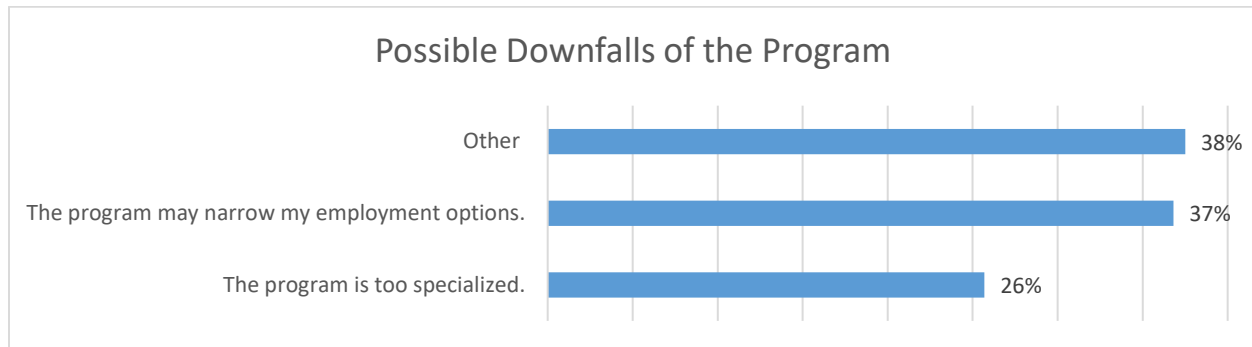
Among other:

| |
|---|
| The fact that it is described as only having a thesis option. A similar HEC program gives you the option of doing a project in a company/internship, which to me I feel is more valuable than a thesis |
| Not teaching students relevant tool and technology that will allow them to actually be successful in the field (i.e. using python, R, etc instead of focusing on just SAS like the data intelligence minor) |
| Before creating a new type of masters, consider the benefit of its specialization. Would it be more advantageous than an MBA or would it be causing another branch of masters without really being beneficial to work forces in companies. |
| Being maybe too focused on research instead of real-time business concerns companies are currently facing. I would like to stick to the relevant and most recent articles about business technologies, analytics, AI, amongst other trends. |
| Completely change my field of work. As Iâ€™m in a HR function |
| Concern that a program like this may put me in a disadvantageous position to someone with a more specialized academic background |
| Cost |
| Depending on the course offering, I would want to be able to chose classes related to my career goals. My worry is that the elective classes to chose from will all cover different topics and specializing in one topic might be difficult. |
| Difficult for hiring managers to understand the degree and its use |
| Disconnect between academic learning and real-world problems |
| do not know |
| Don't know the career prospects it would open or if the courses are interesting |
| Due to COVID-19, I would not be interested in online classes only. |
| GPA requirements. JMSB has many group projects where co-students have dragged my grade down through blatant laziness or trying to plagiarize content. |
| hard to predict the advantages the program can offer |
| High academic standing is too vague of a description, thus potentially limiting my interest |

| |
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| I already applied for another Master's and got accepted |
| I do not see any |
| I don't really see any drawbacks or disadvantages to this proposed program. Technology will always be relevant, which would drive the need for managers with knowledge in technology. |
| I don't think it will |
| I feel like this is only useful for accountant or finance student. I have difficulty to see how I could benefit are implement that in every field. I know those skills are becoming more and more important. However, it seems way too complicated and mysterious for me to picture myself studying that field unfortunately. |
| I hope that the program does not recap BTM undergrad classes, and rather explores more in depth options |
| I may struggle to find ways to apply these learnings to my current career path (marketing for non profit organizations). |
| I probably just want an MBA |
| I read the proposal of the program and was wondering how practical can the program gets in terms of preparing students for their career after graduation. I am expecting a program where Concordia provides experiential learning including study trips, business projects (maybe working with real companies), and an option to do internships. |
| I would want to see more of the syllabus to see what applicable things I would learn |
| I'd be interested in a non thesis masters |
| I'm expecting a program that is offered in a more practical approach with case studies/internships/study trip |
| If not offered part time would slow my experience opportunity |
| If the program focuses on outdated technology or technology not used in industry. |
| Information technology management may hinder from the appeal of the business analytics component for many potential applicants |
| It is not something I am passionate about |
| It might arrive too late or not be well formulated enough |
| It omits learning the technologies to use AI/ML/DL/Cloud and does not provide enough employable skills. Focus on the hard math/statistics that will be used for these technologies. |
| it would be a drawback if it's offere only during the day |
| It would take me more time to graduate |
| Lack of actual work experiences |
| Lack of time |
| Low gpa |
| Material might not exactly focus on what is really requested on the job market |
| May be a back up plan since I want to do my CPA |

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| May be costly. |
| May not be the field I want to go into |
| May not have the grade requirements |
| Might delay my career start |
| might not relate to my field |
| Might take a while for employers to recognize the legitimacy |
| More computer science |
| No interest in creating a thesis in a world full of irrelevant thesises |
| No recognized certifications |
| None - 23 responses |
| Not enough technical side like current BTM major. Too many theory classes and not practical technical skills. |
| Not sure about the specific classes |
| Not sure if it offers a bit of coding which would be vital to many students |
| Not sure if worth the time and money as I am already pursuing a BTM major. |
| Nothing for the moment. The program seems specific, which is the purpose of a master. |
| People would be too unaware of it. |
| Perhaps companies may not understand the grasp of the material learned in the program due to it being new |
| position of business analyst has too much competition |
| Program could potentially be a repeat of my BTM undergrad + Data Intelligence Minor. I would want to continue my learning from my undergrad with more advanced and applied topics, not repeat it. |
| The costs versus benefit might not be worthwhile as companies now train their employees for these skills. |
| The name: "Decision Science"  it sounds more like a psychology program than a business program. |
| the program is not developed enough. |
| The program is not specialized enough |
| The program is not well known by companies since it's new |
| The program might not be up to date with current best business practices |
| The program might teach outdated practices |
| The program should have a project option instead of only offering the thesis option. |
| The program will be similar to BTM program. |
| The program will not provide enough technical knowledge to be able to properly communicate with developers and data scientists. |
| The program wouldn't be sufficiently technical. I expect from a master of science to learn |

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| programming skills in data analytics. |
| There are 2 potential drawbacks I foresee: 1) It will be driven by a large finance student attendance, which may be too narrow for students with other majors, and 2) it may be repetitive to those who have already completed the BTM major or DI minor. |
| There aren't drawbacks really, it will be helpful in our connected world |
| too difficult ? |
| too theory oriented |
| Which tool will be offering |
| why not focus solely on analytics and not incorporate BTM |
| Will it be as good as HEC program given it will be so new? |
| Without a co-op program employers might not recognize it. There needs to be real work experience attached to it. |
| Would have trouble using BTM skills in other business fields (ie: in the marketing field) |

7. Final comments:

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| If you have any final comments or questions regarding the proposed MSc in Decision Science and Management of Information Systems program, please share them below. |
| This is a great idea and of great interest for me. |
| it shouldn't be just about analyzing big data but also managing it - strategy and governance, innovation, application to different industries, privacy and confidentiality. ethics and AI perhaps |
| when will the program be potentially launched? |
| The length and scope of the program sounds appropriate, long enough to learn a lot but short enough to advance quickly |
| This is a great decision to allow BTM students to expand their knowledge and expertise in this growing field. I am very excited that JMSB is considering to offer this program. |
| It's good that JMSB is finally considering this Msc. They will have a good catch up to do if they want to be competitive to other schools in Quebec who already started offering it. |
| Considering as an international student, the program will be more attractive if it is offered as a 16 months - 2 years program. This will help international student get a work permit after graduation. Additionally, program would be even more practical with experiential learning through internship/co-op opportunities |
| Overall I'm excited that finally JMSB is considering to offer this program! Would love to know if I can apply in 2020! |
| I think that in this day and age, this program is perfect especially for the upcoming transitions of business to the online world. |
| I would definitely attend this Masters program. Include data analysis and cybersecurity in the electives choice. |
| I think it's a great decision! When I graduated I was sad that JMSB didn't have a Masters in BTM. |
| This is a great addition to the Masters at JMSB |
| I am not interested in going back to school at this time. That said I think the tools would be helpful. |
| Might want to change the name, seems too complicated. Youâ€™d want a name that students can easily understand. |
| How much overlap is there with Data Science? and with AI? |
| I believe that this degree is a great post bachelor's option that would offer skills needed in the future of business. I would strongly consider applying for the program! |
| Please do not focus on SAS and MATLAB. Python/R./SQL should be used. Focus on Machine Learning. |
| Program should have specializations, for example, financial analytics, marketing analytics etc. Look top universities and there programs and the sorts of courses they offer. How to fundamentally understand how Technology using AI/Data Science can be implement within an organization and used my managers. Most importantly, please employ quality teachers, far too many teachers at Concordia lacked the capabilities of teaching materials and leaving students without enjoying the learning experience. Perhaps have teachers that are from the Computer Science Department of Concordia instead of just the JMSB faculty. This will enable bridging the gap between business and computer science. |

| |
|---|
| Great mix |
| Have an internship portion available for students wanting to gain experience at the end of the program! Or make it a sperate path; 1 thesis, 1 project base. |
| I'm an international student and I know for many of us, the programâ€™s length is one of the factors affecting our decision of whether to apply or not. Hopefully you take into account this and consider if you can offer 16 months - 24 months program option to us (can have an internship semester or something similar). Also, like I said above, I hope the program will have a string emphasis on experiential learning, providing students with hands-on knowledge (with study trips, guests lectures, internships option, working with companies, using analytics tools that are widely used in real-world business,..). Overall Iâ€™m so excited to know Concordia is soon having this master program. I am in search for a Master in Analytics and was only able to find one at Mcgill and HEC. Hope Concordia will be offering this program for the 2021 intake! |
| What is the percentage of business related topics offered in this program? I would like to make sure that it is not too technical and well tailored to business leaders. |
| What kind of information program do we referred too ?  My comment is: I believe that this program should also consider the « sustainability, ethics, social and environmental impacts». These aspects are valued by Millenials (who are probably your main target). I believe this will attract and make this program innovative and attractive. Also,I believe that the concept of Stakeholders should also be part of the important subjects in this program. This is a major key to success ! Communication decision should also be thought I believe. Thank you ! |
| The program seems extremely attractive because it does target a growing niche which interests me greatly. However, without knowing the contents of the core courses it is difficult to grasp the full benefit. Personally, I graduated a year ago, plan to start a family, and buy a home, therefore returning to school is not compatible with my short-term goals. Finally, I believe personal experience and grades should play equal parts when determining accessibility to the program. Thank you |
| Would I have the prior knowledge to succeed in this program if I did not major in business technology management? |
| Hope it's offered part time ! |
| It should be two different programs, I don't see why you would mix decision science and IT management. They are different. |
| Will it be possible to offer it part-time basis, and or online parts to? |
| Teach students how to code R |
| I'm currently applying for a masters in computer science, as concordia does not offer anything similar to this program currently. I would love to be contacted about it should it become available. |
| Without knowing what specific clases are employed, I am a bit torn on it. I don't want this degree to just "signal" to the market; instead, there should be real emphasis on statistics rather than just "run tensorflow and get done with it". |
| Integrate with the leading & popular tools regarding business analysis/BI/BTM |
| I am looking forward to it. |
| I would be extremely interested in learning more about the courses, workshops and more that I would experience in this program. |
| I would just like to say that this program is very interesting specially because the landscape of work is |

| changing very fast and moving towards more tech and data focused. If you guys actually decide to create this program, it will be best to really teach very up to date theories and practices because a lot of the undergrad classes regarding technology at JMSB seems a little too outdated. |
|---|
| Would love a more technology focused option for my MBA. I was considering going to Ryerson because they have more tech options. Please add this! |
| I hope JMSB will offer it soon. |
| This masters program sounds too similar with the bachelor's in Business Technology Management in JMSB. Will it be beneficial for a BTM future graduate like myself to enroll in this masters or will it just be redundant? |
| i would love to see this program in place and have at least a couple of years of work until i would apply |
| I think this is a great program to include in the university |
| let me know when i can apply |
| I feel as though there is a massive marketing student population which should almost entirely be interested in higher-level mathematics. However, in my DI minor, the majority of the students were finance students, understandably. I feel the marketing major is an untapped niche student segment for these types of programs, since in a few years, they may not even be employable if they do not take more advanced analytics courses. JMSB should seriously consider running a campaign targeting marketing students. |
| I am interested in the program, if possible I'd like to know what would be the requirement GPA in order to be accepted in the program |
| Remove "Decision Science" from the name. Put Data Analytics. Or Data Science. |
| Since JMSB has already offered BTM program, I think the new program would be a little bit similar to BTM. |
| I am really interested in this program, but I never study programming. I afraid that i cannot handle with this program |
| It would be an extremely interesting masters program, would consider |
| Will this teach coding? |
| Will there be data science? |
| What kind of GPA are students expected to have to enter the program? Apart from that, I think this would be an excellent addition to my supply chain management diploma |
| When will this be available? |
| Since AI will take over most sectors, I would be even more interested if the MSc specialized more towards the application of AI by taking a more technical approach rather than theoretical. |
| The focus directions student can choose: For exmaple if you want more theory and main focus on business then - &gt; Business Analytic . If prefer more IS and data side -&gt; Data Analytic ( courses link to more coding and MIS tech side) |
| What options does it provide after university |
| This seems like a very promising program that will surely attract many students. I would seriously consider applying for this program. |

| |
|---|
| JMSB should offer a project stream similar to the MSc in Data Science at HEC. This is a really good opportunity for students to apply what they learn in the classroom. In addition, not everyone is interested in a thesis. Lastly, I hope that the program can teach students some coding (what many undergraduate programs at JMSB lack). The Masters itself would be really interesting. |
| I would actually really like to enrol in this program. I'm looking into masters programs related to data science/analytics. I hope you give the option of doing a project/internship/coop for the program instead of just thesis, as other universities like HEC give this option to their students to gain more hands on experience. I also hope to see that the program teaches students relevant skills and tools that are used within the majority of industries (i.e. python, R). Looking forward to learning more about this program! |
| Hoping the GPA requirements won't be too high. |
| It is an absolutely great idea as I was very disappointed not finding programs similar to Data Science and Analytics offered by other universities In Montreal were not offered by Concordia. |
| Most employers are looking for specialized business analytics hires or people who studied computer science. This degree is very broad / watered down with general management courses and seems like it will just be another degree prepping students to work in tech consulting. |
| As mentioned before, creating a new masters isn't a negative thing but giving students too many options can make them more confused especially when some cannot already differentiate between other masters. I find it better to improve graduate programs that already exist rather than adding more |
| Great idea - as a BTM grad it's grad to see that this is something my school is looking into! |
| Would love to learn more to identify how it would benefit my career. |
| I think this program would be a very good idea for BTM students like me who aren'€™t 100% sure of their job opportunities upon graduation, especially since I was planning to take a 2 year work gap to do an MBA some there was no graduate program for Business Technology Management students, so I think this would be a very good idea, assuming that the current undergraduate BTM program is improved because so far I heard of mostly negative information about it |
| Technology is the present and the future of business. Do not delay in teaching students these skills. |
| I'm only scared that it will be too narrow in the data analysis with specific tools and/or use outdated tools |
| Add data security |
| What courses would be offered? Is there going to be a term project too? |
| better to have more practical contents |
| Will need to specify what math skills are required. Would potentially be a deal breaker coming from HR and Marketing, as they are not numnbers based degrees. |
| This program sounds extremely interesting! I am looking forward to getting more details. |
| Ms in Tax would be great idea. So far , only HEC and Sherbrooke has it . A big demand in tax right now and even in foreesable future.Thanks |
| I think it's a good idea, especially for those who are interested in business analytics but don't have a math or computer science background |

**Consolidated View of Proposed Changes - MSCA-18 - DS/MIS**

| Course | New course | Course Deletion | Editorial | Prerequisite | Addition of course description to the calendar | Addition/ Change of note | Addition of Credit Value to the calendar |
|--------|-----------|-----------------|-----------|--------------|-----------------------------------------------|--------------------------|------------------------------------------|
| MSCA 602 | | | | | | | x |
| MSCA 615 | | | x | | | x | x |
| MSCA 655 | x | | | | | | |
| MSCA 680 | x | | | | | | |
| MSCA 681 | x | | | | | | |
| MSCA 682 | | x | | | | | |
| MSCA 683 | | | | x | x | | x |
| MSCA 685 | | x | | | | | |
| MSCA 686 | | | | | x | | x |
| MSCA 690 | | | | | x | | x |
| MSCA 691 | x | | | | | | |
| MSCA 692 | | x | | | | | |
| MSCA 693 | | | | | | x | x |
| MSCA 694 | | x | | | | | |
| MSCA 695 | | x | | | | | |
| MSCA 696 | | x | | | | | |
| MSCA 697 | | | | | x | | x |
| MSCA 698 | | x | | | | | |
| MSCA 699 | | | | | | | |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**PROGRAM CHANGE:** Admission Requirements

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**           John Molson School of Business
**Department:**               Supply Chain and Business Technology Management
**Program:**                  Decision Sciences & Manag. Info. Systems Option
**Degree:**                   Master of/Magisteriate in Science, Decision Sciences and
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| ~~Note: Admissions have been suspended for this option until further notice.~~<br><br>**Admission Requirements**<br><br>~~The program is open to both full-time and part-time students.~~<br><br>• Bachelor's degree with high academic standing serves as a prerequisite for the program.<br>• ~~A~~pplicants 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.<br><br>Applicants with ~~a bachelor's degree in other than Commerce or Business Administration will~~ 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 ~~Department MSc Advisor with the approval of the Associate Dean, Research and Research Programs~~ depending upon the student's background and area of specialization.<br><br>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).<br><br>**Proficiency in English.** 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.<br><br>~~Concordia Comprehensive ESL Placement Test (ConCEPT).~~ ~~Applicants who have~~ | **Admission Requirements**<br><br>• 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.<br>• 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 Graduate Program Director depending upon the student's background and area of specialization.<br>• 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).<br>• **Proficiency in English**. 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.<br><br>The program is open to both full-time and part-time students. |

~~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).~~

**~~Fast-Track to PhD in Business Administration~~**

~~Meritorious students enrolled in a JMSB Master of Science program who have completed all degree 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. In all such cases, the decision of the PhD Admissions Committee shall be final.~~

Rationale:

- Once this proposal receives Senate approval, admissions are no longer are suspended; therefore, the note has been removed.

- The Concordia Comprehensive ESL Placement Test is no longer in use.

- The structure of the MSc program administration has permanently changed—the Graduate Program Director is now responsible for these decisions. The language of this paragraph is now consistent with the other programs.

Resource Implications:
None.

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**PROGRAM CHANGE:** Degree Requirements

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**          John Molson School of Business
**Department:**           Supply Chain and Business Technology Management
**Program:**              Decision Sciences & Manag. Info. Systems Option
**Degree:**                 Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **Degree Requirements**<br><br>Fully-qualified candidates are required to complete a minimum of 45 credits.<br><br>Please see the MSCA Courses section for course descriptions.<br><br>**45**     **MSc Administration, Decision Sciences and Management Information Systems Option (DS/MIS)**<br><br>**6**     *Credits of ~~Required~~ Courses*<br>MSCA 602   Applied Linear Statistical    3.00<br>MSCA 615   Research Methodology - Administrative Sciences   3.00<br><br>**1~~8~~**    *Credits of* Administration, Decision Sciences and Management Information Systems ~~Option~~ (CS/MIS) ~~Seminars~~ *~~chosen in consultation with the option advisor. If approved by the MSc option advisor and the instructor, students may take some of these electives in other MSc options or in cognate graduate seminars offered by other departments within the university~~*<br><br>**21**    MSCA 699   Research Thesis    21.00 | **Degree Requirements**<br><br>Fully-qualified candidates are required to complete a minimum of 45 credits.<br><br>In the first year of the program, candidates are strongly encouraged to complete a minimum of 24 credits and MSCA 655.<br><br>Please see the MSCA Courses section for course descriptions.<br><br>**45**     **MSc Administration, Decision Sciences and Management Information Systems Option (DS/MIS)**<br><br>**12**    *Credits of **Core** Courses:*<br>MSCA 602   Applied Linear Statistical    3.00<br>MSCA 615   Research Methodology - Administrative Sciences   3.00<br>MSCA 655   Professional Development    0.00<br>MSCA 680   Foundations of Business Technology Management   3.00<br>MSCA 681   MSCA 681 Foundations of Data Mining   3.00 |

| | | |
|---|---|---|
| 1**2** | *Credits of* Administration, Decision Sciences and Management Information Systems (DS/MIS) Elective Courses | |
| 21 | MSCA 699    Research Thesis | 21.00 |

**Administration, Decision Sciences and Management Information Systems Option (DS/MIS) ~~Seminars~~**

*Each year a selection of specialized seminars will be offered on a rotating basis from those listed below.*

| | |
|---|---|
| ~~MSCA 682~~ | ~~Seminar in Sampling Theory~~ |
| MSCA 683 | Applied Multivariate Data Analysis |
| ~~MSCA 685~~ | ~~Enterprise Systems and Process Integration~~ |
| MSCA 686 | Competitive Advantage through Information Technology |
| MSCA 690 | Data Management |
| ~~MSCA 692~~ | ~~Intelligent Applications for Business~~ |
| MSCA 693 | Seminar in Special Topics in Decision Sciences and Management Information Systems |
| ~~MSCA 694~~ | ~~Knowledge Management~~ |
| ~~MSCA 695~~ | ~~Outsourcing of Information Service~~ |
| ~~MSCA 696~~ | ~~Adoption, Use and Appropriation of Information Technologies~~ |
| MSCA 697 | Advanced Topics in Information Systems Development |
| ~~MSCA 698~~ | ~~E-Business~~ |

**Administration, Decision Sciences and Management Information Systems Option (DS/MIS) Elective Courses**

*Each year a selection of specialized seminars will be offered on a rotating basis from those listed below. Upon approval of the Graduate Program Director and the instructor, up to six credits of electives may include seminars in any other JMSB MSc program, PhD seminars of relevance to the program of study; and cognate graduate seminars offered by other departments within the university.*

| | | |
|---|---|---|
| MSCA 683 | Applied Multivariate Data Analysis | 3.00 |
| MSCA 686 | Competitive Advantage through Information Technology | 3.00 |
| MSCA 690 | Data Management | 3.00 |
| MSCA 691 | Advanced Data Mining | 3.00 |
| MSCA 693 | Seminar in Special Topics in Decision Sciences and Management Information Systems | 3.00 |
| MSCA 697 | Advanced Topics in Information Systems Development | 3.00 |

Rationale:

- Two more core courses are added in order to ensure a solid and common base knowledge in the area of study.

- In addition to the proposed coursework, students can benefit from acquiring additional skills that do not require the time commitment of a full 3-credit course but are nevertheless extremely useful for their professional success. These needs can best be accommodated through mandatory workshops. This new program requirement will be consistent with the other JSMB MSc programs.

Resource Implications:

- Previously, SC/BTM offered four sections of MSCA 602 but given changes in MSc Finance and MSc Management, only two sections will be necessary. This is two less three-credit courses that will need to be staffed by the department.

- Previously, MSCA 615 was offered to SC/BTM either by MSc Marketing or MSc Management. Now, SC/BTM will teach its own, which will service MSCM and MSc DS/MIS: one additional three-credit course to be staffed.

- Two additional core courses are added: two additional three-credit courses to be staffed.

- In terms of electives, MSCA 683 was already offered: no change.

- The program plans to offer a maximum of three additional elective courses: three additional three-credit courses to be staffed.

- In total, therefore, SC/BTM will need to staff 4 additional three-credit courses when MSc DS/MIS is re-launched.

- Regarding the mandatory workshops, there are no resource implications as the follow up is done by the Graduate Program Director.

- SC/BTM does not need additional resources in order to staff the courses.

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**PROGRAM CHANGE:** Academic Regulations

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

**Faculty/School:**          John Molson School of Business
**Department:**              Supply Chain and Business Technology Management
**Program:**                 Decision Sciences & Manag. Info. Systems Option
**Degree:**                  Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **Academic Regulations** | **Academic Regulations** |
| 1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the 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.** ~~In accordance with standard university policy, t~~he 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.~~ | 2. **Residence.** ~~T~~he minimum residence requirement for this master's degree is three terms of full-time study, or the equivalent in part-time study. |
| 3. **Time Limit.** ~~All work for the MSc program degree for full-time students must be completed within 12 terms (four years) from the time of initial registration in the program at Concordia University; for part-time students the time limit is 15 terms (five years).~~ | 3. **Time Limit.** Please refer to the Academic Regulation of the Graduate Calendar page for further details regarding the Time Limit requirements.(http://www.concordia.ca/academics/graduate/calendar/current/academic-regulations.html) |
| 4. ~~**Credit Load: Full-time Students.** 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.~~ | 4. **Graduation Requirement.** In order to graduate, students must have a cumulative GPA of at least 2.70. |
| 5. ~~**Credit Load: Part-time Students.** The maximum course load for part-time students is 12 credits per calendar year. The 21-credit thesis should take one year to 18 months to complete.~~ | |
| 6. ~~**Course Reduction.** In exceptional circumstances, students may be granted permission to reduce their course load below the normal specified above while remaining in good standing.~~ | |
| 7. ~~**Program and Course Withdrawal.** 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.~~ | |
| 8. **Graduation Requirement.** In order to graduate, students must have a ~~minimum~~ | |

| cumulative GPA of 2.70. | |
|---|---|

| Rationale: |
|---|
| For consistency with other programs. |

| Resource Implications: |
|---|
| None |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 602          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**            John Molson School of Business
**Department:**               Supply Chain and Business Technology Management
**Program:**                  Decision Sciences & Manag. Info. Systems Option
**Degree:**                   Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **MSCA 602 Applied Linear Statistical Models**<br><br>*Description:* The course focuses on systematic treatments of linear statistical models for regression, analysis of variance and experimental design with special emphasis on applications in business and economics. Topics include regression analysis: inference, model building, diagnostics, remedial measures and validation; single-factor and two-factor ANOVA models, and analysis of covariance. Other statistical tools for specialized applications discussed may include logistic regression, path analysis and time series regression. Case studies are employed to illustrate tools for fitting, checking, validating and interpreting linear models. | **MSCA 602 Applied Linear Statistical Models (3.00 credits)**<br><br>*Description:* The course focuses on systematic treatments of linear statistical models for regression, analysis of variance and experimental design with special emphasis on applications in business and economics. Topics include regression analysis: inference, model building, diagnostics, remedial measures and validation; single-factor and two-factor ANOVA models, and analysis of covariance. Other statistical tools for specialized applications discussed may include logistic regression, path analysis and time series regression. Case studies are employed to illustrate tools for fitting, checking, validating and interpreting linear models.<br><br>*Component(s):* Seminar. |
| Rationale:<br>Credit value added. | |
| Resource Implications:<br>None | |
| Other Programs within which course is listed:<br><br>PhD Business Administration, Administration, MSc Finance, Msc Management, Msc Marketing, MSCM | |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 615          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

**Faculty/School:**                    John Molson School of Business
**Department:**                        Supply Chain and Business Technology Management
**Program:**                           Decision Sciences & Manag. Info. Systems Option
**Degree:**                            Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

[ ] Course Number             [ ] Course Title            [X] Credit Value           [ ] Prerequisite
[ ] Course Description        [X ] Editorial              [ ] New Course
[ ] Course Deletion           [X] Other -
                              Specify: Note

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **MSCA 615 Research Methodology - Administrative Sciences**<br><br>*Description:* This seminar provides 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.<br><br>*Notes:*<br>▪ Students who have taken MSCA 612, MSCA 613 ~~or~~ MSCA 614 may not take this seminar for credit. | **MSCA 615 Research Methodology - Administrative Sciences (3.00 credits)**<br><br>*Description:* This seminar provides 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 is 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.<br><br>*Component:* Seminar.<br><br>*Notes:*<br>▪ Students who have taken MSCA 612, MSCA 613, MSCA 614 or MSCA 616 may not take this seminar for credit. |
| Rationale:<br>Credit value added. | |
| Resource Implications:<br>None. | |
| Other Programs within which course is listed:<br><br>MSc Management, Marketing, MSc and MSCM | |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 655          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                    John Molson School of Business
**Department:**                        Supply Chain and Business Technology Management
**Program:**                           Decision Sciences & Manag. Info. Systems Option
**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              [X] New Course
[ ] Course Deletion              [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| | **MSCA 655 Professional Development (0.00 credits)**<br><br>*Prerequisite/corequisite:* Permission of the Graduate Program Director is required.<br><br>*Description*: Students are required to attend a minimum of three professional development workshops approved by the Graduate Program Director and offered in collaboration with different partners (e.g. GradProSkills). These workshops complement students' academic training and provide them with technical skills that help them succeed professionally and academically.<br><br>*Component:* Workshop.<br><br>*Notes:*<br>　▪ This course is assessed on a pass/fail basis. |

| Rationale:<br>In addition to the proposed coursework, students can benefit from acquiring additional skills that do not require the time commitment of a full 3-credit course but are nevertheless extremely useful for their professional success. These needs can best be accommodated through mandatory workshops. This new program requirement will be consistent with the other JSMB MSc programs. |
|---|
| Resource Implications:<br>None because this falls under the Graduate Program Director's portfolio. |
| Other Programs within which course is listed:<br><br>MSc Finance and Management. |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 680        New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

<div align="right">

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

</div>

**Faculty/School:**        John Molson School of Business
**Department:**        Supply Chain and Business Technology Management
**Program:**        Decision Sciences & Manag. Info. Systems Option
**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             [X] New Course
[ ] Course Deletion         [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
|  | **MSCA 680 Foundations of Business Technology Management (3.00 credits)**<br><br>*Description:* This course provides students with an overview of the BTM literature in a range of research areas, exposing students to classic and modern BTM literature that has been influential in the development of the field. Very early articles and more recent articles are reviewed. The main course objectives are to help students develop an understanding of the evolution of the BTM discipline and identify major research areas, including ethical issues in business technology management. The course will follow a seminar format and will focus on the discussion of assigned readings.<br><br>*Component:* Seminar. |
| Rationale:<br>This course is added in order to ensure a solid and common base of knowledge in the area of study. | |
| Resource Implications:<br>This three-credit course will need to be staffed | |
| Other Programs within which course is listed:<br><br>None | |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 681          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

<div align="right">

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

</div>

**Faculty/School:**                John Molson School of Business
**Department:**                    Supply Chain and Business Technology Management
**Program:**                       Decision Sciences & Manag. Info. Systems Option
**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 | [X] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| | **MSCA 681 Foundations of Data Mining (3.00 credits)**<br><br>*Description:* The course covers essential ideas and techniques for analyzing and extracting information from large amounts of data. The course begins with the discussion of ethical issues in business analytics. It discusses both supervised and unsupervised methods, and covers topics such as dimension reduction, classification and regression trees, K-nearest neighbors, neural networks, association rules and collaborative filtering, cluster analysis, ensemble methods, boosting and bagging. Illustrations of the concepts and methods are given, and students gain practical experience in data mining with the use of popular data mining software.<br><br>*Component:* Seminar |

| Rationale: |
|---|
| This course is added in order to ensure a solid and common base of knowledge in the area of study. |

| Resource Implications: |
|---|
| This three-credit course will need to be staffed. |

| Other Programs within which course is listed: |
|---|
| None |

**COURSE CHANGE:** MSCA 682          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                    John Molson School of Business
**Department:**                        Supply Chain and Business Technology Management
**Program:**                           Decision Sciences & Manag. Info. Systems Option
**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
[X] Course Deletion               [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| ~~MSCA 682 - Seminar in Sampling Theory~~ <br><br> - | - |

| Rationale: <br> This course has been deleted because the course content has become obsolete. |
|---|
| Resource Implications: <br> None |
| Other Programs within which course is listed: <br><br> None |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 683          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**          John Molson School of Business
**Department:**          Supply Chain and Business Technology Management
**Program:**          Decision Sciences & Manag. Info. Systems Option
**Degree:**          Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**

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

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **MSCA 683 Applied Multivariate Data Analysis** | **MSCA 683 Applied Multivariate Data Analysis** (3.00 credits) |
| | *Prerequisite/corequisite:* The following course must be completed previously or concurrently: MSCA 602 or equivalent. |
| | *Description* The course is planned to provide students with practical knowledge of analyzing multivariate data arising in business applications and research. The multivariate methods of data analysis provide an effective approach to describe and understand structure and the relationships between variables of interest. A wide range of statistical methods most commonly used in practice is introduced. The topics covered include methods of dimensionality reduction to better visualize and understand complex data, structured approaches in studying inter-relationships between the measured variables, analysis of their dependency and various classification techniques. Extensions of the analyses of experimental designs to include multi-dimensional responses are also considered. Examples from business and other disciplines are analyzed with the extensive use of statistical software. The focus of the course is on data analysis and results' interpretation rather than the mathematical theory of multivariate methods. |
| | *Component:* Seminar |

| Rationale: |
|---|
| This course has been offered regularly over the years to the other MSc programs, and this is the course description that appeared in the course outline. We are formalizing the description in the calendar. |

| Resource Implications: |
|---|
| None |

| Other Programs within which course is listed: |
|---|
| None |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 685          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                    John Molson School of Business
**Department:**                        Supply Chain and Business Technology Management
**Program:**                           Decision Sciences & Manag. Info. Systems Option
**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
[X] Course Deletion              [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| ~~MSCA 685 - Enterprise Systems and Process Integration~~<br><br>~~-~~ | - |

Rationale:
This course has been deleted because the course content has become obsolete.

Resource Implications:
None

Other Programs within which course is listed:

None

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 686          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                     John Molson School of Business
**Department:**                        Supply Chain and Business Technology Management
**Program:**                          Decision Sciences & Manag. Info. Systems Option
**Degree:**                           Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A


**Type of Change:**

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

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **MSCA 686 Competitive Advantage through Information Technology** | **MSCA 686 Competitive Advantage through Information Technology** (3.00 credits)<br><br>*Description:* This course investigates how organizations compete by leveraging digital technology and transformative IT strategy. The course covers topics such as strategic management of IT, digital strategy, and digital innovation and transformation. The course offers an opportunity to explore traditional and contemporary literature in IT strategy formulationand implementation. The course follows a research seminar format and include discussion of academic as well as practitioner issues.<br><br>*Component:* Seminar. |
| Rationale:<br>Adding course description to the calendar. ||
| Resource Implications:<br>If offered, will require one instructor from SC/BTM. ||
| Other Programs within which course is listed:<br><br>None ||

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 690         New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                John Molson School of Business
**Department:**                    Supply Chain and Business Technology Management
**Program:**                       Decision Sciences & Manag. Info. Systems Option
**Degree:**                        Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A

**Type of Change:**
[ ] Course Number                [ ] Course Title          [X] Credit Value          [ ] Prerequisite
[X] Course Description            [ ] Editorial             [ ] New Course
[ ] Course Deletion              [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **MSCA 690 Data Management** | **MSCA 690 Data Management** (3.00 credits) <br><br> *Description:* This course provides a comprehensive foundation for designing, building, and working with databases, enabling students to understand and use commercially available database products effectively. The course examines different models of representing data with emphasis on the relational model. Topics include data modeling, database design, queries, transaction management, implementation issues, and an overview of distributed database management systems, data warehouses, databases in electronic commerce, database administration, and knowledge management. Examples are drawn from various functional and operational areas including enterprise and supply chain operations, management, and planning. <br><br> *Component:* Seminar |
| Rationale: <br> Adding the course description and the credit value to the calendar. | |
| Resource Implications: <br> If offered, will require one instructor from SC/BTM. | |
| Other Programs within which course is listed: <br><br> None | |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 691          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

<div align="right">

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

</div>

**Faculty/School:**          John Molson School of Business
**Department:**          Supply Chain and Business Technology Management
**Program:**          Decision Sciences & Manag. Info. Systems Option
**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 | [X] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| | **MSCA 691 Advanced Data Mining** (3.00 credits) <br><br> *Description:* This course covers advanced data mining concepts and algorithms for analyzing and extracting information from large amounts of data. The course covers topics such as deep neural networks, text mining, social media analytics, graphical models and Bayesian learning. In addition, the course covers advanced data visualization techniques. The course includes the discussion of theoretical concepts and analysis based on real-world data. <br><br> *Component:* Seminar |

| |
|---|
| Rationale: <br> This course is being added as an elective so that this re-launched program is up-to-date with the quickly evolving field of data science. |
| Resource Implications: <br> If offered, will require one instructor from SC/BTM. |
| Other Programs within which course is listed: <br><br> None |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 692        New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

<div align="right">

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

</div>

**Faculty/School:**              John Molson School of Business
**Department:**                  Supply Chain and Business Technology Management
**Program:**                     Decision Sciences & Manag. Info. Systems Option
**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
[X] Course Deletion              [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| ~~MSCA 692 Intelligent Applications for Business~~<br><br><br>- | - |
| Rationale:<br>This course has been deleted because the course content has become obsolete. ||
| Resource Implications:<br>None ||
| Other Programs within which course is listed:<br><br>None ||

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 693 New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:** John Molson School of Business
**Department:** Supply Chain and Business Technology Management
**Program:** Decision Sciences & Manag. Info. Systems Option
**Degree:** Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A


**Type of Change:**

| | | | |
|---|---|---|---|
| [ ] Course Number | [ ] Course Title | [X] Credit Value | [ ] Prerequisite |
| [X] Course Description | [ ] Editorial | [ ] New Course | |
| [ ] Course Deletion | [ ] Other - Specify: | | |

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **MSCA 693 Seminar in Special Topics in Decision Sciences and Management Information Systems** <br><br> ~~*Notes:*~~ <br> • ~~Changes in topic will be indicated by the letter following this seminar number (e.g., MSCA 693A, MSCA 693B).~~ | **MSCA 693 Seminar in Special Topics in Decision Sciences and Management Information Systems** (3.00 credits) <br><br> *Component:* Seminar. <br><br> Notes: <br> • More than one topic can be offered under this course. In such cases, the name of the topic will be indicated on the class schedule under Topic. |
| **Rationale:** <br> The current SIS system does not allow letter to indicate the topic. We are updating the explanation accordingly. | |
| **Resource Implications:** <br> If offered, will require one instructor from SC/BTM. | |
| **Other Programs within which course is listed:** <br><br> MSc | |

**COURSE CHANGE:** MSCA 694          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                    John Molson School of Business
**Department:**                    Supply Chain and Business Technology Management
**Program:**                    Decision Sciences & Manag. Info. Systems Option
**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
[X] Course Deletion                    [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| ~~MSCA 694 - Knowledge Management~~ <br><br> - | - |

| Rationale: <br> This course has been deleted because the course content has become obsolete. |
|---|
| Resource Implications: <br> None |
| Other Programs within which course is listed: <br><br> None |

**COURSE CHANGE:** MSCA 695          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                    John Molson School of Business
**Department:**                       Supply Chain and Business Technology Management
**Program:**                          Decision Sciences & Manag. Info. Systems Option
**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
[X] Course Deletion               [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| ~~MSCA 695 - Outsourcing of Information Service~~ <br><br> ~~-~~ | - |

| Rationale: |
|---|
| This course has been deleted because the course content has become obsolete. |

| Resource Implications: |
|---|
| None |

| Other Programs within which course is listed: <br><br> None |
|---|

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 696          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                    John Molson School of Business
**Department:**                        Supply Chain and Business Technology Management
**Program:**                           Decision Sciences & Manag. Info. Systems Option
**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
[X] Course Deletion              [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| ~~MSCA 696 - Adoption, Use and Appropriation of Information Technologies~~<br><br>~~-~~ | - |

Rationale:
This course has been deleted because the course content has become obsolete.

Resource Implications:
None

Other Programs within which course is listed:

None

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 697          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**          John Molson School of Business
**Department:**          Supply Chain and Business Technology Management
**Program:**          Decision Sciences & Manag. Info. Systems Option
**Degree:**          Master of/Magisteriate in Science
**Calendar Section/Graduate Page Number:** N/A


**Type of Change:**

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

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| **MSCA 697 Advanced Topics in Information Systems Development** | **MSCA 697 Advanced Topics in Information Systems Development** (3.00 credits) |
| | *Description*: This course covers advanced topics in information systems design, development, and implementation. Topics include information systems development lifecycle, information systems development methodologies, information/data management, information security, and information systems deployment and implementation techniques. The course includes the discussion of theoretical concepts and analysis based on academic and practitioner literature. |
| | *Component*: Seminar |

| Rationale: |
|---|
| Adding course description and credit value to the calendar. |

| Resource Implications: |
|---|
| If offered, will require one instructor from SC/BTM. |

| Other Programs within which course is listed: |
|---|
| None |

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MSCA-18** VERSION: 3

**COURSE CHANGE:** MSCA 698          New Course Number:

**Proposed** [ ] Undergraduate or [X] Graduate Curriculum Changes

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

**Faculty/School:**                John Molson School of Business
**Department:**                Supply Chain and Business Technology Management
**Program:**                Decision Sciences & Manag. Info. Systems Option
**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
[X] Course Deletion                [ ] Other - Specify:

| Present Text (from 2020/2021) calendar | Proposed Text |
|---|---|
| ~~MSCA 698 - E-Business~~<br><br>- | - |
| Rationale:<br>This course has been deleted because the course content has become obsolete. ||
| Resource Implications:<br>None ||
| Other Programs within which course is listed:<br><br>None ||

June 3, 2020


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 Administration, the Master of Science in Finance and the Master of Science in Management**


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 Administration MSc, Finance MSc and Management 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,

_K. Clarke_

_____
Kristy Clarke
Manager, Academic Programs and Development
School of Graduate Studies

![Université Concordia University logo]

**SENATE**
**OPEN SESSION**
**Meeting of March 19, 2021**

**AGENDA ITEM:**  Proposal regarding Fall Reading Week

**ACTION REQUIRED:**  For approval

**SUMMARY:**  Senate's approval is being sought in connection with the implementation of a Fall Reading Week.

**BACKGROUND:**  The background information and detailed proposal are outlined in the attached presentation.

**DRAFT MOTION:**  That Senate approve the implementation of a Fall Reading Week and resulting adjustments to the length of the Fall and Winter terms, effective as of the Fall 2023 term, in accordance with Document US-2021-2-D9, and more specifically:

-       The Fall term which will be comprised of 12 weeks of classes or instructional activities and a one-week reading break which will take place during the week of the Thanksgiving Holiday; and
-       The Winter term which will be comprised of 12 weeks of classes or instructional activities to be symmetrical with the Fall term.

**PREPARED BY:**

Name:       Danielle Tessier
Date:        March 15, 2021

# Implementing a Fall Reading Break at Concordia

Office of the Provost

March 2021

# Objective

- Schedule a one week reading break during the fall term for students and faculty.

- The reading break would be the week of the Thanksgiving holiday; first or second week of October.

- Although implementation could be achieved by starting classes before Labour Day (in August), recommendation is to move to a 12 week teaching semester (in winter as well as fall semesters).

# Benefits of a Fall Reading Break

- For students, a break from taking classes:
  - Offers catch-up time for coursework;
  - Accommodates students who wish to travel home to visit family;
  - Offers significant mental health benefits such as lowering anxiety and stress;
  - Creates conditions for improved student success.

- For faculty members, a break from teaching:
  - Offers catch-up time for teaching activities (course prep, grading);
  - Provides intensive research time in the middle of the semester;
  - Supports writing of grant applications during high season;
  - Facilitates the planning of out-of-town academic outreach activities;
  - Provides a more flexible work environment.

# Fall Reading Breaks at Other Canadian Universities

- In a 2019 survey by ARUCC, 29 universities reported a full Fall reading break, either around Thanksgiving or Remembrance Day.  Of those 29, 10 started the fall semester before Labour Day (in Quebec, Alberta and Ontario);

- 10 universities had a partial break (1-3 days) around the same periods to accommodate a post-Labour Day start;

- Quebec universities with a Fall Reading Break include McGill (partial break; start date after Labour Day), HEC and Polytechnique (August start date); a proposal is currently in discussion at Bishop's;

- Many Canadian universities have 12-week terms (all have a Fall and a Winter reading break): Ottawa, Guelph, Waterloo, Toronto (except Engr), McMaster (62 days), Carleton (62 days), UBC.

# Recommendations of Fall Reading Week Working Group

Created in 2019, the working group was composed of students from all four Faculties as well as the School of Graduate Studies, full and part-time faculty, as well as members of the Student Services sector, the Registrar, and the Director of the Centre for Teaching and Learning.. Discussions of this group led to two proposals (with strongest support for Option 1):

- **Option 1**: move to 12-week teaching semesters (Fall/ Winter/ Summer) + introduce a week-long reading break in the week of Thanksgiving.

- **Option 2**: keep the existing 13-week term with a week-long Fall break around Thanksgiving + begin classes before Labour Day (at the earliest August 28 of any given year)

# Option 1: move to 12-week teaching semesters (Fall, Winter, Summer)

- Advantages:
  - Maintains the start of the semester after Labour day;
  - Delays start of the Winter semester by a week (allow similar benefits for the winter semester of an additional week between end of fall and start of Winter);
  - Refocuses teaching and learning in terms of learning outcomes rather than contact or credit hours:
    - aligns with research that emphasizes the greater impact of course design and high impact learning practices than contact hours
    - reinforces language of Concordia's undergraduate and graduate Calendars that describes "student academic activities" as including lectures, tutorials, laboratories, studio or practice periods, examinations, and personal work – rather than time spent in class.

# Option 1: move to 12-week teaching semesters (Fall, Winter, Summer)

- Challenges:
  - Course content and delivery may need to be adjusted or updated;
  - Accredited programs may need to adjust their programs to fulfill accreditation body requirements;
  - Internships may need some adjusting from a scheduling standpoint;
  - Perceptions that we are teaching "less" will need to be addressed;
  - Refocusing attention on "learning outcomes" and "student academic activities" rather than "credit hours" will be key.

# Option 2: beginning classes before Labour Day

- Advantage: No change to the delivery of our existing 13-week term

- Drawbacks:
    - Increased costs to students for rent, health insurance for international students with an August start of the term;
    - Very short break at the end of the second summer term;
    - Reduced opportunities for orientation and other pre-semester activities;
    - Reduced co-op experience and summer employment if the Fall semester starts before Labour Day.

# Proposed Plan to offer 12-week teaching semesters: Accreditation and Internships

- Satisfy accredited programs:
  - Engineering Programs: Review curriculum based on recalculation of Academic Units (AU) for the new term length and newly allocated CEGEP AUs;

  - Evaluate possible accreditation issues in Chemistry, Education, Psychology, HKAP and other programs;

  - Address possible concerns regarding internship start and end dates;

  - Accredited programs in John Molson will not be affected by a 12-week teaching term.

# Proposed Plan to offer 12-week teaching semesters: Focus on academic activities

- Center for Teaching and Learning (CTL) will accompany faculty members to review course content to focus on student academic activities and learning outcomes, rather than contact hours;

- Incorporate lessons learned from the current online experience;

- Make sure we do not compress 13 weeks into 12 weeks!

CONCORDIA

# Proposed Plan to offer 12-week teaching semesters: Timeline

- Consultation with Faculties and Schools: Spring 2021

- University Senate discussions: March 2021

- Calendar and course development: Summer 2021 to Summer 2022

- Implementation Fall 2023