



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

Held on Friday, April 23, 2021,
Immediately following the Closed Session
via Zoom Video Conferencing

Item	Presenter/s	Action
1. Call to order	G. Carr	
1.1 Adoption of the Agenda	G. Carr	Approval
1.2 Adoption of March 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-2021-3-D3)	A. Whitelaw	Information
CONSENT AGENDA	G. Carr	
5. Committee appointments (US-2021-3-D4)		Approval
6. Academic Programs Committee – Report and recommendations (US-2021-3-D5)		Approval
6.1 Undergraduate curriculum proposals – Faculty of Fine Arts		
6.1.1 Department of Design and Computation Arts (US-2021-3-D6)		
6.1.2 Mel Hoppenheim School of Cinema (US-2021-3-D7)		
6.2 Undergraduate curriculum proposals – Gina Cody School of Engineering and Computer Science – Department of Mechanical, Industrial and Aerospace Engineering (US-2021-3-D8 and D9)		

- 6.3 Graduate curriculum proposals – Faculty of Arts and Science
 - 6.3.1 Department of Mathematics and Statistics (US-2021-3-D10)
 - 6.3.2 Department of Psychology (US-2021-3-D11)

- 6.4 Graduate curriculum proposal – Faculty of Fine Arts – Mel Hoppenheim School of Cinema (US-2021-3-D12)

- 6.4 Graduate curriculum proposals – Gina Cody School of Engineering and Computer Science
 - 6.4.1 Requirements for PhD (Doctorate in Philosophy) program (US-2021-3-D13)
 - 6.4.2 Department of Building, Civil and Environmental Engineering (US-2021-3-D14)
 - 6.4.3 Department of Mechanical, Industrial and Aerospace Engineering (US-2021-3-D15)

REGULAR AGENDA

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

- 8. Other business

- 9. Adjournment

G. Carr

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

Held on Friday, March 19, 2021, at 2 p.m.
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; Elizabeth Bloodgood; Catherine Bolton; Christopher Brett; Sally Cooke; Frank Crooks; Anne-Marie Croteau; Selvadurai Dayanandan; Mourad Debbabi; Alex De Visscher; Effrosyni Diamantoudi; Linda Dyer; Mary Esteve; Mehdi Farashahi; Elizabeth Fast; Ariela Freedman; Annie Gérin; Vince Graziano; James Hanna; Fiona Harrison-Roberts; Safwan Hye; Debra Irabor; Hannah Jamet-Lange; Isaiah Joyner; Lorie Kloda (*Acting for Guylaine Beaudry*); Colin Long; Sarah Mazhero; Christopher Moore; Catherine Mulligan; Helena Osana; Virginia Penhune; Gilles Peslherbe; Duraichelvan Raju; Pascale Sicotte; Reza Soleymani; Robert Soroka; Ron Stern; Alexander Stojda; Kelly Thompson; Guylaine Vaillancourt; Anne Whitelaw; Paula Wood-Adams; Radu Zmeureanu

Non-voting members: Philippe Beauregard; Paul Chesser; Denis Cossette; Stéphanie de Celles; Tom Hughes; Candace Jacobs; Frederica Jacobs

Also attending: Shelina Houssenaly; Marias Paraschivoiu

ABSENT

Voting members: Sri Divya Doppalapudi; Samantha Leger; Praneetha Reddy

Non-voting members: Michael Di Grappa; Isabel Dunnigan; Nadia Hardy

1. Call to order

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

1.1 Adoption of the Agenda

R-2021-2-1 *Upon motion duly moved and seconded, it was unanimously resolved that the Agenda of the Open Session be approved.*

1.2 Adoption of February 19, 2021 Minutes

R-2021-2-2 *Upon motion duly moved and seconded, it was unanimously resolved that the Minutes of the Open Session meeting of February 19, 2021.*

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:

- As of March 8, students may book spaces, up to 6 per room, for social-distancing activities on both of our campuses, as a countermeasure to the isolation experienced by students, faculty and staff.
- In newly released QS World University Rankings, Concordia appeared in 15 subject rankings, advancing in five of those subject areas over last year. Our best ranked subject is Art and Design, which is among the world's top 100 and second in Canada.
- He apprised Senate of several awards, fellowships and prizes received by recent graduates, students and faculty members.
- The Concordia Institute of Aerospace Design and Innovation, in collaboration with FutureReady, launched the Leadership Agility in Aerospace student program. On March 16, panelists from Concordia, CAE, Optima Aero and Polytechnique Montréal joined to discuss opportunities in this industry.
- Concordia Library's 2020/2021 exhibition series is now underway. *Take a Moment for Representation: An Anti-Racism Series* is the Library's inaugural digital exhibition.
- The Concordia-led Landscape of Hope initiative received nearly \$430,000 to significantly expand its work researching hate speech and discrimination in Quebec.
- Concordia launched an equity census to help Concordia achieve its goal to see all members of the community not only reflected, but welcomed, included and supported in their efforts to contribute to all areas of university life.
- The Sustainability Living Lab, a flagship Concordia initiative, was launched through a partnership with the Sustainability Action Fund (SAF) for the Sustainability Living Labs Funding Program. The University will be contributing \$40,000 towards projects, which will be matched by the SAF.

- Concordia Hospitality's Food Services and Aramark will participate in an event titled "*Cuisine Solidaire*" with *La tablée des chefs* in March, with the goal of preparing 1,000 meals to distribute to local shelters.
- The Task Force on Anti-Black Racism hosted a workshop called *Allyship as a Practice* on March 17. The workshop was intended for faculty and staff, to help them understand allyship and understand anti-Black racism.
- The University is currently planning for the fall, while monitoring the evolving public health situation, with the objective of significantly increasing in-person teaching and activities while also continuing to deliver some courses online. Departments are working to establish priorities and a more extensive use of our scheduling options. The intention is to finalize by early May, so that students, faculty and staff can plan accordingly. Registration numbers are very good, and we are anticipating a robust summer enrollment. That said, the public health situation is fluid but trending in positive direction. It is encouraging but we need to plan based on the information available now.

4. **Academic update** (US-2021-2-D1)

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

CONSENT

5. **Academic Planning and Priorities report** (US-2021-2-D2)

This report was provided for information.

6. **Academic Programs Committee – Report and recommendations** (US-2021-2-D3)

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)

R-2021-2-3 *That the undergraduate curriculum proposals in the Faculty of Arts and Science be approved.*

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)

R-2021-2-4 *That the graduate curriculum proposals in the John Molson School of Business be approved.*

REGULAR**7. Proposal regarding Fall Reading Week (US-2021-2-D9)**

Dr. Whitelaw conveyed the background which led to today's proposal, including a presentation to Senate by the CSU in March 2019.

The objective of this proposal entails scheduling a one-week reading break which would benefit students and faculty, during the week of the Thanksgiving holiday. Although implementation could be achieved by starting classes in August before Labor Day, the recommendation is to move to a 12-week teaching semester, for both the winter and fall semesters.

For students, the benefits of a break from taking classes include time to catch up on coursework, accommodating students who wish to travel home to visit family, significant mental health benefits, such as lowering anxiety and stress, thereby creating conditions for improved student success.

For faculty members, the benefits of a break from teaching include time to catch up on teaching activities, such as course preparation and grading, providing intensive research time in the middle of the semester, supporting writing of grant applications during high season, facilitating the planning of out-of-town academic outreach activities, thereby providing a more flexible work environment.

Dr. Whitelaw made the point that adopting this proposal would also result in an additional amount of time between the end of the fall term and the beginning of the winter term. She spoke of the practices at other Canadian and Quebec universities, several of which have a full fall reading week and 12-week terms.

She informed Senate of the work done by the Fall Reading Week Working Group, created in 2019 with wide representation, and that their discussions led to the following proposals, with strongest support for Option 1:

- Option 1: Move to 12-week teaching semesters (fall/winter/summer) and introduce a week-long reading break in the week of Thanksgiving.
- Option 2: Keep the existing 13-week semester with a week-long fall break around Thanksgiving and begin classes before Labor Day, at the earliest August 28 of any given year.

The advantages identified for Option 1 would be:

- Maintaining the start of the semester after Labor Day;
- Delaying the start of the winter semester by a week, thereby allowing similar benefits for the winter semester of an additional week between end of fall and start of winter; and

- Refocusing teaching and learning in terms of learning outcomes rather than contact or credit hours.

The challenges of Option 1 consist in:

- 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; and
- Refocusing attention on “learning outcomes” and “student academic activities” rather than “credit hours” will be key.

Option 2 would offer the advantage that there would be no change to the delivery of our existing 13-week term, with the following 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; and
- Reduced co-op experience and summer employment if the fall semester starts before Labor Day.

Dr. Whitelaw outlined how the proposed plan to offer 12-week teaching would address the concerns and satisfy the requirements of accredited programs and internships. She concluded her presentation by noting that wide consultation had been done with the Faculties, that calendar and course development will occur from summer 2021 to summer 2022, which will allow the appropriate work to be done for implementation in the fall 2023 term.

Following this presentation, a discussion ensued, during which Dr. Whitelaw responded to questions of clarification.

Several Senators, including students, faculty members and Deans, spoke in favor of the proposal.

Prof. Osana voiced her opposition to the proposal and conveyed the concerns of the Department of Education, arguing that Concordia already has less contact hours than similar programs at other universities. Further reducing the contact hours could be problematic for those students who would want to transfer credits to other institutions. She also spoke of potential issues with accreditation and explained how reducing the term would negatively impact internships, thereby placing students at a disadvantage.

Responding to the above comments, Dr. Whitelaw said that the concern about transferring credits had been raised with the Registrar, who indicated that

transferability of credits would not be a problem. With respect to the pedagogy, she agreed to disagree, making the point that the focus should be on what happens in the classroom and not on the amount of time. She added that the fall 2023 implementation will allow the time to find solutions for potential issues, such as accreditation and accommodating internships.

While acknowledging that this would be a major shift, she reiterated that the two-year implementation timeline is important since it will allow to work out the kinks.

R-2021-2-5 *Upon motion duly moved and seconded, it was resolved 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.*

8. Question period

Responding to a query from Prof. Dyer about whether the results of the equity survey would be released, Dr. Whitelaw answered that the survey was done in conjunction with the Human Resources Department but she would get back to her.

Mr. Joyner asked if students would continue to be involved in the Fall Reading Week Working Group. Dr. Whitelaw replied that students need to be involved in all parts of the process.

In preparation of an eventual return to in-person classes in the fall and referring to the ventilation in the Hall Building, Prof. Esteve wondered if instructors will be vaccinated before September. Dr. Carr clarified that the ventilation is running at a normal capacity in all campus buildings except for the annexes on Mackay and Bishop streets. The government's current vaccination strategy is by age group but is piloting other initiatives. The University is very actively advocating with the federal government for a vaccination strategy regarding international students.

9. Other business

There was no other business to bring before the meeting.

10. Adjournment

The meeting adjourned at 3:51 p.m.



Danielle Tessier
Secretary of Senate

Internal Memorandum

To: Members of Senate
From: Anne Whitelaw, Interim Provost and Vice-President, Academic
Date: April 14, 2021
Re: Academic Update

Given the current outlook, Concordia is planning to offer a combination of in-person and remote learning in the fall, but also to support the return to campus of certain non-course related aspects of student life. Our goal is to offer vibrant campus experiences for our students while following public health guidelines that protect the health and safety of our entire community. For the summer 2021 term, the majority of those faculty and staff who have been working remotely during the pandemic will continue to do so. We have begun assessing options for a progressive return to campus by employees in the fall, and will be sharing those plans with the university community in May.

The Library team, in particular, is taking part of the return to campus pilot over the summer. During the summer terms, the Library will continue to offer e-reserves only for course materials. As part of the fall term planning, the Library intends to reopen print course reserves in both Webster and Vanier Library in time for September.

The [Concordia University Library Research Forum](#) will take place over two days, from 1 p.m. to 4:30 p.m. on Tuesday April 27th and Wednesday April 28th, 2021. The event will be held online through Zoom. Participation in this two-day event is free and participants will be able to register for either one or both days and at least 300 participants have registered so far. Since 2002, Concordia's Library Research Forum has provided librarians, archivists, graduate students, teaching faculty, and information professionals with an opportunity to describe and promote their completed or in-progress research, practical case studies or projects. The Forum also provides a venue for researchers to seek suggestions for enhancing their research interests, to identify potential new partners for projects, to test the effectiveness of their undertakings, and to promote research in academic libraries.

The Canadian Knowledge Research Network (CRKN), of which Concordia is a member, has made a landmark agreement with the publisher, Elsevier. The agreement includes a 2.5% **reduction** for 2021, followed by a 0% change for 2022, and a 2% **increase** for 2023. The renewed agreement maintains access to all journals in the Freedom Collection, including former *Academic Press* journals, and members' subscribed titles, with no loss of perpetual access rights. This results in cost savings of US\$17.4 million over three years (when compared with a three-year contract with anticipated 2% annual increases). See the [press release](#) for details.

For the second time, Concordia's [John Molson School of Business](#) has earned a Parity Certification from [Women in Governance](#). The Canadian not-for-profit organization supports women in their leadership development, career advancement and access to board seats across the country. In 2019, the John Molson School became the first business school in Canada to receive the certification. For its holistic assessment of an organization's activities, Women in Governance reviews three primary drivers: Strategy; Governance and Vision; Actions: Collective Enablers; Results: Equity. Compared to its 2019 certification, the John Molson School developed most significantly in two key areas: Collective Enablers, and

Governance and Vision. The school's [new strategic plan](#) sets the implementation of equity, diversity and inclusion perspectives into all aspects of its governance and structure as a priority.

Concordia's [Faculty of Fine Arts](#) has appointed a new assistant professor of Black studies in art education, art history and social justice. Black feminist art historian [Joana Joachim](#) has an academic background in critical museologies and Black diasporic art among other areas of study. Her position is a cross-appointment between the departments of [Art History](#) and [Art Education](#).

The School of Graduate Studies received the final approval for the proposed Master of Applied Science and PhD programs in Chemical Engineering. Both research programs will be housed in the Department of Chemical and Materials Engineering focusing on the design of new chemical manufacturing processes and on the properties of novel materials. They will train skilled engineers to find innovative ways to solve problems that have significant impacts on everyday life, ranging from climate change to food security. These two new Concordia programs will prepare students to enter the chemical and pharmaceutical industries, companies supplying the aerospace and transportation sector, government labs and academia.

[BMO Financial Group](#) is supporting next-gen teaching and learning for fine arts students at Concordia. The annual BMO Fine Arts Internships will allow standout undergraduate students in Art History, Film Studies, Film Production and Film Animation, Design and Computational Arts, or Studio Arts to acquire experience with external organizations. Funds from BMO will ensure that these student internships will be remunerated, at the same time helping cultural organizations thrive.

The very popular **FutureReady** program for undergraduate skills development continues to create new partnerships and develop new programming across the university. [StartupReady](#), a new program that initiates students into the world of entrepreneurship and innovation is completing its pilot this April. Offered in partnership with District 3, GradProSkills, FUSION and FutureReady, it is designed for students from all faculties and programs, to help them develop their understanding of what it takes to be innovative and entrepreneurial while enhancing their employability skills for the startup world and beyond. The program consists of a series of interactive workshops, a 4-week facilitated online course and 6-week entrepreneurial challenge.

FutureReady partnered with the Faculty of Fine Arts' Art Volt in a recently completed [new series](#) of workshops on freelancing to support students interested in exploring opportunities within cultural and creative industries.

[Concordia Institute of Aerospace Design and Innovation](#) (CIADI) also worked with FutureReady on a new series: [Developing Leadership Agility in the Aerospace Industry](#). This series was created in response to the unprecedented sanitary crisis that is pushing the industry to evolve and expand in ways that will impact the aerospace ecosystem significantly. Workshops aim to help students cultivate a growth mindset and develop their ability to adapt. The program consisted of three workshops, a panel discussion, and a case competition sponsored by CAE.

SHIFT is working in collaboration with Concordia Continuing Education and the Department of Education's Educational Technology program toward integrating a SHIFT-funded project ([Hamidou Horticulture](#)) into the Concordia Continuing Education course catalog, enabling participants in this community-based training program to receive an official Concordia certificate for completing the program. This work is ongoing with the aim of launching the official course in Spring 2022. In more SHIFT news, its new funding

program, the [Ongoing Connections Grant](#) (OCG), was officially announced to members of the Centre's Learning Community. Applications for the pilot edition of the OCG will be accepted on a rolling basis until June 2021 and reviewed after two pre-specified selection dates: April 18th & June 20th.

The Office of Community Engagement (OCE) is launching the Uitemiu project in collaboration with the McCord Museum, Huron-Wendat Museum and UHU Labos Nomades. The OCE will support the repatriation of Indigenous artwork from McCord's educational collection to the communities they belong to. To facilitate this process, two Concordia students will be offered internship positions for the Summer and Fall&Winter semesters.

[Heather Igloliorte](#), Concordia associate professor of art history and Tier 1 Concordia University Research Chair in Circumpolar Indigenous Arts recently celebrated the virtual launch of [Qaumajuq](#), the Winnipeg Art Gallery's new centre dedicated to Inuit art and culture. On the 2012 Inuit Art Task Force that helped guide the planning of Qaumajuq, the world's largest public collection of contemporary Inuit art, Igloliorte was the curatorial lead on *INUA*, the centre's inaugural exhibition. Her involvement in the project has attracted international recognition amongst her colleagues and in the media.

[James Gardner](#) (MFA '20), a recent graduate from Concordia's Painting and Drawing program, is the recipient of the prestigious Nancy Petry Award. The Nancy Petry Foundation, working in partnership with the [Joe Plaskett Foundation](#), awards \$10,000 for the recipient to live and travel abroad for two months. While he does not expect to be able to travel until Spring 2022, Gardner looks forward to visiting Italy, Greece and Turkey, to see the sites he has been studying in his work.

Margaret Brehony and **Stéphanie Bertrand** both received **Marie Skłodowska-Curie Individual Global Fellowships** from the European Commission. Brehony will spend two years of her MSC Actions fellowship at the School of Irish Studies under the supervision of Gearóid Ó hAllmhuráin, followed by a year at NUI Galway in Ireland. Her project examines the interrelated processes of Irish migration in the Atlantic World and white colonization strategies in the expanding slave society of nineteenth-century Cuba. Bertrand's research, done in collaboration with the Milieux Institute for Arts, Culture and Technology and Crete's Institute for Computer Science (ICS-FORTH) will focus on understanding the social functions of virtual museums and the modes of public engagement they entail and how new digital cultural applications can foster greater democracy and social justice in today's post-truth era.

Chedly Belkhodja (School of Community and Public Affairs and Concordia's Quebec English-Speaking Communities Research Network (QUESCREN) secured two contributions from ***Secrétariat aux relations avec les Québécois d'expression anglaise*** (SRQEA) in support of QUESCREN and their community partners. This investment will further QUESCREN's mission to promote the understanding and vitality of Quebec's English-language minority communities through research, training, knowledge mobilization, networking and outreach. The 2-year contribution from SRQEA is **\$1,000,000**

Elizabeth Fast, an associate professor of applied human sciences and CURC in Land-based Learning and Indigenous Pedagogies, wanted to help Indigenous youth reconnect with their cultures in safe and accessible ways. Along with a youth advisory group composed of Indigenous youth (some of whom are also students), she has been organizing a series of land-based learning retreats revolving around Indigenous traditions and ceremonies. The first, held in July 2018, is the subject of a new paper published in the International Journal of Indigenous Health. [The Restoring Our Roots project has since evolved into a five-year Land As Our Teacher](#) participatory action research project exploring the ways land-based pedagogies benefit Indigenous youth.

Associate professor of psychology **Krista Byers-Heinlein** helmed a [global research consortium](#) on ways to better understand early language development. Byers-Heinlein is the primary investigator on the study, which included hundreds of babies across 17 labs on four continents. Published in the journal *Advances in Methods and Practices in Psychological Science*, the study showed that all babies respond more to infant-directed speech — baby talk — than they do to adult-directed speech. It also revealed that babies as young as six months can pick up on differences in language around them.

Biology professor Pedro Peres-Neto has [been elected fellow of the Ecological Society of America](#). The century-old organization recognized Peres-Neto for his research, leadership and international collaboration.

Parnian Afshar Bakeshloo received the [Prix Releve étoile Louis-Berlinguet](#). A PhD student from the Concordia Institute for Information Systems Engineering (CIISE), her article 3D-MCN: A 3D Multi-Scale Capsule Network for Lung Nodule Malignancy Prediction was published in Scientific Reports.

Two journalism students have received [2021 Joan Donaldson CBC News Scholarships](#). The prize will provides Fenn Mayes and Maya Lach-Aidelbaum with a four-month paid summer internship with the national broadcaster.

The **Ellen Gallery** published and launched [Vincent Meessen. Blues Klair](#) in partnership with The Power Plant Contemporary Art Gallery in Toronto, and [Going to, Making do, Passing Just the Same](#) related to the ongoing onsite project of the same name. The publications are distributed in Canada by Dimedia and in Europe by Les Presses du réel.

Professor of education Sandra Martin-Chang and PhD student Stephanie Kozak recently [published a new study in the journal Reading and Writing](#) showing that the more people read fiction the better their language skills are likely to be.

Mélina Mailhot (Mathematics and Statistics) and her collaborator, Silvana Pesenti (University of Toronto) have been awarded **\$200,000** from the **Canadian Statistical Sciences Institute** for their CANSSI Collaborative Research Team project “Natural Catastrophes: Are Canadian Insurers Ready for “The Big One.”

The **Ellen Gallery-produced** exhibition ***Among all these toundras*** curated by Heather Igloliorte, and PhD students Charissa Von Harringa and Amy Prouty, opened on March 27th at the Pataka Art + Museum in Porirua City in New Zealand. This brings together the works of artists that are part of circumpolar communities in the world including the Inuit and Sami people as well as Indigenous communities in Alaska, Greenland and Russia.

The **PERFORM Centre** welcomed Jeffrey Caron, Assistant Professor in the School of Kinesiology and Physical Activity Sciences at Université de Montréal on April 13th, 2021. Professor Caron presented “Sport-related concussions: How studying lived experience can inform efforts to improve recovery and return to sport” as part of the PERFORM Colloquium Series. Professor Geoff Dover, Department of Health, Kinesiology and Applied Physiology gave a brief talk titled “Athlete Fear Avoidance, Depression, and Anxiety Are Associated with Acute Concussion Symptoms” prior to the guest lecture.

In collaboration with the Faculties of Arts and Science, Fine Arts and the Centre for Interdisciplinary Studies in Society and Culture (CISSC), **4TH SPACE** hosted three public events associated with [Pablo Gershanik's virtual Concordia residency](#), bringing together scholars to investigate the concept of resilience post-trauma. On the heels of this successful programming, 4TH SPACE collaborated with Loyola Sustainability Research Centre to expand the traditional conference model of "Sustainability Across Disciplines" into a full week of activities, featuring 20 interactive live events, and a [podcast](#) with keynote speakers focused on questions of [sustainability and the climate crisis](#). The end of March featured events led by public scholars with invited guests focused on questions of ["animating" pedagogy](#), [nanotechnology](#) applications, and science communication (upcoming). On April, 4TH SPACE once again worked with over 200 JMSB students to bring their "consumer behaviour" poster projects to wide audiences.

On April 12th, Concordia's engAGE: Centre for Research on Aging presented [COVID-19, Aging and Well-being: One Year Later](#). The event brought together researchers working in a variety of areas touching on health, including the effects of stress, behaviour and lifestyle, digital technology, food insecurity and arts-based interventions.

From April 19th to 21st, the Educational Technology program in the Department of Education is hosting the [2021 Virtual Conference of the Canadian Network for Innovation in Education \(CNIE\)](#). This event explores both the innovation demanded immediately by the COVID-19 pandemic and the broader systemic changes arising from digital disruption. Through this conference, professionals supporting the educational missions of post-secondary organizations, K-12 systems, continuing education, professional development, and workplace training share research and case studies about innovations, workshops on how to implement them, and discussions on related issues.

From April 21st to 24th, the Karl Polanyi Institute of Political Economy presents the 15th International Karl Polanyi Conference entitled, ["The Role of the State in the post-COVID 21st Century."](#) Bringing together 72 panelists from 22 countries, this conference invites participants to engage in a broad and open discussion on the current consequences of the COVID-19 pandemic and how governments, international organizations and social movements are responding and the future impacts of these decisions.

From April 29th to 30th, the Département d'Études françaises will host the [9th International Conference on Second Language Pedagogies](#). The conference will explore pedagogical approaches, research-informed practices, and scholarly research that focuses on second/foreign language learning as they relate to current post-secondary education contexts.

From May 6th to 9th, the Centre for Sensory Studies and the Centre for Interdisciplinary Studies in Society and Culture present [Uncommon Senses III: Back to the Future of the Senses](#), an international and interdisciplinary conference featuring presentations by scholars from across the social sciences, humanities and fine arts interested in exploring the future of the senses in a rapidly-changing world.

From May 10th to 13th, the Research Chair on Gambling and the HERMES Research Team at Concordia present [GAM\(BL\)ING: Commodification of Leisure in the Digital Era](#). This interactive, virtual symposium provides a space for researchers, students, clinicians and others in the field to share knowledge and discuss issues surrounding digital gam(bl)ing and the commodification of leisure in the digital age. The closing keynote is Edward Snowden on the topic of surveillance and e-games.



COMMITTEE APPOINTMENTS

<u>Committee</u>	<u>Appointee</u>	<u>Term</u>
Distinguished Professor Emeritus	William Bukowski (A&S) Fassil Nebebe (JMSB)	Winter 2021 2021/2024

April 14, 2021

**ACADEMIC PROGRAMS COMMITTEE
REPORT TO SENATE
Sandra Gabriele, PhD
April 23, 2021**

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

Following approval of Faculty Councils, on March 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 Fine Arts

Department of Design and Computation Arts

US-2021-3-D6 (For May 2021 Implementation)

[The proposal involves the introduction of a new Microprogram in Web Design and User Interface.]

- New Microprogram

Mel Hoppenheim School of Cinema

US-2021-3-D7 (For May 2021 Implementation)

[The proposal involves the introduction of a new Microprogram in Screenwriting and Film Producing.]

- New Microprogram

Gina Cody School of Engineering and Computer Science

Department of Mechanical, Industrial and Aerospace Engineering

US-2021-3-D8 (For May 2021 Implementation)

[The proposal involves the addition of INDU 412 to the Mechanical Engineering and Aerospace Engineering elective list, the removal AERO 455 from the list of Option B electives in the Aerospace Engineering program, and minor revisions to the Mechanical and Aerospace Engineering program requirements.]

- Requirements

US-2021-3-D9 (For May 2021 Implementation)

[The proposal involves the introduction of a new course IADI 420 and a modification to the prerequisites, descriptions and credit values of IADI 301 and 401.]

- 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 March 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:

Faculty of Arts and Science

Department of Mathematics and Statistics

US-2021-3-D10 (For September 2021 Implementation)

[The proposal involves a modification to the title of the PhD and MA/MSc degrees from 'Mathematics' to 'Mathematics and Statistics' to align with the department's name and to reflect the research areas of graduate students.]

- Program title change

Department of Psychology

US-2021-3-D11 (For September 2021 Implementation)

[The proposal involves modifications to the MA, Graduate Diploma and PhD Psychology requirements to align with seven sequences (evaluation, psychopathology, intervention, the scientist-practitioner, clinical training, research methods, and psychological science) and to address accreditation requirements.]

- Courses
- Requirements

Faculty of Fine Arts

Mel Hoppenheim School of Cinema

US-2021-3-D12 (For September 2021 Implementation)

[The proposal involves a modification to the name of the master's program from Film Studies MA to Film and Moving Images Studies MA.]

- Program title change
- Courses
- Requirements

Gina Cody School of Engineering and Computer Science

US-2021-3-D13 (For September 2021 Implementation)

[The proposal involves modifications to the fast-tracking requirements for the PhD (Doctorate in Philosophy) program, as well as housekeeping changes to the Admission Requirements and Degree Requirements.]

- Courses
- Requirements

Department of Building, Civil and Environmental Engineering

US-2021-3-D14 (For September 2021 Implementation)

[The proposal involves modifications to the program structure for the four MEng degrees in Building Engineering, Civil Engineering, Environmental Engineering, and Construction Engineering and Management.]

- Courses
- Requirements

Department of Mechanical, Industrial and Aerospace Engineering

MECH-131 v4; APC-2021-3-D10 (For May 2021 Implementation)

[The proposal involves modifications to the prerequisites for two Industrial Engineering courses and the course description of one Mechanical Engineering course.]

- Courses

A handwritten signature in black ink, appearing to read 'S. Gabriele'.

Sandra Gabriele, PhD
Vice-Provost, Innovation in Teaching and Learning April 6, 2021

FACULTY OF FINE ARTS

INTERNAL MEMORANDUM

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

FROM: Dr. Annie Gérin, Dean, Faculty of Fine Arts

CC: Dr. Elaine Paterson, AD, Academic Programs and Pedagogy, Faculty of Fine Arts

DATE: February 12, 2021

RE: New Microprogram in Web Design and User Interface – DART-22

Dear Dr. Gabriele,

As Dean of the Faculty of Fine Arts, I fully support the creation of a Microprogram in Web Design and User Interface (9 credits) proposed as part of DART-22.

The dossier was reviewed and approved unanimously and enthusiastically by the Fine Arts Faculty Council at its virtual meeting held on February 12, 2021.

Resource implications are minimal and include additional course sections as well as Teaching Assistant support. The Faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram. See budget appended for details.

The creation of this microprogram has generated quite a bit of interest among our colleagues. I hope that it will open the way for more flexible offerings at the Faculty of Fine Arts, and will allow us to reach a broader student pool, including life-long learners.

With thanks for your consideration,



Annie Gérin, PhD
Dean, Faculty of Fine Arts
Annie.gerin@concordia.ca



FACULTY OF FINE ARTS

INTERNAL MEMORANDUM

TO: Dr. Annie Gérin, Dean, Faculty of Fine Arts

FROM: Dr. Elaine Paterson, Associate Dean, Academic Programs and Pedagogy

DATE: 5 February 2021

RE: Microprogram in Web Design and User Interface, DART-22

Dear Dean Gérin,

The Faculty of Fine Arts Curriculum Committee reviewed the DART-22 curriculum dossier from the Department of Design and Computation Arts during its virtual meeting held on 5 February 2021. The dossier was approved with minor revisions and is hereby submitted for review by the Faculty Council on 12 February 2021.

The dossier proposes to create a Microprogram in Web Design and User Interface (9 credits) to be offered during the fall semester of 2021 and subsequently as a Summer intensive. This new microprogram responds to a demonstrated demand in the field of web design, due in part to a shortage of qualified workers and the industry's rapid expansion. Furthermore, it aligns with current governmental initiatives including the *Programme d'aide à la relance par l'augmentation de la formation (PARAF)*, which seeks to support upskilling and reskilling of Quebec's workforce in a changing labour market.

The FCC agreed that the proposed microprogram offers a promising opportunity for growth in the Faculty of Fine Arts as it is especially designed to attract new students while having the potential to become a qualifying program for students applying to the Master's in Design but who lack some of the required competencies. By offering innovative, short-term, targeted, and highly specialized training to lifelong learners (LLL) and candidates who are not currently in a position to undertake a more traditional bachelor degree in Fine Arts, the microprogram will also contribute to the diversity of our student body.

While this microprogram may also be very attractive to existing undergraduate students who seek some level of training in the areas of web design and user experience, structural barriers at the University currently prevent them from enrolling in both programs concurrently so these will be a longer term audience for the microprogram. A first iteration of the microprogram would focus on attracting applications from outside the University, including the LLL who are looking to upskill or reskill to better position themselves within the labour market. Given this, the FCC encourages the Department to work with the Student Success Centre and Office of Lifelong Learning at Concordia to explore what supports they might offer to these students as they are welcomed into the University community through this microprogram.

The Department anticipates an enrolment of 22 students each year the microprogram is offered, with a first offering planned for Fall 2021. The FCC agreed that this was prudent as the Department's first foray into micro-credentials. Depending on the applicant numbers, further consideration may need to be given to support the Department with the admissions process. Costs associated with the microprogram are minimal, and include an additional 3 course sections per year, as well as Teaching Assistant (TA) support, as shown in the budget.

With thanks for your consideration,

A handwritten signature in blue ink, appearing to read 'Elaine Paterson', written in a cursive style.

Elaine Paterson, PhD
Associate Dean, Academic Programmes and Pedagogy
Faculty of Fine Arts
elaine.paterson@concordia.ca

FACULTY OF FINE ARTS

INTERNAL MEMORANDUM

TO: Dr. Elaine Cheasley Paterson, AD Academic Programs and Pedagogy
 FROM: pk langshaw, Chair, Department of Design and Computation Arts
 DATE: 01 February 2021

SUBJECT : New Program Proposal for Microprogram in Web Design and User Interface (DART-22)

The program proposal for Microprogram in Web Design and User Interface (DART-22) was approved at the full time faculty meeting held on the 29th of January 2021. Because the microprogram crosses both Computation Arts and Design programs all full-time faculty were asked to participate as well as Santo Romano, part-time faculty. After the presentation of the new program and discussion, the microprogram was supported by all faculty. The LOI was subsequently approved by the Vice-Provost, Innovation in Teaching and Learning and is now presented to the Faculty Curriculum Committee as a new program proposal.

The nine-credit Microprogram in Web Design and User Interface constitutes a selection of three courses in Design and Computation Arts (CART 214, DART 349, DART 449). These courses are bundled together to provide a highly-focused and cohesive curriculum that aims to develop a foundation in visual literacy and technical skills in web design, with a conceptual emphasis on historical and contemporary overview of web design and networked environments. There is an overarching focus on user interface and user experience. The Microprogram in Web Design and User Interface will be appealing to a broad student base as it is intended to build conceptual and technical skills that will complement any discipline and enhance a professional and/or research profile. Under pandemic restrictions, the first iteration of the microprogram would be delivered remotely with a blended mode (synchronous & asynchronous) over a 13-week semester, starting in the fall of 2021, with a view to developing it as a permanent summer microprogram in future years. This microprogram is the first step of a strategic program initiative that will provide an opportunity to design stackable microprograms (within the department and potentially cross Faculty) leading to a 30-credit certificate. Credits for courses taken as part of this microprogram will be transferable towards an undergraduate degree offered by the Department of Design and Computation Arts, should students be accepted in one of our programs through the regular admissions process.

Fall 2021

Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13
CART 214	X	X	X	X	X	X	X	X	X	X			
DART 349	X	X	X	X	X	X	X						

FACULTY OF FINE ARTS

DART 449								X	X	X	X	X	X
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CART 214 - Visual Form and Communication

- Ten-week course (weeks 1 – 10)
- 13.5 hours of academic activity per week
 - Including: two 3-hour synchronous sessions with 7.5 hours of asynchronous work

DART 349 - Introduction to Web Design

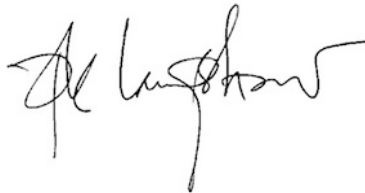
- Seven-week course (weeks 1 – 7)
- 19 hours of academic activity per week
 - Including: three 3-hour synchronous sessions and 10 hours of asynchronous work

DART 449 - Designing for the Web

- Six-week course (weeks 8 – 13)
- 22.5 hours of academic activity
 - Including: three 3-hour synchronous sessions and 13.5 hours of asynchronous work

While this microprogram does have resource implications, its implementation will result in a positive net revenue. Please refer to the detailed budget, appended.


Should you require further information or details please email me at your earliest convenience.
Sincerely,



pk langshaw professor & chair
dept . design & computation arts
faculty . fine arts concordia university
ev office 6.773
pk.langshaw@concordia.ca

NEW PROGRAMS PROPOSAL – FAST-TRACK PROCESS

GENERAL INFORMATION

Name of Proposed Program and Nomenclature:	Microprogram in Web Design and User Interface
Hosting unit(s):	Department of Design and Computation Arts (FoFA)
Proposed Start Date:	Fall 2021
Prepared by:	pk langshaw, Carol Hawthorne, and Dalia Radwan
Dean Signature(s):	
Date:	January 29, 2021

PROPOSED PROGRAM INFORMATION

1. Program Description & Rationale

This microprogram constitutes a selection of three existing courses in the Design and Computation Arts bachelor program (CART 214, DART 349, DART 449). These courses are bundled together and are matched to provide a highly-focused and cohesive curriculum that aims to develop a foundation in visual literacy, technical skills in web design together with an historical and contemporary overview of web design and networked environments. There is an overarching focus on user interface and navigation. Under pandemic restrictions, the first iteration of the microprogram would be delivered remotely (synchronous and asynchronous) in the Fall, 2021 over a 13-week semester. It would be targeted to PARAF candidates and could be extended to the other target groups depending on available space (see Target Audience below).

Beyond the Fall semester, we anticipate offering the microprogram as a permanent summer program beginning in Summer, 2022 (note that it will remain as a 13-week microprogram). We intend for this microprogram to initially target a Lifelong Learner student cohort, and eventually also become a strategic program initiative within the stackable certificate degree structure that Concordia is currently working to create.

Due to the limited seat capacity of a studio course, it will be modified to include in-person activities and asynchronous components housed in the Design and Computation Arts Department.

Rationale

The Microprogram in Web Design and User Interface will be appealing to a broad student base as it is intended to build conceptual and technical skills that will compliment any discipline and enhance any professional and/or research profile. For example, a student with visual literacy can apply those skills to help visualize complex research data in an accessible visual presentation. We have had success with the Convergence course (DART 631/DART 498/CART 498) which “aims to inspire collaborative work, foster interdisciplinary thought, push the boundaries of what is considered science and art, and make neuroscience research accessible to a general audience.” This course includes neuroscientists, and undergraduate and graduate Fine Arts students collaborating to interpret and represent dense scientific data. After completion of the microprogram, students will have acquired an explicit and applicable set of skills which are highly relevant in the expansive digital-based employment market and technology-focused economy. Furthermore, they will be able to demonstrate these skills with their online portfolio/website (see Program Learning outcomes below).

The *Web Design Industry Report* (Business Intelligence Service – Office of AVP Lifelong Learning 2021.01.26, see appendix) cites compelling evidence for the demand for this type of microprogram, the growing trend in job prospects in this field, while noting the lack of credit-based short programs available to students. The report cites the [Government of Canada trend analysis](#) that identifies employment outlook job growth for Web designers in Quebec as good and states “job growth in this occupation will be driven by the expansion of computer systems design services, which will grow faster than all industries.”

Additionally, in a world of rapidly changing labour market and digital economy governments, employers and employees all understand the importance of both upskilling and reskilling. In June 2019, the Government of Canada signed two agreements with the Government of Quebec to provide the province with nearly \$5.4 billion to invest in its workers and businesses. This funding is committed until 2022–23 and gives an estimated 240,000 Quebec workers an opportunity to benefit from skills training programs designed to transition them into the job market, gain access to new career opportunities, or maintain their employment. An example of these Quebec-based skills training programs is the Renewed Prosperity Through Greater Training Program (PARAF), which is dedicated to both workers who are new to the job market and those re-entering it after losing a job. PARAF provides financial assistance to candidates enrolled in training programs that lead to a trade or occupation with good job prospects (i.e., considered to have a balanced labour supply and demand or a labour shortage). This microprogram would be perfectly placed to provide the targeted upskilling opportunities for web design employment, design related fields, employment which requires team work and online environment, as well as offer students a more targeted path into employment.

This initiative is timely given that Concordia University has offered all courses remotely since March 2020 and departments are actively discussing outcomes and successes of synchronous and asynchronous teaching and learning and recognizing opportunity for advancing meaningful teaching opportunities beyond the standard class structure and classroom setting. The proposed microprogram will benefit from this experience and build from the lessons learned. Moreover, this microprogram is a strategic move to explore a microprogram that fits within the PARAF program while also providing an opportunity for Lifelong Learners and any students outside of the Computations Arts Specialization, Major or Design Major. We propose that upon completion of

these three courses, students be awarded a Microprogram in Web Design and User Interface. The department of Design and Computation Arts has the capacity, teaching expertise and a willingness to explore new and alternative programs and modes of content delivery and teaching opportunities beyond the classroom.

It should also be noted that Concordia is currently focusing resources on initiatives that promote and prioritise equity, diversity and inclusion (EDI) and the condensed nature of this microprogram will provide access to students who, in their current situation, may not have the financial resources nor the time to commit to a 90-credit degree program. We anticipate this will broaden the scope of our student population by providing lifelong learning opportunities to encourage students with diverse backgrounds to join the university community, those with caregiving or family commitments, those with physical challenges to travel for in-person activities, varied ages, those employed but wishing to upgrade skill through online/distanced learning, and those coming to the microprogram with varied levels of prior academic and work experience. The *Web Design Industry Report* notes that “Website design has become an increasingly important portion of the graphic design industry as internet traffic volumes rise and the revenue for this sub-sector increases. Low barriers to entry and favorable margin incentivize more participants in the industry, indicating more demand for talents in web design”. This microprogram will support the University’s commitment to facilitate access to higher learning and to open its doors to a more diverse student population.

Furthermore, data coming from the *Web Design Industry Report* indicates strong employment growth – “18% year over year” – and demand for qualified workers in the field. The report also notes that in Quebec, this sector has a “better than expected outlook”. Beyond the scope of this positive data related to Web Design, it is crucial in the current job market to have some computer skills and an understanding of digital environments to be better equipped to work in multi-disciplinary collaborative settings – for example, a marketing employer/employee may need to work in teams with digital specialists. The BI report cites collaboration as an essential skill when working with clients. Having web design skills and understanding navigation or internet environments enhances informed communication with their collaborators across sectors and across business partners. We see this microprogram as an introduction into web design and related industries, but also as a societal literacy strength and as an essential part of an employer and employee profile.

Students will be able to review their employment opportunities in new domains that they had not explored nor anticipated before completing the microprogram. These opportunities may include:

- Web designer
- Graphic designer
- Small business owner
- Cultural industry – digital archiving/promotional work/creative director
- Wide job potential when applying for any employment requiring some knowledge in the language/navigation/software/scripting when working online or in digital environments
- Distanced and international employment opportunities (working from home/online employment)
- Outreach and community centers positions

Target Audience

Four target audiences have been identified:

One target audience category are adult learners, mid-career professionals, and lifelong learners seeking to develop a skill set in web design either to enhance their professional profile, or re-skill for new employment opportunities. The microprogram will be particularly appealing to this group because it offers an agile pathway for adults seeking quick and condensed re-skilling opportunities. Highly sought out are programs that include autonomy or flexibility in learning such as an asynchronous component for content acquisition and for project completion.

The second target audience is recent graduates of Concordia who wish to acquire hard and soft skills in web design to increase their employability. Similarly, another potential long-term target audience would be existing undergraduate students across the four faculties who seek some level of training in the areas of web design and user experience to augment their Major.¹ Through tracking our Open House and Portfolio Days, we have noted recurring requests from Arts & Science Majors and Engineering and Computer Science students about a minor in Design which does not exist. Additionally, we have up to twenty requests per year for the Computation Arts Minor, for which we have only five spaces available per year. E. g.: BSC, Major Biology and Microprogram in Web Design and User Interface.

A third target audience are those students who seek to prepare for applications to the Computations Arts Specialization, Major or Design Major. The Computation Arts program consistently reviews students with programming skills but no visual communication or web profiles. These potential students may have a higher acceptance rate after completion of the microprogram. Potential Design Majors from high school/out of province and those returning to university would also have a competitive edge with the microprogram. Included within this third target audience would be those students who applied to our undergraduate programs but were not accepted, and instead enter other Fine Arts programs with the intention to make an internal transfer request. This microprogram would provide a more viable pathway for these students. The microprogram would provide them with an opportunity to develop a visual communication portfolio for their application and would deter them from entering another program with the goal of internal transfer. This will help ensure students in this context do not contribute to retention issues in other Fine Arts programs. We would recommend the microprogram to these students at Open House and Portfolio Days. Students who have successfully completed this microprogram and have applied and been accepted into the Design Major or programs in Computation Arts (Specialisation, Major, Minor) will be able to transfer their microprogram credits. (DART 349 and DART 449 applicable towards the DART Major; CART 214 applicable towards CART programs.)

Note: All students entering our programs must meet the standard program admission requirements. The department has Fall admissions only.

A fourth potential audience is students who have completed an undergraduate degree and wish to apply for the Master in Design program (MDes). Increasingly at the undergraduate and graduate

¹ There are currently structural barriers that prevent these students from enrolling in a microprogram concurrently with another undergraduate program at Concordia. We understand from the Provost Office this is an issue that is being addressed.

levels in both Design and Computation Arts we have very interesting candidates applying to our programs with strong research proposals (ex. sustainable digital fabrication). However, they lack basic web/digital portfolio skills and/or visual literacy competency to succeed entry as a well-rounded applicant. The microprogram sets up skill enhancement so that research can be carried out and manifested effectively within a design context/domain. This microprogram would broaden the multi-disciplinary nature and growth of the MDes program.

Admissions Requirements

Applicants will be selected with the objective of building a diverse cohort with representation from diverse backgrounds, personal and professional experience, academic profile and varied skillsets.

Applicants will be required to submit a letter of intent (maximum 2 pages), which asks them to discuss:

- Why have you chosen to study at university at this time? Outline the reasons for your choice of program and your goals and/or aspirations.
- Describe any experience, knowledge, or skills which you have acquired that would assist you in your design studies.
- Do you own a computer with stable internet with minimum hardware/software requirements? If not, do you have access to these requirements? e.g. at your office, community center or library. See general computer requirements for distanced learning <https://www.concordia.ca/finearts/cda.html>.

Although not required, a portfolio would be considered an asset. A portfolio is broadly understood as creative projects undertaken by the individual or as part of a team. It may include, examples of sketches, drawings, story boards, scientific graphs, information maps, creative writing, client based or self-directed projects, or any other design support material.

Please note that Mature Entry students won't be required to complete extra credits when enrolling in this microprogram.

Students under the age of 21 may apply under Concordia's standard admissions requirements.

As indicated by the International Students Office, international students will probably not be eligible for this microprogram given the low number of credits. Conversations are still ongoing regarding this matter.

Applicants who are required to provide proof of English language proficiency for admission, must achieve the following results:

English Proficiency Test	Test Score
TOEFL (Test of English as a Foreign Language) TOEFL iBT or TOEFL iBT Special home edition	Score 90 or higher, with a minimum combined score of 34 for speaking and writing.
IELTS-International English Language Testing System ("Academic Module")	Score of 7 or higher, no component score under 5.5
DET-Duolingo English Test	Score of 120 and above with no sub-score under 90

CAEL-Canadian Academic English Language Assessment	Minimum overall score 70 with no part under 50
CAE-Cambridge C1 Advanced CPE- Cambridge C2 Proficiency	C1 Advanced and C2 Proficiency: min. score 190 with no part under 165
PTE Academic – Pearson English Language Test	Minimum overall PTE academic score of 61 with a minimum of 46 in speaking and writing

Additional information on these English Proficiency Tests can be found at the following link: <https://www.concordia.ca/admissions/undergraduate/requirements/english-language-proficiency.html>

The Department of Design and Computation Arts will admit 22 applicants into the proposed microprogram each year and we expect to reach full capacity. The microprogram will begin in the fall semester of 2021; therefore, we will begin promoting the microprogram over the upcoming weeks should it be approved.

2. Curriculum

Program Learning Outcomes

By the end of this microprogram, successful students should be able to:

- Apply visual literacy theory to develop screen-based user interfaces with an emphasis on user experience
- Create custom-based websites using HTML, CSS, and JavaScript
- Launch a live website that is legible, aesthetic, user-friendly, and easily navigable as a capstone project.

Curriculum Map

Students will complete all three courses within a 13-week semester. CART 214 and DART 349 will run concurrently over the first 7 weeks of the semester as both courses apply conceptual and technical skills that complement each other. DART 349 concludes in week 7. Students will continue to build on their conceptual and technical proficiency with CART 214 and DART 449 through weeks 8 to 10. CART 214 strategically ends at week 10 to allow students to focus solely on consolidating skills to successfully build their live website, the microprogram’s capstone project, during weeks 10 to 13. The microprogram is designed to be completed in a single 13-week semester. Students must take CART 214, DART 349 and DART 449 concurrently as the course work and assignments are interdependent and integrated across all three courses. In exceptional circumstance (medical or supporting documents are required) and with written approval from the department, a student may interrupt their studies after the completion of CART 214 and DART 349. There would be a maximum of a one year deferral for DART 449.

Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13
CART 214	X	X	X	X	X	X	X	X	X	X			

DART 349	X	X	X	X	X	X	X						
DART 449								X	X	X	X	X	X

Course Structure and Learning Outcomes

CART 214 - Visual Form and Communication (3 credits)

Prerequisite: Enrolment in a Computation Arts program or written permission of the Department. Key themes of visual communication are explored in the context of computation arts. This studio course considers design elements such as line, pattern, shape, texture, interpretation of space, surface, perspective, dimension, repetition, randomness, colour and colour spaces, typography, drawing from observation, layout and composition and conceptualization. This class is predominantly non-digital and discusses the relationships between analog and digital approaches. NOTE: Students who have received credit for CART 254 may not take this course for credit.²

By the end of this course, successful students should be able to:

- Apply graphic design elements (use of typography, color theory, etc.) and visual communication theory for web design
- Apply visual literacy theory to website design
- Prepare graphics for web delivery using basic Illustrator, Photoshop
- Develop prototyping skills with Sketch and Adobe XD
- Apply user experience (UX) and user interface(UI) theory
- Identify principles of online portfolio content and templates

DART 349 - Introduction to Web Design (3 credits)

Prerequisite: 24 credits in the Major in Design or written permission of the Department. This studio course introduces students to such aspects of web design as graphic user interface; navigation and information hierarchies; the differences between screen and print; and user experience; and explores the challenges facing designers working in an online environment. Students create websites for multiple platforms and mobile devices, as well as experiment with innovative ways of organizing information. NOTE: Students who have received credit for this topic under a DART 398 number may not take this course for credit.³

By the end of this course, successful students should be able to:

- Utilize their knowledge of the history of web design to inform their projects
- Use basic HTML
- Use Cascading Style Sheets CSS
- Design a front-end website that applies good research and practice in basic web development

² Note that prerequisites will be edited to ensure students enrolled in the microprogram will have access to the course. See provotrack document attached.

³ Note that prerequisites will be edited to ensure students enrolled in the microprogram will have access to the course. See provotrack document attached.

- Collaborate in a multi-disciplinary team environment (front-end or back-end technical skillsets and graphic design skillsets, etc.)

DART 449 - Designing for the Web (3 credits)

Prerequisite: DART 349; 48 credits in the Major in Design or written permission of the Department. In this studio course, students develop online applications and innovative methods for organizing and disseminating information. Issues of interactivity, navigation, and open-source media are emphasized. NOTE: Students who have received credit for DART 410 or 411 may not take this course for credit.⁴

By the end of this course, successful students should be able to:

- Identify current trends and innovators in web development
- Apply research and practice in intermediate web development
- Use JavaScript to build an interactive website
- Integrate graphics and interface best practices to build a website
- Demonstrate appropriate strategies for a variety of web development projects

Please note the required software for DART 349 and DART 449 is:

- The Zoom client; The Firefox Browser; A text editor for HTML/CSS/Javascript, such as Atom.

As per Concordia’s Undergraduate Calendar, although the language of instruction is English, most assignments and examinations may be submitted in French.

Innovative or Distinguishing Features

The *Web Design Industry Report* supports innovation and notes that there is the need for this kind of program and that no universities in Canada currently offer such a microprogram. The report analyzed the higher education program offerings and found that “there are **NO credited microprograms** in web design; a few non-credited microprograms offered at some Canadian Universities include 5 or 7 courses, though they are **significantly more costly** for the students than credited programs”.

Furthermore, this microprogram is designed to provide a more agile and targeted learning experience for students and provide a tangible skillset that will augment their employability. Because it is planned for a fully remote delivery mode while in pandemic and can be completed in a short timeframe, it also offers a more flexible opportunity for students from diverse contexts/situations to study. Additionally, the creation of a microprogram will align with the University’s plan to introduce stackable certificate curriculum pathways to students.

Finally, it should be noted that the *Web Design Industry Report* provided by the Office of Lifelong Learning retrieved its data using the key words of ‘web industry.’ We contend that the potential of the proposed microprogram is significantly broader in its scope because the curriculum includes essential soft skills such as teamwork, collaboration, and negotiation. Knowing how to work in a team is essential in any design-related industry and, furthermore, the ability to negotiate and

⁴ Note that prerequisites will be edited to ensure students enrolled in the microprogram will have access to the course. See provotrack document attached.

dialogue are essential in any client-based employment. The courses incorporate both collaborative and individual web design projects to develop these skills.

3. Demand and Societal Need

A continuously growing sector of mid-career workers are currently seeking intensive and short-term learning opportunities to upgrade their current work experience or to explore new fields of employment that may better suit their employment objectives. Many will change their job status many times over the years as employment is not stable, constantly evolving or even disappearing. A 2020 survey conducted for Higher Education Strategy Associates estimated the market for new micro credential programs at over seven million Canadians.⁵ Concordia is positioned to be a leading source of programs that meet these needs, providing adult learners with flexibility, brevity and specificity in developing new skills.

Micro-credentials are gaining relevance in the Canadian job market by offering an on-ramp that identifies and meets specific learning needs in a variety of fast-moving industries. Both academic and non-university organizations now frequently break learning down into small, rapidly-digestible microprograms, and stackable degrees.

At Concordia University, and specifically within our department, this microprogram will serve as a pilot to assess our interest and investment into more ‘micro credential’ programs. We are currently collecting feedback on the success of our remote teaching and learning environments resulting from the pandemic constraints of 2020-2021 and discussing new opportunities for curriculum innovation. We can, by experience, envision a long-term progression to more remote and blended courses to expand our accessibility in our undergraduate and graduate programs.

4. Institutional Fit

The proposed microprogram is at the heart of Concordia’s [Next-Generation Learning Project](#), one of the five transformation projects in Concordia’s [Strategic Directions Initiative](#). The project seeks to explore ways to provide inclusive access to learning to students who need learning opportunities that are more flexible and address lifelong learning goals. The project also encourages the creation of skill-oriented programs that are designed to provide students with ways to develop and demonstrate in-demand skills to help them find meaningful work and advance professionally.

The proposed microprogram builds on Concordia’s efforts to support the creation of more relevant and forward-looking program offerings and to address the evolving needs and expectations of Quebec and Canada’s adult learners. Through such small incremental changes and intentional interventions, including this proposed microprogram, Concordia will be placed to deliver a next-generation education that’s connected and fit for the times.

⁵ As cited in ONTARIO 360: A Lifelong Learning Strategy for Ontario. https://on360.ca/policy-papers/a-lifelong-learning-strategy-for-ontario/#_edn15

5. Program Alignment within Unit

The proposed 9-credit microprogram in Web Design will be hosted by Design and Computation Arts and is very much in line with the department's commitment to creating programs relevant to a broad cross-section of Montreal artists, designers as well as other engaged citizens across Canada. This microprogram both capitalizes on existing strengths and provides an area of expansion in that it is comprised of existing courses, yet intended to provide an opportunity for students outside of the Major to acquire foundational skills in web design. It will therefore attract a new body of students who seek short, targeted programs that provide immediate and tangible returns. The proposed microprogram builds on the department's area of expertise and capabilities: it will be taught by the same faculty who teach in our BFA and will capitalize on existing student-support infrastructure.

This microprogram constitutes the first phase in the creation of a larger program that will allow students to combine 3 or 4 predetermined microprograms. The combination of these qualifications would form the requirements for a full 30-credit undergraduate certificate in Visual Literacy and Web Creation within Networked Environments/Society.

6. Consultation

This microprogram was framed in consultation with the following members within and beyond Concordia University:

1. Annie Gerin, Dean, Fine Arts
2. pk langshaw, Chair, Department of Design and Computation Arts
3. Carol Hawthorne, Curriculum Developer, Centre for Teaching and Learning
4. Santo Romano, part-time Instructor, Department of Design and Computation Arts
5. Elaine Paterson, Associate Dean, Academic Programmes and Pedagogy, Fine Arts
6. Marie-Ève Marchand, Facilitator, Academic Affairs, Fine Arts
7. Sandra Gabriele, Vice-Provost of Innovation in Teaching and Learning
8. Sylvie Bourrassa, Executive Director, Government Relations, Office of the President
9. Isabel Dunnigan, Executive Director of Continuing Education
10. Dalia Radwan, Curriculum Developer, Centre for Teaching and Learning
11. Julie Johnston, Administrator, University Curriculum Office of the Provost
12. Stéphanie de Celles, University Registrar
13. International Students Office

The need for opening potential learning opportunities for non-Design majors to acquire skills in this field to better visualize and communicate their own domain of expertise has long been a vision of the department. Ideally this would also provide an entryway for science and technology graduates to have better success when applying to our undergraduate Major or Specialization or graduate MDes programs thus enriching our department's cross disciplinary environment. Further consultations with other Faculties will be conducted in the future to cultivate a more encompassing vision for the development of our microprogram offerings (see Further Collaborations and Partnerships below).

Impact on Other, Existing Programs

This microprogram is part of our existing expertise and majors. Therefore, there is no immediate impact on other existing programs within our department or in other Faculties. Should other departments wish to collaborate on a stackable certificate, this microprogram has the potential to prompt discussions across different areas of the University and encourage growth and innovation. We are certain that the intensive nature of this microprogram (9-credits completed in 13 weeks) will be very attractive to students pursuing the stackable degrees option that Concordia is now taking measures to institute. The combination of hard and soft skills in the curriculum will provide a rich learning experience that will compliment any discipline. Moreover, as mentioned above, this microprogram may serve as a feeder program as successful completion may increase students' chances of entering the BFA in Design or MDes.

Further Collaborations or Partnerships

As this microprogram may eventually be considered for the stackable certificate curriculum that Concordia is currently considering, it could be an innovative way of thinking about curriculum advancement and growth. This microprogram would complement a range of other microprograms or certificates by providing a proficiency in visual communication that would be highly applicable in any domain.

7. Resources and Budget:

Resource implications for this microprogram are minimal and include additional course sections as well as Teaching Assistant support, as shown in the chart below.

Program Year	Academic Year	Total Students Enrolled	Additional Course Sections	TA Hours
Year 1	2021-22	22	3	90
Year 2	2022-23	22	3	90
Year 3	2023-24	22	3	90
Year 4	2024-25	22	3	90
Year 5	2025-26	22	3	90

The Faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram. Please see attached budget for details.

Requested amounts for the Department of: Design and Computation Arts
Program name: Microprogram in Web Design and User Interface

NOTE : ONLY NEED TO BE POPULATED

		Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
EXPENSES								
Teaching - Number of Full Time positions	TT %	100%	100%	100%	100%	100%	100%	
	ETA %	100%	100%	100%	100%	100%	100%	
	LTA %	100%	100%	100%	100%	100%	100%	
	Lecturer %	100%	100%	100%	100%	100%	100%	
Number of course remissions requested								
Technical support - Number of positions								
Part Time Contracts - Number of contracts			3.3	3.3	3.3	3.3	3.3	3.3 reflects higher contact hours for FOFA PT faculty
Teacher's Assistants - Hours			90	90	90	90	90	30hrs of TA support for each of the three courses
Administrative Staff - Number of positions	Director %	100%	100%	100%	100%	100%	100%	
	Office support %	100%	100%	100%	100%	100%	100%	
	Professional %	100%	100%	100%	100%	100%	100%	

LOI Budget Chart

EXPENSES		Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
TEACHING	Salary	Salary and Benefits						
Tenure Track	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Extended Term appointment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Limited Term Appointment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lecturer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Course remissions	\$ 12,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Technical support	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Part Time Contracts	\$ 12,500	\$ -	\$ 41,250	\$ 41,250	\$ 41,250	\$ 41,250	\$ 41,250	\$ 206,250
Teacher's Assistants	\$ 27.60	\$ -	\$ 2,484	\$ 2,484	\$ 2,484	\$ 2,484	\$ 2,484	\$ 12,420
Stipends	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ADMIN STAFF								
Director	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office support	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Professional	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Payroll	\$ -	\$ 43,734	\$ 43,734	\$ 43,734	\$ 43,734	\$ 43,734	\$ 43,734	\$ 218,670
OTHER EXPENSES								
New Classroom, renovation and lab equipment - NON-CAPITAL								\$ -
New Classroom, renovation and lab equipment - CAPITAL								\$ -
Marketing	\$ 2,000	\$ 1,500	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 7,500
Recruitment								\$ -
IT - Software								\$ -
Library								\$ -
Membership and Subscription								\$ -
Student support - Bursaries, Awards, others								\$ -
Training								\$ -
Other								\$ -
Total Other Expenses	\$ 2,000	\$ 1,500	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 7,500
Total Expenses	\$ 2,000	\$ 45,234	\$ 44,734	\$ 44,734	\$ 44,734	\$ 44,734	\$ 44,734	\$ 226,170

Contact hours = 52hrs and 10% increase on the cost of standard contract rate

Requested amounts for the Department of: Design and Computation Arts

Program name: Microprogram in Web Design and User Interface

NOTE : ONLY NEED TO BE POPULATED

	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
STUDENTS						
Cycle 1 FTE (FTE = 30 credits)						
New Cycle 1 FTE registered in the program	6.6	6.6	6.6	6.6	6.6	FTE= 22 students at 9 credits = 9/30 x 22= 6.6
Total credits for Program	9					
Attrition rate	5%					Attrition reduced to 5% because drop rates should be low for such a short program.
TOTAL FTE	6.60	6.60	6.60	6.60	6.60	
Program Family	Digital arts					
Weight	2.10					
Weighted FTE	13.86	13.86	13.86	13.86	13.86	

REVENUE	Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Tuition Fee							
Tuition (FTE)	\$ 2,623	\$ 17,311	\$ 17,311	\$ 17,311	\$ 17,311	\$ 17,311	\$ 86,556
Grants							
Teaching Grant (WFTE)	\$ 3,581	\$ 49,636	\$ 49,636	\$ 49,636	\$ 49,636	\$ 49,636	\$ 248,181
Support Grant (FTE)	\$ 2,076	\$ 13,698	\$ 13,698	\$ 13,698	\$ 13,698	\$ 13,698	\$ 68,492
Total grants		\$ 63,335	\$ 63,335	\$ 63,335	\$ 63,335	\$ 63,335	\$ 316,674
External							\$ -
Total Revenue	\$ -	\$ 80,646	\$ 80,646	\$ 80,646	\$ 80,646	\$ 80,646	\$ 403,230
Additional Funding							
Internal							
Provost Office		\$ 45,234	\$ 22,162	\$ 22,162	\$ 22,162	\$ 22,162	\$ 133,882
Institutional							\$ -
Capital Fund (1)							\$ -
Other							\$ -
Total internal sources of funding for the faculty	\$ -	\$ 45,234	\$ 22,162	\$ 22,162	\$ 22,162	\$ 22,162	\$ 133,882

Requested amounts for the Department of: Design and Computation Arts

Program name: Microprogram in Web Design and User Interface

Program Financial Viability

REVENUE	Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Tuition Fee							
Tuition (FTE)	\$	17,311	\$	17,311	\$	17,311	\$ 86,556
Grants							
Teaching Grant (WFTE)	\$	49,636	\$	49,636	\$	49,636	\$ 248,181
Support Grant (FTE)	\$	13,698	\$	13,698	\$	13,698	\$ 68,492
Total grants	\$	63,335	\$	63,335	\$	63,335	\$ 316,674
Additional Funding External	\$	-	\$	-	\$	-	\$ -
Total Revenue	\$	-	\$	80,646	\$	80,646	\$ 403,230
EXPENSES							
TEACHING							
Tenure Track	\$	-	\$	-	\$	-	\$ -
Extended Term Contrats	\$	-	\$	-	\$	-	\$ -
Limited Term Contracts	\$	-	\$	-	\$	-	\$ -
Lecturers	\$	-	\$	-	\$	-	\$ -
Course remissions	\$	-	\$	-	\$	-	\$ -
Technical support	\$	-	\$	-	\$	-	\$ -
Part Time Contracts	\$	-	\$	41,250	\$	41,250	\$ 206,250
Teacher's Assistants	\$	-	\$	2,484	\$	2,484	\$ 12,420
Stipends	\$	-	\$	-	\$	-	\$ -
ADMIN STAFF							
Administrative Staff	\$	-	\$	-	\$	-	\$ -
Total Payroll	\$	-	\$	43,734	\$	43,734	\$ 218,670
OTHER EXPENSES							
Total Other Expenses	\$	2,000	\$	1,500	\$	1,000	\$ 7,500
Total Expenses	\$	2,000	\$	45,234	\$	44,734	\$ 226,170
CONCORDIA UNIVERSITY SURPLUS / (DEFICIT)	\$	(2,000)	\$	35,412	\$	35,912	\$ 177,060

Faculty Financial Viability

ADDITIONAL BASE FUNDING		Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Additional Base Funding per FTE	\$ 900			\$ 5,940	\$ 5,940	\$ 5,940	\$ 5,940	\$ 23,760
Additional Base Funding per WFTE	\$ 1,200			\$ 16,632	\$ 16,632	\$ 16,632	\$ 16,632	\$ 66,528
Additional Base funding - full time TT Hire	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Provost, External, Capital or Institutional funding	\$ -	\$ 45,234	\$ 22,162	\$ 22,162	\$ 22,162	\$ 22,162	\$ 22,162	\$ 133,882
Total Additional Funding	\$ -	\$ 45,234	\$ 44,734	\$ 44,734	\$ 44,734	\$ 44,734	\$ 44,734	\$ 224,170
ADDITIONAL EXPENSES		Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Payroll	\$ -	\$ 43,734	\$ 43,734	\$ 43,734	\$ 43,734	\$ 43,734	\$ 43,734	\$ 218,670
Other Expenses	\$ 2,000	\$ 1,500	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 7,500
Total Expenses	\$ 2,000	\$ 45,234	\$ 44,734	\$ 44,734	\$ 44,734	\$ 44,734	\$ 44,734	\$ 226,170
FACULTY SURPLUS / (DEFICIT)	\$ (2,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (2,000)

PROGRAM CHANGE: Creation of Microprogram in Web Design and User Interface

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Design and Computation Arts
Program: Design
Degree: Microprogram in Web Design and User Interface
Calendar Section/Graduate Page Number: 81.90

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Program</p> <p><i>Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20. The superscript indicates credit value.</i></p> <p>66 BFA Major in Design</p> <p>3 DART 261³</p> <p>3 DART 262³ or 263³</p> <p>12 DART 221³, 280³, 291³, 292³</p> <p>6 DART 391³, 392³</p> <p>3 DART 349³ or 380³</p> <p>3 Chosen from DART 300-level electives</p> <p>3 DART 4913</p> <p>3 DART 492³ or 493³</p> <p>15 Chosen from DART 400-level electives</p> <p>6 Chosen from ARTH; ARTT; or other Fine Arts history- or theory-based courses</p> <p>9 Chosen from any Fine Arts electives (including Computation Arts)</p>	<p>Program</p> <p><i>Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20. The superscript indicates credit value.</i></p> <p>66 BFA Major in Design</p> <p>3 DART 261³</p> <p>3 DART 262³ or 263³</p> <p>12 DART 221³, 280³, 291³, 292³</p> <p>6 DART 391³, 392³</p> <p>3 DART 349³ or 380³</p> <p>3 Chosen from DART 300-level electives</p> <p>3 DART 4913</p> <p>3 DART 492³ or 493³</p> <p>15 Chosen from DART 400-level electives</p> <p>6 Chosen from ARTH; ARTT; or other Fine Arts history- or theory-based courses</p> <p>9 Chosen from any Fine Arts electives (including Computation Arts)</p> <p><u>9 Microprogram in Web Design and User Interface</u></p> <p><u>9 CART 214³, DART 349³, DART 449³</u></p>
<p>Rationale:</p> <p>The Microprogram in Web Design and User Interface will be appealing to a broad student base as it is intended to build conceptual and technical skills that will compliment any discipline and enhance any professional and/or research profile. We anticipate this will broaden the scope of our student population by providing lifelong learning opportunities to encourage students with diverse backgrounds to join the university community, those with caregiving or family commitments, those with physical challenges to travel for in person activities, varied ages, those employed but wishing to upgrade skill through online/distanced learning, and those coming to the microprogram with varied levels of academic and work experience.</p>	
<p>Resource Implications:</p>	

This proposed microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.

PROGRAM CHANGE: Admission Requirements for Microprogram

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Design and Computation Arts
Program: Design
Degree: Microprogram in Web Design and User Interface
Calendar Section/Graduate Page Number: 81.90.1

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Admission to the Major in Design</p> <p>In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Design. All applicants must submit a <i>portfolio</i> of their own work, as well as a <i>letter of intent</i>, as part of the admission process. For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.</p>	<p>Admission to the Major in Design and Microprogram in Web Design and User Interface</p> <p>In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Design and the Microprogram in Web Design and User Interface. All applicants to the Major in Design must submit a <i>portfolio</i> of their own work, as well as a <i>letter of intent</i>, as part of the admission process. All applicants to the Microprogram in Web Design and User Interface must submit a letter of intent, as part of the admission process. For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.</p>
<p>Rationale:</p> <p>The Microprogram in Web Design and User Interface will be appealing to a broad student base as it is intended to build conceptual and technical skills that will compliment any discipline and enhance any professional and/or research profile. We anticipate this will broaden the scope of our student population by providing lifelong learning opportunities to encourage students with diverse backgrounds to join the university community, those with caregiving or family commitments, those with physical challenges to travel for in-person activities, varied ages, those employed but wishing to upgrade skill through online/distanced learning, and those coming to the microprogram with varied levels of academic and work experience.</p> <p>Applicants will be required to submit a letter of intent (maximum 2 pages), which asks them to discuss:</p> <ol style="list-style-type: none"> 1) Why have you chosen to study at university at this time? Outline the reasons for your choice of program and your goals and/or aspirations. 2) Describe any experience, knowledge, or skills which you have acquired that would assist you in your design studies. 3) Do you own a computer with stable internet with minimum hardware/software requirements? If not, do you have access to these requirements? e.g. at your office, community center or library. See general computer requirements for distanced learning https://www.concordia.ca/finearts/cda.html. 	
<p>Resource Implications:</p> <p>This proposed microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.</p>	

PROGRAM CHANGE: Programs and Admission Requirements

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Fine Arts
Program: Microprogram in Web Design and User Interface
Degree:
Calendar Section/Graduate Page Number: 81.10

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar			Proposed Text		
Recommended Program Profile and Specific Requirements	Calendar Section		Recommended Program Profile and Specific Requirements	Calendar Section	
<i>Specializations:</i>			<i>Specializations:</i>		
...
<i>Majors</i>			<i>Majors</i>		
...
<i>Minors</i>			<i>Minors</i>		
...
0.00	Theatre	81.120	0.00	Theatre	81.120
			Microprograms		
			0.00 G	Microprogram in Web Design and User Interface	81.90

Rationale:
 Applicants will be required to submit a letter of intent (maximum 2 pages), which asks them to discuss:
 - Why have you chosen to study at university at this time? Outline the reasons for your choice of program and your goals and/or aspirations.
 - Describe any experience, knowledge, or skills which you have acquired that would assist you in your design studies.
 - Do you own a computer with stable internet with minimum hardware/software requirements? If not, do you have access to these requirements? e.g. at your office, community center or library. See general computer requirements for distanced learning <https://www.concordia.ca/finearts/cda.html>.
 Although not required, a portfolio would be considered an asset. A portfolio is broadly understood as creative projects undertaken by the individual or as part of a team. It may include,

examples of sketches, drawings, story boards, scientific graphs, information maps, creative writing, client based or self-directed projects, or any other design support material.

Please note that Mature Entry students won't be required to complete extra credits when enrolling in this microprogram.

Resource Implications:

This proposed microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.

COURSE CHANGE: CART 214 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Design and Computation Arts
Program: Design
Degree: Microprogram in Web Design and User Interface
Calendar Section/Graduate Page Number: 81.90.1

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>CART 214 <i>Visual Form and Communication</i> (3 credits) Prerequisite: Enrolment in a Computation Arts program or written permission of the Department. Key themes of visual communication are explored in the context of computation arts. This studio course considers design elements such as line, pattern, shape, texture, interpretation of space, surface, perspective, dimension, repetition, randomness, colour and colour spaces, typography, drawing from observation, layout and composition and conceptualization. This class is predominantly non-digital and discusses the relationships between analog and digital approaches. <i>NOTE: Students who have received credit for CART 254 may not take this course for credit.</i></p>	<p>CART 214 <i>Visual Form and Communication</i> (3 credits) Prerequisite: Enrolment in a Computation Arts program or the Microprogram in Web Design and User Interface or permission of the Department. Key themes of visual communication are explored in the context of computation arts. This studio course considers design elements such as line, pattern, shape, texture, interpretation of space, surface, perspective, dimension, repetition, randomness, colour and colour spaces, typography, drawing from observation, layout and composition and conceptualization. This class is predominantly non-digital and discusses the relationships between analog and digital approaches. <i>NOTE: Students who have received credit for CART 254 may not take this course for credit.</i></p>
<p>Rationale: Courses taken as part of the microprogram are bundled together to address a set of specific competencies, and therefore students enrolled in the microprogram are not required to take the same pre-requisites as students in the BFA program.</p> <p>The Microprogram in Web Design and User Interface will be appealing to a broad student base as it is intended to build conceptual and technical skills that will compliment any discipline and enhance any professional and/or research profile. We anticipate this will broaden the scope of our student population by providing lifelong learning opportunities to encourage students with diverse backgrounds to join the university community, those with caregiving or family commitments, those with physical challenges to travel for in person activities, varied ages, those employed but wishing to upgrade skill through online/distanced learning, and those coming to the microprogram with varied levels of academic and work experience.</p> <p>Students who have successfully completed this microprogram and have applied and been accepted into the Design Major or programs in Computation Arts (Specialisation, Major, Minor) will be able to transfer their microprogram credits. (DART 349 and DART 449 applicable towards the DART Major; CART 214 applicable towards CART programs.)</p>	
<p>Resource Implications: This proposed microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.</p>	
<p>Other Programs within which course is listed:</p>	

None

COURSE CHANGE: DART 349 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Design and Computation Arts
Program: Design
Degree: Microprogram in Web Design and User Interface
Calendar Section/Graduate Page Number: 81.90.1

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>DART 349 Introduction to Web Design (3 credits) Prerequisite: 24 credits in the Major in Design or written permission of the Department. This studio course introduces students to such aspects of web design as graphic user interface; navigation and information hierarchies; the differences between screen and print; and user experience; and explores the challenges facing designers working in an online environment. Students create websites for multiple platforms and mobile devices, as well as experiment with innovative ways of organizing information. <i>NOTE: Students who have received credit for this topic under a DART 398 number may not take this course for credit.</i></p>	<p>DART 349 Introduction to Web Design (3 credits) Prerequisite: 24 credits in the Major in Design or enrolment in the Microprogram in Web Design and User Interface or permission of the Department. This studio course introduces students to such aspects of web design as graphic user interface; navigation and information hierarchies; the differences between screen and print; and user experience; and explores the challenges facing designers working in an online environment. Students create websites for multiple platforms and mobile devices, as well as experiment with innovative ways of organizing information. <i>NOTE: Students who have received credit for this topic under a DART 398 number may not take this course for credit.</i></p>
<p>Rationale: Courses taken as part of the microprogram are bundled together to address a set of specific competencies, and therefore students enrolled in the microprogram are not required to take the same pre-requisites as students in the BFA program.</p> <p>The Microprogram in Web Design and User Interface will be appealing to a broad student base as it is intended to build conceptual and technical skills that will compliment any discipline and enhance any professional and/or research profile. We anticipate this will broaden the scope of our student population by providing lifelong learning opportunities to encourage students with diverse backgrounds to join the university community, those with caregiving or family commitments, those with physical challenges to travel for in person activities, varied ages, those employed but wishing to upgrade skill through online/distanced learning, and those coming to the microprogram with varied levels of academic and work experience.</p> <p>Students who have successfully completed this microprogram and have applied and been accepted into the Design Major or programs in Computation Arts (Specialisation, Major, Minor) will be able to transfer their microprogram credits. (DART 349 and DART 449 applicable towards the DART Major; CART 214 applicable towards CART programs.)</p>	
<p>Resource Implications: This proposed microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.</p>	
<p>Other Programs within which course is listed: None</p>	



COURSE CHANGE: DART 449 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Design and Computation Arts
Program: Design
Degree: Microprogram in Web Design and User Interface
Calendar Section/Graduate Page Number: 81.90.1

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>DART 449 <i>The Language of the Web</i> (3 credits) Prerequisite: DART 349; 48 credits in the Major in Design or written permission of the Department. In this studio course, students develop online applications and innovative methods for organizing and disseminating information. Issues of interactivity, navigation, and open-source media are emphasized. <i>NOTE: Students who have received credit for DART 410 or 411 may not take this course for credit.</i></p>	<p>DART 449 <i>The Language of the Web</i> (3 credits) Prerequisite: DART 349; 48 credits in the Major in Design <u>or enrolment in the Microprogram in Web Design and User Interface</u> or written permission of the Department. In this studio course, students develop online applications and innovative methods for organizing and disseminating information. Issues of interactivity, navigation, and open-source media are emphasized. <i>NOTE: Students who have received credit for DART 410 or 411 may not take this course for credit.</i></p>
<p>Rationale: Courses taken as part of the microprogram are bundled together to address a set of specific competencies, and therefore students enrolled in the microprogram are not required to take the same pre-requisites as students in the BFA program.</p> <p>The Microprogram in Web Design and User Interface will be appealing to a broad student base as it is intended to build conceptual and technical skills that will compliment any discipline and enhance any professional and/or research profile. We anticipate this will broaden the scope of our student population by providing lifelong learning opportunities to encourage students with diverse backgrounds to join the university community, those with caregiving or family commitments, those with physical challenges to travel for in person activities, varied ages, those employed but wishing to upgrade skill through online/distanced learning, and those coming to the microprogram with varied levels of academic and work experience.</p> <p>Students who have successfully completed this microprogram and have applied and been accepted into the Design Major or programs in Computation Arts (Specialisation, Major, Minor) will be able to transfer their microprogram credits. (DART 349 and DART 449 applicable towards the DART Major; CART 214 applicable towards CART programs.)</p>	
<p>Resource Implications: This proposed microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.</p>	
<p>Other Programs within which course is listed: None</p>	



Web Design Industry Report

**In Response to Dean Gérin's Request for BI Support on
Microprogram in Web Design**

Business Intelligence Service
Office of AVP Lifelong Learning
2021-01-26



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Executive Summary

Objective

LLL BI team aims to provide support and accompanies the Faculties in develop programming which benefits the target audience in order to respond to their lifelong need for reskilling, upskilling and development in a university setting. This particular report provides data, information and insights for Faculty of Fine Arts to support the development of microprogram in Web Design.

Methodology

The information is gathered through secondary research of resources online. Major sections include:

- ✓ An industry overview section providing the outlook for the industry that has significant long-term implication for labor force demand.
- ✓ Job prospects and labour force equilibrium examined for web design related professions to shed light on the trend in talent needs in Quebec.
- ✓ Current needs that are identified through analysis of job postings to reveal the demand level and skills sought after.
- ✓ Registration statistics that are curated and analyzed for major online learning platforms to offer insights on skills that are in high demand.
- ✓ Analysis of the competitive landscape in training programs that are similar to what Faculty of Fine Arts aims to offer (3-course microprogram in web design).

Please note that there is a kicker at the bottom of each page to summarize the main take-away for that page.

Constraints

The research results are subject to availability of relevant information on various platforms, and the availability of time and resources. Please note that information and data on web design is not always readily available and the data sets presented in this report may cover a larger scope than web design.

Executive Summary (continued)

Key Findings

1. The web design industry and profession has been **steadily growing** in the past few years and is projected to keep this trend in the next few years despite the Covid-19 context. In fact, the pandemic has positive impacts on this sector since businesses show a growing need for **better web presence**.
2. The job prospects for web design related roles are **good and fair** for **Quebec** as it ranks among the top 3 Provinces hiring web design talent in Canada.
3. The current hiring needs center on web designer, UX / UI web designer and graphic designer. Most job postings for UX /UI web designer list **degree** and **technical know-how and experience** as an **asset**. Those can be **quickly developed and obtained** through a **microprograms** stream.
4. There are **NO credited microprograms** in web design; a few non-credited microprograms offered at some Canadian Universities include 5 or 7 courses, though they are **significantly more costly** for the students than credited programs.
5. Registrations on online learning platforms correspond to the needs in the industry – the courses with the most learners are in the web design and development. **HTML** and **CSS** training are also popular.

Executive Summary (continued)

Recommendations

1. As the microprogram proposed by Faculty of Fine Arts meets both the current (urgent) and future **societal needs**, and provide a flexible and accessible upskilling/reskilling opportunities for a considerable university clientele of Lifelong learners, it is recommended that the microgram be **approved** and courses **implemented in their current format**. This puts Concordia in a **strategic** position to be the 1st to offer credited short-term credential in the field.
2. It could be value-adding to include **experiential learning** and **portfolio-building** in future iterations of the program, and in additional microprograms in the domain since experience is appreciated by employers.
3. For future evolution of the program, it is recommended that **more microprograms** be offered that can be stacked upon this microprogram, where multiple microprograms in related fields can be combined and converted to an undergraduate degree. This provides **much-needed flexibility** for a diverse clientele that may have different interests and needs, as well as **time constraints** in completing a degree while having other adult responsibilities (Jobs, families etc).



Web Design Industry Overview

Quebec Web Design Industry

Stats and Trends Analysis

As it is difficult to find data and information directly on web design industry for Quebec region, the information presented below are retrieved from the Government of Canada website on Professional, Scientific and Technical Services, which include web design (a subset of computer systems design) in their overall data sets and analysis.



Description

This sector comprises establishments primarily engaged in activities in which human capital is the major input. Employment is distributed among several groups as follows according to areas of expertise:

• Computer systems design *	31%
• Architectural, engineering, surveying and design services	25%
• Accounting and payroll services, advertising and related services	22%
• Management, scientific and technical consulting services, and scientific research and development services	15%
• Legal services	8%

Employment growth in computer systems design is **very strong** (an increase of approximately **18%** year over year), which is not surprising considering the acceleration in the development of **e-commerce** and greater IT infrastructure needs to support the integration of a larger number of teleworkers.

In short, the employment outlook for professional, scientific and technical services will be **better than the expected** outlook for the overall labour market in **Quebec**. The diversity and nature of the activities in this sector will allow it to take better advantage of the economic recovery.

Medium-term outlook (2021–2022)

- The overall outlook for professional, scientific and technical services is good.
 - Job gains in computer systems design services observed in recent months will be maintained in the medium term. However, the **shortage of qualified workers in this field** will limit future growth, despite the **strong demand**.

 **Computer systems design (which includes web design) has strong employment growth (18% year over year) in the past years, and also enjoy good employment outlook due to shortage of qualified workers in the field and the strong demand in Quebec. This sector has better than expected outlook under Covid-19 context.**

* For a definition of computer systems design and what subsets of sectors it includes, please consult www.ic.gc.ca/app/scr/app/cis/summary-sommaire/5415;jsessionid=00011dxs6tw1nH1Pj2_0l6w8wrB:-48G25Q

Source: https://www.jobbank.gc.ca/content_pieces-eng.do?cid=16912 retrieved on January 24, 2021.

Canada Graphic Design Industry

Stats and Trends Analysis

As no report has been found on web design specifically, the report on graphic design industry in Canada is used for this analysis, as web design is part of the graphic design industry. Although key statistics provided are for the overall industry, the key trends and quotes shed spotlight on the section of web design, which has become increasingly important over the years.

Some Key Statistics

\$1.5BN
REVENUE

Annual Growth 2014–2019: 1.0%
Annual Growth 2019–2024: 2.2%

Annual Growth 2014–2024



9,770
BUSINESSES

Annual Growth 2014–2019: 2.8%
Annual Growth 2019–2024: 2.4%

Annual Growth 2014–2024



10,572
EMPLOYMENT

Annual Growth 2014–2019: 0.7%
Annual Growth 2019–2024: 1.9%

Annual Growth 2014–2024



Some Key Trends

Graphic design will become increasingly integral for brand awareness

Many operators will likely cater to niche markets such as website development

Favourable margins and low barriers to entry have influenced rising industry participation

25.9%
PROFIT MARGIN

“As **internet traffic volumes rise**, more businesses will require graphic designers to **enhance** their **website usability** and **interface**.”

“While the industry has contended with low demand for graphic design services from print-related businesses, such as magazines and newspapers, **digital services** have buoyed industry revenue during the five-year period. For example, graphic designers that have developed interactive media for their clients' websites have fared well.”

“Over the five years to 2024, many graphic designers will likely continue to expand the scope of their offerings to include **designing websites**, writing, creating **computer graphics** and providing product layouts. [...] In particular, graphic designers that offer **interactive digital expertise** will likely develop a **strong customer base**.”



Website design has become an increasingly important portion of graphic design industry as internet traffic volumes rise and the revenue for this sub-sector increases. Low barriers to entry and favorable margin incentivize more participants in the industry, indicating more demand for talents in web design.

US Web Design Industry Stats and Trends Analysis

There has been **increasing international competition** in the web design industry. Given the geographical proximity, cultural affinity and **population mobility** between US and Canada, analysis and trends in US may provide valuable insights for Canadian labour market and training needs.

The life cycle stage of this industry is **✓ Growth**

LIFE CYCLE REASONS

The industry is expected to **grow faster than the economy** during the 10 years to 2025

The number of companies operating in the industry is increasing

Technological changes continue to drive **industry growth**

Industry at a Glance

Key Statistics

\$39.6bn
Revenue

Annual Growth 2015-2020	Annual Growth 2020-2025	Annual Growth 2015-2025
5.8%	2.4%	

74,186
Businesses

Annual Growth 2015-2020	Annual Growth 2020-2025	Annual Growth 2015-2025
4.0%	3.5%	

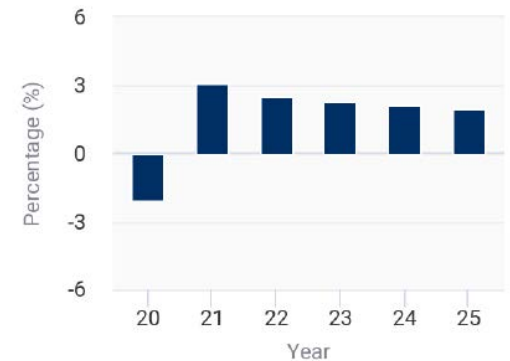
\$2.3bn
Profit

Annual Growth 2015-2020	Annual Growth 2015-2025
3.4%	

200k
Employment

Annual Growth 2015-2020	Annual Growth 2020-2025	Annual Growth 2015-2025
5.9%	3.2%	

Industry Outlook 2020-2025



Web Design Services
Source: IBISWorld



Web design industry in US is at the **growth stage** of lifecycle, and the industry outlook for the next 5 years is **promising**. It is worth noting that web design industry is expected to **grow faster** than the economy. This may have spillover effects on the labour market and training needs in Canada.

Needs / Interests Analysis

- Job Prospects and Hiring Needs**

Job Prospects - Quebec

Job prospects for Web designers and developers

Quebec Good ★★★★★

☰ Skills

The employment outlook will be good for Web designers and developers (NOC 2175) in Québec for the 2019-2021 period.

Job growth in this occupation will be driven by the expansion of computer systems design services, which will grow faster than all industries. The development of Internet applications, especially for mobile devices, online business, growing cyber security needs, and customized website design will foster the demand for these professionals.

Source: <https://www.jobbank.gc.ca/outlookreport/occupation/17898>, retrieved on January 22, 2021.

- Consult with clients to develop and document Website requirements
- Prepare mock-ups and storyboards
- Develop Website architecture and determine hardware and software requirements
- Source, select and organize information for inclusion and design the appearance, layout and flow of the Website
- Create and optimize content for Website using a variety of graphics, database, animation and other software

Source: <https://www.jobbank.gc.ca/marketreport/summary-occupation/17898/ca>, retrieved on January 22, 2021.

Job prospects for Graphic Designers and Illustrators

Quebec Fair ★★★★★

The employment outlook will be fair for Graphic designers and illustrators (NOC 5241) in Québec for the 2019-2021 period. Approximately 19,600 people work in this occupation.

Sources: <https://www.jobbank.gc.ca/outlookreport/occupation/5741>, retrieved on January 22, 2021.



Job prospects for web designers, developers, graphic designers and illustrators are good to fair in the Quebec region.

Mid-term Talent Needs in Quebec and Montreal

The following data is extracted from a diagnostic report on the workforce prepared by the Quebec government. The report looks at the labor market demand and supply on 500 professions in Quebec, and the 3 professions closely related to web design are presented below.

Tableau A Professions évaluées en déficit ou en léger déficit de main-d'œuvre disponible au Québec, moyen terme (2023)
Classement des professions en ordre décroissant du nombre de régions qui présenteront un déficit ou un léger déficit en 2023

Codes de la CNP	Professions de la CNP	Régions															RMR de Montréal	RMR de Québec	Nombre de régions qui présenteront un déficit ou un léger déficit	Nombre de régions qui présenteront un surplus ou un léger surplus	Nombre de régions qui présenteront un équilibre		
		Ensemble du Québec	Abitibi-Témiscamingue	Bas-Saint-Laurent	Capitale-Nationale	Centre-du-Québec	Chaudière-Appalaches	Côte-Nord et Nord-du-Québec	Estrie	Gaspésie-Îles-de-la-Madeleine	Lanaudière	Laurentides	Laval	Mauricie	Montréal	Monterégie						Outaouais	Saguenay-Lac-Saint-Jean
2174	Programmeurs/programmeuses et développeurs/développeuses en médias interactifs	▼	●	●	▼	▼	▼	-	▼	●	▼	▼	▼	▼	▼	●	●	▼	▼	●	14	0	1
5241	Designers graphiques et illustrateurs/illustratrices	●	●	●	●	●	-	●	●	▼	●	●	●	●	●	●	●	●	●	●	12	0	3
2175	Concepteurs/conceptrices et développeurs/développeuses Web	●	-	-	●	●	-	▼	-	●	●	●	▼	●	●	●	▼	●	●	●	8	0	4

● Profession en équilibre ▼ Profession en déficit ● Profession en léger déficit ▲ Profession en surplus ● Profession en léger surplus - Pas de diagnostic ●● Diagnostics différents pour 2020 et 2023

Extracted from the report *État d'équilibre du marché du travail à court et à moyen termes : Diagnostics pour 500 professions*.



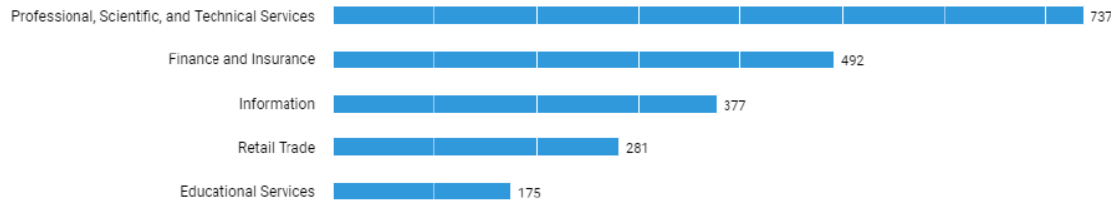
Both graphic designer and interactive media programmer and developer are in shortage in the Quebec labour market. Although web designer and developer profession seem to be in balance, there is still a shortage in the Montreal labour market.

Analysis on Hiring Needs in Canada for 2020

All data presented below are sourced from Labour Insights report generated by using Burning Glass Technologies. The parameters set for the production of this report include time range (Jan. 01, 2020 to Dec. 31, 2020), geographical range (Canada nationwide), and key words (NOC Code 2175 or BGT OCC Web Designer). Based on the parameters, **6420** job postings are captured and analyzed in the report.

Top 5 industries

hiring web designer and related roles



Top 4 companies

having the **most openings** for web designer and related roles



Top 3 occupations

that are in **highest demand** in the market



Top 3 provinces

seeking web designers and related talents



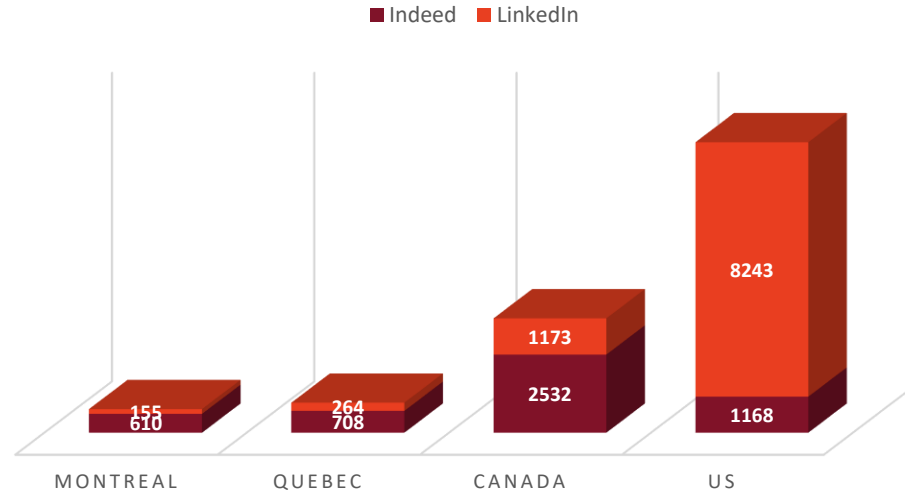
6420 job postings show a **strong demand** for talents in web design, and **Quebec** is among the **top 3 provinces** that has the biggest need for web designers.

Current Hiring Needs Analysis – Global View

All statistics presented on this page are gathered firsthand on January 25, 2021 from the 2 biggest job posting platforms that are widely used in North America and on a global scale. Please note the following when interpreting the data:

- The US data is included out of the consideration that there is population mobility between the 2 countries thanks to geographical proximity and cultural affinity.
- The data presented below should be considered as a snapshot of the industry needs on January 25, 2021, which may or may not be a fair reflection of current needs of the industry (please take into consideration the impact of Covid-19 on the industry needs).
- A margin of error should be taken into consideration - some research results may not be related to web design due to description and wording in the job posting.

OF JOB POSTING IDENTIFIED WITH KEY WORDS "WEB DESIGNER"



Montreal represents the **majority** of the talents need in Quebec region and Quebec region account for roughly **a quarter of talents needs** in web design within Canada. The talent needs in US is about 2.5 times those of Canada.

Competency and Skills Analysis – Quebec Web Designer

The data below was manually extracted from the top 3 job search engines. Data in skills and competencies for the role of Web Designer is analyzed and the scope has been limited to the Quebec region. The top technical and non-technical skills in demand are listed below.

Average Experience Level Required 2 – 3 years	
Technical Skills	Non-Technical Skills
<ul style="list-style-type: none">• HTML, CSS, SASS• JavaScript and jQuery• Adobe Illustrator• Photoshop• Sketch	<ul style="list-style-type: none">• Self Motivated• Detail Oriented• Problem Solving Skills• Creative• Autonomous• Multitasking skills



Most job postings for Web Designer **do not require a diploma or technical degree**, rather, the demand for **experience** in the technical skills is preferred for the role.

Competency and Skills Analysis – Quebec UX/UI Web Designer

The data below was manually extracted from the top 3 job search engines. Data in skills and competencies for the role of UX/UI Web Designer is analyzed and the scope has been limited to the Quebec region. The top technical and non-technical skills in demand are listed below.

Average Experience Level Required 4 - 5 years	
Technical Skills	Non-Technical Skills
<ul style="list-style-type: none">• Sketch, InVision, Axure• HTML5, CSS3, Preprocessors• JavaScript, jQuery• Figma• iOS and Android interface	<ul style="list-style-type: none">• Self-Motivated• Agile and Waterfall Project Methodologies• Collaborative Skills• Communication Skills• Time Management skills



For the role of UX/UI Web Designer, the demand for an **Bachelor's Degree** and **experience in technical software** appears to be an asset on **more than 50%** of postings.

Competency and Skills Analysis – Quebec Graphic Designer

The data below was manually extracted from the top 3 job search engines. Data in skills and competencies for the role of Graphic Designer is analyzed and the scope has been limited to the Quebec region. The top technical and non-technical skills in demand are listed below.

Average Experience Level Required 2 - 5 years	
Technical Skills	Non-Technical Skills
<ul style="list-style-type: none">• Adobe Creative Suite• Figma• iOS and Android interface• Cinema 4D• Microsoft Office Suite	<ul style="list-style-type: none">• Self-Motivated• Ability to multitask• Detail oriented• Team Player• Creative• Critical Thinking Skills



The demand for a **Bachelor's Degree** and **experience in technical software** is most often required for the role of Graphic Designer.



Needs / Interests Analysis

- Training and Learning Needs

Training Needs / Interests Analysis

- LinkedIn Learning

The table below represents a list of training courses available on LinkedIn Learning platform while using the keyword “Web Design” in the search engine. The courses were extracted manually and organized by difficulty level and student registration.

Course Title	Beginner	Intermediate	Advanced	Registration
Introduction to Web Design and Development	X			110,483
HTML Essential Training	X			78,118
CSS Essential Training	X			59,372
User Experience for Web Design	X			54,463
Introduction to CSS	X			39,510
Web Development Foundations	X			39,249
Ethical Hacking with JavaScript			X	26,334
Logo Design: Illustrating Logo Marks	X			24,787
Design Aesthetics for the Web	X			22,908
Sketch Essentials Training : Basics	X			20,390
PHP: Design Patterns		X		19,946
Cert Prep: AWS Certified Solutions			X	17,658
Creating a responsive Web Design	X			17,599
HTML: Images & Figures		X		13,998
Adobe XD : Essential Training Design	X			12,016
Creating Web Media		X		11,850
Illustrator for Web Design		X		11,195
CSS: From Float to Flexbox and Grid		X		8,839
Practical Application Architecture with Entity Framework			X	8,547
Articulate Storyline: Advanced Techniques			X	8,480
JavaScript for Web Designers	X			8,121
Designing a first website with Dreamweaver	X			7,924
Web Design : Efficient Workflow		X		7,922



The courses that are in **high demand** show that the microprogram proposed by Faculty of Fine Arts include some of the most in-demand technical skills – **HTML** and **CSS**.

Training Needs / Interests Analysis

- Udemy

The table below represents a list of training courses available on Udemy's platform while using the keyword "Web Design" in the search engine. The courses were extracted manually and organized by number student registration.

Course Title	Beginner	Intermediate	Advanced	Registration
Graphic Design Bootcamp: Photoshop, Illustrator, In Design	X			90,786
Responsive Web Design: HTML5 + CSS	X			39,501
Adobe Photoshop CC – Advanced		X		38,116
Graphic Design Masterclass Intermediate		X		19,637
Web Design with WordPress	X			18,200
HTML5 + CSS3 + Bootstrap : The Beginner Web Design	X			14,576
UI & Web Design Using Adobe Illustrator CC	X			14,520
Visual Web Design Mastery		X		14,390
Guide to Front-End Web Development and Design	X			13,538
Learn CSS Web Design Development	X			12,946
JavaScript Design Patterns			X	5,817
HTML CSS JavaScript for Beginners	X			4,544
Complete Web Design Course: HTML, CSS, JavaScript	X			4,437
Basic HTML CSS and Web Design	X			4,129
Adobe Photoshop CC - Web Design, Responsive Design	X			3,778
Web Design in Affinity Designer		X		3,349
Advanced Web Scraping with Python			X	2,671
Learn PSD to Responsive Parallax HTML/CSS Web Design		X		2,425
Advanced CSS Development		X		447
Learning Path: CSS Mastering Web Design			X	376
Advanced Back End Web Development			X	367
Streamline Web Design Process		X		203
Web Design for Beginners	X			199
HTML5 + CSS3 Responsive Web Design			X	47



The courses that are in **high demand** show that the microprogram proposed by Faculty of Fine Arts include some of the most in-demand technical skills – **HTML** and **CSS**.



Competitive Landscape Analysis

Training Programs in Canada

A scan of the competitive landscape results in the finding that there is **NO credited microprogram** in web design offered in Canadian or US universities, including colleges of art and design. Some Canadian universities offer **non-credited 5 or 7-course** programs in web design through Continuing Education, including Concordia. Four programs from 4 different universities are presented in the following pages.





Diploma in Website Creation and Design

Your take-away

This program is a great way to help you:

- Build beautiful, accessible websites that people of almost any ability can manage;
- Use HTML and CSS to design more responsive, interactive websites;
- Add images and tags to create a more interesting user experience;
- Keep WordPress sites secure using best practices and plug-ins;
- Work with basic jQuery;
- Create interface designs for desktop and mobile platforms;
- Gain greater understanding of graphic design for the web;
- Optimize images for insertion into web pages.

Compulsory courses

In order to obtain the diploma, the following compulsory courses must be completed:

- [Search Engine Marketing](#) (CEMK 175)
- [Adobe Imaging Basics: Photoshop and Illustrator](#) (CEWD 229)
- [Advanced Techniques in Website Design](#) (CEWD 319)
- [Search Engine Optimization](#) (CEWD 365)
- [Content Management with WordPress](#) (CEWD 419)
- [JavaScript and JQuery](#) (CEWD 429)
- [HTML5 and Cascading Style Sheets](#) (CEWP 329)



Continuing Education

Web Design and Development Program

REVISED

Description

Formerly Web Design, the Web Design and Development Program focuses on the fundamentals of web design and front-end web development. Build a strong foundation in the key web technologies of *HTML*, *CSS* and *JavaScript*, and learn how to use them together to create web pages that are both responsive and interactive.

CORE COURSES (FIVE)

This is the recommended completion order:

- | | | |
|-----------|--|---------------|
| COMP 9323 | Introduction to Web Design and Development | ONLINE OPTION |
| COMP 9626 | Web Design 1: CSS | ONLINE OPTION |
| COMP 9632 | Web Design 2: Responsive Design | ONLINE OPTION |
| COMP 9629 | JavaScript Fundamentals | ONLINE OPTION |
| COMP 9737 | Building Interactive Web Pages | ONLINE OPTION |

Web Design

Combine powerful design
and practical business skills.

WEB 205 5 - Strategic Web Design: Building Data Driven Websites^A (3 Units)

The growth of e-commerce, web analytics and business evaluation drives the need to design interactive web applications to collect, retrieve and act on the info in a well-timed method. This course will compare information manipulation involving PHP, SQL via Apache Web Server. Concepts will be integrated with business practices to develop students' skills in client management, assessing needs, and the ability to adapt with new media and technology. Web design and integration with CMSs will be presented as well. Task management, communication and organizational expertise are threaded into routine in addition to the completion of the students professional portfolio.

WEB 204 4 - Web Design II: Advanced Applications of Web Design (3 Units)

Building on the Web Design I course contents, this course will present advanced practices of design to meet the needs and demands of the client and user. Activities allow students to expand on their knowledge and skills in HTML, CSS, interactivity and site design principles. Additional work with JavaScript frameworks, such as jQuery will be presented, as students are encouraged to demonstrate principles of responsive design. Examining the interaction of new media with web design will be presented in terms of developing the student's awareness of emerging trends that will affect the role of the web designer. Portfolio building projects are emphasized as students advance skills in web design appropriate to the work environment.

WEB 203 3 - Web Design I: The Application of Web Design (3 Units)

From the foundations of web design presented in WEB 201, this course will delve further into specific tools, standards and web design practices through application activities. Specific topics will build upon the fundamentals of HTML5, Cascading Style Sheets (CSS), and XML. The course will introduce principles and practices of building interactivity and heightening the design capabilities of a website, such as JavaScript, animation, web forms and graphics. Student skills in collaboration, project management and effective web writing will be integrated into course activities and the project portfolio.

WEB 202 2 - The Information Architecture: Design for Usability and Interactivity (3 Units)

This course will probe into the components of visual and text communications as introduced in the Fundamentals of Web Design course. The User-Centered Design Process will provide a framework for an exploration and study into the organization, structure, and interface design of effective web design. Exercises are designed for students to critique different web sites in order to understand the connection between design and usability, accessibility, operations, and maintenance. Students' portfolio development will continue as well as their understanding of project collaboration and effective communication.

WEB 201 1 - Fundamentals of Web Design: Principles and Practices of Website Design (3 Units)

This course incorporates the foundational principles of Web design with experiential activities relevant to the process of designing, producing and analyzing static Web sites. These principles form the basis for knowledge and skills threaded through program courses. The importance of design, type, usability and accessibility will be examined through the components of visual and text communications. Application activities involving Web design industry tools, such as Photoshop, code editing software, HTML5 and Cascading Style Sheets (CSS) launch the students' professional portfolio projects.



User Experience (UX) Design and Development Skills Certificate



This certificate is for those interested in learning the technical skills and conceptual tools required to create and manage web content. Courses eligible for this certificate provide the basic skills needed to those new to web design, as well as intermediate training in new software and online developments to keep experienced developers current. Courses cover topics such as UX principles, user research, analysis frameworks, interaction design, prototyping, and wireframing. Students also learn communication and collaboration techniques. This certificate is not for university degree credit.

Courses

Minimum Required: 5 Course(s)

[CSDM-N115 Introduction to Web Design](#)

[CSDM-N129 Intermediate Adobe Photoshop](#)

[CSDM-N151 Introduction to User Interface \(UI\) and User Experience \(UX\) Design](#)

[CSDM-N152 Introduction to Web Analytics](#)

[CSDM-N153 Inclusive Design for Digital Media](#)

[CSDM-N215 Advanced Web Design, CSS and JavaScript Frameworks](#)

[CSDM-N218 Dynamic Web Design, PHP](#)

[CSDM-N251 Intermediate User Interface \(UI\) and User Experience \(UX\) Design](#)






[CSMC-N101 Empathy + Social Insight for Human-Centred Design Micro-Certification](#)

[CSPR-N101 Indigenous Art & Design Studio Prior Learning Assessment & Recognition](#)

[CSPR-N102 International Art & Design Studio Prior Learning Assessment & Recognition](#)

[CSRH-N101 Inside Art and Design: Seminar Series](#)

Financial Advantage of Credited Programs

Institution	Program Name	Program Type	# of Courses	Total Hours	Total Costs	Cost per Hour
 UNIVERSITE Concordia UNIVERSITY	Certificate in Web Design	Future Faculty of Fine Arts Credited Microprogram	3	405	\$1,349.67	\$3.33
 UNIVERSITE Concordia UNIVERSITY CONTINUING EDUCATION	Diploma in Website Creation and Design	Non-Credited Short Program	7	260	\$6,750	\$25.96
 GEORGE BROWN COLLEGE	Web Design and Development Program	Non-Credited Short Program	5	120	\$2,162	\$18
 McMaster University	Web Design	Non-Credited Short Program	5	N/A	\$4,316.15	N/A
 OCAD UNIVERSITY	User Experience (UX) Design and Development Skills Certificate	Non-Credited Short Program	5	86	\$2,355	\$27.38



Credited programs are **significantly more economical** than non-credited programs, which should make it a more appealing option for potential students.

Appendix

Appendix: Samples of Profiles Sought After



Bevertec CST Inc 3.7 ★
Creative Graphic Designer
Montreal

Role and Responsibilities:

- Support the Marketing team in the design and execution of digital and printed material including advertising campaign, web/social media graphics.
- Actively participates in the evolution of the brand and creation of campaign material that covers a variety of mediums, including print, web, packaging and more;
- Generates innovative, creative and relevant ideas, presenting these concepts and articulating the arguments of these creative approaches.
- Performs ongoing creative research to support campaign development, branding projects, and the collateral developed thereafter.
- Assists on various creative projects within the company.
- Maintains and oversees brand guidelines documents and ensures that brand standards are respected and applied to all graphic elements.
- Interprets creative briefs into conceptual ideas.
- Keeps up to date with emerging trends and technologies.

Requirements and Profile:

- Certificate or Diploma in graphic design
- Must have experience with: Adobe, Illustrator, and Photoshop, Wire Frame, HTML, Wire Frame, CSS.
- A portfolio that highlights your strong design & creative abilities
- Knowledge of the different printing techniques and printing process
- Great organizational and priority management skills with the ability to handle multiple projects simultaneously, while meeting deadlines and working in a fast-paced environment
- Excellent knowledge of Adobe CS6 & CC.
- A strong understanding of luxury branding.
- Experience in Fashion, UX/UI and retouching an asset.
- Bilingual French/English

Appendix: Samples of Profiles Sought After



Web Designer

Ubisoft • Montreal, QC • 6 days ago • 33 applicants

Apply

Save

You are a creative, solution-oriented designer who thrives in a fast-paced environment.

- You will create and design visual concepts and graphics for various projects related to different Ubisoft franchises and brands.
- You will create web content and assets for launches, promotions and other initiatives
- You will create digital content (static and animated) for various formats such as:
 - Newsletters
 - Web frontend
 - Social Media
 - Ads
 - Any other specific needs
- You will define and pitch concepts for key events and promotions
- You will define, maintain and apply a brand identity for the Ubisoft Store
- You will collaborate with developers, integrators to carry out different special mandates (landing pages)
- You will benchmark best practices in design, UX, UI and apply them to the Store identity and branding

Qualifications

What you bring to the team

- Advanced knowledge (expertise) in Adobe Creative Cloud
- Expert knowledge of graphic design best practices in a digital marketing/e-commerce context
- Ability to work in a PC environment.
- Knowledge of current trends in graphic design and fashion.
- Ability to articulate your creative vision
- Professionalism and composure while working under tight deadlines
- Ability to articulate your creative vision
- Ability to deliver quality and creativity within the context of a variety of game genres
- Bilingual (French and English)

Designer UX/UI

PixMob ★★★★★ 6 reviews

Montréal, QC

Apply on company site

Votre rôle dans notre équipe

- Responsable de toutes les étapes du processus de design, du concept au lancement
- Mener des recherches d'utilisateurs et évaluer le feedback
- Analysez les données pour soutenir vos décisions de design
- Définir l'expérience utilisateur afin de créer des solutions simples et efficaces
- Mettre à jour et faire évoluer la documentation UX (Personas, Customer journey map)
- Créer des user flows et des wireframes afin de valider le design d'interaction
- Créez des concepts de design intuitifs et esthétiques
- Organiser les éléments visuels et de design afin d'établir des bibliothèques de composants et de mettre à jour les directives de conception et les meilleures pratiques
- Fournir des spécifications de conception détaillées et communiquer clairement avec l'équipe software
- Créez des prototypes afin d'effectuer des tests utilisateur de vos designs

Vous êtes fait pour ce rôle si vous correspondez aux critères suivants

- Baccalauréat ou diplôme d'études collégiales en design graphique ou dans un domaine connexe
- Minimum de 2 ans d'expérience pertinente
- Maîtrise de la suite Adobe Creative (Adobe XD, Photoshop et Illustrator)
- Connaissance des principes, des meilleures pratiques et des méthodologies de conception UX centrée sur l'utilisateur
- Connaissances de recherche utilisateur et tests d'utilisabilité
- Excellentes compétences en communication, organisation et relations interpersonnelles
- Capacité à effectuer plusieurs tâches à la fois et à établir des priorités dans un environnement de travail rapide
- Passion pour le design visuel et l'esthétique

Source: Indeed, retrieved on January 25th, 2021



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FACULTY OF FINE ARTS

INTERNAL MEMORANDUM

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

FROM: Dr. Annie Gérin, Dean, Faculty of Fine Arts

CC: Dr. Elaine Paterson, AD, Academic Programs and Pedagogy, Faculty of Fine Arts

DATE: February 12, 2021

RE: New Microprogram in Screenwriting and Film Producing – CINE-29

Dear Dr. Gabriele,

As Dean of the Faculty of Fine Arts, I fully support the creation of a Microprogram in Screenwriting and Film Producing (9 credits) proposed as part of CINE-29.

The dossier was reviewed and approved unanimously and enthusiastically by the Fine Arts Faculty Council at its virtual meeting on February 12, 2021.

This microprogram is meant to be the first of a series of stackable offerings at the Mel Hoppenheim School of Cinema that will allow us to train students for film industry opportunities in ways that are much more flexible and accessible.

Resource implications are minimal and include additional course sections as well as Teaching Assistant support. The Faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram. See budget appended for details.

With thanks for your consideration,



Annie Gérin, PhD
Dean, Faculty of Fine Arts
Annie.gerin@concordia.ca



FACULTY OF FINE ARTS

INTERNAL MEMORANDUM

To: Dr. Annie Gérin, Dean, Faculty of Fine Arts

FROM: Dr. Elaine Paterson, Associate Dean, Academic Programs and Pedagogy

DATE: 5 February, 2021

RE: Microprogram in Screenwriting and Film Producing, CINE-29

Dear Dean Gérin,

The Faculty of Fine Arts Curriculum Committee (FCC) reviewed the CINE-29 curriculum dossier from the Mel Hoppenheim School of Cinema during its virtual meeting held on 5 February 2021. The dossier was approved with minor revisions and is hereby submitted for review by the Faculty Council on 12 February 2021.

The dossier proposes to create a Microprogram in Screenwriting and Film Producing (9 credits) to be offered as a summer intensive. This new microprogram responds to demonstrated needs in the Quebec and North American film production industry, which has been following, and is projected to maintain, a favorable growth curve in the foreseeable future. Furthermore, it aligns with current governmental initiatives, including the *Programme d'aide à la relance par l'augmentation de la formation* (PARAF), which seeks to support upskilling and reskilling of Quebec's workforce in a rapidly changing labour market.

The FCC felt the proposed microprogram offers a promising opportunity for growth in the Faculty of Fine Arts as it is especially designed to attract new students. By offering innovative, short-term, targeted, and highly specialized training to lifelong learners (LLL) and candidates who are not currently in a position to undertake a more traditional bachelor degree in Fine Arts, the microprogram will also importantly contribute to the diversity of our student body.

Given this, the FCC commended the choice to offer the microprogram in a Summer intensive format as this timing may make it more accessible to a variety of learners. This delivery model is appropriate for responding to a growing need among LLL to access quality educational programming. This type of microprogramming offers the Faculty and University an opportunity to

expand its reach to a diverse student population by lowering barriers often experienced by LLL or those needing to retrain. The FCC encourages the Department to work with the Student Success Centre and Office of Lifelong Learning at Concordia to explore what supports they might offer to these students as they are welcomed into the University community through this microprogram.

Considering the documented need for this type of training, the enrolment projections are reasonable. The School of Cinema anticipates an enrolment of 17 students the first year the microprogram is offered in Summer 2021, and 45 students by the third year the microprogram is offered. Depending on the applicant numbers, further consideration may need to be given to support the School with the admissions process. Costs associated with the microprogram are minimal, and include additional course sections, as well as Teaching Assistant (TA) support, as shown in the budget.

With thanks for your consideration,

A handwritten signature in blue ink, appearing to read 'Elaine Paterson', written in a cursive style.

Elaine Paterson, PhD
Associate Dean, Academic Programmes and Pedagogy
Faculty of Fine Arts
elaine.paterson@concordia.ca

INTERNAL MEMORANDUM

TO: Dr. Elaine Cheasley Paterson, AD Academic Programs and Pedagogy
FROM: Jean-Claude Bustros, Chair, Mel Hoppenheim School of Cinema
DATE: February 1, 2021
SUBJECT: New Program Proposal for a Microprogram in Screenwriting and Film Producing (CINE-29)

In a virtual meeting held on Wednesday, January 27, 2021, the Department Curriculum Committee of the Mel Hoppenheim School of Cinema approved a Letter of Intent for a new Microprogram in Screenwriting and Film Producing. The LOI was subsequently approved by the Vice-Provost, Innovation in Teaching and Learning and is now presented to the Faculty Curriculum Committee as a new program proposal.

The proposed program is a 9-credit undergraduate microprogram. The microprogram will teach two fundamental cinema production skills: screenwriting and how to transform a script into a film. The microprogram is very much in line with the School's commitment to creating programs relevant to a broad cross-section of artists. This microprogram constitutes the first phase in the creation of a larger program that will allow students to combine 3 or 4 predetermined microprograms. The combination of these qualifications would form the requirements for a full 30-credit Undergraduate Certificate in Film Production.

The proposed microprogram will comprise three intensive courses completed remotely over nine weeks, starting May 31, 2021. This will allow students (including those living outside of Montreal) to complete the microprogram over the summer. Students will receive their microprogram upon successful completion of these courses, as shown in the following table:

Summer 2021

Sequence & Number of Weeks	Number of credits	Course code and Course Title Number	Pre-requisites*
Week 1-4	3	FMPR 341 Writing for Film I	None
Week 5-8	3	FMPR 441 Writing for Film II	FMPR 341
Week 1-9	3	FMPR 336 Introduction to Film Producing	FMPR 341, 441

*This listing of pre-requisites applies only to the sequence within the microprogram; there are additional pre-requisites for students enrolled in the BFA Film Production program.

While this microprogram does have resource implications, its implementation will result in net revenue generation. Please refer to the detailed budget, appended.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jean-Claude Bustros', with a stylized, sweeping flourish at the end.

Jean-Claude Bustros

Chair, Mel Hoppenheim School of Cinema




NEW PROGRAMS PROPOSAL – FAST-TRACK PROCESS

Letter of Intent for new Programs may enter the Fast-Track Process under the following conditions:

- The program meets an academic, strategic and/or societal need; and
- There are no significant resource demands implied by the process; and,
- The program does not require MEES approval.

GENERAL INFORMATION

Name of Proposed Program and Nomenclature:	Microprogram in Screenwriting and Film Producing
Hosting unit(s):	Mel Hoppenheim School of Cinema
Proposed Start Date:	May 31, 2021
Prepared by:	Jean-Claude Bustros, Dalia Radwan, and Michael Yaroshevsky
Dean Signature(s):	
Date:	29 January 2021

PROPOSED PROGRAM INFORMATION

1. Program Description

The proposed **Microprogram in Screenwriting and Film Producing** is a 9-credit undergraduate microprogram to be taught remotely in its first year. The microprogram will be hosted by the Mel Hoppenheim School of Cinema, and will teach two fundamental skills: 1) writing for the screen, and 2) the process of taking a script and transforming it into a film or other audio-visual production. The microprogram is very much in line with the School's commitment to creating programs relevant to a broad cross-section of Montreal artists, as well as other engaged citizens across Canada. This microprogram constitutes the first phase of a larger curriculum initiative that would allow students to combine 3 or 4 predetermined microprograms, including a 9-credit microprogram in Fundamentals of Digital Filmmaking. The combination of these qualifications would form the requirements for a full 30-credit Undergraduate Certificate in Film Production.

In a world of rapidly changing labour market realities and a shifting job market, governments, employers, and employees all understand the importance of both upskilling and reskilling. In June 2019, the Government of Canada signed two agreements with the Government of Québec to provide the province with nearly \$5.4 billion to invest in its workers and businesses.¹ This funding is committed until 2022–23 and gives an estimated 240,000 Québec workers an opportunity to benefit from skills training programs designed to transition them into the job market, gain access to new career opportunities, or maintain their employment. An example of these Québec-based skills training programs is the Renewed Prosperity Through Greater Training Program (PARAF), which is dedicated to both workers who are new to the job market and those re-entering it after losing a job². PARAF provides financial assistance to candidates enrolled in training programs that lead to a trade or occupation with good job prospects (i.e., considered to have a balanced labour supply and demand or a labour shortage). The Mel Hoppenheim School of Cinema is interested in working jointly with the Government of Quebec to improve access to its programs for cultural workers seeking to re-qualify in the film industry.

According to the Québec Film and Television Council, the film production industry in Québec has been growing steadily in recent years and is projected to maintain this trend well into the new decade (with 2020 being a noted outlier due to the pandemic)³. The government of Québec offers tax incentives to attract foreign productions, which will likely have a positive impact on employment prospects in the region. Continued growth in the film production industry is also forecast for the rest of Canada as well as the US market. Results of recent research examining job prospects for film production professionals showed that the industry tends to seek candidates from non-traditional career paths who do not necessarily possess a university or college degree⁴. Given the state of the industry, and the fact that both the federal and provincial governments incentivize skills training programs to help Quebecers access to new career opportunities, Concordia could substantially benefit Quebecers and Canadians by launching a targeted, short-term, and highly focused microprogram that aligns with the skills most in-demand by the filmmaking industry. This microprogram would be perfectly placed to provide the targeted upskilling opportunities demanded by the filmmaking industry, as well as offer students a more targeted path into employment.

2. Target Audience

Adult learners, mid-career professionals, and lifelong learners represent an important demographic to universities and colleges across Canada. The proposed **Microprogram in Screenwriting and Film Producing** will offer candidates from non-traditional career paths, who do not necessarily possess a university or college degree, the opportunity to pursue short-term, highly focused, stackable micro-credentials and gain the core competencies and skills required to start a film career. Upon successful completion of the microprogram, applicants will be able to explore possibilities for entry level roles in the industry.

These opportunities may include:

¹ <https://www.newswire.ca/news-releases/governments-of-canada-and-quebec-announce-agreements-to-help-canadians-quebecers-and-quebec-businesses-better-adapt-to-new-labour-market-realities-874834378.html>

² <https://www.quebec.ca/en/employment/renewed-prosperity-training-program/>

³ Film Production Industry Report. Business Intelligence Service, Office of AVP Lifelong Learning, Concordia University, November 2020.

⁴ Film Production Industry Report. Business Intelligence Service, Office of AVP Lifelong Learning, Concordia University, November 2020.

- Screenwriter
- Story editor
- Reader/evaluator for producers, studios, funding agents
- Independent producer
- Assistant producer

With a logical path leading to more advanced roles, including:

- Showrunner
- Producer

Admission Requirements

The Mel Hoppenheim School of Cinema will admit seventeen (17) applicants into the proposed microprogram in the first year. After the first year, we envision gradually increasing this number to thirty four (34) in the second year, and capping enrolment at forty five (45) students for year three and thereafter, following a targeted advertising campaign.

Applicants will be selected based on their interest in filmmaking, and will be required to submit a letter of intent (maximum 500 words) explaining their reasons for applying to the microprogram, summarizing their goals, and mentioning any prior academic or work experience in the film industry. Applicants will be chosen with a view to building a diverse cohort with representation from diverse backgrounds, personal and professional experience, academic profile and varied skillsets.

Please note that Mature Entry students won't be required to complete extra credits when enrolling in this microprogram.

Students under the age of 21 may apply under Concordia's standard admissions requirements.

International students are not currently eligible given the small number of credits, however consultations are ongoing with ISO to see if a solution can be found.

Applicants who are required to provide proof of English language proficiency for admission, must achieve the following results:

English Proficiency Test	Test Score
TOEFL (Test of English as a Foreign Language) TOEFL iBT or TOEFL iBT Special home edition	Score 90 or higher, with a minimum combined score of 34 for speaking and writing.
IELTS-International English Language Testing System ("Academic Module")	Score of 7 or higher, no component score under 5.5
DET-Duolingo English Test	Score of 120 and above with no sub-score under 90
CAEL-Canadian Academic English Language Assessment	Minimum overall score 70 with no part under 50
CAE-Cambridge C1 Advanced CPE- Cambridge C2 Proficiency	C1 Advanced and C2 Proficiency: min. score 190 with no part under 165

PTE Academic – Pearson English Language Test	Minimum overall PTE academic score of 61 with a minimum of 46 in speaking and writing
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Additional information on these English Proficiency Tests can be found at the following link: <https://www.concordia.ca/admissions/undergraduate/requirements/english-language-proficiency.html>

It is important to note that this microprogram is not an alternative pathway through Concordia's BFA in Film Production and students seeking admission into the BFA will not be considered for this microprogram. Likewise, students who have completed this microprogram and seek admission to the BFA will have to follow the regular application process already in place. However, should students who have successfully completed the microprogram be accepted in a Mel Hoppenheim School of Cinema BFA program through the regular admissions process, credits for courses taken as part of this microprogram will be transferable as applicable.

3. Curriculum

All screenwriters wish to see their films produced and all film producers seek screenplays to develop. The proposed **Microprogram in Screenwriting and Film Producing** will teach two fundamental aspects of cinema production: the creation of a script and the process of transforming it into a film. More specifically, the microprogram objective is twofold: to guide students in the creation of a screenplay; and to showcase the process of producing individually or collaboratively authored screenplays according to film industry standards. By demonstrating the process both creatively and logistically, this two-part methodology provides a comprehensive overview of the filmmaking process.

Our microprogram uses the screenplay as a gateway to cinema production. Screenwriters often initiate contact with and pitch their ideas to film producers. Understanding the stages of turning a script into a film is key to understanding the industry as a whole. The synthesis of screenwriting and film production will help students navigate the intricacies of the creative, technical and logistical aspects unique to filmmaking, from conception to distribution.

Over the course of the microprogram, students study key elements in the development of story, character, plot, scene structure, and dialogue in both fiction and nonfiction projects. The microprogram also aims to help students find a personal cinematic voice that aligns with their culture, language, and traditions. Students will be encouraged to develop projects that draw on personal history, experience, and independent research. By asking students to conceptualize and complete a screenplay, the microprogram will provide broad knowledge of visual storytelling and scriptwriting techniques. Moreover, students will learn the skills and tools producers use to navigate the financial, legal, and creative challenges of independent film production.

Program Learning Outcomes

The program's learning outcomes are listed below. By the end of the microprogram, each student will be able to:

1. Apply visual storytelling, scriptwriting techniques, and research skills to conceive and write a film script
2. Pitch and present film projects to producers and successfully communicate a creative vision to collaborators
3. Recognize how to apply for financing through grant agencies and other sources of funding and demonstrate a global understanding of the production process from conception to distribution

Curriculum Map

The proposed **Microprogram in Screenwriting and Film Producing** will comprise three intensive courses completed over nine weeks, starting May 31, 2021. FMPR 336 will run concurrently with the other two film writing courses to introduce students to the different stages of filmmaking while they are building core skills in screenwriting. FMPR 341 will conclude in week four, and in week five students will progress to FMPR 441 to start developing a longer screenplay, which serves as the microprogram's capstone project. In the last week of the microprogram students will learn to formally pitch their screenplay to producers and how to apply for financing through grant agencies and other sources of funding.

The structure and duration of the microprogram will allow students (including those living outside of Montreal) to complete the microprogram over the summer. Students will be asked to adhere to the proposed course sequence as shown in the following table:

Weeks	1	2	3	4	5	6	7	8	9	Pre-requisites
FMPR 341	x	x	x	x						None
FMPR 441					x	x	x	x		FMPR 341
FMPR 336	x	x	x	x	x	x	x	x	x	None

Course Structure and Learning Outcomes

Note: As per Concordia's Undergraduate Calendar, although the language of instruction is English, most assignments and examinations may be submitted in French.

FMPR 341 – Writing for Film I (3 credits)

Prerequisite: Enrolment in the Major in Film Production; FMPR 231, 239; one of FMST 201, 202 or 203; FMST 220. An introduction to writing for film. Students explore the written word as a means to convey and clarify visual ideas and cinematic stories. Synopses, treatments and scenarios for various genres are explored. Students are required to submit their own writing for discussion and analysis.⁵

⁵ Note that prerequisites will be edited to ensure students enrolled in the microprogram will have access to the course. See provotrack document attached.

By the end of this course, successful students should be able to:

- Distinguish between different types of scriptwriting across fiction and nonfiction genres
- Analyze scripts and evaluate the techniques used in creating them
- Develop a variety of fundamental skills in the areas of visual storytelling and scriptwriting technique
- Apply scriptwriting techniques to submit written assignments for discussion and analysis
- Establish criteria for defending their own ideas and scripts with strong, precise arguments

FMPR 441 – Writing for Film II (3 credits)

Prerequisite: FMPR 341. Additional topics include adaptations of existing work for the screen and developing longer film projects. Three-act structures as well as new narrative formats and documentary approaches are explored. Students are required to submit their own writing for discussion and analysis.

By the end of this course, successful students should be able to:

- Develop a personal cinematic voice that aligns with their personal history, experience, and independent research
- Successfully communicate a creative vision to collaborators using a thorough understanding of the professional conventions of screenwriting
- Incorporate filmmaking approaches such as the use of sound design, acting and directing styles, or visual material for expanded cinema into their scripts
- Apply research skills to conceive and write a final project in screenwriting

FMPR 336 – Introduction to Film Production (3 credits)

Prerequisite: FMPR 231 or written permission of the School of Cinema. A comprehensive course introducing students to the creative and administrative challenges of producing. This includes strategies for fundraising, pre-production, budgeting and scheduling techniques, legal, financial and insurance concerns, post-production, distribution, and exhibition. A broad range of genres and platforms are covered.⁶

By the end of this course, successful students should be able to:

- Explain the principal stages of filmmaking: development, pre-production, production, and distribution
- Identify the processes required to bring an original film idea from script to screen, from initial concept to distribution
- Recognize the skills and tools producers use to navigate the financial, legal and creative challenges of independent film production
- Create essential documentation covering pitch/development proposals, production management, and the administrative oversight of film projects (e.g., character breakdowns, preliminary budgets, production schedules, contracts with actors' and technicians' unions, location permits, errors and omissions insurance, festival submissions, distribution agreements, etc.)

⁶ Note that prerequisites will be edited to ensure students enrolled in the microprogram will have access to the course. See provotrack document attached.

- Identify the process of applying for financing through grant agencies, private investment, or crowdfunding

Upon successful completion of the program, we propose that students be awarded a Microprogram in Screenwriting and Film Producing. We believe that this microprogram will be most attractive to students if they receive an official transcript from Concordia. If a student interrupts their studies, they would be advised that all courses can be deferred **once** and must be completed within a maximum of a one-year deferral.

Candidates may be encouraged to combine this microprogram with others in the future, such as the proposed microprogram in Fundamentals of Digital Filmmaking (LOI forthcoming). The resulting skill diversity will allow students to qualify for more positions, and offer a better chance at employment or promotion in the film industry, broadcasting, journalism, art, advertising, or arts management.

Our microprogram is designed to mesh the needs of adult and lifelong learners with the unique environment of the filmmaking industry, and includes several innovative elements, including opportunities for cohort building, learning by doing, and the development of employability-boosting skills.

The microprogram will be delivered remotely in its first year with a calculated mix of synchronous and asynchronous classwork. In the first year we anticipate PARAF will generate some of our applicants and we will make efforts to actively recruit for a diverse student base (e.g., mid-career workers, adult learners, and underrepresented racial/ethnic groups) through the implementation of a targeted advertising campaign over the coming years. Through years two to five, we envision redesigning the courses to follow a blended format with the aim of maximizing both accessibility and industry relevance. This model makes every possible allowance for students who have work or family responsibilities.⁷

4. Demand and Societal Need

A massive, emerging cohort of mid-career workers are currently seeking learning opportunities to help them either retain jobs or transition into new careers.⁸ A 2020 survey conducted for Higher Education Strategy Associates estimated the market for new micro-credential programs at over seven million Canadians.⁹ Concordia University is positioned to be a leading source of microprograms that meet these needs, providing adult learners with flexibility, brevity and specificity in developing new skills.

Micro-credentials are gaining relevance in the Canadian job market by offering an on-ramp that identifies and meets specific learning needs in a variety of fast-moving industries. Both academic and non-university organizations now frequently break learning down into small, rapidly-digestible microprograms and stackable degrees.

⁷ Daniel Munro, "Skills, Training and Lifelong Learning," Public Policy Forum, March 2019. <https://ppforum.ca/wp-content/uploads/2019/03/SkillsTrainingAndLifelongLearning-PPF-MARCH2019-EN.pdf>.

⁸ Desire2Learn, "The Future of Lifelong Learning," 2020. <https://www.d2l.com/wp-content/uploads/2020/02/Future-of-Lifelong-Learning-D2L-2020-Digital-Edition.pdf>.

⁹ As cited in ONTARIO 360: A Lifelong Learning Strategy for Ontario. https://on360.ca/policy-papers/a-lifelong-learning-strategy-for-ontario/#_edn15

Quebec's filmmaking industry has seen phenomenal growth in production volume in recent years. The provincial government offers tax incentives to attract foreign productions, and Hollywood films shot in Quebec include *Night At The Museum: Battle of the Smithsonian* (2009), *The Day After Tomorrow* (2004), and *The Trotsky* (2009). Many U.S. film and TV productions have recently been granted permission to resume filming in Quebec, provided they adhere to government guidelines. The Province has also implemented a \$51 million program to support its home-grown film and TV industry¹⁰, which is slowly resuming to normal after the coronavirus forced productions to stop. A new microprogram at the Mel Hoppenheim School of Cinema would further contribute to the economic recovery of post-pandemic Quebec, as well as to the diversification of its workforce.

The fluid state of the film industry, its changing workforce, recent government incentives, and the ever-growing demand for new media content all require a continuous influx of highly skilled workers. Concordia University has a golden opportunity to respond to these emerging labour needs by moving beyond traditional programs to embrace short, flexible, and industry-tied learning models like the Microprogram in Screenwriting and Film Producing.

5. Institutional Fit

The proposed microprogram is central to Concordia's [Next-Generation Learning Project](#), and is one of five transformation projects in Concordia's [Strategic Directions Initiative](#). The Next-Generation Learning Project seeks to provide inclusive access to students who need flexible, lifelong learning opportunities. The Project also encourages the creation of skill-oriented programs designed to help students develop in-demand skills in order to secure meaningful work and professional advancement.

The proposed microprogram also builds on Concordia's efforts to create more relevant and forward-looking program offerings, and to address the evolving needs of adult learners. Through incremental changes and small interventions (including this proposed microprogram), Concordia will be able to deliver next-generation educational options that connect students directly to rapidly changing professional environments.

6. Program Alignment within Unit

The proposed microprogram builds on pre-existing strengths within the Mel Hoppenheim School of Cinema's academic structure. The school offers a competitive BFA in Film Production; has established filmmakers, media artists, and scholars as instructors and mentors; boasts modern production studios catering to everything from analog techniques to the latest digital technologies; and possesses a wide range of film and digital equipment¹¹. Our intention is to expand in-house learning opportunities designed for non-traditional students by building upon existing programs. The microprogram will be taught by the same faculty who teach in the BFA, and will capitalize on existing student-support infrastructure.

Given the success of its current programs, the Mel Hoppenheim School of Cinema is keen to explore novel program design models and tap into new student demographics.

¹⁰ <https://www.iheartradio.ca/cjad/news/quebec-announces-51-million-to-get-film-sets-rolling-1.12965748>

¹¹ <https://www.concordia.ca/academics/undergraduate/film-production.html>

7. Consultation

This microprogram was framed in consultation with the following members within and beyond Concordia University:

- i. Annie Gerin, Dean, Fine Arts
- ii. Jean-Claude Bustros, Chair, Mel Hoppenheim School of Cinema
- iii. Dalia Radwan, Curriculum Developer, Centre for Teaching and Learning
- iv. Michael Yaroshevsky, Associate Professor, Mel Hoppenheim School of Cinema
- v. Elaine Paterson, Associate Dean, Academic Programmes and Pedagogy, Fine Arts
- vi. Marie-Ève Marchand, Facilitator, Academic Affairs, Fine Arts
- vii. Sandra Gabriele, Vice-Provost of Innovation in Teaching and Learning
- viii. Sylvie Bourrassa, Executive Director, Government Relations, Office of the President
- ix. Isabel Dunnigan, Executive Director of Continuing Education
- x. Julie Johnston, Administrator, University Curriculum Office of the Provost
- xi. Stéphanie de Celles, University Registrar
- xii. International Students Office

The Mel Hoppenheim School of Cinema is well known for its high-quality, competitive film production programs. This microprogram will complement the BFA program by providing an alternative education pathway for many students and cultural workers unable to commit to a full bachelor's degree in film production and seeking to enter or re-qualify in the film industry.

In addition, the new microprogram's industry-tied model makes it ideal as a possible component of future stackable programs both within and beyond the Mel Hoppenheim School of Cinema. The creation of this microprogram is therefore a strategic initiative that aligns with the University's plan to introduce stackable certificate curriculum pathways to students. Finally, because it is suitable for remote delivery in the first year and beyond, it will place minimal stress on existing resources and on-site facilities.

8. Resources and Budget

Resource implications for this microprogram are minimal and include additional course sections as well as Teaching Assistant support, as shown in the chart below.

Program Year	Academic Year	Total Students Enrolled	Additional Course Sections	TA Hours
Year 1	2021-22	17	3	90
Year 2	2022-23	34	5	150
Year 3	2023-24	45	7	210
Year 4	2024-25	45	7	210
Year 5	2025-26	45	7	210

The Faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram. Please see attached budget for details.

Requested amounts for the Department of: Mel Hoppenheim School of Cinema
Program name: Microprogram in Screenwriting and Film Producing (Summer)

Program Financial Viability

REVENUE	Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Tuition Fee							
Tuition (FTE)	\$	13,377	\$ 26,754	\$ 35,409	\$ 35,409	\$ 35,409	\$ 146,358
Grants							
Teaching Grant (WFTE)	\$	86,208	\$ 172,416	\$ 228,198	\$ 228,198	\$ 228,198	\$ 943,218
Support Grant (FTE)	\$	10,585	\$ 21,170	\$ 28,020	\$ 28,020	\$ 28,020	\$ 115,815
Total grants	\$	96,793	\$ 193,587	\$ 256,218	\$ 256,218	\$ 256,218	\$ 1,059,033
Additional Funding External	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenue	\$ -	\$ 110,170	\$ 220,340	\$ 291,627	\$ 291,627	\$ 291,627	\$ 1,205,390
EXPENSES							
TEACHING							
Tenure Track	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Extended Term Contrats	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Limited Term Contracts	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lecturers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Course remissions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Technical support	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Part Time Contracts	\$ -	\$ 41,250	\$ 68,750	\$ 96,250	\$ 96,250	\$ 96,250	\$ 398,750
Teacher's Assistants	\$ -	\$ 2,484	\$ 4,140	\$ 5,796	\$ 5,796	\$ 5,796	\$ 24,012
Stipends	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ADMIN STAFF							
Administrative Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Payroll	\$ -	\$ 43,734	\$ 72,890	\$ 102,046	\$ 102,046	\$ 102,046	\$ 422,762
OTHER EXPENSES							
Total Other Expenses	\$ 2,000	\$ 5,000	\$ 2,500	\$ 2,500	\$ 1,000	\$ 1,000	\$ 14,000
Total Expenses	\$ 2,000	\$ 48,734	\$ 75,390	\$ 104,546	\$ 103,046	\$ 103,046	\$ 436,762
CONCORDIA UNIVERSITY SURPLUS / (DEFICIT)	\$ (2,000)	\$ 61,436	\$ 144,950	\$ 187,081	\$ 188,581	\$ 188,581	\$ 768,628

Faculty Financial Viability

ADDITIONAL BASE FUNDING		Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Additional Base Funding per FTE	\$ 900			\$ 4,590	\$ 9,180	\$ 12,150	\$ 12,150	\$ 38,070
Additional Base Funding per WFTE	\$ 1,200			\$ 28,886	\$ 57,773	\$ 76,464	\$ 76,464	\$ 239,587
Additional Base funding - full time TT Hire	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Provost, External, Capital or Institutional funding	\$ -	\$ 48,734	\$ 41,914	\$ 37,593	\$ 14,432	\$ 14,432	\$ 157,105	
Total Additional Funding	\$ -	\$ 48,734	\$ 75,390	\$ 104,546	\$ 103,046	\$ 103,046	\$ 103,046	\$ 434,762
ADDITIONAL EXPENSES		Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Payroll	\$ -	\$ 43,734	\$ 72,890	\$ 102,046	\$ 102,046	\$ 102,046	\$ 102,046	\$ 422,762
Other Expenses	\$ 2,000	\$ 5,000	\$ 2,500	\$ 2,500	\$ 1,000	\$ 1,000	\$ 1,000	\$ 14,000
Total Expenses	\$ 2,000	\$ 48,734	\$ 75,390	\$ 104,546	\$ 103,046	\$ 103,046	\$ 103,046	\$ 436,762
FACULTY SURPLUS / (DEFICIT)	\$ (2,000)	\$ -	\$ 0	\$ (0)	\$ -	\$ -	\$ -	\$ (2,000)

Requested amounts for the Department of: Mel Hoppenheim School of Cinema
Program name: Microprogram in Screenwriting and Film Producing (Summer)

NOTE : ONLY NEED TO BE POPULATED

	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
STUDENTS						
Cycle 1 FTE (FTE = 30 credits)						
New Cycle 1 FTE registered in the program	5.1	10.2	13.5	13.5	13.5	Y1: FTE= 17 students at 9 credits = 9/30 x 17= Attrition reduced to 5% because drop rates should be low for such a short program.
Total credits for Program	9					
Attrition rate	5%					
TOTAL FTE	5.10	10.20	13.50	13.50	13.50	
Program Family	Weight					
Fine Arts	4.72					
Weighted FTE	24.07	48.14	63.72	63.72	63.72	

REVENUE	Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Tuition Fee							
Tuition (FTE)	\$ 2,623	\$ 13,377	\$ 26,754	\$ 35,409	\$ 35,409	\$ 35,409	\$ 146,358
Grants							
Teaching Grant (WFTE)	\$ 3,581	\$ 86,208	\$ 172,416	\$ 228,198	\$ 228,198	\$ 228,198	\$ 943,218
Support Grant (FTE)	\$ 2,076	\$ 10,585	\$ 21,170	\$ 28,020	\$ 28,020	\$ 28,020	\$ 115,815
Total grants		\$ 96,793	\$ 193,587	\$ 256,218	\$ 256,218	\$ 256,218	\$ 1,059,033
External							\$ -
Total Revenue	\$ -	\$ 110,170	\$ 220,340	\$ 291,627	\$ 291,627	\$ 291,627	\$ 1,205,390
Additional Funding							
Internal							
Provost Office		\$ 48,734	\$ 41,914	\$ 37,593	\$ 14,432	\$ 14,432	\$ 157,105
Institutional							\$ -
Capital Fund (1)							\$ -
Other							\$ -
Total internal sources of funding for the faculty	\$ -	\$ 48,734	\$ 41,914	\$ 37,593	\$ 14,432	\$ 14,432	\$ 157,105

Requested amounts for the Department of: Mel Hoppenheim School of Cinema
Program name: Microprogram in Screenwriting and Film Producing (Summer)

Program Financial Viability

REVENUE	Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Tuition Fee							
Tuition (FTE)		\$ 13,377	\$ 26,754	\$ 35,409	\$ 35,409	\$ 35,409	\$ 146,358
Grants							
Teaching Grant (WFTE)		\$ 86,208	\$ 172,416	\$ 228,198	\$ 228,198	\$ 228,198	\$ 943,218
Support Grant (FTE)		\$ 10,585	\$ 21,170	\$ 28,020	\$ 28,020	\$ 28,020	\$ 115,815
Total grants		\$ 96,793	\$ 193,587	\$ 256,218	\$ 256,218	\$ 256,218	\$ 1,059,033
Additional Funding External	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenue	\$ -	\$ 110,170	\$ 220,340	\$ 291,627	\$ 291,627	\$ 291,627	\$ 1,205,390
EXPENSES							
TEACHING							
Tenure Track	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Extended Term Contrats	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Limited Term Contracts	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lecturers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Course remissions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Technical support	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Part Time Contracts	\$ -	\$ 41,250	\$ 68,750	\$ 96,250	\$ 96,250	\$ 96,250	\$ 398,750
Teacher's Assistants	\$ -	\$ 2,484	\$ 4,140	\$ 5,796	\$ 5,796	\$ 5,796	\$ 24,012
Stipends	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ADMIN STAFF							
Administrative Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Payroll	\$ -	\$ 43,734	\$ 72,890	\$ 102,046	\$ 102,046	\$ 102,046	\$ 422,762
OTHER EXPENSES							
Total Other Expenses	\$ 2,000	\$ 5,000	\$ 2,500	\$ 2,500	\$ 1,000	\$ 1,000	\$ 14,000
Total Expenses	\$ 2,000	\$ 48,734	\$ 75,390	\$ 104,546	\$ 103,046	\$ 103,046	\$ 436,762
CONCORDIA UNIVERSITY SURPLUS / (DEFICIT)	\$ (2,000)	\$ 61,436	\$ 144,950	\$ 187,081	\$ 188,581	\$ 188,581	\$ 768,628

Faculty Financial Viability

ADDITIONAL BASE FUNDING		Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Additional Base Funding per FTE	\$ 900			\$ 4,590	\$ 9,180	\$ 12,150	\$ 12,150	\$ 38,070
Additional Base Funding per WFTE	\$ 1,200			\$ 28,886	\$ 57,773	\$ 76,464	\$ 76,464	\$ 239,587
Additional Base funding - full time TT Hire	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Provost, External, Capital or Institutional funding	\$ -	\$ 48,734	\$ 41,914	\$ 37,593	\$ 14,432	\$ 14,432	\$ 157,105	
Total Additional Funding	\$ -	\$ 48,734	\$ 75,390	\$ 104,546	\$ 103,046	\$ 103,046	\$ 103,046	\$ 434,762
ADDITIONAL EXPENSES		Year 0 Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Payroll	\$ -	\$ 43,734	\$ 72,890	\$ 102,046	\$ 102,046	\$ 102,046	\$ 102,046	\$ 422,762
Other Expenses	\$ 2,000	\$ 5,000	\$ 2,500	\$ 2,500	\$ 1,000	\$ 1,000	\$ 1,000	\$ 14,000
Total Expenses	\$ 2,000	\$ 48,734	\$ 75,390	\$ 104,546	\$ 103,046	\$ 103,046	\$ 103,046	\$ 436,762
FACULTY SURPLUS / (DEFICIT)	\$ (2,000)	\$ -	\$ 0	\$ (0)	\$ -	\$ -	\$ -	\$ (2,000)

The microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.

PROGRAM CHANGE: Creation of Microprogram in Screenwriting and Film Producing

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Production
Degree: Microprogram
Calendar Section/Graduate Page Number: 81.60

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>24 Minor in Film Studies 12 Chosen from FMST 200⁶, 2013, 202³, 203³, 220³ 12 Film Studies electives** <i>Students in Communication Studies Department degree programs must have written permission of their Department to enter this program.</i> NOTES: *One of FMST 201, 202 and 203; and FMST 220 should be taken as part of the first 30 credits. **Up to 12 credits chosen from the Communication Studies courses listed in §81.60.3 may be applied as Film Studies or Cinema electives for degree purposes in the Major and Specialization in Film Production, and the Major and Specialization in Film Studies. Up to six credits chosen from the Communication Studies courses listed in §81.60.3 may be applied as Film Studies or Cinema electives for degree purposes in the Minor in Cinema and the Minor in Film Studies. ***Communication Studies 301 may be substituted for three credits in Film Studies and must be considered as Film Studies credits for degree purposes. ****VDEO 350 may be applied as a Cinema elective for degree purposes in the Specialization in Film Production, the Specialization in Film Studies, and all Cinema Major programs.</p> <p>Minor in Interdisciplinary Studies in Sexuality See §81.30</p>	<p>24 Minor in Film Studies 12 Chosen from FMST 200⁶, 201³, 202³, 203³, 220³ 12 Film Studies electives** <i>Students in Communication Studies Department degree programs must have written permission of their Department to enter this program.</i> NOTES: *One of FMST 201, 202 and 203; and FMST 220 should be taken as part of the first 30 credits. **Up to 12 credits chosen from the Communication Studies courses listed in §81.60.3 may be applied as Film Studies or Cinema electives for degree purposes in the Major and Specialization in Film Production, and the Major and Specialization in Film Studies. Up to six credits chosen from the Communication Studies courses listed in §81.60.3 may be applied as Film Studies or Cinema electives for degree purposes in the Minor in Cinema and the Minor in Film Studies. ***Communication Studies 301 may be substituted for three credits in Film Studies and must be considered as Film Studies credits for degree purposes. ****VDEO 350 may be applied as a Cinema elective for degree purposes in the Specialization in Film Production, the Specialization in Film Studies, and all Cinema Major programs.</p> <p><u>9 Microprogram in Screenwriting and Film Producing</u> <u>9 FMPR 336³, 341³, 441³</u></p> <p>Minor in Interdisciplinary Studies in Sexuality See §81.30</p>

Rationale:
 The proposed microprogram builds on pre-existing strengths within the School of Cinema's academic structure. The School is keen to embrace novel program design models and tap into new student demographics, particularly among candidates with non-traditional backgrounds or from groups under-represented in the film industry. The film production industry in Québec has been growing steadily in recent years and is projected to maintain this trend well into the new decade. The proposed microprogram would provide an upskilling opportunity demanded by the filmmaking industry, as well as offer students a more targeted path into employment.

Resource Implications:

The microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.

PROGRAM CHANGE: Admissions Requirements for Microprogram

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Production
Degree: Microprogram in Screenwriting and Film Producing
Calendar Section/Graduate Page Number: 81.60.1

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Admission to Cinema Programs</p> <p>For programs in Film Animation and Film Production, the Mel Hoppenheim School of Cinema has distinct admission procedures in addition to the normal admission process of Concordia University. In order to allow sufficient preparatory time, applicants are strongly urged to visit the School's website at concordia.ca/finearts/cinema to obtain important information regarding portfolio submission procedures and deadline dates. There are no additional requirements for admission to Film Studies.</p> <p><i>NOTE: The Specialization in Film Production is offered at the third-year level. Students taking FMPR 332, in the Major in Film Production, may apply for transfer to the Specialization in Film Production by March 1.</i></p>	<p>Admission to Cinema Programs</p> <p>For programs in Film Animation and Film Production, the Mel Hoppenheim School of Cinema has distinct admission procedures in addition to the normal admission process of Concordia University. In order to allow sufficient preparatory time, applicants are strongly urged to visit the School's website at concordia.ca/finearts/cinema to obtain important information regarding portfolio submission procedures and deadline dates. Applicants to the Microprogram in Screenwriting and Film Producing must submit a letter of intent as part of the application process. There are no additional requirements for admission to Film Studies.</p> <p><i>NOTE: The Specialization in Film Production is offered at the third-year level. Students taking FMPR 332, in the Major in Film Production, may apply for transfer to the Specialization in Film Production by March 1.</i></p>
<p>Rationale:</p> <p>The proposed microprogram builds on pre-existing strengths within the School of Cinema's academic structure. The School is keen to embrace novel program design models and tap into new student demographics, particularly among candidates with non-traditional backgrounds or from groups under-represented in the film industry. The film production industry in Québec has been growing steadily in recent years and is projected to maintain this trend well into the new decade. The proposed microprogram would provide an upskilling opportunity demanded by the filmmaking industry, as well as offer students a more targeted path into employment.</p> <p>Applicants will be required to submit a letter of intent (maximum 500 words) explaining their reasons for applying to the microprogram, summarizing their goals, and mentioning any prior academic or work experience in the film industry. Applicants will be chosen with a view to building a diverse cohort with representation from diverse backgrounds, personal and professional experience, academic profile and varied skillsets.</p>	
<p>Resource Implications:</p> <p>The microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.</p>	

COURSE CHANGE: FMPR 336 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Production
Degree: microprogram
Calendar Section/Graduate Page Number: 81.60.1

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>FMPR 336 <i>Introduction to Film Producing</i> (3 credits) Prerequisite: FMPR 231 or written permission of the School of Cinema. A comprehensive course introducing students to the creative and administrative challenges of producing. This includes strategies for fundraising, pre-production, budgeting and scheduling techniques, legal, financial and insurance concerns, post-production, distribution, and exhibition. A broad range of genres and platforms are covered.</p>	<p>FMPR 336 <i>Introduction to Film Producing</i> (3 credits) Prerequisite: FMPR 231 or permission of the School of Cinema or enrolment in the Microprogram in Screenwriting and Film Producing. This comprehensive course introduces students to the creative and administrative challenges of producing. This includes strategies for fundraising, pre-production, budgeting and scheduling techniques, legal, financial and insurance concerns, post-production, distribution, and exhibition. A broad range of genres and platforms are covered.</p>
<p>Rationale: Courses taken as part of the microprogram are bundled together to address a set of specific competencies, and therefore students enrolled in the microprogram are not required to take the same pre-requisites as students in the BFA program.</p> <p>Should students who have successfully completed the microprogram be accepted in a Mel Hoppenheim School of Cinema BFA program through the regular admissions process, credits for courses taken as part of this microprogram will be transferable as applicable.</p>	
<p>Resource Implications: The microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.</p>	
<p>Other Programs within which course is listed: BFA Specialization in Film Production</p>	

COURSE CHANGE: FMPR 341 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Production
Degree: microprogram
Calendar Section/Graduate Page Number: 81.60.1

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>FMPR 341 <i>Writing for Film I</i> (3 credits) Prerequisite: Enrolment in the Major in Film Production; FMPR 231, 239; one of FMST 201, 202 or 203; FMST 220. An introduction to writing for film. Students explore the written word as a means to convey and clarify visual ideas and cinematic stories. Synopses, treatments and scenarios for various genres are explored. Students are required to submit their own writing for discussion and analysis.</p>	<p>FMPR 341 <i>Writing for Film I</i> (3 credits) Prerequisite: Enrolment in the Major in Film Production; FMPR 231, 239; one of FMST 201, 202 or 203; FMST 220; or enrolment in the Microprogram in Screenwriting and Film Producing. This course is an introduction to writing for film. Students explore the written word as a means to convey and clarify visual ideas and cinematic stories. Synopses, treatments and scenarios for various genres are explored. Students are required to submit their own writing for discussion and analysis.</p>
<p>Rationale: Courses taken as part of the microprogram are bundled together to address a set of specific competencies, and therefore students enrolled in the microprogram are not required to take the same pre-requisites as students in the BFA program.</p> <p>Should students who have successfully completed the microprogram be accepted in a Mel Hoppenheim School of Cinema BFA program through the regular admissions process, credits for courses taken as part of this microprogram will be transferable as applicable.</p>	
<p>Resource Implications: The microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.</p>	
<p>Other Programs within which course is listed: BFA Specialization in Film Production; BFA Specialization in Film Studies</p>	

COURSE CHANGE: FMPR 441 New Course Number:**Proposed** Undergraduate or Graduate Curriculum Changes**Calendar for academic year:** 2022/2023
Implementation Month/Year: May 2021**Faculty/School:** Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Production
Degree: Microprogram
Calendar Section/Graduate Page Number: 81.60.1**Type of Change:**

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>FMPR 441 <i>Writing for Film II</i> (3 credits) Prerequisite: FMPR 341. An advanced exploration of topics covered in FMPR 341. Additional topics include adaptations of existing work for the screen and developing longer film projects. Three-act structures as well as new narrative formats and documentary approaches are explored. Students are required to submit their own writing for discussion and analysis.</p>	<p>FMPR 441 <i>Writing for Film II</i> (3 credits) Prerequisite: FMPR 341. This course is an advanced exploration of topics covered in FMPR 341. Additional topics include adaptations of existing work for the screen and developing longer film projects. Three-act structures as well as new narrative formats and documentary approaches are explored. Students are required to submit their own writing for discussion and analysis.</p>
<p>Rationale: Courses taken as part of the microprogram are bundled together to address a set of specific competencies, and therefore students enrolled in the microprogram are not required to take the same pre-requisites as students in the BFA program.</p> <p>Should students who have successfully completed the microprogram be accepted in a Mel Hoppenheim School of Cinema BFA program through the regular admissions process, credits for courses taken as part of this microprogram will be transferable as applicable.</p>	
<p>Resource Implications: The microprogram has minimal resource implications. The faculty will require the budget to be transferred in to cover the resources required to run the proposed microprogram.</p>	
<p>Other Programs within which course is listed:</p> <p>BFA Specialization in Film Production; BFA Specialization in Film Studies</p>	



Film Production Industry Report

In response to Dean Gérin's Request for Information on Needs / Interests in Training / Retraining on Film Industry Jobs / Skills

Business Intelligence Service
Office of AVP Lifelong Learning
2020-11-11



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- Film Industry Overview
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Executive Summary

Objective

This report aims to provide data, information and insights for Faculty of Arts on the needs / interests for training and retraining for film industry job skills.

Methodology

The information is gathered through secondary research on resources online. Major sections include:

- ✓ A film industry overview section provides the outlook for the industry that has significant implication for labor force demand.
- ✓ Job prospects are examined for film production related professions to shed light on the long-term trend in talent needs.
- ✓ Current needs are identified through analysis of job postings to reveal the skills sought after.
- ✓ Registration statistics are curated and analyzed for major online learning platforms to offer insights on skills that are in high demand.
- ✓ Analysis is also done for the competitive landscape in training programs that include not only universities, colleges and schools, as well as professional development program offered by professional organizations.

Please note that there is a kicker at the bottom of each page to summarize the main take-away for that page.

Constraints

Please note that the research results are subject to availability of relevant information on various platforms, and the availability of time and resources.

Executive Summary (continued)

Key Findings

1. The film production industry has been steadily growing in the past few years and is projected to keep this trend in the next few years (with 2020 as an outlier considering the Covid context). This applied to Quebec, Canada and US markets.
2. The job prospects for multiple roles in the movie and video production industry are fair for Quebec province.
3. The current hiring needs center on video production and editing, with demand high on assistance, coordination and supervision of production.
4. Registrations on online learning platforms correspond to the needs in the industry – the courses with the most learners are in the video editing field.
5. Visual effects and animation (VFX) is a hot emerging field with lots of demand and Montreal is becoming a very competitive location for VFX services.

Recommendations

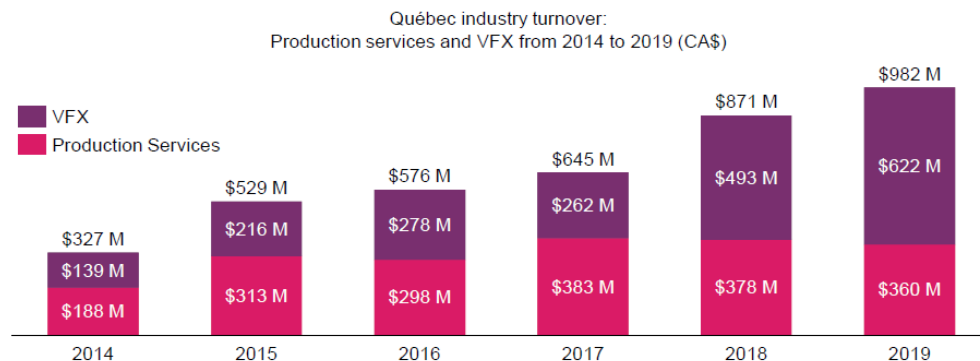
1. **Short-time professional development programming** could be an interesting option as opposed to full-blown programs. The rationale is that most job postings examined don't require a university or college degree. A **summer bootcamp** style program might attract a lot of interests.
2. **Video production and editing** is the most popular and sought after skill sets in the recruitment side and also online learning sites - it could be the theme of the bootcamp.
3. **Production management and coordination** is in high demand. A series of **workshops** on this topic might be worth considering for development.

Film Industry Overview

Quebec Movie & Video Production Industry: Stats and Trends Analysis

The following data is gathered through Quebec Film and Television Council as well as Montreal International, focusing on the general trend of the industry in the Quebec province.

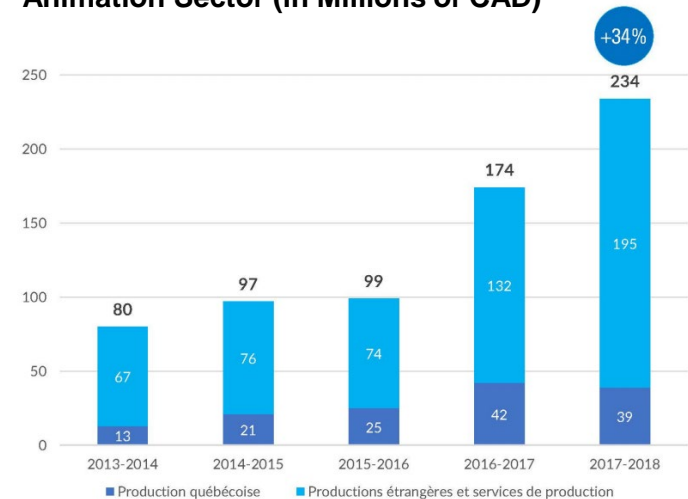
Production volume in Québec has seen phenomenal growth in the last few years



The VFX services turnover almost quintupled from 2014 to 2019, going from \$139M to \$622M

Source: Québec Film and Television Council, Annual Report 2019-2020.

Trend in Business Volume for the Quebec Animation Sector (in Millions of CAD)



Source: Profile of the Audiovisual Industry in Quebec in 2018, Observatoire de la culture et des communications du Québec

In the 2019 survey Quebec Film and Television Council has conducted on compensation and jobs in the visual effects (VFX) and animation sector, 26 studios (16 VDX studios and 10 animation studios) representing 90% of the labour force have participated (data shown was collected in 2019 prior to Covid-19 crisis).

225+

PROJECTS
COMPLETED IN
QUEBEC

5,900

FULL-TIME EQUIVALENT JOBS



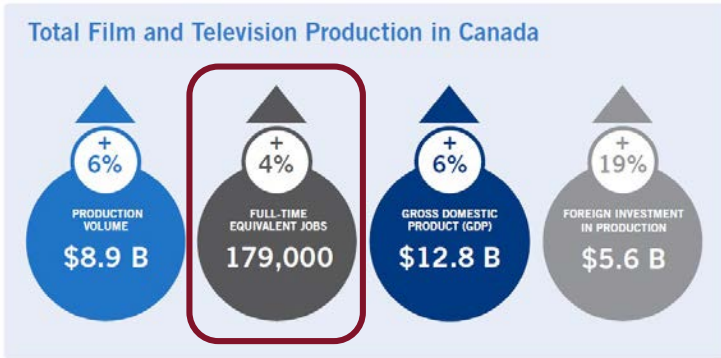
In Quebec, the film production industry has witnessed **continued growth** in the past few years. The government offers **tax incentives** to attract foreign productions, which may impact the **employment prospects** of the region. Montreal International has made visual effects and animation (VFX) one of its key sectors to focus on in its strategy.

Canada Movie & Video Production Industry: Stats and Trends Analysis

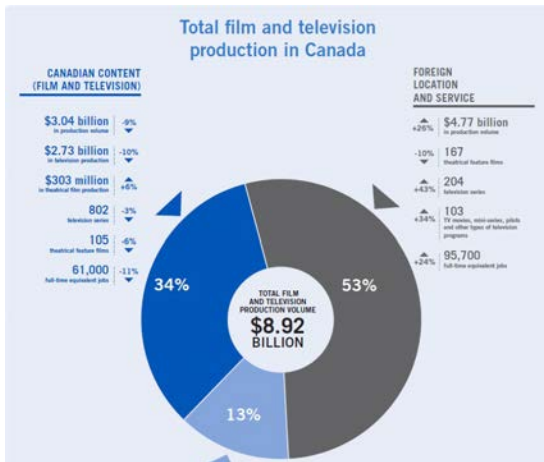
Profile 2018

AT A GLANCE

The screen-based market in Canada



Sources: **Canadian content:** Estimates based on data collected from the Canadian Audio-Visual Certification Office (CAVCO) and CRTC. **Foreign location and service:** Association of Provincial Funding Agencies (APFA).
 1. Throughout this report, "volume" or "total volume" refers to the sum of production budgets.
 2. Prior to 2017/18, mini-series were included as part of the TV other category. In 2017/18, the statistics for mini-series were collected in the TV series category. For this reason, the year-over-year growth in TV series production in 2017/18 is slightly overstated. However, the vast majority of production in the TV series category is still likely comprised of TV series rather than TV mini-series.

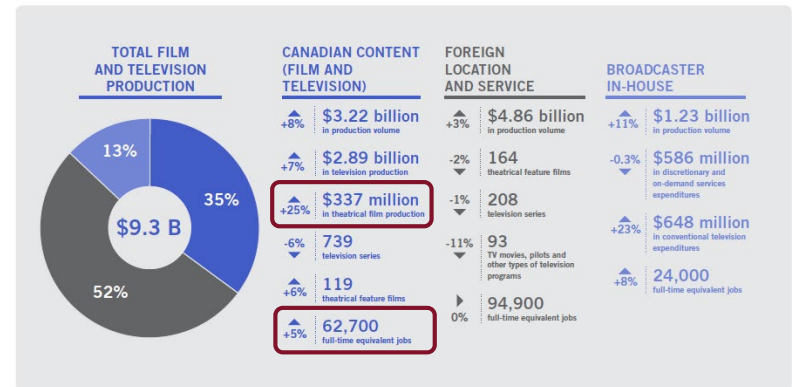
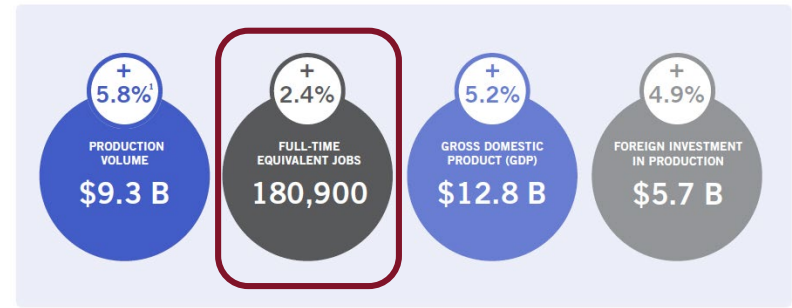


Source: PROFILE 2018: ECONOMIC REPORT ON THE SCREEN-BASED MEDIA PRODUCTION INDUSTRY IN CANADA

Profile 2019

AT A GLANCE

Total Film and Television Production in Canada



Sources: **Canadian content:** Estimates based on data collected from the Canadian Audio-Visual Certification Office (CAVCO) and CRTC. **Foreign location and service:** Association of Provincial Funding Agencies (APFA). **Broadcaster in-house:** Estimates based on data from CRTC and CBC/Radio-Canada.
 1. Throughout this report, "volume" or "total volume" refers to the sum of production budgets.
 2. Prior to 2017/18, mini-series were included as part of the TV-Other category. Beginning in 2017/18, the statistics for mini-series have been collected in the TV series category. For this reason, the year-over-year growth in TV series production in 2017/18 is slightly overstated. However, the vast majority of production in the TV series category is still likely comprised of TV series rather than TV mini-series.

Source: PROFILE 2019: ECONOMIC REPORT ON THE SCREEN-BASED MEDIA PRODUCTION INDUSTRY IN CANADA

In Canada, the theatrical film production saw a major increase and 5% increase in jobs in 2019. Foreign location and service accounts for half of the production volume and employ an even larger number of people.

US Movie & Video Production Industry: Stats and Trends Analysis

It is worth looking at the trend and prospects of the US movie production industry since foreign location and service accounts for more than half of the production volume in Canada. A growing US industry could imply a growing need for Canadian movie production services and talents, given the tax incentives provided by the provincial governments.

2020 Key Facts

\$31.5bn

Movie & Video Production in the US Market Size in 2020

-7.1%

Movie & Video Production in the US Market Size Growth in 2020

1%

Movie & Video Production in the US Annualized Market Size Growth 2015–2020



Number of Businesses: 6,481



Industry Employment: 57,089

Quebec offers tax incentives of 20% on all expenditures, as well as 16% bonus on labour for V/X/Green screen shots & animation.
(source: <https://www.filminginquebec.com/>)

Year	Revenue (%)	IVA (%)	Establishments (%)	Enterprises (%)	Employment (%)
2006	2.98	7.12	3.96	4.10	7.68
2007	-3.66	-4.94	6.26	6.46	-4.53
2008	-11.6	-6.35	-14.1	-14.8	-2.33
2009	-8.75	-3.97	-2.00	-2.29	-9.36
2010	-5.71	-10.1	-4.10	-3.83	-12.5
2011	-5.80	-9.35	-2.50	-2.65	-5.94
2012	1.61	8.91	2.37	2.19	4.70
2013	2.51	-1.98	-2.27	-2.22	4.29
2014	-2.38	-2.64	0.58	0.77	-9.65
2015	4.34	-3.14	3.31	3.50	4.46
2016	2.13	-1.58	0.26	0.05	5.78
2017	-0.86	15.3	7.80	6.99	8.25
2018	6.29	12.9	3.34	3.13	4.78
2019	5.01	7.15	3.31	3.20	4.31
2020	-7.15	-7.51	-1.45	-1.10	-3.95
2021	7.43	9.08	4.44	4.24	5.74
2022	6.26	6.36	4.31	4.15	5.46
2023	6.69	6.68	4.56	4.41	5.80
2024	5.19	5.32	4.33	4.25	4.85
2025	5.54	5.14	4.18	4.08	4.93

Employment in the industry has been **steadily going up** since 2015 (2020 as an exception due to Covid-19), and is projected to **keep increasing** for the **next 5 years**. A booming industry in US may have spillover effects on demand for Canadian services and talents, especially in the context that Quebec offers not only tax incentive, but also assistance to foreign productions.



Needs / Interests Analysis

Long-term Job Prospects

Job prospects for Managers – publishing, motion picture, broadcasting and performing arts*

*Please note that this role can't be broken down further to zero in on motion picture only, since the data provided by the government is on an aggregated basis.

Quebec Fair ★★★ ▼

The employment outlook will be fair for Managers - publishing, motion pictures, broadcasting and performing arts (NOC 0512) in Québec for the 2019-2021 period.

The following factors contributed to this outlook:

- Employment growth will lead to a moderate number of new positions.
- Several positions will become available due to retirements.
- There are a moderate number of unemployed workers with recent experience in this occupation.

Here are some key facts about Managers - publishing, motion pictures, broadcasting and performing arts in Québec:

- Approximately 1,900 people work in this occupation.

Sources: <https://www.jobbank.gc.ca/outlookreport/occupation/17495> (Retrieved on October 31, 2020)

Expertise

People working in this occupation usually apply the following skill set.

- Establish procedures and implement policies
- Plan and maintain production schedules
- Prepare budgets and monitor revenues and expenses
- Consult with government regulatory agencies
- Review programs and policies to ensure conformance with regulations
- Initiate or approve development of articles, books, films, broadcasts, musical recording and theatre productions
- Liaise with authors, composers, producers and directors

<https://www.jobbank.gc.ca/marketreport/skills/17495/ca> (retrieved on November 9, 2020)



Employment growth is indicated in the job prospects and the main skill sets identified center around management, planning, communication, legal and finance management.

Long-term Job Prospects

Job prospects for Producers, directors, choreographers and related occupations

*Please note that this role can't be broken down further to narrow in on motion picture only, since the data provided by the government is on an aggregated basis.

Quebec Fair ★★★ ▼

The employment outlook will be fair for Producers, directors, choreographers and related occupations (NOC 5131) in Québec for the 2019-2021 period.

The following factors contributed to this outlook:

- Employment growth will lead to several new positions.
- Not many positions will become available due to retirements.
- There are a moderate number of unemployed workers with recent experience in this occupation.

Here are some key facts about Producers, directors, choreographers and related occupations in Québec:

- Approximately 8,700 people work in this occupation.
- Producers, directors, choreographers and related occupations mainly work in the following sectors:
 - Information and cultural industries (NAICS 51): 60%
 - Arts, entertainment and recreation (NAICS 71): 19%
 - Other professional, scientific and technical services (NAICS 5414, 5416-5419): 7%
- The distribution of full-time and part-time workers in this occupation is:
 - Full-time workers: 87% compared to 80% for all occupations
 - Part-time workers: 13% compared to 20% for all occupations
- 50% of producers, directors, choreographers and related occupations work all year, while 50% work only part of the year, compared to 58% and 42% respectively among all occupations. Those who worked only part of the year did so for an average of 34 weeks compared to 33 weeks for all occupations.
- 39% of producers, directors, choreographers and related occupations are self-employed compared to an average of 12% for all occupations.

Expertise

People working in this occupation usually apply the following skill set.

- Organize and co-ordinate production
- Determine treatment, scope and scheduling of production
- Interpret scripts, select the cast and advise in the interpretation and delivery of the performance
- Create dances for film, theater and television
- Direct rehearsals for dancers to achieve desired interpretation
- Plan, organize and direct the artistic aspects of production
- Oversee the design of sets, costumes, furnishings and props
- Plan and co-ordinate the production of musical recordings
- Direct musicians and singers during rehearsals and recording
- Co-ordinate and direct the photography of production
- Edit motion picture film and arrange film segments into sequences
- Determine lighting, lenses, camera angles and backgrounds



Employment growth is indicated in the job prospects and the main skill sets identified center around planning, coordination, organization and creation.

Long-term Job Prospects

Job prospects for Audio and video recording technicians

Quebec Fair ☆☆☆ ▼

The employment outlook will be fair for Audio and video recording technicians (NOC 5225) in Québec for the 2019-2021 period.

The following factors contributed to this outlook:

- Employment growth will lead to several new positions.
- Not many positions will become available due to retirements.
- There are a moderate number of unemployed workers with recent experience in this occupation.

Here are some key facts about Audio and video recording technicians in Québec:

- Approximately 3,150 people work in this occupation.
- Audio and video recording technicians mainly work in the following sectors:
 - Information and cultural industries (NAICS 51): 60%
 - Arts, entertainment and recreation (NAICS 71): 9%
- The distribution of full-time and part-time workers in this occupation is:
 - Full-time workers: 83% compared to 80% for all occupations
 - Part-time workers: 17% compared to 20% for all occupations
- 48% of audio and video recording technicians work all year, while 52% work only part of the year, compared to 58% and 42% respectively among all occupations. Those who worked only part of the year did so for an average of 34 weeks compared to 33 weeks for all occupations.
- 31% of audio and video recording technicians are self-employed compared to an average of 12% for all occupations.

Sources: <https://www.jobbank.gc.ca/outlookreport/occupation/5598> (Retrieved on October 31, 2020),

Expertise

People working in this occupation usually apply the following skill set.

- Operate mixing, dubbing, editing machinery and equipment
- Set up, prepare, operate and adjust audio, recording, editing and reproducing equipment to record, edit and reproduce sound input
- Prepare and operate videotape recording and playback equipment and edit video tape after production
- Operate audio consoles or computers, tape machines, microphones and sound processing equipment at concerts and live events
- Operate audio-visual or electronic equipment

Source: <https://www.jobbank.gc.ca/marketreport/skills/5546/ca> (Retrieved on November 2, 2020)

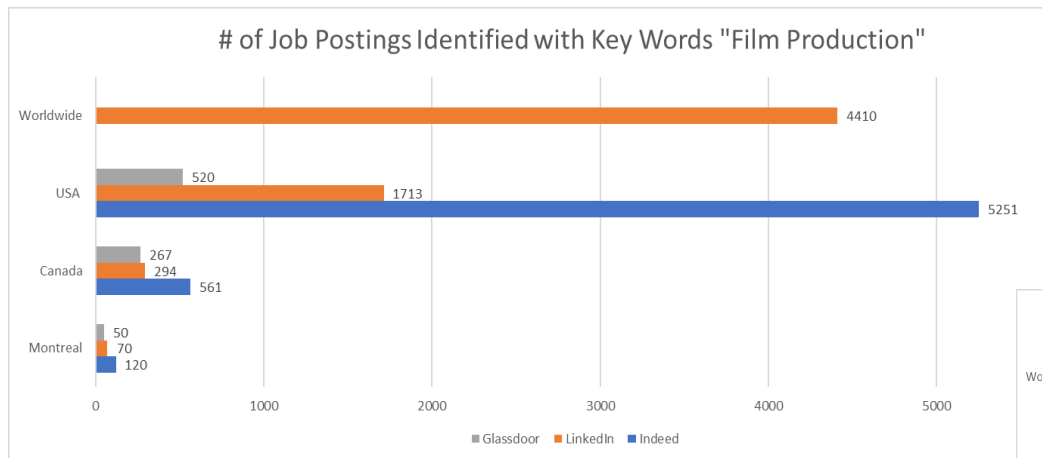


Employment growth is indicated in the job prospects and the main skill sets identified center around Operating audio and video equipment.

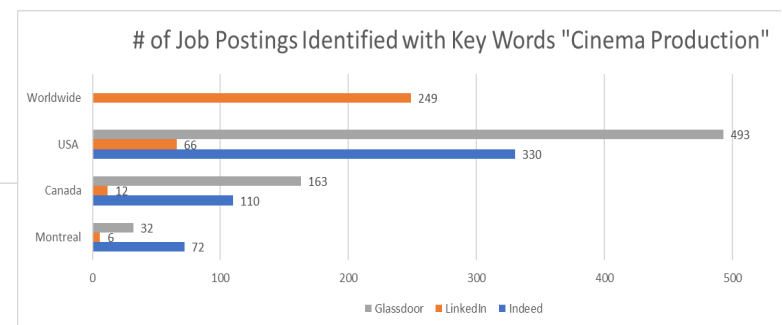
Current Hiring Needs Analysis – Global View

All statistics presented on this page are gathered firsthand on October 30, 2020 from the 3 biggest job posting platform that is widely used in North America and on a global scale. Please note the following when interpreting the data:

- The US data is included out of the consideration that there is a big portion of needs and volumes in Canada that is coming from "foreign locations and service" presented on page 5 and 6, presumably mainly from US.
- The data presented below should be considered as a snapshot of the industry needs on October 30, 2020, which may or may not be a fair reflection of current needs of the industry (please take into consideration the impact of Covid-19 on the industry needs).
- A margin of error should be taken into consideration - some research results may not be related to film industry due to description and wording in the job posting.



Source: Indeed, LinkedIn and Glassdoor websites



Source: Indeed, LinkedIn and Glassdoor websites



A rough look at the profiles sought after reveals that the **top demand** concentrates on the field of **video editing, videographer, production assistance, coordination and supervision**. This trend is also shown in the Montreal job market (see next slide for more statistics).

Current Hiring Needs Analysis – Montreal

The data below was manually extracted from the top 3 job search engines. The keyword "film production" was used when searching for data in hiring needs and the scope has been limited to the Montreal region. All search results are tabulated, and the demand is ranked in order by job title. The top 20 positions in demand are listed below.

Job Titles	Indeed	LinkedIn	Glassdoor	Total
Video Editor	11	1	4	16
Production Coordinator	5	1	4	10
VFX Supervisor	5	2	2	9
Production Manager	2	1	3	6
VFX Generalist	4	1	1	6
Concept Artiste	2	2	0	5
Videographer	2	1	2	5
Animator	3	1	1	4
Visual Effects Producer	2	0	2	4
Content Producer	2	0	1	4
Artist FX	2	1	1	3
Layout 2D	1	1	1	3
Animation Generalist	1	0	1	2
Photo/Video Production Specialist	1	0	1	2
Producer Featured Animation	1	0	1	2
Senior Media Production	1	0	1	2
Storyboard Artiste	1	1	0	2
Animation Director	2	0	0	2
Animation Film Editor	1	0	1	2
Total	49	13	27	89



Across all 3 platforms, **video editor, production personnel** (coordinator and manager) as well as **VFX professionals** seem to be in high demand for the Montreal market.

Competency and Skills Analysis – Montreal Video Editor

The data below was manually extracted from the top 3 job search engines. Data in skills and competencies for the role of Video Editor is analyzed and the scope has been limited to the Montreal region. The top technical and non-technical skills in demand are listed below.

Average Experience Level Required 2 – 5 years	
Technical Skills	Non-Technical Skills
<ul style="list-style-type: none">• Adobe Premiere• DaVinci Resolved• After Effects• Avid Editing Software• Final Cut X	<ul style="list-style-type: none">• Communication• Detail Oriented• Project Management• Creative• Artistic Eye• Multitasking skills



Most job postings for Video Editor **do not require a diploma or technical degree**, rather, the demand for **experience** in the technical skills is preferred for the role.

Competency and Skills Analysis – Montreal Production Coordinator

The data below was manually extracted from the top 3 job search engines. Data in skills and competencies for the role of Production Coordinator is analyzed and the scope has been limited to the Montreal region.. The top technical and non-technical skills in demand are listed below.

Average Experience Level Required 5 years	
Technical Skills	Non-Technical Skills
<ul style="list-style-type: none">• Adobe Suite• MS Office• Shotgun Software• VFX Scheduling	<ul style="list-style-type: none">• Communication• Interpersonal Skills• Attention to detail• Organizational skills• Multitasking skills



For the role of Production Coordinator, the demand for a **technical diploma or DEC** appears on about **25%** of job postings. **More than half** of job postings require the **technical skills** mentioned in the table above.

Competency and Skills Analysis – Montreal Visual Effects Supervisor

The data below was manually extracted from the top 3 job search engines. Data in skills and competencies for the role of Visual Effects Supervisor is analyzed and the scope has been limited to the Montreal region. The top technical and non-technical skills in demand are listed below.

Average Experience Level Required 5 years	
Technical Skills	Non-Technical Skills
<ul style="list-style-type: none">• 3D Areas• Houdini Software• Python• Script or Mel• Flowline• Thinking Particle	<ul style="list-style-type: none">• Ability to work in a team• Leadership• Artistic• Detail Oriented• Ability to work independently• Proactive• Guide and train teams



The demand for a **Bachelor's Degree** and **experience in technical software** is most often required for the role of Visual Effects Supervisor.

Training Needs / Interests Analysis

- Udemy

The table below represents a list of training courses available on Udemy's platform while using the keyword "cinema production" in the search engine. The courses were extracted manually and organized by number student registration.

Course Title	Beginner	Intermediate	Advanced	Registration
The Complete Video Production Bootcamp	X			153,716
Video Production Masterclass: Complete Video Camera Course				47,949
The Complete Video Production Course - Beginner To Advanced	X			20,902
Learn Video Marketing In A Single Weekend		X		4,951
Beginner: Improve Video Production & Video Creation In 1 Day	X			3,890
TV Documentary Professional Productions. Start to finish		X		3,062
Film using ANY Camera! Basics of Shooting Video Correctly	X			2,904
Filmmaking: Write, Direct and Distribute Your Feature Film		X		2,812
iPhone Video Editing Quick Start Guide: Edit iPhone videos	X			2,731
Video Production Masterclass: Beginner to Pro Video Creation	X			2,238
Video Production Masterclass: Beginner to Pro Video Creation	X			2,238
Filmmaking Database: Cinema Camera Lenses Masterclass		X		1,601
Professional Video Production	X			1,559
Video Production For Beginners: Make Videos From Scratch	X			637
iPhone Video Production Essentials	X			464
Cinematic Lighting			X	443
Video Production Tips & Secrets: Produce impressive videos	X			422
Video Content Production: Learn How to Film and Edit Content	X			378
How To Be An Online Video Producer/Director		X		343
Professional Camera Techniques - by a working pro			X	165
Video Content Accelerator: improve your video skills		X		154
The Professional Guide to High Quality Video Production	X			62
Editing Better Video for Video Editors & Videographers		X		56
Advanced Lighting for Film Professionals			X	33
Create Professional Testimonial Videos to Increase Sales		X		7



The top three courses that are in high demand are directly related to the current hiring needs in Montreal.

Training Needs / Interests Analysis

- LinkedIn Learning

The table below represents a list of training courses available on LinkedIn Learning platform while using the keyword "cinema production" in the search engine. The courses were extracted manually and organized by difficulty level and student registration.

Course Title	Beginner	Intermediate	Advanced	Registration
Introduction to Video Editing	X			26,916
The History of Film and Video Editing	X			14,599
Introduction to Documentary Video Storytelling	X			11,678
Learning Cinema 4D R20	X			10,749
Introduction to 3D	X			9,413
Cinema 4D R18 Essential Training: Product Visualization and Design	X			5,369
Video Gear		X		9,154
Cinema 4D: Digital Production Photography		X		6,080
Motion Graphics Design		X		5,732
Cinema 4D R20 Essential Training : VFX	X			5,748
Learning Bodypaint in Cinema 4D	X			2,127
Production Rendering Techniques in Cinema 4D		X		1,790
Production Rendering Techniques in Cinema 4D		X		1,789
Final Cut Pro X Guru: Sync Sound Workflow		X		1,348
After Effects Guru: Advanced Photoshop Techniques			X	2,916
How do motion graphics artists use Cinema 4D	X			0
Different types of production	X			0
Commercial Production	X			0
Shooting Black magic Cinema Cameras	X			0
How 3D artists can use C4D	X			0
Production Design in Cinema	X			0



The top three courses that are in high demand are directly related to the current hiring needs in Montreal.

Training Needs / Interests Analysis

- Domestika

Domestika is the largest community for creative professionals. On Domestika, creative professionals can share their projects, contribute to and learn in forums, connect with other creatives, and find employment. The table below represents a list of training courses available on Domestika's platform while using the keyword "cinema production" in the search engine. The courses were extracted manually and ranked by number of student registration.

Course Title	Registration
Introduction to Final Cut Pro X	35,705
Video Production and Editing	10,279
Modeling and Texturizing with Cinema 4D	7,540
Audiovisual Editing and Narrating for Short Films	7,353
Development of Fiction Series	6,298
Art Direction with 4D Cinema	5,289
Digital Animation 2D	5,128
Filming for Beginners	4,190
Prototypes and Product Viewing in Cinema 4D	3,918
Basic Lighting for Audio Visual Projects	2,426
Animation of TV Bumpers with motion graphics	2,241
Introduction to video testimonials	2,088
Design of moving 3D characters	1,531
Directing Conceptual Audiovisual pieces	1,514
Introduction to VFX for Cinema	1,217
Matte Painting for Cinema	1,048
Introduction to Digital Compositing in post-production	1,025
Screenwriting for fiction short films	954
Design of 3D sets for products	868
Organization and Development of a 3D project	408
Editing and Postproduction	259



The top three courses that are in high demand are directly related to the current hiring needs in Montreal.



Competitive Landscape Analysis

Training Programs in Canada

Below is a list of training programs available in Canada. It appears that it is most common for training programs to be last between two years or less. These programs tend to include a combination of immersive course work and experiential learning.

Graduate Certificate/Diplomas	Diploma	Duration	Delivery	Credits
Fanshawe College	Graduate Certificate in Filmmaking	37 weeks	Full Time	28.4
Undergraduate Certificate/Diplomas	Undergraduate Certificate/Diplomas	Duration	Delivery	Credits
Universite de Laval	Certificate in Film Studies	2 years	Full time	30
Universite de Quebec a Montreal	Certificate in Screenwriting	2 years	Full Time & Part Time	30
Private Schools	Private Schools	Duration	Delivery	Credits
Trebas Institute	Diploma in Film and Television Production	12 months	Full Time	N/A
Other Institutions	Other Institutions	Duration	Delivery	Credits
University of British Columbia	Diploma in film production	3 years	Full Time	60
University of New Brunswick	Certificate in Film Production	2 years	Part Time	30
University of Regina, Saskatchewan	Diploma in Film Production	2 years	Full Time	30
Ryerson University	Certificate in Image Arts	2 years	N/A	N/A
York University	Credential Degree-Diploma in Film and Media Arts	4 years	Full Time	N/A
Toronto Film School	Film Production Diploma	18 months	Full Time	N/A



The training programs are fairly **long** - the shortest one is a 12-month diploma. Most options are on a **full-time** basis that requires considerable time investment.

State-of-the-art programs for VFX

Greater Montréal offers both technical and higher education degrees



As a **key sector** promoted by Montreal International, VFX has been a **growing sector** in the economy and Montreal has a number of programs to offer for the increasing talent needs.

Professional Development Programs



INTERNATIONAL CINEMATOGRAPHERS GUILD

I.A.T.S.E. Local 667 represents camera professionals and unit publicists who work in all phases of Motion Picture productions filmed or electronically recorded for theatrical feature films, films for television, television series, commercials, documentaries, internet productions and corporate video productions, as well as working at live events.

It offers seminars and training programs for its members.

Source: <https://www.iatse667.com/en/about-us/seminar-and-training-programs/>, retrieved on November 1, 2020.

SEMINAR and TRAINING PROGRAMS

I.A.T.S.E., Local 667 is committed to providing the membership with regular training and seminars to ensure we remain on the leading edge of technology and provide production companies with highly skilled camera people who are not only professional, but proficient in the use of all camera systems.

[Training Program for Camera Trainees](#)

[Sample Camera Trainee Applicant Resume \(WORD\)](#)

For Northern Ontario, Ottawa, and Atlantic provinces applicants, please contact our IATSE 667 office for more information.

Seminar

In conjunction with industry service & equipment providers, I.A.T.S.E. Local 667 organizes a number of seminars throughout the year to allow the I.A.T.S.E. Local 667 membership the opportunity to learn new skills and/or equipment, or to refresh or enhance their skills. We try to schedule these seminars during times when production has slowed down in order to optimize attendance and availability for all interested members.

For several years, seminars have been held at rental houses offering intensive training on all the camera systems (i.e. The RED, Alexa, Genesis, Panasonic, Sony, Panavision and Arriflex). Special seminars that range from 3D, Workflow, Virtual Camera, Motion Control, High Definition to Vista Vision and all technology in between have been offered.

In keeping with the latest technology, we have added digital work flow and how the new data is managed on set. The ever-changing world of 3D production and the new technology that is introduced on a regular basis requires continuous skills upgrading. 3D information sessions for Producers, Directors, ADs and Production Managers have been developed to keep everyone in pace with these rapid technological changes.

The camera trainee program has been revised and enhanced over the years. Currently we have added an instructional clinic on Darkroom Procedures which will be held at scheduled intervals for trainees who are on their fourth to sixth production placement. There is also a practical exam that all camera trainees must pass prior to upgrading to 2nd assistants.

Creating partnerships with rental and supply companies has ensured the best training is achieved for the membership. Companies like Kodak, Fuji, P.S. Services, Sim Video, Panavision, William F Whites and Claremont Camera have helped create a diverse education environment. Post-production facilities are also key in the education of the production process. Deluxe and Technicolour labs have been especially helpful in this process.

Through our Member Assistance Program we are coordinating Wellness Seminars that will include stress management, balancing work and home, identifying substance abuse and its effects on everyone.



Professional organizations also provide training activities for their members, although it is usually very **targeted** at the member group.

Enrolment Stats in Programs – Montreal

A rich pool of university students that combines creativity and technical knowledge

Greater Montréal boasts more than **2,300** university students in arts and cinema related programs

As well as close to **17,000** university students enrolled in IT related programs

A large contingent of new university graduates in arts and IT joins this growing visual effects and animation workforce every year

University programs related to arts and cinema	Students enrolled in 2018-2019	University graduates in 2018
Cinema	1,390	318
Fine Arts	923	157
Plastic Arts	566	150
Graphic Arts	710	118
Arts (pluridisciplinary)	135	46
Total	2,334	471

University programs related to IT	Students enrolled in 2018-2019	University graduates in 2018
Computer Sciences	9,381	1,719
Electric and Electronic Engineering	3,374	759
Computer Engineering and Computer Science	2,193	460
Mathematics	1,427	286
Applied Mathematics	132	31
Probabilities and Statistics	195	42
Total	16,703	3,297

Source: Ministère de l'Éducation et de l'Enseignement supérieur, 2020; compilation by Montréal International.



The enrolment stats offer another glimpse into the interests in cinema from the **talent supply side**.

Enrolment Stats in Programs – Montreal

A rich pool of technical college students with specific expertise in VFX

Technical college programs related to animation and arts	Students enrolled in 2018-2019	Students graduates in 2017
Animation 2D/3D and Game Design	1,008	403
Visual Arts	1,145	278
Graphic Arts	1,219	259
Total	3,372	940

Greater Montréal boasts **close to 3,500 college students** enrolled in technical programs related to visual effects, animation and film production

Technical college programs related to film production	Students enrolled in 2018-2019
Film Production	77
Sound and Audio Studies	22
Total	99

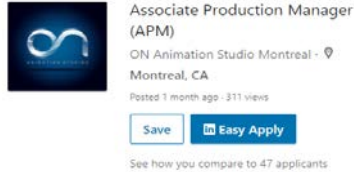
The depth of Montréal's talent pool has allowed the region to remain at the avant-garde in the VFX industry, including in new trends such as virtual and augmented reality

Source: Ministère de l'Éducation et de l'Enseignement supérieur, 2020; compilation by Montréal International.

 The enrolment stats offer another glimpse into the interests in cinema from the **talent supply side**.

Appendix

Appendix 1: Samples of Profiles Sought After



Associate Production Manager (APM)
ON Animation Studio Montreal - Montreal, CA
Posted 1 month ago · 311 views
Save Easy Apply
See how you compare to 47 applicants

About ON Animation Studios Montreal

Driven by world-class technical and creative talents with offices in Montreal, Paris, and Los Angeles, ON is the independent animation studio of the ON Kids & Family group, a leading European studio specializing in the production of television series and feature films. Based in Montreal since 2015, ON produced and created the pipeline for Mune: Guardian of the Galaxy and The Little Prince (the most successful French animated movie in the world) and Playmobil the movie. The studio is continuing to expand its compelling portfolio of engaging and unique blockbusters with Ladybug & Cat Noir Awakening (based on the international hit series Miraculous Ladybug).

The greatest stories come from the greatest talents. Join ON Animation Studios Montreal!

Your mission at ON

PRODUCTION

- Supervise Coordinators and Assistants which are assigned to them;
- Ensure proper preparation for all meetings and reviews;
- Partner with CG department Leads and/or Supervisors to successfully run the day-to-day operations of the production;
- Provide updates and specific information to the Studio Management (CTO, VFX/CG Sup, Animation Producer) on production related changes, delays, requests, etc;
- Produce a high level of problem solving services in areas such as: pipeline bottlenecks, time adjustments, morale issues, performance checks, equipment/supplies, etc;
- Facilitate inter-department and inter-lead communication;
- Provide guidance and support to department Leads and Supervisors;
- Display leadership and help maintain a positive team environment;
- Identify and resolve personnel issues as they arise and collaborate with HR department if necessary;
- Use interpersonal skills to resolve conflicts, promote a collaborative and cooperative work environment.

SCHEDULING AND TRACKING

- Manage overall production schedule of assigned department including interdepartmental workflow, and monitor/oversee department schedules and priorities;
- Develop and manage internal schedules and staffing for assigned CG departments;
- Maintain production data on databases to reflect scheduled, in-progress, and completed departmental work;
- In conjunction with Production Coordinator(s), oversee and maintain all department schedules which are usually changing on a weekly or daily basis.

Your Qualifications

- Minimum 3 years experience in production specifically within an animation department on a CG film, otherwise, experience in multiple departments on a variety of CG Animated films;
- Strong organizational, project management skills;
- Bilingualism - FR/ENG (asset);
- Team player!

By submitting your application you will be agreeing that we may process your personal data in accordance with our Privacy Policy as outlined below:

As part of any recruitment process, we collect and store the applicant's' personal data.

Source: LinkedIn, retrieved on October 30,2020

Video Editor
Kodify - Montréal, QC
Temporarily remote

Apply Now



We're looking for an enthusiastic and experienced Video Editor. This is a great opportunity for an individual with expert knowledge of video editing high value productions. The Video Editor will be collaborating with the remote freelance and in-house team of Editors, Directors and Producers in a high-volume, deadline-driven environment. This is a great opportunity for someone who is detail-oriented, collaborative, and thrives in a fast-paced environment.

*

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Ingest and organize assigned 4K raw footage and video assets
- Execute creative editing, color correction, sound mixing to ensure final product is up to brand style and standards
- Quality control check before final exports are completed
- Troubleshoot technical issues within Premiere Pro, software, etc.
- Meet all assigned deadlines
- Encode and export finalized projects according to specs

REQUIREMENTS:

- At least 5 years of experience video editing
- Must be expert level in Adobe Premiere Pro or DaVinci Resolved.
- Excellent communication skills and attention to detail.
- Use to work in a fast paced environment
- Team player

PERKS:

- Generous training and development budget
- Health insurance
- PTO
- ½ day off on your Birthday!
- Cool and modern office space in Montreal
- Parking on site
- Latest tech equipment
- Flex-time schedule

*

Job Type: Full-time

Schedule:

- Monday to Friday

Work remotely:

- Temporarily due to COVID-19

Source: Indeed, retrieved on October 30,2020



CONCORDIA.CA



INTERNAL MEMORANDUM

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

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

DATE: February 17, 2021

RE: Changes to the undergraduate programs in the MIAE Department

Please find attached the curriculum changes for the undergraduate programs in the Department of Mechanical, Industrial and Aerospace Engineering. There is no resource implication required for this proposal. A summary of changes is listed as follows.

MECHANICAL ENGINEERING ELECTIVES

- Add INDU 412 (Human Factors Engineering) under the list of electives in the Mechanical Engineering and Aerospace Engineering programs.
- Students can take an elective outside of the technical elective list in the Mechanical Engineering program.

AEROSPACE ENGINEERING – OPTION B ELECTIVES

- Remove AERO 455 (Computational Fluid Dynamics for Aerospace Applications) from the list of Option B electives in the Aerospace Engineering program.
- Remove the asterisk from courses listed in the Option B electives in the Aerospace Engineering program.

This proposal passed the GCS Undergraduate Studies Committee on November 9, 2020 and January 25, 2021 as well as the GCS Council on November 27, 2020 and February 12, 2021. I would be grateful if you could put it on the agenda of the next APC meeting.

INTERNAL MEMORANDUM

DATE: December 11, 2020

TO: Dr. A. Akgunduz, Associate Dean, Academic Programs
Faculty of Engineering and Computer Science

FROM: Dr. Martin Pugh, Chair,
Department of Mechanical, Industrial and Aerospace Engineering

SUBJECT: Editorial - Mechanical Electives

Please find enclosed the Undergraduate curriculum package, MECH-130, submitted by the Department of Mechanical, Industrial and Aerospace Engineering (MIAE). These changes have been approved at the Department Council meeting held on December 11, 2020

I would be grateful if you could put this on the agenda of the next Engineering and Computer Science Undergraduate Studies Committee meeting.

Overview of Program Changes:

Item	Details and/or Rationale	Resource Implications
<p>Mechanical Engineering</p> <p>ACTION(S):</p> <ul style="list-style-type: none"> • Editorial 	<p>Since removing the options, MECH students were no longer allowed to take a technical elective outside of the technical elective list. We are adding this sentence, "With permission of the department students may take one technical elective outside of the technical elective list. Students must get approval from the department before registering to the technical elective outside of the technical elective list.", to give more flexibility to our students.</p> <p>Note: The 'Present Text' is coming from MECH-119.</p>	<p>There are no additional resource implications.</p>
<p>Aerospace Engineering</p> <p>ACTION(S):</p> <ul style="list-style-type: none"> • Editorial 	<p>Since adding AERO290 to the AERO core, Option B electives were reduced to 2.75 credits i.e. only one technical elective course.</p> <p>There is no longer the need to specify that students may only take one of the specified (*) courses as they do not require additional courses.</p>	<p>There are no additional resource implications.</p>

	Note: The 'Present Text' is coming from MECH-130.	
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PROGRAM CHANGE: Mechanical Engineering Electives**Proposed** Undergraduate or Graduate Curriculum Changes**Calendar for academic year:** 2022/2023
Implementation Month/Year: May 2021**Faculty/School:** Gina Cody School of Engineering and Computer Science
Department: Mechanical, Industrial and Aerospace Engineering
Program: Mechanical Engineering
Degree: B. Eng
Calendar Section/Graduate Page Number: 71.40.1**Type of Change:** Editorial Requirements Regulations Program Deletion New Program

Present Text (from 20XX/20XX) calendar	Proposed Text																																																																																																
<p>71.40.1 Course Requirements (BEng in Mechanical Engineering)</p> <p>The program in Mechanical Engineering consists of the Engineering Core, the Mechanical Engineering Core, and elective credits as shown below. The minimum length of the program is 120 credits.</p> <p>Engineering Core (27 credits) See §71.20.5.</p> <table border="0"> <thead> <tr> <th colspan="2">Mechanical Engineering Core</th> <th style="text-align: right;"><i>Credits</i></th> </tr> </thead> <tbody> <tr><td>ENGR 242</td><td>Statics</td><td style="text-align: right;">3.00</td></tr> <tr><td>ENGR 243</td><td>Dynamics</td><td style="text-align: right;">3.00</td></tr> <tr><td>ENGR 244</td><td>Mechanics of Materials</td><td style="text-align: right;">3.75</td></tr> <tr><td>ENGR 251</td><td>Thermodynamics I</td><td style="text-align: right;">3.00</td></tr> <tr><td>ENGR 311</td><td>Transform Calculus and Partial Differential Equations</td><td style="text-align: right;">3.00</td></tr> <tr><td>ENGR 361</td><td>Fluid Mechanics I</td><td style="text-align: right;">3.00</td></tr> <tr><td>MECH 321</td><td>Properties and Failure of Materials</td><td style="text-align: right;">3.50</td></tr> <tr><td>MECH 343</td><td>Theory of Machines</td><td style="text-align: right;">3.50</td></tr> <tr><td>MECH 344</td><td>Machine Element Design</td><td style="text-align: right;">3.00</td></tr> <tr><td>MECH 351</td><td>Thermodynamics II</td><td style="text-align: right;">3.50</td></tr> <tr><td>MECH 352</td><td>Heat Transfer I</td><td style="text-align: right;">3.50</td></tr> <tr><td>MECH 361</td><td>Fluid Mechanics II</td><td style="text-align: right;">3.50</td></tr> <tr><td>MECH 368</td><td>Electronics for Mechanical Engineers</td><td style="text-align: right;">3.50</td></tr> <tr><td>MECH 370</td><td>Modelling and Analysis of Dynamic Systems</td><td style="text-align: right;">3.50</td></tr> <tr><td>MECH 371</td><td>Analysis and Design of Control Systems</td><td style="text-align: right;">3.75</td></tr> </tbody> </table>	Mechanical Engineering Core		<i>Credits</i>	ENGR 242	Statics	3.00	ENGR 243	Dynamics	3.00	ENGR 244	Mechanics of Materials	3.75	ENGR 251	Thermodynamics I	3.00	ENGR 311	Transform Calculus and Partial Differential Equations	3.00	ENGR 361	Fluid Mechanics I	3.00	MECH 321	Properties and Failure of Materials	3.50	MECH 343	Theory of Machines	3.50	MECH 344	Machine Element Design	3.00	MECH 351	Thermodynamics II	3.50	MECH 352	Heat Transfer I	3.50	MECH 361	Fluid Mechanics II	3.50	MECH 368	Electronics for Mechanical Engineers	3.50	MECH 370	Modelling and Analysis of Dynamic Systems	3.50	MECH 371	Analysis and Design of Control Systems	3.75	<p>71.40.1 Course Requirements (BEng in Mechanical Engineering)</p> <p>The program in Mechanical Engineering consists of the Engineering Core, the Mechanical Engineering Core, and elective credits as shown below. 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MECH 375	Mechanical Vibrations	3.50
MECH 390	Mechanical Engineering Design Project	3.50
MECH 490	Capstone Mechanical Engineering Design Project*	4.00
MIAE 211	Mechanical Engineering Drawing	3.50
MIAE 215	Programming for Mechanical and Industrial Engineers	3.50
MIAE 221	Materials Science	3.00
MIAE 311	Manufacturing Processes	3.00
MIAE 312	Engineering Design and Manufacturing Laboratory	1.00
MIAE 313	Machine Drawing and Design	3.50
MIAE 380	Product Design and Development	3.00
		81.50

*Note: Students may replace MECH 490 with ENGR 490 if they are interested in a multidisciplinary project that requires collaboration with students from other engineering departments. In order for students to register in ENGR 490, their projects must be approved by the ENGR 490 Design Committee before the start of the fall term.

Electives

Students in the Mechanical Engineering program must complete at least 11.50 elective credits from the list of courses below. Courses are listed in groups to facilitate the selection of courses in a particular area of the field.

Aerospace		<i>Credits</i>
AERO 417	Standards, Regulations and Certification	3.00
AERO 446	Aerospace Vehicle Performance	3.00
AERO 455	Computational Fluid Dynamics for Aerospace Applications	3.75
AERO 462	Turbomachinery and Propulsion	3.00
AERO 464	Aerodynamics	3.00
AERO 465	Gas Turbine Design	3.50
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00
AERO 485	Introduction to Space Systems	3.00
AERO 486	Aircraft Stress Analysis	3.00
AERO 487	Design of Aircraft Structures	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
MECH 498	Topics in Mechanical Engineering	3.00

MECH 375	Mechanical Vibrations	3.50
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MIAE 211	Mechanical Engineering Drawing	3.50
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MIAE 312	Engineering Design and Manufacturing Laboratory	1.00
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Aerospace		<i>Credits</i>
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ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00

Design and Manufacturing			<i>Credits</i>	MECH 498	Topics in Mechanical Engineering	3.00
ENGR 411	Special Technical Report	1.00		Design and Manufacturing		
ENGR 412	Honours Research Project	3.00		ENGR 411	Special Technical Report	1.00
INDU 372	Quality Control and Reliability	3.00		ENGR 412	Honours Research Project	3.00
INDU 410	Safety Engineering	3.00		INDU 372	Quality Control and Reliability	3.00
INDU 411	Computer Integrated Manufacturing	3.50		INDU 410	Safety Engineering	3.00
MECH 412	Computer-Aided Mechanical Design	3.50		INDU 411	Computer Integrated Manufacturing	3.50
MECH 414	Computer Numerically Controlled Machining	3.50		INDU 412	Human Factors Engineering	3.50
MECH 421	Mechanical Shaping of Metals and Plastics	3.50		MECH 412	Computer-Aided Mechanical Design	3.50
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00		MECH 414	Computer Numerically Controlled Machining	3.50
MECH 423	Casting, Welding, Heat Treating, and Non-Destructive Testing	3.50		MECH 421	Mechanical Shaping of Metals and Plastics	3.50
MECH 424	MEMS – Design and Fabrication	3.50		MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 425	Manufacturing of Composites	3.50		MECH 423	Casting, Welding, Heat Treating, and Non-Destructive Testing	3.50
MECH 468	Wind Turbine Engineering	3.00		MECH 424	MEMS – Design and Fabrication	3.50
MECH 476	Generative Design and Manufacturing in Engineering	3.00		MECH 425	Manufacturing of Composites	3.50
MECH 498	Topics in Mechanical Engineering	3.00		MECH 468	Wind Turbine Engineering	3.00
Systems and Mechatronics			<i>Credits</i>	MECH 476	Generative Design and Manufacturing in Engineering	3.00
AERO 480	Flight Control Systems	3.50		MECH 498	Topics in Mechanical Engineering	3.00
AERO 482	Avionic Navigation Systems	3.00		Systems and Mechatronics		
ENGR 411	Special Technical Report	1.00		AERO 480	Flight Control Systems	3.50
ENGR 412	Honours Research Project	3.00		AERO 482	Avionic Navigation Systems	3.00
MECH 411	Instrumentation and Measurements	3.50		ENGR 411	Special Technical Report	1.00
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00		ENGR 412	Honours Research Project	3.00
MECH 463	Fluid Power Control	3.50		MECH 411	Instrumentation and Measurements	3.50
MECH 471	Microcontrollers for Mechatronics	3.50		MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 472	Mechatronics and Automation	3.50		MECH 463	Fluid Power Control	3.50
MECH 473	Control System Design	3.50		MECH 471	Microcontrollers for Mechatronics	3.50
MECH 474	Mechatronics	3.75		MECH 472	Mechatronics and Automation	3.50
MECH 498	Topics in Mechanical Engineering	3.00		MECH 473	Control System Design	3.50
				MECH 474	Mechatronics	3.75
				MECH 498	Topics in Mechanical Engineering	3.00
				Thermo-Fluids and Propulsion		
				AERO 455	Computational Fluid Dynamics for Aerospace Applications	3.75
				<i>Credits</i>		

Thermo-Fluids and Propulsion			<i>Credits</i>	AERO 462	Turbomachinery and Propulsion	3.00
AERO 455	Computational Fluid Dynamics for Aerospace Applications	3.75		AERO 465	Gas Turbine Design	3.50
AERO 462	Turbomachinery and Propulsion	3.00		ENGR 411	Special Technical Report	1.00
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ENGR 411	Special Technical Report	1.00		MECH 411	Instrumentation and Measurements	3.50
ENGR 412	Honours Research Project	3.00		MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 411	Instrumentation and Measurements	3.50		MECH 452	Heat Transfer II	3.50
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00		MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00
MECH 452	Heat Transfer II	3.50		MECH 461	Gas Dynamics	3.50
MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00		MECH 463	Fluid Power Control	3.50
MECH 461	Gas Dynamics	3.50		MECH 468	Wind Turbine Engineering	3.00
MECH 463	Fluid Power Control	3.50		MECH 498	Topics in Mechanical Engineering	3.00
MECH 468	Wind Turbine Engineering	3.00		Vehicle Systems		
MECH 498	Topics in Mechanical Engineering	3.00		<i>Credits</i>		
Vehicle Systems			<i>Credits</i>	ENGR 411	Special Technical Report	1.00
ENGR 411	Special Technical Report	1.00		ENGR 412	Honours Research Project	3.00
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MECH 411	Instrumentation and Measurements	3.50		MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00		MECH 444	Guided Vehicle Systems	3.00
MECH 444	Guided Vehicle Systems	3.00		MECH 447	Fundamentals of Vehicle System Design	3.00
MECH 447	Fundamentals of Vehicle System Design	3.00		MECH 454	Vehicular Internal Combustion Engines	3.00
MECH 454	Vehicular Internal Combustion Engines	3.00		MECH 473	Control System Design	3.50
MECH 473	Control System Design	3.50		MECH 498	Topics in Mechanical Engineering	3.00
MECH 498	Topics in Mechanical Engineering	3.00		Stress Analysis		
Stress Analysis			<i>Credits</i>	<i>Credits</i>		
AERO 431	Principles of Aeroelasticity	3.00		AERO 431	Principles of Aeroelasticity	3.00
AERO 486	Aircraft Stress Analysis	3.00		AERO 486	Aircraft Stress Analysis	3.00
ENGR 411	Special Technical Report	1.00		ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00		ENGR 412	Honours Research Project	3.00
MECH 411	Instrumentation and Measurements	3.50		MECH 411	Instrumentation and Measurements	3.50
MECH 412	Computer-Aided Mechanical Design	3.50		MECH 412	Computer-Aided Mechanical Design	3.50
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00		MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00		MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 411	Instrumentation and Measurements	3.50		MECH 426	Stress and Failure Analysis of Machinery	3.00
MECH 426	Stress and Failure Analysis of Machinery	3.00				

MECH 412	Computer-Aided Mechanical Design	3.50	MECH 460	Finite Element Analysis	3.75
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00	MECH 498	Topics in Mechanical Engineering	3.00
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00			
MECH 426	Stress and Failure Analysis of Machinery	3.00			
MECH 460	Finite Element Analysis	3.75			
MECH 498	Topics in Mechanical Engineering	3.00			

Rationale:
 Since removing the options, MECH students were no longer allowed to take a technical elective outside of the technical elective list. We are adding this sentence, "With permission of the department students may take one technical elective outside of the technical elective list", to give more flexibility to our students.

Human Factors Engineering (INDU 412) is very important for design; applicable to usage, disassembly, as well as maintenance and repair. Students in the Mechanical Engineering program should be well trained to consider such aspects during the design phase.

Note: The 'Present Text' is coming from mech-119 that was approved at the Senate meeting held on October 16, 2020.

Resource Implications:
 No additional resources required

PROGRAM CHANGE: Aerospace Engineering Electives

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Mechanical, Industrial and Aerospace Engineering
Program: Aerospace Engineering
Degree: B. Eng
Calendar Section/Graduate Page Number: 71.20.5

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 20XX/20XX) calendar	Proposed Text																																																				
<p>Course Requirements (BEng in Aerospace Engineering)</p> <p>The program in Aerospace Engineering consists of the Engineering Core, the Aerospace Engineering Core, and option requirements as shown below. The minimum length of the program is 120 credits.</p> <p>Engineering Core (27 credits) See §71.20.5.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Aerospace Engineering Core</th> <th style="text-align: right;"><i>Credits</i></th> </tr> </thead> <tbody> <tr><td>AERO 201 Introduction to Flight and Aerospace Systems</td><td style="text-align: right;">4.00</td></tr> <tr><td>AERO 290 Introduction to Aircraft Design</td><td style="text-align: right;">3.00</td></tr> <tr><td>AERO 371 Modelling and Control Systems</td><td style="text-align: right;">3.50</td></tr> <tr><td>AERO 390 Aerospace Engineering Design Project</td><td style="text-align: right;">3.00</td></tr> <tr><td>AERO 417 Standards, Regulations and Certification</td><td style="text-align: right;">3.00</td></tr> <tr><td>AERO 490 Capstone Aerospace Engineering Design Project*</td><td style="text-align: right;">4.00</td></tr> <tr><td>ENGR 242 Statics</td><td style="text-align: right;">3.00</td></tr> <tr><td>ENGR 243 Dynamics</td><td style="text-align: right;">3.00</td></tr> <tr><td>ENGR 244 Mechanics of Materials</td><td style="text-align: right;">3.75</td></tr> <tr><td>ENGR 251 Thermodynamics I</td><td style="text-align: right;">3.00</td></tr> <tr><td>ENGR 361 Fluid Mechanics I</td><td style="text-align: right;">3.00</td></tr> <tr><td colspan="2" style="text-align: right; border-top: 1px solid black;">36.25</td></tr> </tbody> </table> <p>*Note: Students may replace AERO 490 with ENGR 490 if they are interested in a multidisciplinary project that requires collaboration with students from other engineering</p>	Aerospace Engineering Core	<i>Credits</i>	AERO 201 Introduction to Flight and Aerospace Systems	4.00	AERO 290 Introduction to Aircraft Design	3.00	AERO 371 Modelling and Control Systems	3.50	AERO 390 Aerospace Engineering Design Project	3.00	AERO 417 Standards, Regulations and Certification	3.00	AERO 490 Capstone Aerospace Engineering Design Project*	4.00	ENGR 242 Statics	3.00	ENGR 243 Dynamics	3.00	ENGR 244 Mechanics of Materials	3.75	ENGR 251 Thermodynamics I	3.00	ENGR 361 Fluid Mechanics I	3.00	36.25		<p>Course Requirements (BEng in Aerospace Engineering)</p> <p>The program in Aerospace Engineering consists of the Engineering Core, the Aerospace Engineering Core, and option requirements as shown below. The minimum length of the program is 120 credits.</p> <p>Engineering Core (27 credits) See §71.20.5.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Aerospace Engineering Core</th> <th style="text-align: right;"><i>Credits</i></th> </tr> </thead> <tbody> <tr><td>AERO 201 Introduction to Flight and Aerospace Systems</td><td style="text-align: right;">4.00</td></tr> <tr><td>AERO 290 Introduction to Aircraft Design</td><td style="text-align: right;">3.00</td></tr> <tr><td>AERO 371 Modelling and Control Systems</td><td style="text-align: right;">3.50</td></tr> <tr><td>AERO 390 Aerospace Engineering Design Project</td><td style="text-align: right;">3.00</td></tr> <tr><td>AERO 417 Standards, Regulations and Certification</td><td style="text-align: right;">3.00</td></tr> <tr><td>AERO 490 Capstone Aerospace Engineering Design Project*</td><td style="text-align: right;">4.00</td></tr> <tr><td>ENGR 242 Statics</td><td style="text-align: right;">3.00</td></tr> <tr><td>ENGR 243 Dynamics</td><td style="text-align: right;">3.00</td></tr> <tr><td>ENGR 244 Mechanics of Materials</td><td style="text-align: right;">3.75</td></tr> <tr><td>ENGR 251 Thermodynamics I</td><td style="text-align: right;">3.00</td></tr> <tr><td>ENGR 361 Fluid Mechanics I</td><td style="text-align: right;">3.00</td></tr> <tr><td colspan="2" style="text-align: right; border-top: 1px solid black;">36.25</td></tr> </tbody> </table> <p>*Note: Students may replace AERO 490 with ENGR 490 if they are interested in a multidisciplinary project that requires collaboration with students from other engineering</p>	Aerospace Engineering Core	<i>Credits</i>	AERO 201 Introduction to Flight and Aerospace Systems	4.00	AERO 290 Introduction to Aircraft Design	3.00	AERO 371 Modelling and Control Systems	3.50	AERO 390 Aerospace Engineering Design Project	3.00	AERO 417 Standards, Regulations and Certification	3.00	AERO 490 Capstone Aerospace Engineering Design Project*	4.00	ENGR 242 Statics	3.00	ENGR 243 Dynamics	3.00	ENGR 244 Mechanics of Materials	3.75	ENGR 251 Thermodynamics I	3.00	ENGR 361 Fluid Mechanics I	3.00	36.25	
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departments. In order for students to register in ENGR 490, their projects must be approved by the ENGR 490 Design Committee before the start of the fall term.

Option Requirements

Students in the Aerospace Engineering program must complete at least 56.75 elective credits from within one of options A, B, or C.

1. Option A — Aerodynamics and Propulsion

Students must complete the following compulsory courses from the Option Core and at least 6.5 credits from the Option Electives, with no more than one of the courses marked *. Students having a GPA of 3.0 or more may submit a request to take a graduate course as an elective.

Option A Core		<i>Credits</i>
AERO 446	Aerospace Vehicle Performance	3.00
AERO 455	Computational Fluid Dynamics for Aerospace Applications	3.75
AERO 462	Turbomachinery and Propulsion	3.00
AERO 464	Aerodynamics	3.00
AERO 465	Gas Turbine Design	3.50
AERO 481	Materials Engineering for Aerospace	3.50
ENGR 311	Transform Calculus and Partial Differential Equations	3.00
MECH 343	Theory of Machines	3.50
MECH 351	Thermodynamics II	3.50
MECH 352	Heat Transfer I	3.50
MECH 361	Fluid Mechanics II	3.50
MECH 461	Gas Dynamics	3.50
MIAE 211	Mechanical Engineering Drawing	3.50
MIAE 215	Programming for Mechanical and Industrial Engineers	3.50
MIAE 221	Materials Science	3.00
		50.25

Option A Electives		<i>Credits</i>
AERO 431	Principles of Aeroelasticity	3.00
AERO 471	Aircraft Hydro-Mechanical and Fuel Systems	3.50
AERO 472	Aircraft Pneumatic and Electrical Power Systems	3.50
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00

departments. In order for students to register in ENGR 490, their projects must be approved by the ENGR 490 Design Committee before the start of the fall term.

Option Requirements

Students in the Aerospace Engineering program must complete at least 56.75 elective credits from within one of options A, B, or C.

1. Option A — Aerodynamics and Propulsion

Students must complete the following compulsory courses from the Option Core and at least 6.5 credits from the Option Electives, with no more than one of the courses marked *. Students having a GPA of 3.0 or more may submit a request to take a graduate course as an elective.

Option A Core		<i>Credits</i>
AERO 446	Aerospace Vehicle Performance	3.00
AERO 455	Computational Fluid Dynamics for Aerospace Applications	3.75
AERO 462	Turbomachinery and Propulsion	3.00
AERO 464	Aerodynamics	3.00
AERO 465	Gas Turbine Design	3.50
AERO 481	Materials Engineering for Aerospace	3.50
ENGR 311	Transform Calculus and Partial Differential Equations	3.00
MECH 343	Theory of Machines	3.50
MECH 351	Thermodynamics II	3.50
MECH 352	Heat Transfer I	3.50
MECH 361	Fluid Mechanics II	3.50
MECH 461	Gas Dynamics	3.50
MIAE 211	Mechanical Engineering Drawing	3.50
MIAE 215	Programming for Mechanical and Industrial Engineers	3.50
MIAE 221	Materials Science	3.00
		50.25

Option A Electives		<i>Credits</i>
AERO 431	Principles of Aeroelasticity	3.00
AERO 471	Aircraft Hydro-Mechanical and Fuel Systems	3.50
AERO 472	Aircraft Pneumatic and Electrical Power Systems	3.50
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00

AERO 485	Introduction to Space Systems	3.00
AERO 486*	Aircraft Stress Analysis	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
INDU 372	Quality Control and Reliability	3.00
MECH 368	Electronics for Mechanical Engineers	3.50
MECH 375*	Mechanical Vibrations	3.50
MECH 411	Instrumentation and Measurements	3.50
MECH 426*	Stress and Failure Analysis of Machinery	3.00
MECH 452	Heat Transfer II	3.50
MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00
MECH 460*	Finite Element Analysis	3.75
MECH 498	Topics in Mechanical Engineering	3.00

2. Option B — Aerospace Structures and Materials

Students must complete the following compulsory courses from the Option Core and at least 2.50 credits from the Option Electives. Students having a GPA of 3.0 or more may submit a request to take a graduate course as an elective.

Option B Core	<i>Credits</i>	
AERO 431	Principles of Aeroelasticity	3.00
AERO 481	Materials Engineering for Aerospace	3.50
AERO 486	Aircraft Stress Analysis	3.00
AERO 487	Design of Aircraft Structures	3.00
ENGR 311	Transform Calculus and Partial Differential Equations	3.00
MECH 343	Theory of Machines	3.50
MECH 352	Heat Transfer I	3.50
MECH 375	Mechanical Vibrations	3.50
MECH 411	Instrumentation and Measurements	3.50
MECH 412	Computer-Aided Mechanical Design	3.50
MECH 460	Finite Element Analysis	3.75
MIAE 211	Mechanical Engineering Drawing	3.50
MIAE 215	Programming for Mechanical and Industrial Engineers	3.50
MIAE 221	Materials Science	3.00
MIAE 311	Manufacturing Processes	3.00
MIAE 312	Engineering Design and Manufacturing Laboratory	1.00
MIAE 313	Machine Drawing and Design	3.50

AERO 485	Introduction to Space Systems	3.00
AERO 486*	Aircraft Stress Analysis	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
INDU 372	Quality Control and Reliability	3.00
INDU 412	Human Factors Engineering	3.50
MECH 368	Electronics for Mechanical Engineers	3.50
MECH 375*	Mechanical Vibrations	3.50
MECH 411	Instrumentation and Measurements	3.50
MECH 426*	Stress and Failure Analysis of Machinery	3.00
MECH 452	Heat Transfer II	3.50
MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00
MECH 460*	Finite Element Analysis	3.75
MECH 498	Topics in Mechanical Engineering	3.00

2. Option B — Aerospace Structures and Materials

Students must complete the following compulsory courses from the Option Core and at least 2.50 credits from the Option Electives. Students having a GPA of 3.0 or more may submit a request to take a graduate course as an elective.

Option B Core	<i>Credits</i>	
AERO 431	Principles of Aeroelasticity	3.00
AERO 481	Materials Engineering for Aerospace	3.50
AERO 486	Aircraft Stress Analysis	3.00
AERO 487	Design of Aircraft Structures	3.00
ENGR 311	Transform Calculus and Partial Differential Equations	3.00
MECH 343	Theory of Machines	3.50
MECH 352	Heat Transfer I	3.50
MECH 375	Mechanical Vibrations	3.50
MECH 411	Instrumentation and Measurements	3.50
MECH 412	Computer-Aided Mechanical Design	3.50
MECH 460	Finite Element Analysis	3.75
MIAE 211	Mechanical Engineering Drawing	3.50
MIAE 215	Programming for Mechanical and Industrial Engineers	3.50
MIAE 221	Materials Science	3.00
MIAE 311	Manufacturing Processes	3.00
MIAE 312	Engineering Design and Manufacturing Laboratory	1.00

54.25

Option B Electives

Credits

AERO 455*	Computational Fluid Dynamics for Aerospace Applications	3.75
AERO 471	Aircraft Hydro-Mechanical and Fuel Systems	3.50
AERO 472	Aircraft Pneumatic and Electrical Power Systems	3.50
AERO 480*	Flight Control Systems	3.50
AERO 482*	Avionic Navigation Systems	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
INDU 372	Quality Control and Reliability	3.00
MECH 344	Machine Element Design	3.00
MECH 351*	Thermodynamics II	3.50
MECH 361*	Fluid Mechanics II	3.50
MECH 368	Electronics for Mechanical Engineers	3.50
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 425	Manufacturing of Composites	3.50
MECH 426	Stress and Failure Analysis of Machinery	3.00
MECH 476	Generative Design and Manufacturing in Engineering	3.00
MECH 498	Topics in Mechanical Engineering	3.00

3. Option C — Avionics and Aerospace Systems

Students must complete the following compulsory courses from the Option Core and at least 14.75 credits from the Option Electives. Students having a GPA of 3.0 or more may submit a request to take a graduate course as an elective.

Option C Core

Credits

AERO 482	Avionics Navigation Systems	3.00
AERO 483	Integration of Avionics Systems	3.00
COEN 212	Digital Systems Design I	3.50
COEN 231	Introduction to Discrete Mathematics	3.00
COEN 243	Programming Methodology I	3.50
COEN 244	Programming Methodology II	3.00
COEN 311	Computer Organization and Software	3.50

MIAE 313	Machine Drawing and Design	3.50
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54.25

Option B Electives

Credits

AERO 471	Aircraft Hydro-Mechanical and Fuel Systems	3.50
AERO 472	Aircraft Pneumatic and Electrical Power Systems	3.50
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
INDU 372	Quality Control and Reliability	3.00
INDU 412	Human Factors Engineering	3.50
MECH 344	Machine Element Design	3.00
MECH 351	Thermodynamics II	3.50
MECH 361	Fluid Mechanics II	3.50
MECH 368	Electronics for Mechanical Engineers	3.50
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 425	Manufacturing of Composites	3.50
MECH 426	Stress and Failure Analysis of Machinery	3.00
MECH 476	Generative Design and Manufacturing in Engineering	3.00
MECH 498	Topics in Mechanical Engineering	3.00

3. Option C — Avionics and Aerospace Systems

Students must complete the following compulsory courses from the Option Core and at least 14.75 credits from the Option Electives. Students having a GPA of 3.0 or more may submit a request to take a graduate course as an elective.

Option C Core

Credits

AERO 482	Avionics Navigation Systems	3.00
AERO 483	Integration of Avionics Systems	3.00
COEN 212	Digital Systems Design I	3.50
COEN 231	Introduction to Discrete Mathematics	3.00
COEN 243	Programming Methodology I	3.50
COEN 244	Programming Methodology II	3.00
COEN 311	Computer Organization and Software	3.50

COEN 352	Data Structures and Algorithms	3.00
ELEC 242	Continuous-Time Signals and Systems	3.00
ELEC 273	Basic Circuit Analysis	3.50
ELEC 342	Discrete-Time Signals and Systems	3.50
ELEC 483	Real-Time Computer Control Systems	3.50
SOEN 341	Software Process and Practices	3.00

42.00

Option C Electives

Credits

AERO 471	Aircraft Hydro-Mechanical and Fuel Systems	3.50
AERO 472	Aircraft Pneumatic and Electrical Power Systems	3.50
AERO 480	Flight Control Systems	3.50
COEN 313	Digital Systems Design II	3.50
COEN 317	Microprocessor-Based Systems	3.50
COEN 320	Introduction to Real-Time Systems	3.00
COEN 346	Operating Systems	3.50
COEN 366	Communication Networks and Protocols	3.50
COEN 413	Hardware Functional Verification	3.00
COEN 421	Embedded Systems Design	4.00
COEN 498	Topics in Computer Engineering	3.00
ELEC 251	Fundamentals of Applied Electromagnetics	3.00
ELEC 311	Electronics I	3.50
ELEC 331	Fundamentals of Electrical Power Engineering	3.50
ELEC 351	Electromagnetic Waves and Guiding Structures	3.00
ELEC 367	Introduction to Digital Communications	3.50
ELEC 433	Power Electronics	3.50
ELEC 442	Digital Signal Processing	3.00
ELEC 458	Techniques in Electromagnetic Compatibility	3.00
ELEC 464	Wireless Communications	3.00
ELEC 481	Linear Systems	3.50
ELEC 482	System Optimization	3.50
ELEC 498	Topics in Electrical Engineering	3.00
ENGR 411	Special Technical Report	1.00
SOEN 342	Software Requirements and Deployment	3.00

COEN 352	Data Structures and Algorithms	3.00
ELEC 242	Continuous-Time Signals and Systems	3.00
ELEC 273	Basic Circuit Analysis	3.50
ELEC 342	Discrete-Time Signals and Systems	3.50
ELEC 483	Real-Time Computer Control Systems	3.50
SOEN 341	Software Process and Practices	3.00

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Option C Electives

Credits

AERO 471	Aircraft Hydro-Mechanical and Fuel Systems	3.50
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ELEC 482	System Optimization	3.50
ELEC 498	Topics in Electrical Engineering	3.00
ENGR 411	Special Technical Report	1.00
SOEN 342	Software Requirements and Deployment	3.00
SOEN 343	Software Architecture and Design	3.00

Rationale:

Since adding AERO290 to the AERO core, Option B electives were reduced to 2.75 credits i.e. only one technical elective course. There is no longer the need to specify that students may only take one of the specified (*) courses as they do not require additional courses.

Remove AERO 455 from Option B electives:

Both AERO 455 and MECH 361 are marked with asterisk (*). But since AERO 455 requires MECH 361 as a prerequisite, students who enrolled in Option B will never be able to take AERO 455.

Add INDU 412 as an elective for Option A and B:

Human Factors Engineering (INDU 412) is very important for design; applicable to usage, disassembly, as well as maintenance and repair. Students in Aerospace Engineering program should be well trained to consider such aspects during the design phase.

Note: The 'Present Text' is coming from MECH-119 that was approved at the Senate meeting held on October 16, 2020.

Resource Implications:

No additional resources required.

INTERNAL MEMORANDUM

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

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

DATE: February 17, 2021

RE: Changes to the Aerospace Industry Project Courses in CIADI

Please find attached the curriculum changes made to the Aerospace Industry Project Courses in the Concordia Institute for Aerospace Design and Innovation (CIADI). The institute proposes to introduce a new course IADI 420 Professional Development and Experiential Learning in Aerospace (0 credit) as well as to add a credits value to IADI 301 Undergraduate Aerospace Industry Project I (3 credits) and to IADI 401 Undergraduate Aerospace Industry Project II (3 credits). There is no resource implication required for this proposal.

This proposal passed the GCS Undergraduate Studies Committee on January 25, 2021 and the GCS Council on February 12, 2021. I would be grateful if you could put it on the agenda of the next APC meeting.

DATE: January 19, 2021

TO: Dr. A. Akgunduz, Associate Dean, Academic Programs
Faculty of Engineering and Computer Science

FROM: Dr. Carole El Ayoubi, Director of Education,
Concordia Institute for Aerospace Design and Innovation

SUBJECT: **Introduction of IADI 420 and Modifications of Aerospace Industry Project Courses**

Please find enclosed the Undergraduate curriculum package, MECH-132, submitted by the Concordia Institute for Aerospace Design and Innovation (CIADI).

Rationale:

CIADI would like to provide recognition for students who commit to following CIADI's professional development courses and complete experiential learning activities and/or internships. CIADI's objective is to encourage aerospace focused students to improve their academic portfolios and get them industry ready by promoting professional development and experiential learning.

The sanitary crisis has accelerated the suspension of the current format of CIADI internships. Since March 2020, there have been no students pursuing CIADI internships. Aerospace industries have stopped offering internships through CIADI and have moved towards recruiting interns directly via external job recruitment platforms. While CIADI internships have existed for several years on a non-credit basis, companies hiring the students through the external recruiting platforms are not eligible for tax credits unless our internships are set up as for-credit courses. It is therefore necessary to accommodate our students seeking work terms and internships within the aerospace sector and, accordingly, CIADI would like to assign 3 credits to its internship courses.

Non co-op students as well as students registered in co-op are eligible for these 3-credit CIADI internships.

CIADI is not offering a placement service. Students are responsible for finding their own internships on the external platforms.

I would be grateful if you could put this on the agenda of the next Engineering and Computer Science Undergraduate Studies Committee meeting.

Overview of Program Changes:

Item	Details and/or Rationale	Resource Implications
<p>Concordia Institute for Aerospace Design and Innovation (CIADI)</p> <p>ACTION(S):</p> <ul style="list-style-type: none"> • Requirements 	<p>Removal of Membership and Registration requirements.</p> <p>Students no longer require Membership in CIADI in order to register for the associated industry project courses. As such, the previous registration information is no longer required in the Undergraduate Calendar.</p>	<p>There are no additional resource implications.</p>

Overview of Course Changes:

Item	Details and/or Rationale	Resource Implications
<p>Concordia Institute for Aerospace Design and Innovation (CIADI)</p> <p>ACTION(S):</p> <ul style="list-style-type: none"> • Credit Value • Prerequisite • Course Description 	<p>IADI 301 <i>Undergraduate Aerospace Industry Project I</i></p> <p>Students no longer require membership to CIADI.</p> <p>This Industry Project would be available to students who have completed a minimum of 24 credits within their respective program.</p> <p>As stated in the course notes, the Undergraduate Aerospace Industry Project courses (IADI 301 and 401) are 3-credit extension courses. They are above and beyond the credit requirements of the student's program and are not transferable nor are they included in the full or part-time assessment status.</p>	<p>There are no additional resource implications.</p>
<p>Concordia Institute for Aerospace Design and Innovation (CIADI)</p> <p>ACTION(S):</p> <ul style="list-style-type: none"> • Credit Value • Prerequisite • Course Description 	<p>IADI 401 <i>Undergraduate Aerospace Industry Project II</i></p> <p>The second Industry Project would be available to students who have received a Pass in IADI 301.</p> <p>As stated in the course notes, the Undergraduate Aerospace Industry Project courses (IADI 301 and 401) are 3-credit extension courses. They are above and beyond the credit requirements of the student's program and are not transferable nor are they included in the full or part-time assessment status.</p>	<p>There are no additional resource implications.</p>
<p>Concordia Institute for Aerospace Design and Innovation (CIADI)</p> <p>ACTION(S):</p> <ul style="list-style-type: none"> • New Course 	<p>IADI 420 <i>Professional Development and Experiential Learning in Aerospace</i></p> <p>Students enrolled in a minimum of 6 hours of professional development workshops, lectures and/or experiential learning activities in the aerospace sector, provided by CIADI, may request to have this course appear on their official university transcript. Requests can be made by contacting the CIADI Education Director.</p>	<p>There are no additional resource implications.</p>

PROGRAM CHANGE: 71.10.9 Concordia Institute for Aerospace Design and Innovation (CIADI)

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Concordia Institute for Aerospace Design and Innovation
Program: All engineering programs
Degree: BEng
Calendar Section/Graduate Page Number: 71.10.9

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2021/2022) calendar	Proposed Text
<p>71.10.9 Concordia Institute for Aerospace Design and Innovation (CIADI)</p> <p>The Concordia Institute for Aerospace Design and Innovation (CIADI) promotes awareness and provides leading-edge know-how among Engineering students and practising engineers in design and innovation, particularly in the field of aerospace, with emphasis on its multidisciplinary nature. While some members of the Institute may enter their field upon completion of their degree, the initiation into research provided to CIADI members is helpful to students who wish to pursue graduate studies in the field of aerospace.</p> <p>Membership Students accepted to the Institute are selected from among the top second and third year undergraduate students in the Gina Cody School of Engineering and Computer Science, and work on collaborative design and research projects over several terms of Engineering studies. Students are supervised by Concordia faculty members and receive mentoring from industry representatives working in the field. Eligible projects are credited by the GCS as capstone design projects.</p> <p>Registration Students accepted to the Institute register in one or two zero credit courses, IADI 301 and 401, in order to remain affiliated with CIADI. A pass or fail is awarded for these courses. Students who receive a pass for IADI 301 may continue in CIADI. Students who successfully complete one or both courses, IADI 301 and 401, will be recognized as full members of the Institute and this recognition will also appear on their official transcript. Students who successfully complete both IADI 301 and 401 will also have this recognition appear on their diploma. Students who fail IADI 301 will not be allowed to continue with CIADI and shall receive no acknowledgement of this activity on their official transcript.</p>	<p>71.10.9 Concordia Institute for Aerospace Design and Innovation (CIADI)</p> <p>The Concordia Institute for Aerospace Design and Innovation (CIADI) promotes awareness and provides leading-edge know-how among Engineering students and practising engineers in design and innovation, particularly in the field of aerospace, with emphasis on its multidisciplinary nature. While some members of the Institute may enter their field upon completion of their degree, the initiation into research provided to CIADI members is helpful to students who wish to pursue graduate studies in the field of aerospace.</p> <p><u>Aerospace Industry Projects</u></p> <p><u>Students may register in one or two 3-credit Aerospace Industry Project courses, IADI 301 and 401. These courses are 3-credit extension courses. They are above and beyond the credit requirements of the student's program and are not transferable nor are they included in the full or part-time assessment status.</u></p> <p><u>A grade of pass or fail will be awarded based on the evaluation of the final report as well as an assessment provided by the industry project supervisor.</u></p> <p><u>Professional Development and Experiential Learning</u></p> <p><u>CIADI encourages students to enhance their academic portfolio and participate to professional development and experiential learning activities offered by the institute. Students who completed a minimum of 6 hours of professional development and experiential learning activities provided by CIADI may request to register in IADI 420, a 0-credit course that will appear on their official transcript.</u></p>

Rationale:
 Students no longer require Membership in CIADI in order to register for the associated industry project courses. As such, the previous registration information is no longer required in

the Undergraduate Calendar.

Resource Implications:

There are no additional resource implications.

COURSE CHANGE: IADI 301 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Concordia Institute for Aerospace Design and Innovation
Program: All engineering programs
Degree: BEng
Calendar Section/Graduate Page Number: 71.60

Type of Change:

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

Present Text (from 2021/2022) calendar	Proposed Text
<p>IADI 301 Undergraduate Aerospace Industry Project I (0 credit) Prerequisite: Acceptance into CIADI. The activities associated with this course include participation in regular meetings at the Institute and with faculty and industry members, attendance at training sessions (as applicable), industry training and tours. A project is assigned to the students. Students are also required to prepare and present progress reports on their project. A final report of their project must be submitted to the director of CIADI. A grade of pass or fail will be awarded based on the evaluation of the above activities. All students accepted to CIADI are required to register for this non-credit course activity.</p>	<p>IADI 301 Undergraduate Aerospace Industry Project I (3 credit) <u>Prerequisite/corequisite:</u> Students must complete a minimum of 24 credits within their respective Engineering program prior to enrolling. <u>Description:</u> The activities associated with this course include an industry-based project in the Aerospace field, participation in regular meetings with the Industry supervisor, attendance at training sessions (as applicable), industry training and tours. A final report of the industry project must be submitted to the Director of Education of CIADI. A grade of pass or fail will be awarded based on the evaluation of the final report as well as an assessment provided by the industry project supervisor. <u>Notes:</u></p> <ul style="list-style-type: none"> <u>The Undergraduate Aerospace Industry Project courses (IADI 301 and 401) are 3-credit extension courses. They are above and beyond the credit requirements of the student's program and are not transferable nor are they included in the full or part-time assessment status.</u>
<p>Rationale: Students no longer require membership to CIADI.</p> <p>This Industry Project would be available to students who have completed a minimum of 24 credits within their respective program.</p> <p>As stated in the course notes, the Undergraduate Aerospace Industry Project courses (IADI 301 and 401) are 3-credit extension courses. They are above and beyond the credit requirements of the student's program and are not transferable nor are they included in the full or part-time assessment status.</p>	
<p>Resource Implications: There are no additional resource implications.</p>	

Other Programs within which course is listed:

N/A

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **MECH-132** VERSION: 2

COURSE CHANGE: IADI 401 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Concordia Institute for Aerospace Design and Innovation
Program: All engineering programs
Degree: BEng
Calendar Section/Graduate Page Number: 71.60

Type of Change:

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

Present Text (from 2021/2022) calendar	Proposed Text
<p>IADI 401 <i>Undergraduate Aerospace Industry Project II</i> (0 credit)</p> <p>Prerequisite: Pass in IADI 301. The activities associated with this course deal with participation in regular meetings at the Institute and with faculty and industry members, attendance at training sessions (as applicable), industry training and tours. A project is assigned to the students. Students are also required to prepare and present progress reports on their project. A final report of their project must be submitted to the director of CIADI. A grade of pass or fail will be awarded based on the evaluation of the above activities. Students wishing to use their research and design project for their capstone project (e.g. MECH 490, COEN 490) must receive written approval from the Capstone Design Project coordinator in their respective department at the commencement of their CIADI project, and meet all requirements set out by both CIADI and their individual department.</p>	<p>IADI 401 <i>Undergraduate Aerospace Industry Project II</i> (3 credit)</p> <p><u>Prerequisite/corequisite: The following course must be completed prior to enrolling: IADI 301 with a grade of Pass.</u></p> <p><u>Description: The activities associated with this course include an industry-based project in the Aerospace field, participation in regular meetings with the Industry supervisor, attendance at training sessions (as applicable), industry training and tours. A final report of the industry project must be submitted to the Director of Education of CIADI. A grade of pass or fail will be awarded based on the evaluation of the final report as well as an assessment provided by the industry project supervisor.</u></p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> <u>The Undergraduate Aerospace Industry Project courses (CIADI 301 and 401) are 3-credit extension courses. They are above and beyond the credit requirements of the student's program and are not transferable nor are they included in the full or part-time assessment status.</u>
<p>Rationale: The second Industry Project would be available to students who have received a Pass in IADI 301.</p> <p>As stated in the course notes, the Undergraduate Aerospace Industry Project courses (IADI 301 and 401) are 3-credit extension courses. They are above and beyond the credit requirements of the student's program and are not transferable nor are they included in the full or part-time assessment status.</p>	
<p>Resource Implications: There are no additional resource implications.</p>	
<p>Other Programs within which course is listed:</p> <p>N/A</p>	

COURSE CHANGE: IADI 420 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Concordia Institute for Aerospace Design and Innovation
Program: All programs
Degree: Bachelor
Calendar Section/Graduate Page Number: 71.60

Type of Change:

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

Present Text (from 20XX/20XX) calendar	Proposed Text
	<p>IADI 420 Professional Development and Experiential Learning in Aerospace (0 credit)</p> <p><i>Description:</i> Students enrolled in a minimum of 6 hours of professional development workshops, lectures and/or experiential learning activities in the aerospace sector, provided by CIADI, may request to have this course appear on their official university transcript. Requests can be made by contacting the CIADI Education Director.</p>
<p>Rationale: CIADI would like to provide recognition for students who commit to following professional development courses and complete experiential learning activities as well as to encourage aerospace focused students to improve their academic portfolios.</p>	
<p>Resource Implications: There are no resource implications.</p>	
<p>Other Programs within which course is listed: There are no additional programs.</p>	

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 25, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (MATH-32)
(CALENDAR – WINTER 2021)
DEPARTMENT OF MATHEMATICS AND STATISTICS
FACULTY OF ARTS AND SCIENCE**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Arts and Science Faculty Council.

The Department of Mathematics and Statistics is proposing to modify the name of their PhD and MA/MSc degrees from 'Mathematics' to 'Mathematics and Statistics' to align with the department's name and to reflect the research areas of graduate students. The Department is also responding to research trends in the discipline.

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: R. Courtemanche, Associate Dean, Academic Programs, Faculty of Arts and Science
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-
President, Academic Affairs

INTERNAL MEMORANDUM

TO: Dr. Bradley Nelson
Associate Dean, School of Graduate Studies
Chair, Graduate Curriculum Committee

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

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

DATE: February 1, 2021

SUBJECT: Graduate Calendar Curriculum Changes
Department of Mathematics and Statistics
MATH-32

The following proposal was presented under ASFC-2021-1M-D at the Arts and Science Faculty Council meeting of January 29, 2021. The Chair of Mathematics and Statistics noted an error in the title of the PhD program and requested that it be corrected. The precise title should read 'Mathematics and Statistics PhD'. Dr. Courtemanche agreed to have the entry modified before moving the document forward to the School of Graduate Studies. With this change, the dossier was approved. We request that the proposal be considered at the next Graduate Curriculum Committee meeting.

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

INTERNAL MEMORANDUM

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

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

DATE: January 14, 2021

SUBJECT: Graduate Calendar Curriculum Changes
Department of Mathematics and Statistics
MATH-32
Degree title changes: PhD, MA/MSc in Mathematics and Statistics

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.

Upon approval at the department's Curriculum Committee and Council, and after consultation with the School of Graduate Studies, the **Department of Mathematics and Statistics** is proposing a degree name change from 'Mathematics' to 'Mathematics and Statistics' for their PhD and MA/MSc programs. This proposal stems from the fact that, along with consistency with the name of the department, students have been pursuing graduate work and career opportunities in Statistics, already. Graduating from "Mathematics" alone fails to accurately depict all of the coursework and thesis work in the programs. This is also to prevent misperceptions of degree content and type of work, and promote coherent options for students after graduation.

The department memo also details interesting statistics and an upward trend for current students working with statistical approaches or potential graduate students looking to specifically study programs where Statistics is predominant. All of these motivate the proposed degree name change.

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

Department of Mathematics and Statistics

MATH-32

Memo from Chair

Degree title change

PhD in Mathematics and Statistics

MA/MSc in Mathematics and Statistics

INTERNAL MEMORANDUM

TO: Dr. Richard Courtemanche, Associate Dean, Academic Programs, Faculty of Arts & Science

FROM: Dr. Cody Hyndman, Chair, Department of Mathematics and Statistics

DATE: 11 January 2021

SUBJECT: Degree name change

Dear Dr. Courtemanche,

The Department of Mathematics and Statistics submits for consideration a proposal for a degree name change for our MSc and PhD programs from ‘Mathematics’ to ‘Mathematics and Statistics’. The proposal is submitted after consulting with Gina Beltran (School of Graduate Studies), on November 11, 2020. The proposal and changes were initially discussed in the Graduate Studies Committee (approval by email as attached), then approved by the Department’s Curriculum Committee on December 14, 2020, and by the Department Council on January 11, 2021.

The reasons for this degree name change are the following:

- (1) Approximately 15% of our MSc and PhD students are pursuing a degree under the supervision of a faculty member working in Statistics. An additional 29% of our students are pursuing a related degree that heavily uses Statistics (Actuarial Mathematics; Mathematical & Computational Finance). However, upon graduation, the MSc or PhD degree on diplomas and all official documentation is in ‘Mathematics’. This does not accurately reflect coursework nor project/thesis for students from Statistics. Students and faculty have both expressed concerns that the absence of ‘Statistics’ from the degree name may adversely affect these students’ career and future educational pursuits.

	2016-17		2017-18		2018-19		2019-20	
	N	%	N	%	N	%	N	%
New graduate student registrations								
Mathematical Education	3	10%	2	10%	3	10%	2	8%
Pure & Applied Mathematics	12	39%	8	38%	16	51%	13	52%
Probability & Statistics	10	32%	3	14%	3	10%	3	12%
*Actuarial Mathematics	4	13%	7	33%	4	13%	3	12%
*Mathematical & Computational Finance	2	6%	1	5%	5	16%	4	16%
Total	31		21		31		25	

* Related field to Statistics

(2) Approximately one-third of the applications from prospective graduate students are in Statistics (1st choice). This proportion is nearly two-thirds of all applications if we also consider the related fields (Actuarial Mathematics and Mathematical & Computational Finance), indicating a clear demand for graduate degrees in Statistics. The demand also appears to be increasing over time; perhaps partly due to our more recent tenure-track hires (S. Brugiapaglia, F. Godin, L. Kakinami, M. Mailhot) with research profiles that are cross-disciplinary (such as dynamical systems and statistics). The necessity of the degree name change will become increasingly more critical if this trend continues.

	2016-17		2017-18		2018-19		2019-20	
	N	%	N	%	N	%	N	%
Number of applications (1st choice)								
Mathematical Education	4	4%	6	4%	5	4%	6	5%
Pure & Applied Mathematics	39	38%	27	20%	48	35%	32	25%
Probability & Statistics	26	25%	50	37%	39	29%	35	28%
*Actuarial Mathematics	28	27%	32	24%	17	12%	17	14%
*Mathematical & Computational Finance	6	6%	20	15%	27	20%	35	28%
Total	103		135		136		125	

* Related field to Statistics

(3) Graduate students are officially registered for coursework and project/thesis work in the 'Department of Mathematics and Statistics'. A degree name change will be aligned with the name of the Department.

We propose for this name change to be for both our MSc and PhD programs. There are no resource implications.

Sincerely,



Dr. Cody Hyndman
Chair, Department of Mathematics and Statistics

PROGRAM CHANGE: Mathematics PhD

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Mathematics and Statistics
Program: PhD in Mathematics and Statistics
Degree: PhD
Calendar Section/Graduate Page Number: Winter 2021

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Mathematics PhD</p> <p>Admission Requirements</p> <ul style="list-style-type: none"> • MSc degree, with high standing in Mathematics or an allied discipline from a recognized university. • 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. <p>Candidates will be selected on the basis of their past academic record, letters of recommendation and the relevance of the proposed area of research to the areas of specialization of the Department.</p> <p>Exceptional candidates who have successfully completed one-year's study at the Master's level may, upon approval by the Graduate Studies Committee, be exempted from the required completion of the Master's degree and admitted directly into the PhD program.</p>	<p>Mathematics <u>and Statistics</u> PhD</p> <p>Admission Requirements</p> <ul style="list-style-type: none"> • MSc degree, with high standing in Mathematics, <u>Statistics</u>, or an allied discipline from a recognized university. • 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. <p>Candidates <u>are</u> selected on the basis of their past academic record, letters of recommendation and the relevance of the proposed area of research to the areas of specialization of the Department.</p> <p><u>Fast-tracking.</u> Exceptional candidates who have successfully completed one-year's study at the Master's level may, upon approval by the Graduate Studies Committee, be exempted from the required completion of the Master's degree and admitted directly into the PhD program.</p>
<p>Rationale: Nearly half of our graduate students are pursuing a degree under the supervision of a faculty member working in Statistics or a related research area. Changing the degree name from</p>	

'Mathematics' to 'Mathematics and Statistics' would more accurately reflect the coursework and thesis work for a significant portion of our graduate students. The degree name change is also aligned with the name of our Department.

Resource Implications:

None.

PROGRAM CHANGE: Mathematics MA/MSc

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Mathematics and Statistics
Program: MA or MSc in Mathematics and Statistics
Degree: MA or MSc
Calendar Section/Graduate Page Number: Winter 2021

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

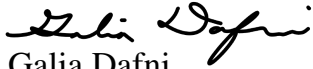
Present Text (from 2020/2021) calendar	Proposed Text
<p>Mathematics MA/MSc</p> <p>Admission Requirements</p> <ul style="list-style-type: none"> • Bachelor's degree with Honours in Mathematics, or equivalent. • Proficiency in English. Applicants whose primary language is not English must demonstrate that 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. <p>Qualified applicants requiring prerequisite courses may be required to take up to 12 undergraduate credits in addition to and as a part of the regular graduate program. Promising candidates who lack the equivalent of an Honours degree in Mathematics may be admitted after having completed a qualifying program.</p>	<p>Mathematics <u>and Statistics</u> MA/MSc</p> <p>Admission Requirements</p> <ul style="list-style-type: none"> • Bachelor's degree with Honours in Mathematics, <u>Statistics</u>, or equivalent. • 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. <p>Qualified applicants requiring prerequisite courses may be required to take up to 12 undergraduate credits in addition to and as a part of the regular graduate program. Promising candidates who lack the equivalent of an Honours degree in Mathematics may be admitted after having completed a qualifying program.</p>
<p>Rationale: Nearly half of our graduate students are pursuing a degree under the supervision of a faculty member working in Statistics or a related research area. Changing the degree name from 'Mathematics' to 'Mathematics and Statistics' would more accurately reflect the coursework and thesis work for a significant portion of our graduate students. The degree name change is also aligned with the name of our Department.</p>	
<p>Resource Implications: None.</p>	



Dear Prof. Kakinami,

The Graduate Studies Committee has voted unanimously in favour of the proposal to change the name of the PhD and MSc programs to Mathematics and Statistics. Please find below the approval emails.

Best regards,



Galia Dafni

Graduate Program Director

From: Giovanni Rosso <giovanni.rosso@concordia.ca>

Sent: Thursday, December 10, 2020 9:43 AM

To: Wei Sun <wei.sun@concordia.ca>; Patrice Gaillardetz <patrice.gaillardetz@concordia.ca>; Alexey Kokotov <alexey.kokotov@concordia.ca>; Frederic Godin <frederic.godin@concordia.ca>; Galia Dafni <galia.dafni@concordia.ca>; Pawel Gora <pawel.gora@concordia.ca>

Subject: R: Graduate Committee Business: approval of proposal for degree name change

I approve too.

Best,

Giovanni

Da: Wei Sun <wei.sun@concordia.ca>

Inviato: martedì 8 dicembre 2020 09:54

A: Patrice Gaillardetz <patrice.gaillardetz@concordia.ca>; Alexey Kokotov <alexey.kokotov@concordia.ca>; Frederic Godin <frederic.godin@concordia.ca>; Galia Dafni <galia.dafni@concordia.ca>; Giovanni Rosso <giovanni.rosso@concordia.ca>; Pawel Gora <pawel.gora@concordia.ca>

Oggetto: Re: Graduate Committee Business: approval of proposal for degree name change

I approve too.

Best,

Wei

From: Patrice Gaillardetz <patrice.gaillardetz@concordia.ca>

Sent: Tuesday, December 8, 2020 2:52 PM

To: Alexey Kokotov <alexey.kokotov@concordia.ca>; Frederic Godin <frederic.godin@concordia.ca>; Galia Dafni <galia.dafni@concordia.ca>; Wei Sun <wei.sun@concordia.ca>; Giovanni Rosso <giovanni.rosso@concordia.ca>; Pawel Gora <pawel.gora@concordia.ca>

Subject: Re: Graduate Committee Business: approval of proposal for degree name change

I approve

Patrice

From: Alexey Kokotov <alexey.kokotov@concordia.ca>

Sent: December 8, 2020 9:51 AM

To: Frederic Godin <frederic.godin@concordia.ca>; Galia Dafni <galia.dafni@concordia.ca>; Wei Sun <wei.sun@concordia.ca>; Giovanni Rosso <giovanni.rosso@concordia.ca>; Patrice Gaillardetz <patrice.gaillardetz@concordia.ca>; Pawel Gora <pawel.gora@concordia.ca>

Subject: Re: Graduate Committee Business: approval of proposal for degree name change

Dear Galia,

I approve. Alexey

Dr. Alexey Kokotov,

Concordia University,
Department of Mathematics and Statistics,
SGW Campus, LB-901-29,
1455 De Maisonneuve W., H3G 1M8, Montreal (QC),
phone: 1-514-848-24-24, ext. 3471

From: Frederic Godin <frederic.godin@concordia.ca>

Sent: Tuesday, December 8, 2020 9:39 AM

To: Galia Dafni <galia.dafni@concordia.ca>; Wei Sun <wei.sun@concordia.ca>; Alexey Kokotov <alexey.kokotov@concordia.ca>; Giovanni Rosso <giovanni.rosso@concordia.ca>;

Patrice Gaillardetz <patrice.gaillardetz@concordia.ca>; Pawel Gora
<pawel.gora@concordia.ca>

Subject: RE: Graduate Committee Business: approval of proposal for degree name change

Hi Galia,

I approve this.

Best,

Frédéric

De : Galia Dafni <galia.dafni@concordia.ca>

Envoyé : lundi 7 décembre 2020 17:06

À : Wei Sun <wei.sun@concordia.ca>; Alexey Kokotov <alexey.kokotov@concordia.ca>;
Giovanni Rosso <giovanni.rosso@concordia.ca>; Patrice Gaillardetz
<patrice.gaillardetz@concordia.ca>; Frederic Godin <frederic.godin@concordia.ca>; Pawel
Gora <pawel.gora@concordia.ca>

Objet : Graduate Committee Business: approval of proposal for degree name change

Dear Graduate Committee Members and Pawel,

This is a follow-up to the discussion about streaming and changing the names of our programs. A first step, as discussed in the last Department Council Meeting, is to change the name of both the Master's and PhD degrees to Mathematics and Statistics.

I'm forwarding documents from Lisa which describe this proposed change and the accompanying (extremely minor) changes to the calendar entries for the Master's and PhD.

I'm asking for an approval of these "in principle" by the Graduate Committee so that Lisa can proceed, together with me and/or Pawel, to develop the final proposal with SGS. As there is a meeting of the Curriculum Committee this coming Monday (Dec. 14), it would be good if we can get this approved before that. **Please respond by Friday, Dec. 11.**

If ever the discussions with SGS result in more extensive changes, Lisa will get back to the committee for further approval.

Best regards,

Galia



SCHOOL OF GRADUATE STUDIES

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

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

DATE: December 14, 2020

**SUBJECT: GRADUATE CURRICULUM CHANGES (PSYC-17)
(CALENDAR – 2021/2022)
DEPARTMENT OF PSYCHOLOGY
FACULTY OF ARTS AND SCIENCE**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Arts and Science Faculty Council.

The Department of Psychology is proposing to modify their MA, Graduate Diploma and PhD programs in order to align them with seven particular sequences (evaluation, psychopathology, intervention, the scientist-practitioner, clinical training, research methods, and psychological science) and to address the requirements of provincial and national accrediting bodies. The changes include revisions to program structures, new courses and course deletions, course description and titles changes, as well as updates to prerequisites.

The GCC approved the proposed curriculum changes with minor modifications. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.



cc: R. Courtemanche, Associate Dean, Academic Programs, Faculty of Arts and Science
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs

INTERNAL MEMORANDUM

TO: Dr. Bradley Nelson
Associate Dean, School of Graduate Studies
Chair, Graduate Curriculum Committee

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

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

DATE: November 20, 2020

SUBJECT: Graduate Calendar Curriculum Changes
Department of Psychology (PSYC-17)

The following proposal was presented under ASFC-2020-7M-E and approved at the Arts and Science Faculty Council meeting of November 20, 2020. We request that this proposal be reviewed at the next Graduate Curriculum Committee meeting.

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



INTERNAL MEMORANDUM

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

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

DATE: November 6, 2020

SUBJECT: Graduate Calendar Curriculum Changes
Department of Psychology
PSYC-17
Changes to PhD, MA, and Diploma; course titles, description and renumbering

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 Psychology** is proposing changes to their graduate degrees, namely the MA, Graduate Diploma, and PhD degrees, in research and clinical psychology. These programs are in compliance with accreditation standards from *the Ordre des Psychologues du Québec*, which regulates clinical practice in the province, as well as with those from the *Canadian Psychological Association*, at a country-wide level. Following recent accreditation visits and reports, the department reviewed comments and implemented changes to the program structures, introduced new courses/removed old courses, and adjusted specific courses, to improve the clinical training of future psychologists. For our convenience, the Department Chair provided a very useful listing of the course change summary at the end of his memo. Also well-described by the Chair's memo, the changes follow the thematic of (1) evaluation, (2) psychopathology, (3) intervention, (4) the scientist-practitioner, (5) clinical training, (6) research methods, and (7) psychological science.

In terms of course additions and removals, highlights include the addition of 8 new courses and the removal of 5 courses. The additions touch on the regular addressing of ethical issues, on advanced psychopathology courses, and on advanced intervention courses. These have been well inserted within the program structure. Courses verifying progress of the student through the program have been inserted in the regular yearly

assessment cycle. Deletions are in turn related to the seminar courses, the content of which is balanced across other coursework. In addition, 27 courses had their title, description, or prerequisite list changed. A major trend in the changes concerns the flow of practica within the programs, as well as seminar work.

To help situate the overall link between these graduate programs in terms of clinical training, in the Department of Psychology, the path of cohorts usually follows the model of completing the M.A. degree and the clinical diploma concurrently. In some cases, students who already have Master's degrees are admitted directly into the doctoral program – where the clinical diploma is completed concurrently with the Ph.D. The student's path through the graduate work has also been conveniently illustrated as an appendix to the Chair's memo.

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

Reference documents:
FCC 2020.3_PSYC-17

Department of Psychology

PSYC-17

Memo from Chair

Course title, prerequisite and course description change

PSYC 700	Personality and Psychopathology
PSYC 705	Internal Practicum I
PSYC 706	Diagnostic Evaluation Practicum
PSYC 707	Cognitive Evaluation Practicum
PSYC 709	Internal Practicum II: Adult
PSYC 823	Internal Practicum III: General
PSYC 824	Internal Practicum III: Adult
PSYC 825	Internal Practicum III: Child and Adolescent
PSYC 834	Science in Practice: Applied Research, Consultation, and Supervision
PSYC 838	External Practicum II: General
PSYC 839	External Practicum II: Adult
PSYC 840	External Practicum II: Child and Adolescent
PSYC 841	External Practicum III: General
PSYC 842	External Practicum III: Adult
PSYC 843	External Practicum III: Child and Adolescent
PSYC 885	Predoctoral Clinical Internship

Course title and course description change

PSYC 701	Psychometrics, Intelligence and Neurocognitive Evaluation
PSYC 703	Cognitive and Behavioural Interventions
PSYC 704	Group and Systemic Interventions
PSYC 708	Internal Practicum II: General
PSYC 710	Internal Practicum II: Child and Adolescent

PSYC 711	External Practicum I: General
PSYC 712	External Practicum I: Adult
PSYC 713	External Practicum I: Child and Adolescent

Course deletion

PSYC 702	Models of Assessment II
PSYC 720	Seminar on Ethical and Professional Issues
PSYC 835	Advanced Clinical Seminar II: Adult
PSYC 836	Advanced Clinical Seminar II: Child and Adolescent
PSYC 837	Advanced Clinical Seminar II: General

Course title and prerequisite

PSYC 705	Internal Practicum I
PSYC 826	Internal Practicum IV: General
PSYC 827	Internal Practicum IV: Adult
PSYC 828	Internal Practicum IV: Child and Adolescent

New course

PSYC 7201	Introduction to Ethics for Clinical Psychology (1 credit)
PSYC 7202	Seminar on Ethical and Professional Issues (2 credits)
PSYC 799	Progress in Clinical Diploma
PSYC 8103	Advanced Adult Psychopathology
PSYC 8104	Advanced Child and Adolescent Psychopathology
PSYC 8203	Advanced Adult Intervention
PSYC 8204	Advanced Child and Adolescent Intervention
PSYC 899	Progress in Clinical Doctorate (0 credits)

MEMO

To: Faculty of Arts and Science Curriculum Committee (FCC)
From: Aaron Johnson, Chair, Department of Psychology.
Date: 4th November 2020
Subject: Curriculum Changes—Graduate Program in Research and Clinical Psychology

Thank you for considering our proposed curriculum changes for our M.A./Ph.D. program in research and clinical psychology. *None of the changes have any resource implications.* In this memo, I will summarize the impetus behind these changes, the process followed to decide on the changes, and the specific changes themselves.

Impetus Behind the Changes

Starting approximately a decade ago, the *Ordre des psychologues du Québec* (OPQ) began to implement new accreditation standards for coursework, including many recommendations for coursework. During our most recent site visit, the OPQ agreed that our curriculum succeeds in covering the core topics. At the same time, they encouraged us to reorganize our course structure so that individual courses map more cleanly onto their requirements (at the present time, a single requirement might be fulfilled by fractional contributions from several courses). They also encouraged us to introduce a rotating system for several courses so as to increase student choice. The clinical steering committee decided to use this opportunity to conduct a thorough review of the course content, sequencing, and descriptions. Our goal was to develop a curriculum that would (a) fulfill these requests from the OPQ, (b) maintain or enhance our compliance with the accreditation requirements of the *Canadian Psychological Association* (CPA), and (c) continue to reflect our longstanding program philosophy.

Note that our program is accredited by both the OPQ and the CPA. The OPQ tends to be more prescriptive, with firm requirements; many of our changes were prompted by the need to get in closer alignment with their most recent guidelines. In contrast, the CPA tends to be more aspirational, providing guidance for our program after each site visit. We emphasize the OPQ's requirements in this application but also note where we were directly responding to a CPA requirement or recommendation when relevant.

Process Followed

The clinical steering committee struck a subcommittee, including graduate student representation, to discuss different options for restructuring our course content, sequencing, and

descriptions. From time-to-time, this subcommittee would present these options to the full clinical steering committee for feedback. Once a structure was provisionally approved by consensus across the committee members, we assigned 2-3 potential instructors to each course. These instructors then met in order to rework existing text from the course calendar in order to ensure that the description of each course is clear, consistent, accurate, and up-to-date in its use of technical language. After another round of feedback from the full membership of the clinical steering committee, the final proposal was approved unanimously by a formal vote on October 10, 2019. All proposal materials were then circulated to all tenured and tenure-track faculty members of the Graduate Committee in the Department of Psychology for feedback. As no changes were recommended, the Director of Clinical Training then presented the final proposal to the Graduate Committee on November 7, 2019, where it was approved unanimously by a formal vote.

Summary of Changes

Combining across OPQ requirements, CPA requirements, and our own philosophy, the clinical curriculum subcommittee identified *seven course sequences* followed by all of our students in the M.A./Ph.D. program in research and clinical psychology. These sequences are as follows: (1) evaluation; (2) psychopathology; (3) intervention; (4) the scientist-practitioner; (5) clinical training; (6) research methods; and (7) psychological science. As the last two sequences were not commented upon by the OPQ and are offered in tandem with our research psychology graduate program, they will not be discussed further. We have also added *Progress in Clinical Diploma* and *Progress in Clinical Doctorate* as zero-credit courses outside these sequences to allow us to directly evaluate the OPQ standard for *interpersonal relations*. These pass-fail courses will be taken each year in the program.

Before reviewing each course sequence, a note is in order about the clinical diploma. Most of our students complete the M.A. degree and the clinical diploma concurrently. The diploma is needed because a large number of courses are required to meet accreditation standards in clinical psychology. In some cases, we accept students who already have masters degrees directly into our doctoral program; in those cases, the diploma is completed concurrently with the Ph.D.

The changes in each course sequence will now be summarized. A flowchart of the specific courses taken each year, according to sequence, is included as an appendix after this memo.

(1) Evaluation. *Models of Assessment I* is now called *Psychometrics, Intelligence & Neurocognitive Evaluation* (PSYC 701). The title and content change is a more accurate reflection of the course's content. A greater emphasis is now placed on psychometrics, as required by OPQ (who wish to ensure that this topic is reflected on student transcripts). Because the new course will now include consideration of clinical material, it will no longer be available as an option for graduate students outside the clinical program. *Assessment Practicum I* is now called *Diagnostic Evaluation Practicum* (PSYC 706). Again, the title and content are a better reflection of the course as it is now taught. Finally, the *Assessment Practicum II* is now called *Cognitive Evaluation Practicum* (PSYC 707), reflecting the much greater emphasis now placed on contemporary approaches to

diagnosis compared with traditional personality measures. This is important to the OPQ given that the right to make a psychiatric diagnosis is one of the professional practice rights granted to clinical psychologists in Québec and it is important to document proper training. The change in pre-/co-requisites for both of these practicum courses reflects the sequence in which these courses are now taken (see Appendix).

(2) Psychopathology. A course called *Personality & Psychopathology* (PSYC 700), has been constructed out of our original *Psychopathology* course. The title and content now reflect the importance the OPQ now places on diagnosis (see ‘1’, above) while ensuring that the personality content they require is still included. The old prerequisite of “an undergraduate course in behaviour disorders” to “an undergraduate course in psychopathology” serves to update the language but does not represent a substantive change. Because the new course will now include consideration of clinical material, it will no longer be available as an option for graduate students outside the clinical program. A pair of rotating advanced psychopathology courses have also been added at the request of the OPQ. These courses will allow students to select an emphasis on *Advanced Adult Psychopathology* (PSYC 8103) or *Advanced Child & Adolescent Psychopathology* (PSYC 8104). This change will help our students, especially those seeking predoctoral clinical internships in child/adolescent mental health, to document the specific training on their transcripts. In recent years, increasing numbers of internship sites have insisted on these kinds of courses.

(3) Intervention. *Psychological Treatments I: Foundations and Systems* is now called *Cognitive & Behavioural Interventions* (PSYC 703). This change reflects a more specific focus, one requested by many students and also increasingly desired by top-quality predoctoral internships emphasizing this evidence-based approach to intervention. *Psychological Treatments II: Empirically Supported Interventions* is now called *Group & Systemic Interventions* (PSYC 704). This narrowing of focus on the group and systemic aspects of empirically supported intervention has been requested by the OPQ. Finally, a pair of rotating advanced intervention courses have been added, also at the OPQ’s request (paralleling the pair described under ‘2’, above). These courses will allow students to select an emphasis on *Advanced Adult Intervention* (PSYC 8203) or *Advanced Child & Adolescent Intervention* (PSYC 8204). This change will help our students, especially those seeking predoctoral clinical internships in child/adolescent mental health, to document the specific training on their transcripts. In recent years, increasing numbers of internship sites have insisted on these kinds of courses.

(4) The Scientist-Practitioner. Our ethics course presented a particular challenge. The OPQ would like to ensure that students are familiar with their policies before having any contact with clients, whereas we have found that it is difficult to discuss more advanced ethical issues with student who lack any clinical experience. As a compromise, we will split our *Ethics & Professional Issues* (PSYC 720—to be deleted) course into two courses (but without increasing the number of credits dedicated to this topic). The first, *Ethics Workshop* (PSYC 7201), will be worth 1 credit and will take place within the first month of the first year. The second, *Seminar on Ethical & Professional Issues* (PSYC 7202), will be worth 2 credits and will be stretched over the fall and winter semesters of the second year. *Advanced Clinical Seminar I* is now called *Science in Practice: Applied*

Research, Consultation & Supervision (PSYC 834). This course will fulfill the OPQ's requirement that consultation and supervision issues be clearly included in the curriculum. *Advanced Clinical Seminar II* (PSYC 835, 836, 837) is being deleted as all of its required content is now found elsewhere in the curriculum. Finally, we are required to evaluate each student's interpersonal competencies across the full range of their engagement with our program—work with clients, with supervisors, with fellow clinicians, etc. In the absence of a course, however, it is difficult to create a formal mechanism to provide this evaluation, especially when there is a need to state consequences for repeated failure to reach an adequate performance. Yet, as gatekeepers to the profession, it is vital to public safety that the clinical program retain the capacity to evaluate this domain and provide feedback with consequences. As such, we are proposing two new zero-credit courses: (1) *Progress in Clinical Diploma* (PSYC 799), that students will take every year that they are in the clinical diploma program; and (2) *Progress in Clinical Doctorate* (PSYC 899), that students will take every year after they complete the clinical diploma and until they graduate with their Ph.D.

(5) Clinical Training. We have updated the names and descriptions of the APC practica to more accurately reflect how they are currently taught, but there are no major changes here. We now refer to *internal practica* rather than “APC practica” to give us the option to rename the “Applied Psychology Centre” (our in-house training clinic) in the future. To mirror ‘internal’, “Extramural practica” are now called *external practica*. We removed the requirement that the DCT approve internal practica as it is no longer necessary for us to follow this administrative step the way our program is now run. Finally, we added *Introduction to Ethics for Clinical Psychology* (PSYC 7201) as a pre-/co-requisite for *Internal Practicum I* (PSYC 705) as PSYC 7201 covers ethics material that must be learned before PSYC 705 students can begin observing live or video-recorded clinical interactions with clients. We removed *Personality and Psychopathology* (PSYC 700) as a pre-/co-requisite for *Internal Practicum I* (PSYC 705) because the material for PSYC 700 is no longer strictly necessary for successful performance in PSYC 705.

We look forward to implementing these curriculum changes as soon as possible to help our research and clinical program continue to thrive as one of Canada's top programs in clinical psychology. Please do not hesitate to contact me (psychology.chair@concordia.ca), our Director of Clinical Training (adam.radomsky@concordia.ca), or the Chair of the Clinical Curriculum Subcommittee (andrew.ryder@concordia.ca) should you have any questions.

Sincerely,



Aaron Johnson, Chair, Psychology.

Appendix

	1. Evaluation	2. Psycho-pathology	3. Intervention	4. The Scientist-Practitioner	5. Clinical Training	Progress
MA I: F	PSYC 706	PSYC 700		PSYC 7201	PSYC 705	PSYC 799
MA I: W	PSYC 701, 706				PSYC 705 cont.	PSYC 799 cont.
MA II: F			PSYC 703	PSYC 7202	PSYC 708, 709, 710	PSYC 799
MA II: W			PSYC 704	PSYC 7202 cont.	PSYC 708, 709, 7010 cont.	PSYC 799 cont.
Summer					PSYC 711, 712, 713	PSYC 799 cont.
PhD I & PhD II		PSYC 8103 or 8104	PSYC 8203 or 8204	PSYC 834	PSYC 823, 824, 825; PSYC 838, 839, 840	PSYC 899
PhD III (if needed)					PSYC 841, 842, 843	PSYC 899
PhD IV					PSYC 885	PSYC 899

Course Summary

New Courses					
	Comments	Course Sequence	Title		Prerequisites
PSYC 7201	This course replaces PSYC 720	4. The Scientist-Practitioner	Introduction to Ethics for Clinical Psychology		
PSYC 7202	This course replaces PSYC 720	4. The Scientist-Practitioner	Seminar on Ethical and Professional Issues		PSYC 7201.
PSYC 799			Progress in Clinical Diploma		
PSYC 8103		2. Psychopathology	Advanced Adult Psychopathology		PSYC 700.
PSYC 8104		2. Psychopathology	Advanced Child and Adolescent Psychopathology		PSYC 700.
PSYC 8203		3. Intervention	Advanced Adult Intervention		PSYC 703.
PSYC 8204		3. Intervention	Advanced Child and Adolescent Intervention		PSYC 703.
PSYC 899			Progress in Clinical Doctorate		

Course Deletions					
	Comments		Title		
PSYC 702			Models of Assessment II		
PSYC 720	replaced by PSYC 7201 (1 credit) and PSYC 7202		Seminar on Ethical and Professional Issues		
PSYC 835			Advanced Clinical Seminar II: Adult		
PSYC 836			Advanced Clinical Seminar II: Child		
PSYC 837			Advanced Clinical Seminar II: General		

Course Title, Description and Prerequisite Change					
	Old Title	Course Sequence	New Title	Old Prerequisites	New Prerequisites
PSYC 700	Psychopathology	2. Psychopathology	Personality and Psychopathology	Undergraduate course in Behaviour disorders or equivalent.	Undergraduate course in psychopathology or equivalent.
PSYC 705	APC Practicum I	5. Clinical Training	Internal Practicum I	Prereq or coreq: PSYC 700 and permission of the Director of Clinical Training.	Prereq or coreq: PSYC 7201.
PSYC 706	Assessment Practicum I	1. Evaluation	Diagnostic Evaluation Practicum	Prereq or coreq: PSYC 701, 705 and permission of the Director of Clinical Training.	Prereq or coreq: PSYC 700.
PSYC 707	Assessment Practicum II	1. Evaluation	Cognitive Evaluation Practicum	Prereq: PSYC 706, Coreq - PSYC 702 and permission of the Director of Clinical Training.	Coreq: PSYC 701.
PSYC 708	APC Practicum II: General	5. Clinical Training	Internal Practicum II: General	Prereq or coreq: PSYC 703, 704, 706, 707 and permission of the Director of Clinical Training.	Prereq: PSYC 705. Prereq or Coreq: PSYC 7202.
PSYC 709	APC Practicum II: Adult	5. Clinical Training	Internal Practicum II: Adult	Prereq or coreq: PSYC 703, 704, 706, 707 and permission of the Director of Clinical Training.	Prereq: PSYC 705. Prereq or Coreq: PSYC 7202.

PSYC 710	APC Practicum II: Child	5. Clinical Training	Internal Practicum II: Child and Adolescent	Prereq or coreq: PSYC 703, 704, 706, 707 and permission of the Director of Clinical Training.	Prereq: PSYC 705. Prereq or Coreq: PSYC 7202.
PSYC 711	Extramural Practicum I: General	5. Clinical Training	External Practicum I: General	PSYC 701, 702, 703, 704, 706, 707 and permission of the Director of Clinical Training.	PSYC 704, 706, 707, 7202 and permission of the Director of Practica.
PSYC 712	Extramural Practicum I: Adult	5. Clinical Training	External Practicum I: Adult	PSYC 701, 702, 703, 704, 706, 707 and permission of the Director of Clinical Training.	PSYC 704, 706, 707, 7202 and permission of the Director of Practica.
PSYC 713	Extramural Practicum I: Child	5. Clinical Training	External Practicum I: Child and Adolescent	PSYC 701, 702, 703, 704, 706, 707 and permission of the Director of Clinical Training.	PSYC 704, 706, 707, 7202 and permission of the Director of Practica.
PSYC 823	APC Practicum III: General	5. Clinical Training	Internal Practicum III: General	PSYC 708 (or 709 or 710), 711 (or 712 or 713). Prereq or coreq PSYC 834, 835 (or 836 or 837), and permission of the Director of Clinical Training.	PSYC 708 or PSYC 709 or PSYC 710.
PSYC 824	APC Practicum III: Adult	5. Clinical Training	Internal Practicum III: Adult	PSYC 708 (or 709 or 710), 711 (or 712 or 713). Prereq or coreq PSYC 834, 835 (or 836 or 837), and permission of the Director of Clinical Training.	PSYC 708 or PSYC 709 or PSYC 710.
PSYC 825	APC Practicum III: Child	5. Clinical Training	Internal Practicum III: Child and Adolescent	PSYC 708 (or 709 or 710), 711 (or 712 or 713). Prereq or coreq PSYC 834, 835 (or 836 or 837), and permission of the Director of Clinical Training.	PSYC 708 or PSYC 709 or PSYC 710.
PSYC 826	APC Practicum IV: General	5. Clinical Training	Internal Practicum IV: General	PSYC 823 (or 824 or 825) and permission of the Director of Clinical Training.	PSYC 823 or PSYC 824 or PSYC 825 and permission of the Director of Clinical Training.
PSYC 827	APC Practicum IV: Adult	5. Clinical Training	Internal Practicum IV: Adult	PSYC 823 (or 824 or 825) and permission of the Director of Clinical Training.	PSYC 823 or PSYC 824 or PSYC 825 and permission of the Director of Clinical Training.
PSYC 828	APC Practicum IV: Child	5. Clinical Training	Internal Practicum IV: Child and Adolescent	PSYC 823 (or 824 or 825) and permission of the Director of Clinical Training.	PSYC 823 or PSYC 824 or PSYC 825 and permission of the Director of Clinical Training.
PSYC 834	Advanced Clinical Seminar I	4. The Scientist-Practitioner	Science in Practice: Applied Research, Consultation, and Supervision	PSYC 711 (or 712 or 713), 708 (or 709 or 710), and permission of the Director of Clinical Training.	Prereq: PSYC 708 or 709 or 710. Coreq: PSYC 711 or 712 or 713.
PSYC 838	Extramural Practicum II: General	5. Clinical Training	External Practicum II: General	PSYC 708 (or 709 or 710), 711 (or 712 or 713), and permission of the Director of Clinical Training.	PSYC 711 or PSYC 712 or PSYC 713, and permission of the Director of Practica.

PSYC 839	Extramural Practicum II: Adult	5. Clinical Training	External Practicum II: Adult	PSYC 708 (or 709 or 710), 711 (or 712 or 713), and permission of the Director of Clinical Training.	PSYC 711 or PSYC 712 or PSYC 713, and permission of the Director of Practica.
PSYC 840	Extramural Practicum II: Child	5. Clinical Training	External Practicum II: Child and Adolescent	PSYC 708 (or 709 or 710), 711 (or 712 or 713), and permission of the Director of Clinical Training.	PSYC 711 or PSYC 712 or PSYC 713, and permission of the Director of Practica.
PSYC 841	Extramural Practicum III: General	5. Clinical Training	External Practicum III: General		PSYC 838 or PSYC 839 or PSYC 840 and permission of the Director of Practica.
PSYC 842	Extramural Practicum III: Adult	5. Clinical Training	External Practicum III: Adult		PSYC 838 or PSYC 839 or PSYC 840 and permission of the Director of Practica.
PSYC 843	Extramural Practicum III: Child	5. Clinical Training	External Practicum III: Child and Adolescent		PSYC 838 or PSYC 839 or PSYC 840 and permission of the Director of Practica.
PSYC 885	Predoctoral Internship	5. Clinical Training	Predoctoral Clinical Internship	PSYC 835 (or 836 or 837), 823 (824 or 825), and permission of the Director of Clinical Training.	PSYC 838 or PSYC 839 or PSYC 840 and permission of the Director of Clinical Training.

Course Title and Description Change					
	Old Title	Course Sequence	New Title	Old Prerequisites	New Prerequisites
PSYC 701	Models of Assessment I	1. Evaluation	Psychometrics, Intelligence, and Neurocognitive Evaluation		
PSYC 703	Psychological Treatment I: Foundations and Systems	3. Intervention	Cognitive and Behavioural Interventions		
PSYC 704	Psychological Treatment II: Empirically Supported Interventions	3. Intervention	Group and Systemic Interventions		

PROGRAM CHANGE: Psychology PhD

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Psychology PhD</p> <p>Admission Requirements</p> <ul style="list-style-type: none"> • Master's degree in psychology or its equivalent in a closely related discipline. • Research and Clinical Training Option requires that applicants have completed specific Psychology undergraduate courses required by federal and provincial licensing bodies, including an empirically based undergraduate thesis or its equivalent, as well as master's-level courses in Psychology specified by the program. • 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. <p>Enrolment in these programs is limited in part by the availability of research supervisors and, for the Research and Clinical Training Option, by space in that option.</p> <p>Applicants are selected on the basis of past academic record, letters of recommendation, the results of the Graduate Record Examination (optional, but highly recommended), and the relevance of their proposed research to the research expertise of the faculty. Students successfully completing their master's program in psychology at Concordia University need submit only an application form and letters of recommendation when applying for the doctoral degree. Psychology graduate courses are not open to graduate-level independent students, except in specific circumstances as defined by the department.</p>	<p>Psychology PhD</p> <p>Admission Requirements</p> <ul style="list-style-type: none"> • Master's degree in psychology or its equivalent in a closely related discipline. • Research and Clinical Training Option requires that applicants have completed specific Psychology undergraduate courses required by federal and provincial licensing bodies, including an empirically based undergraduate thesis or its equivalent, as well as master's-level courses in Psychology specified by the program. • 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. <p>Enrolment in these programs is limited in part by the availability of research supervisors and, for the Research and Clinical Training Option, by space in that option.</p> <p>Applicants are selected on the basis of past academic record, letters of recommendation, and the relevance of their proposed research to the research expertise of the faculty. Students successfully completing their master's program in psychology at Concordia University need submit only an application form and letters of recommendation when applying for the doctoral degree. Psychology graduate courses are not open to graduate-level independent students, except in specific circumstances as defined by the department.</p>

Upon recommendation of their thesis supervisor, students enrolled in the Master of Arts (Psychology) program at Concordia University who have completed a minimum of 12 credits of graduate level course work and who have shown high academic performance and potential through performance in research may apply for accelerated admission to doctoral studies without submitting a master's thesis. Approval for accelerated admission must be obtained from the student's thesis committee and the graduate admissions subcommittee by August 15 to allow entry into the PhD program in the Fall term. Students in the Psychology MA Research Option who obtain accelerated admission to the PhD program are not required to take the elective course (chosen from ~~PSYC 700~~, PSYC 716, PSYC 721, PSYC 724, PSYC 725, PSYC 726, PSYC 727 or PSYC 734) as part of their MA coursework. Students in the Psychology MA Research and Clinical Training option may not obtain accelerated admission to the PhD program from MA Year I, but may apply for accelerated admission, upon recommendation of their thesis supervisor, from MA Year II.

Language Requirements. Although no formal language courses or examinations are required, students intending to work in Quebec are strongly encouraged to develop a working knowledge of French. Students who plan to seek admission to the ~~Order of Quebec Psychologists~~ (OPQ) are advised that Article 46 of the professional code of the Province of Quebec states that a working knowledge of French is required for professional certification.

~~**Undergraduate Teaching.** Students are encouraged to take opportunities to assist in undergraduate teaching. The department treats such teaching as part of the student's learning experience. Discussion of aims and techniques as well as advice and criticism are parts of the training that students obtain as teaching assistants.~~

~~**Colloquia.** All students are expected to attend departmental colloquia.~~

Degree Requirements

Fully-qualified candidates are required to complete a minimum of 90 credits. Please see the Psychology Courses page for course descriptions.

90 Psychology PhD

~~72~~ Credits of ~~Core Courses (required for both Research and Research and Clinical Training Options)~~

PSYC 801	Research Seminar I	3.00
PSYC 802	Research Seminar II	3.00
PSYC 880	Comprehensive Examination	0.00
PSYC 890	Research and Thesis	60.00

~~6~~ Credits chosen from:

PSYC 721	Special Topics Seminar	3.00
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Accelerated Admission. Upon recommendation of their thesis supervisor, students enrolled in the Master of Arts (Psychology) program at Concordia University who have completed a minimum of 12 credits of graduate level course work and who have shown high academic performance and potential through performance in research may apply for accelerated admission to doctoral studies without submitting a master's thesis. Approval for accelerated admission must be obtained from the student's thesis committee and the graduate admissions subcommittee by August 15 to allow entry into the PhD program in the Fall term. Students in the Psychology MA Research Option who obtain accelerated admission to the PhD program are not required to take the elective course (chosen from PSYC 716, PSYC 721, PSYC 724, PSYC 725, PSYC 726, PSYC 727 or PSYC 734) as part of their MA coursework. Students in the Psychology MA Research and Clinical Training option may not obtain accelerated admission to the PhD program from MA Year I, but may apply for accelerated admission, upon recommendation of their thesis supervisor, from MA Year II.

Language Requirements. Although no formal language courses or examinations are required, students intending to work in Quebec are strongly encouraged to develop a working knowledge of French. Students who plan to seek admission to the [Ordre des Psychologues du Québec](#) (OPQ) are advised that Article 46 of the professional code of the Province of Quebec states that a working knowledge of French is required for professional certification.

Degree Requirements

Fully-qualified candidates are required to complete a minimum of 90 credits. Please see the Psychology Courses page for course descriptions.

90 Psychology PhD [Research Option](#)

~~66~~ Credits of required [courses](#)

PSYC 801	Research Seminar I	3.00
PSYC 802	Research Seminar II	3.00
PSYC 880	Comprehensive Examination	0.00
PSYC 890	Research and Thesis	60.00

~~6~~ Credits chosen from:

PSYC 721	Special Topics Seminar	3.00
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PSYC 722	Focused Topic Seminar	1.50
PSYC 724	Special Topics in Clinical and Health Psychology	3.00
PSYC 725	Special Topics in Cognitive Science	3.00
PSYC 726	Special Topics in Human Development	3.00
PSYC 727	Special Topics in Behavioural Neuroscience	3.00

Note: Special Topic seminars may be taken multiple times provided that the course content has changed.

18 Credits chosen from the following options:

~~Psychology PhD Research Option~~

~~Psychology PhD Research and Clinical Training Option--~~

Psychology PhD Research Option (18 credits)

18 Students must complete ~~a maximum of~~ 18 credits total from Set A and Set B below.

Set A: Students must complete ~~a minimum of 3 and a maximum of~~ 12 credits from the following:

PSYC 844	Clinical and Health Research Area Seminar II	3.00
PSYC 845	Cognitive Science Area Seminar II	3.00
PSYC 846	Human Development Area Seminar II	3.00
PSYC 847	Behavioural Neuroscience Area Seminar II	3.00

Note: each 3-credit seminar may be taken up to 4 times as an elective option provided the topic differs

Set B: Students must complete ~~a minimum of 6 and a maximum of~~ 15 credits from the following:

PSYC 700	Psychopathology	3.00
PSYC 701	Models of Assessment I	3.00
PSYC 714	Central Topics in Psychology	3.00
PSYC 716	Advanced Human Development	3.00
PSYC 721	Special Topics Seminar	3.00
PSYC 722	Focused Topic Seminar	1.50
PSYC 724	Special Topics in Clinical and Health Psychology	3.00
PSYC 725	Special Topics in Cognitive Science	3.00
PSYC 726	Special Topics in Human Development	3.00

PSYC 722	Focused Topic Seminar	1.50
PSYC 724	Special Topics in Clinical and Health Psychology	3.00
PSYC 725	Special Topics in Cognitive Science	3.00
PSYC 726	Special Topics in Human Development	3.00
PSYC 727	Special Topics in Behavioural Neuroscience	3.00

Note: Special Topics seminars may be taken multiple times provided that the course content has changed.

18 Students must complete 18 credits total from Set A and Set B below.

Set A: Students must complete 3 to 12 credits from the following:

PSYC 844	Clinical and Health Research Area Seminar II	3.00
PSYC 845	Cognitive Science Area Seminar II	3.00
PSYC 846	Human Development Area Seminar II	3.00
PSYC 847	Behavioural Neuroscience Area Seminar II	3.00

Note: each 3-credit seminar may be taken up to 4 times as an elective option provided the topic differs

Set B: Students must complete 6 to 15 credits from the following:

PSYC 714	Central Topics in Psychology	3.00
PSYC 716	Advanced Human Development	3.00
PSYC 721	Special Topics Seminar	3.00
PSYC 722	Focused Topic Seminar	1.50
PSYC 724	Special Topics in Clinical and Health Psychology	3.00
PSYC 725	Special Topics in Cognitive Science	3.00
PSYC 726	Special Topics in Human Development	3.00

PSYC 734	Multivariate Statistics	3.00
PSYC 8503	Practicum in Research Techniques	3.00
PSYC 8506	Practicum in Research Techniques	6.00
PSYC 851	Teaching of Research Techniques	3.00

Note: Special Topics seminars may be taken multiple times ~~as an elective option~~ provided that the course content has changed.

Research and Clinical Training Option (18 credits)

Students must complete ~~a maximum of 18~~ credits chosen from the following sets.

PSYC 734	Multivariate Statistics	3.00
PSYC 8503	Practicum in Research Techniques	3.00
PSYC 8506	Practicum in Research Techniques	6.00
PSYC 851	Teaching of Research Techniques	3.00

Note: Special Topics seminars may be taken multiple times provided that the course content has changed.

90 Psychology PhD Research and Clinical Training Option

66 Credits of required courses

<u>PSYC 801</u>	<u>Research Seminar I</u>	<u>3.00</u>
<u>PSYC 802</u>	<u>Research Seminar II</u>	<u>3.00</u>
<u>PSYC 880</u>	<u>Comprehensive Examination</u>	<u>0.00</u>
<u>PSYC 890</u>	<u>Research and Thesis</u>	<u>60.00</u>

3 Credits chosen from:

<u>PSYC 721</u>	<u>Special Topics Seminar</u>	<u>3.00</u>
<u>PSYC 722</u>	<u>Focused Topic Seminar</u>	<u>1.50</u>
<u>PSYC 724</u>	<u>Special Topics in Clinical and Health Psychology</u>	<u>3.00</u>
<u>PSYC 725</u>	<u>Special Topics in Cognitive Science</u>	<u>3.00</u>
<u>PSYC 726</u>	<u>Special Topics in Human Development</u>	<u>3.00</u>
<u>PSYC 727</u>	<u>Special Topics in Behavioural Neuroscience</u>	<u>3.00</u>

Note: Special Topics seminars may be taken multiple times provided that the course content has changed.

21 Students must complete 21 credits chosen from the following sets.

3 Credits chosen from:

<u>PSYC 8103</u>	<u>Advanced Adult Psychopathology</u>	<u>3.00</u>
<u>PSYC 8104</u>	<u>Advanced Child and Adolescent Psychopathology</u>	<u>3.00</u>

3 Credits chosen from:

<u>PSYC</u>	<u>Advanced Adult Intervention</u>	<u>3.00</u>
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3	Credits chosen from APC -Practicum III courses:		
	PSYC 823	APC -Practicum III: General	3.00
	PSYC 824	APC -Practicum III: Adult	3.00
	PSYC 825	APC -Practicum III: Child	3.00
3	PSYC 834	Advanced Clinical Seminar I	3.00
3	Credits chosen from Advanced Clinical Seminar II courses:		
	PSYC-835	Advanced Clinical Seminar II: Adult	3.00
	PSYC-836	Advanced Clinical Seminar II: Child	3.00
	PSYC-837	Advanced Clinical Seminar II: General	3.00
3	Credits chosen from Extramural -Practicum III courses:		
	PSYC 838	Extramural Practicum II: General	3.00
	PSYC 839	Extramural Practicum II: Adult	3.00
	PSYC 840	Extramural Practicum II: Child	3.00
3	Credits chosen from Extramural -Practicum III courses		
	PSYC 841	Extramural Practicum III: General	3.00
	PSYC 842	Extramural Practicum III: Adult	3.00
	PSYC 843	Extramural Practicum III: Child	3.00
3	PSYC 885	Predoctoral Internship	3.00

At least one adult and one child client must be seen in the required practicum courses (~~APC~~ Practicum II or III, ~~Extramural~~ Practicum I). All students following the Research and Clinical Training Option are expected to attend case conferences at the ~~Applied Psychology Centre~~ training clinic.

Residence. The minimum residence requirement is two years (6 terms) of full-time study beyond the MA degree, or the equivalent in part-time study.

Academic Regulations

	<u>8203</u>		
	<u>PSYC</u>	<u>Advanced Child and Adolescent Intervention</u>	<u>3.00</u>
	<u>8204</u>		
3	Credits chosen from Internal Practicum III courses:		
	PSYC 823	<u>Internal</u> Practicum III: General	3.00
	PSYC 824	<u>Internal</u> Practicum III: Adult	3.00
	PSYC 825	<u>Internal</u> Practicum III: Child <u>and Adolescent</u>	3.00
3	PSYC 834	<u>Science in Practice: Applied Research, Consultation, and Supervision</u>	3.00
3	Credits chosen from <u>External</u> Practicum III courses:		
	PSYC 838	<u>External</u> Practicum II: General	3.00
	PSYC 839	<u>External</u> Practicum II: Adult	3.00
	PSYC 840	<u>External</u> Practicum II: Child <u>and Adolescent</u>	3.00
3	Credits chosen from <u>External</u> Practicum III courses		
	PSYC 841	<u>External</u> Practicum III: General	3.00
	PSYC 842	<u>External</u> Practicum III: Adult	3.00
	PSYC 843	<u>External</u> Practicum III: Child <u>and Adolescent</u>	3.00
3	PSYC 885	Predoctoral <u>Clinical</u> Internship	3.00
<u>0</u>	<u>PSYC 899</u>	<u>Progress in Clinical Doctorate</u>	<u>0.00</u>

Other Requirements: At least one adult and one child/adolescent client must be seen in the required practicum courses (Internal Practicum II or III, External Practicum I). All students following the Research and Clinical Training Option are expected to attend case conferences at the training clinic in the Department of Psychology.

Residence. The minimum residence requirement is two years (6 terms) of full-time study beyond the MA degree, or the equivalent in part-time study.

Academic Regulations

1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.
2. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements. In the case of the Diploma in Clinical Psychology, the time limit is 9 terms (3 years) for full-time students; for part-time students the time limit is 15 terms (5 years).
3. **Graduation Requirement.** In order to graduate, students must have a cumulative GPA of at least ~~3.00~~.

1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.
2. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements. In the case of the Diploma in Clinical Psychology, the time limit is 9 terms (3 years) for full-time students; for part-time students the time limit is 15 terms (5 years).
3. **Graduation Requirement.** In order to graduate, students must have a cumulative GPA of at least 2.70.

Rationale:

The 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.

PSYC 700 (Personality and Psychopathology) and PSYC 701 (Psychometrics, Intelligence, and Neurocognitive Evaluation) have been deleted as an option for research students because the change in course content now requires us to limit this course to clinical students.

The Department of Psychology Graduate Committee unanimously decided not to consider Graduate Record Examination (GRE) scores as part of application in the future.

One of the special topics seminars (PSYC 721-727) now must be taken at the M.A. level rather than the Ph.D. level. Sequencing the new courses in such a way as to follow the Ordre des Psychologues du Québec (OPQ) requirements while also making sure their placement makes pedagogical sense means there are now 3 extra credits in the Ph.D. program and 3 fewer credits in the M.A. program compared with our current curriculum. None of the Ph.D. courses specific to the clinical program would make sense at the M.A. level, because they each need previous courses and/or practicum experience. Requiring one of the special topics seminars at the M.A. level redresses this credit imbalance while still providing flexibility to the students.

To make it compatible with other graduate courses, the requirement for the Undergraduate teaching and colloquia is removed.

NOTE TO CALENDAR EDITOR: PSYC 838, 839 and 840 are moved up in the PhD course listing for numerical sequencing.

Resource Implications:

None.

PROGRAM CHANGE: Psychology MA

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: MA in Psychology
Degree: MA
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Psychology MA</p> <p>Admission Requirements</p> <ul style="list-style-type: none"> • Research Option: undergraduate degree in psychology or a closely related discipline. • Research and Clinical Training Option: honours undergraduate degree in psychology or its equivalent. • Completion of specific undergraduate courses required by federal and provincial licensing bodies, including an empirically based undergraduate thesis or its equivalent. • 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. <p>Applications from students with non-psychology degrees are evaluated to assess whether they are sufficiently prepared for graduate studies in Psychology. Students who are lacking up to three of these courses may obtain the equivalency for the missing credits by taking appropriate undergraduate and/or graduate courses during their degree.</p> <p>Enrolment in these programs is limited in part by the availability of research supervisors and, for the Research and Clinical Training Option, by space in that option.</p> <p>Applicants are selected on the basis of past academic record, letters of recommendation, the results of the Graduate Record Examination (optional, but highly recommended), and</p>	<p>Psychology MA</p> <p>Admission Requirements</p> <ul style="list-style-type: none"> • Research Option: undergraduate degree in psychology or a closely related discipline. • Research and Clinical Training Option: honours undergraduate degree in psychology or its equivalent. • Completion of specific undergraduate courses required by federal and provincial licensing bodies, including an empirically based undergraduate thesis or its equivalent. • 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. <p>Applications from students with non-psychology degrees are evaluated to assess whether they are sufficiently prepared for graduate studies in Psychology. Students who are lacking up to three of these courses may obtain the equivalency for the missing credits by taking appropriate undergraduate and/or graduate courses during their degree.</p> <p>Enrolment in these programs is limited in part by the availability of research supervisors and, for the Research and Clinical Training Option, by space in that option.</p> <p>Applicants are selected on the basis of past academic record, letters of recommendation, and the relevance of their proposed research to the research expertise of the faculty.</p>

the relevance of their proposed research to the research expertise of the faculty. Students successfully completing their master's program in psychology at Concordia University need submit only an application form and letters of recommendation when applying for the doctoral degree. Psychology graduate courses are not open to graduate-level independent students, except in specific circumstances as defined by the department.

Upon recommendation of their thesis supervisor, students enrolled in the Master of Arts (Psychology) program at Concordia University who have completed a minimum of 12 credits of graduate level course work and who have shown high academic performance and potential through performance in research may apply for accelerated admission to doctoral studies without submitting a master's thesis. Approval for accelerated admission must be obtained from the student's thesis committee and the graduate admissions subcommittee by August 15 to allow entry into the PhD program in the Fall term. Students in the Research Option who obtain accelerated admission are not required to take the elective course (chosen from ~~PSYC 700~~, PSYC 716, PSYC 721, PSYC 724, PSYC 725, PSYC 726, PSYC 727 or PSYC 734) as part of their MA coursework. Students in the Research and Clinical Training option may not obtain accelerated admission to the PhD program from MA Year I, but may apply for accelerated admission, upon recommendation of their thesis supervisor, from MA Year II.

Language Requirements. Although no formal language courses or examinations are required, students intending to work in Quebec are strongly encouraged to develop a working knowledge of French. Students who plan to seek admission to the ~~Order of Quebec Psychologists~~ (OPQ) are advised that Article 46 of the professional code of the Province of Quebec states that a working knowledge of French is required for professional certification.

~~**Undergraduate Teaching.** Students are encouraged to take opportunities to assist in undergraduate teaching. The department treats such teaching as part of the student's learning experience. Discussion of aims and techniques as well as advice and criticism are parts of the training that students obtain as teaching assistants.~~

~~**Colloquia.** All students are expected to attend departmental colloquia.~~

Degree Requirements

Fully-qualified candidates are required to complete a minimum of 45 credits. Please see the Psychology Courses page for course descriptions.

45 Psychology MA

Psychology MA Research Option (45 credits)

3 PSYC 601 Statistical Analysis and Experimental Design 3.00

0 Credits from one of the following courses:

PSYC 644 Clinical and Health Research Area Seminar I ~~0.00~~

Students successfully completing their master's program in psychology at Concordia University need submit only an application form and letters of recommendation when applying for the doctoral degree. Psychology graduate courses are not open to graduate-level independent students, except in specific circumstances as defined by the department.

Accelerated Admission. Upon recommendation of their thesis supervisor, students enrolled in the Master of Arts (Psychology) program at Concordia University who have completed a minimum of 12 credits of graduate level course work and who have shown high academic performance and potential through performance in research may apply for accelerated admission to doctoral studies without submitting a master's thesis. Approval for accelerated admission must be obtained from the student's thesis committee and the graduate admissions subcommittee by August 15 to allow entry into the PhD program in the Fall term. Students in the Research Option who obtain accelerated admission are not required to take the elective course (chosen from PSYC 716, PSYC 721, PSYC 724, PSYC 725, PSYC 726, PSYC 727 or PSYC 734) as part of their MA coursework. Students in the Research and Clinical Training option may not obtain accelerated admission to the PhD program from MA Year I, but may apply for accelerated admission, upon recommendation of their thesis supervisor, from MA Year II.

Language Requirements. Although no formal language courses or examinations are required, students intending to work in Quebec are strongly encouraged to develop a working knowledge of French. Students who plan to seek admission to the [Ordre des Psychologues du Québec](#) (OPQ) are advised that Article 46 of the professional code of the Province of Quebec states that a working knowledge of French is required for professional certification.

Degree Requirements

Fully-qualified candidates are required to complete a minimum of 45 credits. Please see the Psychology Courses page for course descriptions.

45 Psychology MA

Psychology MA Research Option (45 credits)

3 PSYC 601 Statistical Analysis and Experimental Design 3.00

3 Credits from one of the following courses:

PSYC 644 Clinical and Health Research Area Seminar I 3.00

PSYC 645	Cognitive Science Area Seminar I	0.00	PSYC 645	Cognitive Science Area Seminar I	3.00		
PSYC 646	Human Development Area Seminar I	0.00	PSYC 646	Human Development Area Seminar I	3.00		
PSYC 647	Behavioural Neuroscience Area Seminar I	0.00	PSYC 647	Behavioural Neuroscience Area Seminar I	3.00		
6	PSYC 714	Central Topics in Psychology	6.00	6	PSYC 714	Central Topics in Psychology	6.00
3	Credits selected from the following courses in consultation with the thesis supervisor:			3	Credits selected from the following courses in consultation with the thesis supervisor:		
	PSYC 700	Psychopathology	3.00				
	PSYC 716	Advanced Human Development	3.00		PSYC 716	Advanced Human Development	3.00
	PSYC 721	Special Topics Seminar	3.00		PSYC 721	Special Topics Seminar	3.00
	PSYC 722	Focused Topic Seminar	3.00		PSYC 722	Focused Topic Seminar	3.00
	PSYC 724	Special Topics in Clinical and Health Psychology	3.00		PSYC 724	Special Topics in Clinical and Health Psychology	3.00
	PSYC 725	Special Topics in Cognitive Science	3.00		PSYC 725	Special Topics in Cognitive Science	3.00
	PSYC 726	Special Topics in Human Development	3.00		PSYC 726	Special Topics in Human Development	3.00
	PSYC 727	Special Topics in Behavioural Neuroscience	3.00		PSYC 727	Special Topics in Behavioural Neuroscience	3.00
	PSYC 734	Multivariate Statistics	3.00		PSYC 734	Multivariate Statistics	3.00
30	PSYC 690	Research and Thesis	30.00	30	PSYC 690	Research and Thesis	30.00
Research and Clinical Training Option (45 credits)				Research and Clinical Training Option (45 credits)			
Students in this option will concurrently complete the courses indicated under Diploma in Clinical Psychology .				Students in this option concurrently complete the courses indicated under Diploma in Clinical Psychology .			
3	PSYC 601	Statistical Analysis and Experimental Design	3.00	3	PSYC 601	Statistical Analysis and Experimental Design	3.00
0	Credits from one of the following courses:			0	Credits from one of the following courses:		
	PSYC 6440	Clinical and Health Research Area Seminar I	0.00		PSYC 6440	Clinical and Health Research Area Seminar I	0.00
	PSYC 6450	Cognitive Science Area Seminar I	0.00		PSYC 6450	Cognitive Science Area Seminar I	0.00
	PSYC 6460	Human Development Area Seminar I	0.00		PSYC 6460	Human Development Area Seminar I	0.00
	PSYC 6470	Behavioural Neuroscience Area Seminar I	0.00		PSYC 6470	Behavioural Neuroscience Area Seminar I	0.00
				3	Credits from one of the following courses:		

12	PSYC-700- Psychopathology	3.00
PSYC 714	Central Topics in Psychology	6.00
PSYC 734	Multivariate Statistics	3.00
30	PSYC 690 Research and Thesis	30.00

Academic Regulations

1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.
2. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements. In the case of the Diploma in Clinical Psychology, the time limit is 9 terms (3 years) for full-time students; for part-time students the time limit is 15 terms (5 years).
3. **Graduation Requirement.** In order to graduate, students must have a cumulative GPA of at least ~~3.00~~.

PSYC 721	Special Topics Seminar	3.00
PSYC 722	Focused Topic Seminar	1.50
PSYC 724	Special Topics in Clinical and Health Psychology	3.00
PSYC 725	Special Topics in Cognitive Science	3.00
PSYC 726	Special Topics in Human Development	3.00
PYSC 727	Special Topics in Behavioural Neuroscience	3.00

Note: Special Topics seminars may be taken multiple times provided that the course content has changed.

6	PSYC 714	Central Topics in Psychology	6.00
3	PSYC 734	Multivariate Statistics	3.00
30	PSYC 690	Research and Thesis	30.00

Academic Regulations

1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.
2. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements. In the case of the Diploma in Clinical Psychology, the time limit is 9 terms (3 years) for full-time students; for part-time students the time limit is 15 terms (5 years).
3. **Graduation Requirement.** In order to graduate, students must have a cumulative GPA of at least 2.70.

Rationale:
 The 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.

PSYC 700 (Personality and Psychopathology) has been deleted as an option for research students because the change in course content now requires us to limit this course to clinical students.

The Department of Psychology Graduate Committee unanimously decided not to consider Graduate Record Examination (GRE) scores as part of application in the future.

The Area Seminar I courses (PSYC 644-647) in the Research Option are in fact 3 credit courses. It was an error that these courses were listed as 0 credits for the Research Option. Students in the Research Option receive three credits for these courses. This is not a change to the clinical program, simply a correction of a calendar error.

PSYC 700 (Personality and Psychopathology) moves from the M.A. to the Graduate Clinical Psychology Diploma as this course is now restricted to clinical students rather than being open to all of our graduate students like it was before, plus it leaves room to shift a special topics seminar into the M.A.

One of the special topics seminars (PSYC 721-727) must be taken at the M.A. level rather than the Ph.D. level. Sequencing the new courses in such a way as to follow the Ordre des

Psychologues du Québec (OPQ) requirements while also making sure their placement makes pedagogical sense means there are now 3 extra credits in the Ph.D. program and 3 fewer credits in the M.A. program compared with our current curriculum. None of the Ph.D. courses specific to the clinical program would make sense at the M.A. level, because they each need previous courses and/or practicum experience. Requiring one of the special topics seminars at the M.A. level redresses this credit imbalance while still providing flexibility to students.

To make it compatible with other graduate courses, the requirement for the Undergraduate teaching and colloquia is removed.

Resource Implications:

None.

PROGRAM CHANGE: Clinical Psychology Diploma

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: Graduate Diploma in Clinical Psychology
Degree: Graduate Diploma
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Clinical Psychology Graduate Diploma</p> <p>The Diploma in Clinical Psychology provides students enrolled in the MA in Psychology (Research and Clinical Training Option) with clinical coursework and practica qualifying them for further clinical training provided in the PhD in Psychology (Research and Clinical Training Option).</p> <p>Admission Requirements</p> <ul style="list-style-type: none"> • Open only to students enrolled in the MA or PhD in Psychology (Research and Clinical Training Option). • 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. <p>Language Requirements. Although no formal language courses or examinations are required, students intending to work in Quebec are strongly encouraged to develop a working knowledge of French. Students who plan to seek admission to the Order of Quebec Psychologists (OPQ) are advised that Article 46 of the professional code of the Province of Quebec states that a working knowledge of French is required for professional certification.</p> <p>Undergraduate Teaching. Students are encouraged to take opportunities to assist in undergraduate teaching. The department treats such teaching as part of the student's learning experience. Discussion of aims and techniques as well as advice and criticism will</p>	<p>Clinical Psychology Graduate Diploma</p> <p>The Diploma in Clinical Psychology provides students enrolled in the MA in Psychology (Research and Clinical Training Option) with clinical coursework and practica qualifying them for further clinical training provided in the PhD in Psychology (Research and Clinical Training Option).</p> <p>Admission Requirements</p> <ul style="list-style-type: none"> • Open only to students enrolled in the MA or PhD in Psychology (Research and Clinical Training Option). • 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. <p>Language Requirements. Although no formal language courses or examinations are required, students intending to work in Quebec are strongly encouraged to develop a working knowledge of French. Students who plan to seek admission to the Ordre des Psychologues du Québec (OPQ) are advised that Article 46 of the professional code of the Province of Quebec states that a working knowledge of French is required for professional certification.</p>

be involved as part of the training that students obtain as teaching assistants.

~~Colloquia. All students are expected to attend departmental colloquia.~~

Degree Requirements

Fully-qualified candidates are required to complete a minimum of 30 credits. Please see the Psychology Courses page for course descriptions.

30 Clinical Psychology Graduate Diploma

24 Credits of required courses:

PSYC 701	Models of Assessment I	3.00
PSYC 702	Models of Assessment II	3.00
PSYC 703	Psychological Treatment I: Foundations and Systems	3.00
PSYC 704	Psychological Treatment II: Empirically Supported Interventions	3.00
PSYC 705	APC Practicum I	3.00
PSYC 706	Assessment Practicum I	3.00
PSYC 707	Assessment Practicum II	3.00
PSYC 720	Seminar on Ethical and Professional Issues	3.00

3 Credits chosen from:

PSYC 708	APC Practicum II: General	3.00
PSYC 709	APC Practicum II: Adult	3.00
PSYC 710	APC Practicum II: Child	3.00

3 Credits chosen from:

PSYC 711	Extramural Practicum I: General	3.00
PSYC 712	Extramural Practicum I: Adult	3.00
PSYC 713	Extramural Practicum I: Child	3.00

Academic Regulations

Degree Requirements

Fully-qualified candidates are required to complete a minimum of 30 credits. Please see the Psychology Courses page for course descriptions.

30 Clinical Psychology Graduate Diploma

24 Credits of required courses:

<u>PSYC 700</u>	<u>Personality and Psychopathology</u>	<u>3.00</u>
PSYC 701	<u>Psychometrics, Intelligence, and Neurocognitive Evaluation</u>	3.00
PSYC 703	<u>Cognitive and Behavioural Interventions</u>	3.00
PSYC 704	<u>Group and Systemic Interventions</u>	3.00
PSYC 705	<u>Internal Practicum I</u>	3.00
PSYC 706	<u>Diagnostic Evaluation Practicum</u>	3.00
PSYC 707	<u>Diagnostic Evaluation Practicum</u>	3.00
<u>PSYC 7201</u>	<u>Introduction to Ethics for Clinical Psychology</u>	<u>1.00</u>
<u>PSYC 7202</u>	<u>Seminar on Ethical and Professional Issues</u>	<u>2.00</u>
<u>PSYC 799</u>	<u>Progress in Clinical Diploma</u>	<u>0.00</u>

3 Credits chosen from:

PSYC 708	<u>Internal Practicum II: General</u>	3.00
PSYC 709	<u>Internal Practicum II: Adult</u>	3.00
PSYC 710	<u>Internal Practicum II: Child <u>and Adolescent</u></u>	3.00

3 Credits chosen from:

PSYC 711	<u>External Practicum I: General</u>	3.00
PSYC 712	<u>External Practicum I: Adult</u>	3.00
PSYC 713	<u>External Practicum I: Child <u>and Adolescent</u></u>	3.00

Academic Regulations

1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.
2. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements. In the case of the Diploma in Clinical Psychology, the time limit is 9 terms (3 years) for full-time students; for part-time students the time limit is 15 terms (5 years).
3. **Graduation Requirement.** In order to graduate, students must have a cumulative GPA of at least **3.00**.

1. **Academic Standing.** Please refer to the Academic Standing section of the Calendar for a detailed review of the Academic Regulations.
2. **Time Limit.** Please refer to the Academic Regulation page for further details regarding the Time Limit requirements. In the case of the Diploma in Clinical Psychology, the time limit is 9 terms (3 years) for full-time students; for part-time students the time limit is 15 terms (5 years).
3. **Graduation Requirement.** In order to graduate, students must have a cumulative GPA of at least [2.70](#).

Rationale:

The 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.

PSYC 700 (Personality and Psychopathology) moves from the M.A. to the Clinical Psychology Graduate Diploma as this course is now restricted to clinical students rather than being open to all of our graduate students like it was before, plus it leaves room to shift a special topics seminar into the M.A.

To make it compatible with other graduate courses, the requirement for the Undergraduate teaching and colloquia is removed.

NOTE TO THE CALENDAR EDITOR: PSYC 700 is removed from the MA and added to the Diploma.

Resource Implications:

None.

Material on general principles of evidence-based assessment, psychometrics, and appropriate test use that used to be covered in PSYC 702 has been moved to PSYC 701.

Resource Implications:

None.

Other Programs within which course is listed:

None.

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **PSYC-17** VERSION: 5

COURSE CHANGE: PSYC 702 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: Diploma in Clinical Training
Degree: Graduate Diploma
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 702 Models of Assessment II (3.00 credits) Prerequisite/corequisite: The following course must be completed previously: PSYC 701; The following course must be completed concurrently: PSYC 706. If prerequisites are not satisfied, permission of the Director of Clinical Training is required. Description: This course is a continuation of Assessment I, and focuses on the measurement of behaviour related directly to personality and/or behaviour disorders in both adult and child populations. Interviewing, projective techniques and structural (quantitative) tests of personality such as the MMPI and CPI are included. The course stresses the evaluation of assessment procedures in terms of reliability and validity issues, and focuses on the selection and use of assessment procedures for specific types of prediction. The course also stresses the integration of assessment procedures into treatment planning and evaluation. Component(s): Lecture-</p>	
<p>Rationale: PSYC 702 (Models of Assessment II) is no longer required as much of the content is no longer taught in our program. The important content that remains is now included in PSYC 700 (Personality and Psychopathology) or PSYC 701 (Psychometrics, Intelligence, and Neurocognitive Evaluation).</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: PSYC 703 New Course Number:**Proposed** Undergraduate or Graduate Curriculum Changes**Calendar for academic year:** 2021/2022
Implementation Month/Year: Fall 2021**Faculty/School:** Arts and Science
Department: Psychology
Program: Diploma in Clinical Training
Degree: Graduate Diploma
Calendar Section/Graduate Page Number: Summer 2020**Type of Change:** Course Number Course Title Credit Value Prerequisite Course Description Editorial New Course Course Deletion Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 703 Psychological Treatment I: Foundations and Systems (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: PSYC 700.</p> <p><i>Description:</i> Models of psychological intervention with both adults and children are examined with respect to: a) theoretical formulations and etiological assumptions; b) treatment objectives and strategies; c) issues related to the application of these models; d) the efficacy of treatment procedures, including general issues in outcome research. The major emphases are on behavioural and psychodynamic approaches. Among other topics, the ethics of therapeutic interventions are discussed.</p> <p><i>Component(s):</i> Seminar.</p>	<p>PSYC 703 <u>Cognitive and Behavioural Interventions</u> (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: PSYC 700.</p> <p><i>Description:</i> <u>This course highlights evidence-based psychological treatments with a focus on cognitive and behavioural therapies. Topics may include the history of cognitive and behavioural approaches, the theory and research underpinning these approaches, and intervention strategies and techniques for mental health problems, especially mood and anxiety disorders. The course includes discussions of using these approaches across the lifespan, and may employ case examples to illustrate how different problems may benefit from different psychological and psychopharmacological treatment approaches.</u></p> <p><i>Component(s):</i> Seminar.</p>
<p>Rationale: This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: PSYC 705 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: Diploma in Clinical Training
Degree: Graduate Diploma
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 705 APC Practicum I (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously or concurrently: PSYC 700. Permission of the Director of Clinical Training is required.</p> <p>Students participate in case supervision, observe and/or assist with clients in therapy, and attend case conferences at the Applied Psychology Centre (APC).</p> <p><i>Component(s):</i> Seminar.</p>	<p>PSYC 705 <u>Internal</u> Practicum I (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously or concurrently: PSYC <u>7201</u>.</p> <p><i>Description:</i> Students participate in case supervision, observe and/or assist with clients in therapy, and attend case conferences at <u>the training clinic in the Department of</u> Psychology.</p> <p><i>Component(s):</i> Seminar.</p>
<p>Rationale:</p> <p>This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>PSYC 7201 (Introduction to Ethics for Clinical Psychology) is now a pre-/co-requisite as the Ordre des Psychologues du Québec (OPQ) now requires students to receive a certain amount of ethics training as they start working in any setting involving clients.</p> <p>The change in name from 'APC' to 'Internal' will make student transcripts easier to understand when reviewed by people outside the program.</p> <p>The change from 'Applied Psychology Centre' to 'training clinic in the Department of Psychology' will allow us to change our clinic's name in the future without affecting the graduate calendar.</p>	
<p>Resource Implications:</p> <p>None.</p>	
<p>Other Programs within which course is listed:</p> <p>None.</p>	



None.

Other Programs within which course is listed:

None.

None.

Other Programs within which course is listed:

None.

COURSE CHANGE: PSYC 710 New Course Number:

Proposed Undergraduate or Graduate Curriculum ChangesCalendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021Faculty/School: Arts and Science
Department: Psychology
Program: Diploma in Clinical Training
Degree: Graduate Diploma
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 710-APC Practicum II: Child (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously or concurrently: PSYC 703; PSYC 704; PSYC 706; PSYC 707. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> The focus of this course is the practical applications of the material discussed in Models of Assessment II and Models of Behaviour Change I and II PSYC 702, 703 and 704. Students are responsible for the assessment and treatment of selected child clients of the Applied-Psychology Centre under faculty supervision.</p> <p><i>Component(s):</i> Practicum/Internship/Work Term</p>	<p>PSYC 710 <u>Internal</u> Practicum II: Child (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> <u>The following courses must be completed previously PSYC 705.</u> The following courses must be completed previously or concurrently: PSYC <u>7202.</u></p> <p><i>Description:</i> Students are responsible for the assessment and treatment of selected child <u>and/or adolescent</u> clients of the <u>training clinic in the Department of</u> Psychology under faculty <u>member</u> supervision.</p> <p><i>Component(s):</i> Practicum/Internship/Work Term</p>
<p>Rationale: This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>The change in title from 'APC' to 'Internal' will make student transcripts easier to understand when reviewed by people outside the program.</p> <p>The change from 'Applied Psychology Centre' to 'training clinic in the Department of Psychology' will allow us to change our clinic's name in the future without affecting the graduate calendar.</p> <p>The Canadian Psychological Association (CPA) and the Ordre des Psychologues du Québec (OPQ) strongly recommend that the ethics content included in PSYC 7202 (Seminar on Ethical and Professional Issues) accompany the student's first direct experiences with clients.</p> <p>We added PSYC 705 as a prerequisite to maintain the practicum sequence. We removed the other course requirements because none of these courses include content essential to the practicum (in practice, a student taking this practicum would have many but not necessarily all of these prior courses).</p> <p>Finally, we are changing 'child' to 'child and adolescent' to more accurately describe the practicum content and to better fit the expectations of predoctoral internships that focus on</p>	

these populations.

Resource Implications:
None.

Other Programs within which course is listed:
None.

COURSE CHANGE: PSYC 711 New Course Number:

Proposed [] Undergraduate or [X] Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: Diploma in Clinical Training
Degree: Graduate Diploma
Calendar Section/Graduate Page Number: Summer 2020

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 2020/2021) calendar	Proposed Text
<p>PSYC 711 Extramural Practicum I: General (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 701; PSYC 702; PSYC 703; PSYC 704; PSYC 706; PSYC 707. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> A four-month extramural practicum done under qualified supervisors in an applied setting approved by the department's internship committee, e.g., hospitals, clinics, schools, community and rehabilitation centres.</p> <p><i>Component(s):</i> Seminar.</p>	<p>PSYC 711 <u>External</u> Practicum I: General (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 704, PSYC 706, PSYC 707, <u>PSYC 7202</u>. Permission of the Director of <u>Practica</u> is required.</p> <p><i>Description:</i> <u>This course is an introductory external practicum with adult, child, and/or adolescent clients</u> in an applied setting approved by the <u>Director of Practica</u> (e.g., hospitals, clinics, schools, community and rehabilitation centres) <u>and conducted under the supervision of licensed psychologists.</u></p> <p><i>Component(s):</i> Seminar.</p>
<p>Rationale: This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>The changes in prerequisites reflect content changes in the revised version of these courses.</p> <p>Permission is now granted by the Director of Practica rather than the Director of Clinical Training to fit with our current administrative procedures.</p> <p>Because we changed 'APC' to 'Internal' for our in-house practica, we are also changing 'Extramural' to 'External' to make the parallel clearer.</p> <p>The 4-month duration was removed because some students now complete these practica spread out over longer periods.</p> <p>The Canadian Psychological Association (CPA) and the Ordre des Psychologues du Québec (OPQ) strongly recommend that the ethics content included in PSYC 7202 (Seminar on Ethical and professional Issues) should precede any direct contact with clients at external practicum settings.</p>	
<p>Resource Implications: None.</p>	

Other Programs within which course is listed:

None.

Other Programs within which course is listed:

None.

Finally, we are changing 'child' to 'child and adolescent' to more accurately describe the practicum content and to better fit the expectations of predoctoral internships that focus on these populations.

Resource Implications:

None.

Other Programs within which course is listed:

None.

COURSE CHANGE: PSYC 720 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: Diploma in Clinical Training
Degree: Graduate Diploma
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 720 Seminar on Ethical and Professional Issues (3.00 credits) <i>Prerequisite/corequisite:</i> The following course must be completed previously or concurrently: PSYC 834. If prerequisites are not satisfied, permission of the Director of Clinical Training is required. <i>Description:</i> In this biweekly seminar, ethical and professional issues in clinical psychology are considered through case presentations by students, faculty and guest clinicians. The ethical principles of national accrediting bodies and of the Order of Psychologists of Québec are reviewed. <i>Component(s):</i> Seminar.</p>	
<p>Rationale: Because the content of PSYC 720 needs to be split over two years, this course is replaced with PSYC 7201 (Introduction to Ethics for Clinical Psychology - 1 credit, taught in year 1) and PSYC 7202 (Seminar on Ethical and Professional Issues - 2 credits, taught in year 2).</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: PSYC 7201 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: Diploma in Clinical Psychology
Degree: Diploma
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 20XX/20XX) calendar	Proposed Text
	<p>PSYC 7201 Introduction to Ethics for Clinical Psychology (1.00 credit)</p> <p><i>Description:</i> In this course, the main aspects of the Ordre des Psychologues du Québec (OPQ) Code of Ethics, and fundamental ethical standards for the practice of psychology are reviewed. Topics may include privacy and confidentiality, informed consent, record keeping, working with children/adolescents and other vulnerable populations, and handling emergency situations (e.g., suicidality, homicidality). Ethical considerations for clinical research are also discussed.</p> <p><i>Component(s):</i> Seminar</p>
<p>Rationale: This new course, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>The Ordre des Psychologues du Québec (OPQ) and the Canadian Psychological Association (CPA) strongly recommend that certain ethical content be delivered before students do any work in a clinical setting. This content includes such topics as client confidentiality, which ought to be well understood before junior trainees even watch video of their senior colleagues engaged in clinical work with clients. However, more advanced ethical content is harder to teach in the absence of practical clinical experience. As such, PSYC 720 (Seminar on Ethical and Professional Issues) will now be split into (a) PSYC 7201 - Introduction to Ethics for Clinical Psychology (a 1-credit introductory course offered at the very beginning of the student's program) and (b) PSYC 7202 - Seminar on Ethical and Professional Issues (a 2-credit ethics and professional issues course that will be offered during the second year, concurrent with the student's first direct contacts with clients).</p>	
<p>Resource Implications: None. The course will be taught in rotation as part of the Department's regular allotment.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: PSYC 7202 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: Diploma in Psychology
Degree: Diploma
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 20XX/20XX) calendar	Proposed Text
	<p>PSYC 7202 Seminar on Ethical and Professional Issues (2.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 7201.</p> <p><i>Description:</i> In this seminar, ethical and professional issues in clinical psychology are considered via the discussion of case presentations, ethical dilemmas, and relevant jurisprudence. The Codes of Ethics of the Ordre des Psychologues du Québec (OPQ), and of the Canadian Psychological Association (CPA) serve as the framework for resolving ethical dilemmas associated with topics related to dual relationships, duty to protect/duty to warn, professional competence, diversity, labelling and stigma, and special issues related to consultation, third party payers, and other professionals.</p> <p><i>Component(s):</i> Seminar</p>

Rationale:
 This new course, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards

The Ordre des Psychologues du Québec (OPQ) and the Canadian Psychological Association (CPA) strongly recommend that certain ethical content be delivered before students do any work in a clinical setting. This content includes such topics as client confidentiality, which ought to be well understood before junior trainees even watch video of their senior colleagues engaged in clinical work with clients. However, more advanced ethical content is harder to teach in the absence of practical clinical experience. As such, PSYC 720 (Seminar on Ethical and Professional Issues) will now be split into (a) PSYC 7201 - Introduction to Ethics for Clinical Psychology (a 1-credit introductory course offered at the very beginning of the student's program) and (b) PSYC 7202 - Seminar on Ethical and Professional Issues (a 2-credit ethics and professional issues course that will be offered during the second year, concurrent with the student's first direct contacts with clients).

Resource Implications:
 None. The course will be taught in rotation as part of the Department's regular allotment.

Other Programs within which course is listed:

None.

COURSE CHANGE: PSYC 799 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: Clinical Psychology Graduate Diploma
Degree: Graduate Diploma
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 20XX/20XX) calendar	Proposed Text
	<p>PSYC 799 Progress in Clinical Diploma (0.00 credits)</p> <p><i>Description:</i> This course, normally taken annually during the graduate clinical diploma, ensures that students meet the standard of competency in interpersonal relations (as stipulated by the Ordre des Psychologues du Québec (OPQ)). Over the course of the year, students have the opportunity to showcase their professionalism, responsiveness to supervision, independence, critical evaluation of course and practical material, and to demonstrate the skills expected of someone planning to be a clinical psychologist. Evaluation takes place at the annual review of clinical students.</p> <p><i>Component(s):</i> Seminar</p>
<p>Rationale: This new course, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>The rationale for PSYC 799 and PSYC 899 are the same. The department must evaluate students each year in terms of how well they're doing on the <i>interpersonal relations</i> competency for the OPQ. The OPQ says that we can do this with course content interspersed throughout the program rather than a specific course, but then it's hard to give meaningful feedback to a student when they are struggling specifically with this aspect of the program. A zero-credit course means that there are no resource implications, no formal classes, no instructor, etc., but there will still be a syllabus with recommended readings, clear requirements for passing the course each year, clear remedial steps (specified at the beginning) should a student be struggling (to be monitored by the Director of Clinical Training), etc.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: PSYC 8103 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 20XX/20XX) calendar	Proposed Text
	<p>PSYC 8103 Advanced Adult Psychopathology (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 700.</p> <p><i>Description:</i> This course provides an advanced analysis of issues in the assessment and treatment of psychological disorders across the full range of adulthood. Specific topics differ from year to year.</p> <p><i>Component(s):</i> Seminar</p>
<p>Rationale: This new course, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>The Ordre des Psychologues du Québec (OPQ) strongly recommends the inclusion of rotating advanced courses to improve coverage of child/adolescent- and adult-specific issues. As well, predoctoral clinical internships focused on child/adolescent clients increasingly demand specific courses reflecting that content. This course will focus on advanced adult issues in psychopathology and will rotate each year with an advanced course in child/adolescent issues in psychopathology.</p>	
<p>Resource Implications: None. The course will be taught in rotation as part of the Department's regular allotment.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: PSYC 8104 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 20XX/20XX) calendar	Proposed Text
	<p>PSYC 8104 Advanced Child and Adolescent Psychopathology (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 700.</p> <p><i>Description:</i> The aim of this course is to highlight recent scientific advances in child/adolescent mental health and the identification, etiology, prevention, and treatment of mental disorders in childhood and adolescence. This course focuses on the origins and developmental course of childhood psychopathology, with special attention to putative causal processes, risk and protective factors. Practice guidelines, scope of practice and standards of the Ordre des Psychologues du Québec (OPQ) and of the Canadian Psychological Association (CPA), where relevant, are studied and discussed in relation to each topic.</p> <p><i>Component(s):</i> Seminar.</p>
<p>Rationale: This new course, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>The Ordre des Psychologues du Québec (OPQ) strongly recommends the inclusion of rotating advanced courses to improve coverage of child/adolescent- and adult-specific issues. As well, predoctoral clinical internships focused on child/adolescent clients increasingly demand specific courses reflecting that content.</p> <p>This course will focus on advanced Child and Adolescent issues in psychopathology and will rotate each year with an advanced course in adult issues in psychopathology.</p>	
<p>Resource Implications: None. The course will be taught in rotation as part of the Department's regular allotment.</p>	
<p>Other Programs within which course is listed: None.</p>	



COURSE CHANGE: PSYC 8203 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 20XX/20XX) calendar	Proposed Text
	<p>PSYC 8203 Advanced in Adult Intervention (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 703.</p> <p><i>Description:</i> This course provides an in-depth investigation of one or more advanced themes relevant to psychological interventions with adults. Theory, empirical considerations, and clinical applications are discussed. The relation of topics to practice guidelines, scope of practice, and standards of the Ordre des Psychologues du Québec (OPQ), and of the Canadian Psychological Association (CPA) are included, where relevant. Specific topics differ from year to year.</p> <p><i>Component(s):</i> Seminar</p>
<p>Rationale: This new course, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>The Ordre des Psychologues du Québec (OPQ) strongly recommends the inclusion of rotating advanced courses to improve coverage of child/adolescent- and adult-specific issues. As well, predoctoral clinical internships focused on child/adolescent clients increasingly demand specific courses reflecting that content. This course will focus on advanced adult issues in intervention and will rotate each year with an advanced course in child/adolescent issues in intervention.</p>	
<p>Resource Implications: None. The course will be taught in rotation as part of the Department's regular allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None.</p>	

COURSE CHANGE: PSYC 8204 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 20XX/20XX) calendar	Proposed Text
	<p>PSYC 8204 Advanced Child and Adolescent Intervention (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 703.</p> <p><i>Description:</i> This course provides an in-depth investigation of one or more advanced themes relevant to psychological interventions with children and adolescents. Theory, empirical considerations, and clinical applications are discussed. The relation of topics to practice guidelines, scope of practice, and standards of the Ordre des Psychologues du Québec (OPQ), and of the Canadian Psychological Association (CPA) are included where relevant. Specific topics differ from year to year.</p> <p><i>Component(s):</i> Seminar</p>
<p>Rationale: This new course, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>The Ordre des Psychologues du Québec (OPQ) strongly recommends the inclusion of rotating advanced courses to improve coverage of child/adolescent- and adult-specific issues. As well, predoctoral clinical internships focused on child/adolescent clients increasingly demand specific courses reflecting that content.</p> <p>This course will focus on advanced child/adolescent issues in intervention and will rotate each year with an advanced course in adult issues in intervention.</p>	
<p>Resource Implications: None. The course will be taught in rotation as part of the Department's regular allotment.</p>	
<p>Other Programs within which course is listed: None.</p>	



COURSE CHANGE: PSYC 824 New Course Number:

Proposed [] Undergraduate or [X] Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 824 APC Practicum III: Adult (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 708 or PSYC 709 or PSYC 710; PSYC 711 or PSYC 712 or PSYC 713. The following courses must be completed previously or concurrently: PSYC 834; PSYC 835 or PSYC 836 or PSYC 837. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> Advanced students are expected to begin to define clinical interests and treatment methods consonant with their career goals. They receive the appropriate clinical experience and supervision in this practicum working with adult clients, e.g. working with a particular orientation and/or with particular types of problems.</p> <p><i>Component(s):</i> Practicum/Internship/work term.</p>	<p>PSYC 824 <u>Internal</u> Practicum III: Adult (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 708 or PSYC 709 or PSYC 710.</p> <p><i>Description:</i> Advanced students are expected to begin to define clinical interests and treatment methods <u>consistent</u> with their career goals. They receive the appropriate clinical experience and supervision in this practicum working with adult clients, e.g., working with a particular orientation and/or with particular types of problems.</p> <p><i>Component(s):</i> Practicum/Internship/work term.</p>
<p>Rationale: This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>Changes in the prerequisites reflect modifications in the course content of PSYC 834 (Science in Practice: Applied Research, Consultation, and Supervision) and the deletion of PSYC 835 (Advanced Clinical Seminar II: Adult), PSYC 836 (Advanced Clinical Seminar II: Child), and PSYC 837 (Advanced Clinical Seminar II: General). Changes in our administrative procedures and clarification of our prerequisite structure no longer require the additional step of obtaining the approval of the Director of Clinical Training.</p> <p>The change in title from 'APC' to 'Internal' will make student transcripts easier to understand when reviewed by people outside the program.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	



COURSE CHANGE: PSYC 825 New Course Number:

Proposed Undergraduate or Graduate Curriculum ChangesCalendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 825 APC Practicum III: Child (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 708 or PSYC 709 or PSYC 710; PSYC 711 or PSYC 712 or PSYC 713. The following courses must be completed previously or concurrently: PSYC 834; PSYC 835 or PSYC 836 or PSYC 837. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> Advanced students are expected to begin to define clinical interests and treatment methods consonant with their career goals. They receive the appropriate clinical experience and supervision in this practicum working with child clients and families, e.g. working with a particular orientation and/or with particular types of problems.</p> <p><i>Component(s):</i> Practicum/Internship/work term.</p>	<p>PSYC 825 <u>Internal</u> Practicum III: Child <u>and Adolescent</u> (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 708 or PSYC 709 or PSYC 710.</p> <p><i>Description:</i> Advanced students are expected to begin to define clinical interests and treatment methods <u>consistent</u> with their career goals. They receive the appropriate clinical experience and supervision in this practicum working with child <u>and/or adolescent</u> clients and families, e.g., working with a particular orientation and/or with particular types of problems.</p> <p><i>Component(s):</i> Practicum/Internship/work term.</p>
<p>Rationale:</p> <p>This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>Changes in the prerequisites reflect modifications in the course content of PSYC 834 (Science in Practice: Applied Research, Consultation and Supervision) and the deletion of PSYC 835 (Advanced Clinical Seminar II: Adult), PSYC 836 (Advanced Clinical Seminar II: Child), and PSYC 837 (Advanced Clinical Seminar II: General). Changes in our administrative procedures and clarification of our prerequisite structure no longer require the additional step of obtaining the approval of the Director of Clinical Training.</p> <p>The change in title from 'APC' to 'Internal' will make student transcripts easier to understand when reviewed by people outside the program.</p> <p>Finally, we are changing 'child' to 'child and adolescent' to more accurately describe the practicum content and to better fit the expectations of predoctoral internships that focus on these populations.</p>	
<p>Resource Implications:</p> <p>None.</p>	

Other Programs within which course is listed:

None.

COURSE CHANGE: PSYC 827 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 827 APC Practicum IV: Adult (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: PSYC 823 or PSYC 824 or PSYC 825. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> This course is a specialized practicum for advanced students involving clinical experience with adult clients under supervision.</p> <p><i>Component(s):</i> Practicum/Internship/work term.</p>	<p>PSYC 827 <u>Internal</u> Practicum IV: Adult (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: PSYC 823 or PSYC 824 or PSYC 825. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> This course is a specialized practicum for advanced students involving clinical experience with adult clients under supervision of a licensed psychologist.</p> <p><i>Component(s):</i> Practicum/Internship/work term.</p>
<p>Rationale: This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>The change in name from 'APC' to 'Internal' will make student transcripts easier to understand when reviewed by people outside the program.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: PSYC 828 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 828 APC Practicum IV: Child (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: PSYC 823 or PSYC 824 or PSYC 825. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> This course is a specialized practicum for advanced students involving clinical experience with child clients under supervision.</p> <p><i>Component(s):</i> Practicum/Internship/work term.</p>	<p>PSYC 828 <u>Internal</u> Practicum IV: Child <u>and Adolescent</u> (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: PSYC 823 or PSYC 824 or PSYC 825. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> This course is a specialized practicum for advanced students involving clinical experience with child <u>and/or adolescent</u> clients under supervision <u>of a licensed psychologist</u>.</p> <p><i>Component(s):</i> Practicum/Internship/work term.</p>
<p>Rationale: This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>The change in name from 'APC' to 'Internal' will make student transcripts easier to understand when reviewed by people outside the program.</p> <p>Finally, we are changing 'child' to 'child and adolescent' to more accurately describe the practicum content and to better fit the expectations of predoctoral internships that focus on these populations.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: PSYC 834 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 834 Advanced Clinical Seminar I (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 711 or PSYC 712 or PSYC 713; PSYC 708 or PSYC 709 or PSYC 710. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> This seminar provides an advanced treatment of issues in current psychological theory and research that are relevant to clinical practice, e.g., causal models and their assumptions, legal and ethical issues, classification by state, trait, and situational context; brain-behaviour relations. The aims are to foster in students a) regular review of clinically relevant literature; b) a critical perspective regarding current clinical practices; and c) guidelines and criteria for optimal assessment and treatment decisions tailored to the needs of clients.</p> <p><i>Component(s):</i> Seminar.</p>	<p>PSYC 834 <u>Science in Practice: Applied Research, Consultation, and Supervision</u> (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 708 or PSYC 709 or PSYC 710. The following courses must be completed <u>concurrently: PSYC 711 or PSYC 712 or PSYC 713.</u></p> <p><i>Description:</i> This seminar provides an advanced treatment of issues in current psychological theory and research that are relevant to clinical practice, e.g., causal models and their assumptions, legal and ethical issues, classification by state, trait, and situational context; brain-behaviour relations; <u>mental health consultation; models of clinical supervision; competency-based supervision; and ethics and best practice in clinical supervision.</u> The aims are to foster in students a) <u>how to</u> regularly review of clinically relevant literature; b) a critical perspective regarding current clinical practice and supervision practices; c) <u>practical knowledge of the</u> guidelines and criteria for optimal assessment and treatment decisions tailored to the needs of clients; <u>and d) an understanding of the expansive consultation roles of clinical psychologists taking place within the context of multidisciplinary health care and systems of care.</u></p> <p><i>Component(s):</i> Seminar.</p>

Rationale:
 This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.

Changes in our administrative procedures and clarification of our prerequisite structure no longer require the additional step of obtaining the approval of the Director of Clinical Training.

PSYC 711/712/713 (External Practicum I) were traditionally taken as an intensive summer practicum between the second and third years of our program. Because increasing numbers of students now take the course spread across eight months during the third year, there are now cases where part of that practicum overlaps with PSYC 834 (Science in Practice:

Applied Research, Consultation, and Supervision.

The revised course content now provides better coverage of topics required by the Ordre des Psychologues du Québec (OPQ) and the change in title provides a clearer and more accurate representation of the course content.

Resource Implications:

None.

Other Programs within which course is listed:

None.

COURSE CHANGE: PSYC 835 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 835 Advanced Clinical Seminar II: Adult (3.00 credits) <i>Prerequisite/corequisite:</i> The following course must be completed previously: PSYC 834. <i>Description:</i> The seminar provides an advanced analysis of issues in the assessment and treatment of behaviour disorders in adulthood. Prototype cases are presented for illustrative discussion of particular clinical issues, e.g. indicators of risk for suicide, homicide, and psychosis; imagery and dreams in psychological treatment; stress-related physical disorders; anxiety spectrum disorders; treatment for couples, families, and groups. Assessment and treatment approaches to particular disorders are compared with reference to etiological assumptions and levels of inference. <i>Component(s):</i> Seminar.</p>	
<p>Rationale: Most of the content of this course is no longer required by the Ordre des Psychologues du Québec (OPQ). The remaining content is now included in either PSYC 704 (Group and Systemic Interventions) or PSYC 8203 (Advanced Adult Intervention).</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: PSYC 836 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 836 Advanced Clinical Seminar II: Child (3.00 credits) <i>Prerequisite:</i> The following course must be completed previously: PSYC 834. <i>Description:</i> The seminar provides an advanced analysis of issues in the assessment and treatment of behaviour disorders in children in a developmental context. Prototype cases are presented for illustrative discussion of particular clinical issues, e.g. stress-related physical disorders; family therapy; child abuse; age-related symptom expression and variability; non-verbal therapies. <i>Component(s):</i> Seminar.</p>	
<p>Rationale: Most of the content of this course is no longer required by the Ordre des Psychologues du Québec (OPQ). The remaining content is now included in either PSYC 704 (Group and Systemic Interventions) or PSYC 8204 (Advanced Child and Adolescent Interventions).</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: PSYC 840 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 840-Extramural Practicum II: Child (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 708 or PSYC 709 or PSYC 710; PSYC 711 or PSYC 712 or PSYC 713. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> This course is a senior extramural practicum with child clients done under qualified supervision in an applied setting approved by the department's practicum committee, e.g. hospitals, clinics, schools, community and rehabilitation centres.</p> <p><i>Component(s):</i> Practicum/Internship/work term; Seminar.</p>	<p>PSYC 840 <u>External</u> Practicum II: Child <u>and Adolescent</u> (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 711 or PSYC 712 or PSYC 713. Permission of the Director of <u>Practica</u> is required.</p> <p><i>Description:</i> This course is a senior <u>external</u> practicum with child <u>and/or adolescent</u> clients in an applied setting (e.g., hospitals, clinics, schools, community and rehabilitation centres), <u>conducted under the supervision of licensed psychologists</u>.</p> <p><i>Component(s):</i> Practicum/Internship/work term; Seminar.</p>
<p>Rationale: This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>Permission is now granted by the Director of Practica rather than the Director of Clinical Training to fit with our current administrative procedures.</p> <p>Because we changed 'APC' to 'Internal' for our in-house practica, we are also changing 'Extramural' to 'External' to make the parallel clearer.</p> <p>Finally, we are changing 'child' to 'child and adolescent' to more accurately describe the practicum content and to better fit the expectations of predoctoral internships that focus on these populations.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	



COURSE CHANGE: PSYC 841 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 841 Extramural Practicum III: General (3.00 credits)</p> <p><i>Description:</i> This course is a senior extramural practicum, done under qualified supervision in an applied setting approved by the department's practicum committee, e.g. hospitals, clinics, schools, community and rehabilitation centres.</p> <p><i>Component(s):</i> Seminar.</p>	<p>PSYC 841 <u>External</u> Practicum III: General (3.00 credits)</p> <p><u><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 838 or PSYC 839 or PSYC 840. Permission of the Director of Practica is required.</u></p> <p>This course is a senior <u>external</u> practicum <u>with adult, child, and/or adolescent clients</u> in an applied setting (e.g., hospitals, clinics, schools, community and rehabilitation centres), <u>conducted under the supervision of licensed psychologists.</u></p> <p><i>Component(s):</i> <u>Practicum/Internship/work term.</u></p>
<p>Rationale: This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>Because we changed 'APC' to 'Internal' for our in-house practica, we are also changing 'Extramural' to 'External' to make the parallel clearer.</p> <p>The addition of prerequisites corrects a previous oversight and aligns this course with PSYC 842 (External Practicum III: Adult) and PSYC 843 (External Practicum III: Child and Adolescent).</p> <p>The switch from 'department's internship committee' to 'Director of Practica' reflects our current and ongoing administrative practice.</p>	
<p>Resource Implications:</p>	

None.

Other Programs within which course is listed:

None.

PROGRAM AND COURSES CHANGE FORMS FOR DOCUMENT: **PSYC-17** VERSION: 5**COURSE CHANGE:** PSYC 842 New Course Number:**Proposed** Undergraduate or Graduate Curriculum Changes**Calendar for academic year:** 2021/2022
Implementation Month/Year: Fall 2021**Faculty/School:** Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020**Type of Change:** Course Number Course Title Credit Value Prerequisite
 Course Description Editorial New Course
 Course Deletion Other - Specify:

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 842 Extramural Practicum III: Adult (3.00 credits)</p> <p><i>Description:</i> This course is a senior extramural practicum with adult clients, done under qualified supervision in an applied setting approved by the department's practicum committee, e.g. hospitals, clinics, schools, community and rehabilitation centres.</p> <p><i>Component(s):</i> Seminar.</p>	<p>PSYC 842 <u>External</u> Practicum III: Adult (3.00 credits)</p> <p><u><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 838 or PSYC 839 or PSYC 840. Permission of the Director of Practica is required.</u></p> <p><i>Description:</i> This course is a senior <u>external</u> practicum with adult clients in an applied setting (e.g., hospitals, clinics, schools, community and rehabilitation centres), <u>conducted under the supervision of licensed psychologists.</u></p> <p><i>Component(s):</i> <u>Practicum/Internship/work term.</u></p>
<p>Rationale: This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>Because we changed 'APC' to 'Internal' for our in-house practica, we are also changing 'Extramural' to 'External' to make the parallel clearer.</p> <p>The addition of prerequisites corrects a previous oversight and aligns this course with PSYC 841 (External Practicum III: General) and PSYC 843 (External Practicum III: Child and Adolescent).</p> <p>The switch from 'department's internship committee' to 'Director of Practica' reflects our current and ongoing administrative practice.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	



COURSE CHANGE: PSYC 843 New Course Number:

Proposed Undergraduate or Graduate Curriculum ChangesCalendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 843 Extramural Practicum III: Child (3.00 credits)</p> <p>Description: This course is a senior extramural practicum with child clients, done under qualified supervision in an applied setting approved by the department's practicum committee, e.g. hospitals, clinics, schools, community and rehabilitation centres.</p> <p>Component(s): Seminar.</p>	<p>PSYC 843 <u>External</u> Practicum III: Child <u>and Adolescent</u> (3 credits)</p> <p><u>Prerequisite/corequisite: The following courses must be completed previously: PSYC 838 or PSYC 839 or PSYC 840. Permission of the Director of Practica is required.</u></p> <p>Description: This course is a senior external practicum with child and/or adolescent clients in an applied setting (e.g., hospitals, clinics, schools, community and rehabilitation centres), conducted under the supervision of licensed psychologists.</p> <p>Component(s): Practicum/Internship/work term.</p>
<p>Rationale:</p> <p>This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>Because we changed 'APC' to 'Internal' for our in-house practica, we are also changing 'Extramural' to 'External' to make the parallel clearer.</p> <p>The addition of prerequisites corrects a previous oversight and aligns this course with PSYC 841 (External Practicum III: General) and PSYC 842 (External Practicum III: Adult).</p> <p>The switch from 'department's internship committee' to 'Director of Practica' reflects our current and ongoing administrative practice.</p> <p>Finally, we are changing 'child' to 'child and adolescent' to more accurately describe the practicum content and to better fit the expectations of predoctoral internships that focus on these populations.</p>	
<p>Resource Implications:</p> <p>None.</p>	
<p>Other Programs within which course is listed:</p>	

None.

COURSE CHANGE: PSYC 885 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>PSYC 885 Predoctoral Internship (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: PSYC 835 or PSYC 836 or PSYC 837; PSYC 823 or PSYC 824 or PSYC 825. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> The pre-doctoral internship consists of the equivalent of 12 months full-time employment under qualified supervision in an applied setting approved by the department's internship committee. The internship is usually done after completion of course requirements, and after data collection and analysis, and a draft of the doctoral thesis have been completed.</p> <p><i>Component(s):</i> Practicum/Internship/work term; Lecture.</p>	<p>PSYC 885 Predoctoral <u>Clinical</u> Internship (3.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following courses must be completed previously: <u>PSYC 838</u> or <u>PSYC 839</u> or <u>PSYC 840</u>. Permission of the Director of Clinical Training is required.</p> <p><i>Description:</i> The pre-doctoral internship consists of the equivalent of 12 months full-time employment (<u>2000 hours</u>) under qualified supervision in an applied setting approved by the <u>Director of Clinical Training</u>. The internship is usually done after completion of course requirements, and after data collection and analysis, and a draft of the doctoral thesis have been completed.</p> <p><i>Component(s):</i> Practicum/Internship/work term.</p>
<p>Rationale: This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>We now specify 2000 hours because this amount is required by the Canadian Psychological Association (CPA) for a predoctoral internship.</p> <p>PSYC 885 (Predoctoral Clinical Internship) comes at the end of a sequence of internal and external practica. PSYC 838/839/840 (External Practicum II: General/Adult/Child and Adolescent) is the most advanced practicum course that must be completed before beginning PSYC 885 (although many students will take additional practica to ensure they have enough training hours for a competitive application). As all required courses must be completed before the Director of Clinical Training will grant approval, there is no need to specify other course prerequisites.</p> <p>The switch from 'department's internship committee' to 'Director of Clinical Training' reflects our current and ongoing administrative practice.</p>	
<p>Resource Implications: None.</p>	

Other Programs within which course is listed:

None.

COURSE CHANGE: PSYC 899 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/2022
Implementation Month/Year: Fall 2021

Faculty/School: Arts and Science
Department: Psychology
Program: PhD in Psychology
Degree: PhD
Calendar Section/Graduate Page Number: Summer 2020

Type of Change:

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

Present Text (from 20XX/20XX) calendar	Proposed Text
	<p>PSYC 899 Progress in Clinical Doctorate (0.00 credits)</p> <p><i>Description:</i> This course, taken annually during the graduate clinical doctorate, ensures that students meet the domain of competency in interpersonal relations (as stipulated by the Ordre des Psychologues du Québec), as well as providing an opportunity for students to showcase their professionalism, responsiveness to supervision, independence, critical evaluation of course and practical material, and to demonstrate the skills expected of someone planning to be a clinical psychologist. Evaluations take place at the annual review of clinical students.</p> <p><i>Component(s):</i> Seminar.</p>
<p>Rationale: This course change, a part of the 2020 curriculum update for clinical psychology graduate students, is primarily intended to help us better align with the accreditation requirements of the Ordre des Psychologues du Québec (OPQ). In addition, we sought to enhance flexibility for graduate students, and to update course content to reflect current best standards in the field.</p> <p>The rationale for PSYC 799 and PSYC 899 is the same. The department must evaluate students each year in terms of how well they're doing on the <i>interpersonal relations</i> competency for the OPQ. The OPQ says that we can do this with course content interspersed throughout the program rather than a specific course, but then it's hard to give meaningful feedback to a student when they are struggling specifically with this aspect of the program. A zero-credit course means that there are no resource implications, no formal classes, no instructor, etc., but there will still be a syllabus with recommended readings, clear requirements for passing the course each year, clear remedial steps (specified at the beginning) should a student be struggling (to be monitored by the Director of Clinical Training), etc.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	



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 25, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (CINE-28)
(CALENDAR – 2021/2022)
MEL HOPPENHEIM SCHOOL OF CINEMA
FACULTY OF FINE ARTS**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Fine Arts Faculty Council.

The Mel Hoppenheim School of Cinema is proposing to modify the name of the master's program to *Film and Moving Images Studies MA* to respond to the expanding research trends in the discipline. Consequently, a number of course titles are updated to reflect the change in name. In addition, the six-credit FMST 600 *Methods in Film Studies* has been replaced by two three-credits courses (FMST 601 *Methods in Film and Moving Image Studies I* and FMST 602 *Methods in Film and Moving Image Studies II*) to better accommodate Winter term admissions.

The GCC approved the curriculum changes with minor modifications. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.



cc: E. C. Paterson, Associate Dean, Academic Affairs, Faculty of Fine Arts
J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs



FACULTY OF FINE ARTS

INTERNAL MEMORANDUM

TO: Dr. Brad Nelson, Chair, Graduate Curriculum Committee

FROM: Dr. Annie Gérin, Dean, Faculty of Fine Arts

CC: Dr. Elaine Paterson, AD, Academic Programs and Pedagogy, Faculty of Fine Arts

DATE: January 18, 2021

RE: Curriculum Dossier for the Mel Hoppenheim School of Cinema, CINE-28

As Dean of the Faculty of Fine Arts, I fully support the curriculum changes proposed in CINE-28. The dossier was reviewed and approved unanimously by the Fine Arts Faculty Council at its virtual meeting on January 15, 2021.

There are no resource implications.

A handwritten signature in blue ink, appearing to read "Annie Gérin".

Annie Gérin, PhD
Dean, Faculty of Fine Arts
Annie.gerin@concordia.ca



FACULTY OF FINE ARTS

Internal Memorandum

To: Annie Gérin, Dean, Faculty of Fine Arts
From: Elaine Paterson, Associate Dean, Academic Programs and Pedagogy
Date: December 22, 2020
Re: Curriculum dossier for the Mel Hoppenheim School of Cinema, CINE-28

The Faculty of Fine Arts Curriculum Committee has reviewed the CINE-28 curriculum dossier from the Mel Hoppenheim School of Cinema on December 4, 2020. After minor revisions and addition of clarifications in the memo, final approval was granted by email by the Committee members. We hereby submit this dossier for review by the Faculty Council on January 15, 2021.

This document proposes to change the title of the *MA in Film Studies* to *MA in Film and Moving Image Studies*. Changes to course titles are also being proposed in order to align with the new program title. Finally, this dossier proposes to break down a 6-credit core seminar into two 3-credit seminars to offer more flexibility to students starting their programme in the Winter semester.

There are no resource implications.

With thanks for your consideration.

A handwritten signature in blue ink, appearing to read "Elaine Paterson".

Elaine Paterson, PhD
Associate Dean, Academic Programs and Pedagogy
Faculty of Fine Arts
elaine.paterson@concordia.ca

INTERNAL MEMORANDUM

TO: Dr. Elaine Cheasley Paterson, AD Academic Programs and Pedagogy

FROM: Jean-Claude Bustros, Chair, Mel Hoppenheim School of Cinema

DATE: November 12, 2020

SUBJECT: Curriculum Changes and Name Change for MA in Film Studies – CINE 28

In its November 12, 2020 virtual meeting, Cinema’s Curriculum Committee unanimously approved the curriculum changes proposed below. These changes include changing the title of the MA program from *MA in Film Studies* to *MA in Film and Moving Image Studies*, as well as changes to FMST 665, 865 and 600.

The program name change seeks to reflect the changing parameters of film studies as a field, which over the past 20 years has increasingly included the study of other film-related moving image media, including television, video, online video (YouTube and TikTok), as well as the rise of platforms like Netflix, which blur the boundaries between film and television content. Hollywood studios produce both film and television content, highlighting the importance of addressing the “moving image” more broadly than the term “film” allows. Film implies a specific format and length (generally the feature-length film), whereas film in the broader sense of the *moving image* include multiple formats (VHS video, digital video), lengths, audiences, and exhibition practices (from theatrical distribution to platform television such as Netflix or CraveTV). This includes offering a study of television and online moving images from a perspective grounded in the formal analysis and cultural, theoretical, and historical approaches to cinema pioneered in film studies. The program title change aligns with and names these transformations of the moving image and film studies as a discipline over the last several decades.

This proposed change hence also aligns with broader disciplinary transformations, including the 2002 name change of the largest organization for the study of cinema, “Society for Cinema Studies” to the “Society for Cinema and Media Studies.” “Media Studies” here refers not to all media (as it would in communication studies); in the film studies context the term “media” is used to mean *moving image media* or *audiovisual media*.

Whereas some film departments have chosen to respond to this change by adding “media studies” to their titles (i.e. “Film and Media Studies”), Film Studies at Concordia has chosen to emphasize the continuities with the longer history of film by using the term “moving image.” This follows the existing use of “Film and the Moving Image” in our “PhD Program in Film and the Moving Image” (which was established a decade ago). Hence this change to the MA program title will allow our graduate program titles to be harmonized. In our PhD curriculum, all courses bear the title “Moving Image”:

FMST 801 - Seminar in Film and Moving Image History (3 credits)

FMST 802 - Seminar in Film and Moving Image Aesthetics (3 credits)

FMST 803 - Seminar in Film and Moving Image Theory (3 credits)

FMST 804 - Seminar in Film, Moving Image and Cultural Theory (3 credits)

The term moving image first, acknowledges the longer history of film (which was called many things during its history, including “motion picture” and “moving image”), and second, signals to prospective students the unit’s commitment to use film studies methodologies to study the wide array of moving images in the contemporary digital landscape, from YouTube videos to Netflix’s blurred boundaries of television and film. As noted above, the term “moving image” can capture the many different terms we use in the study and teaching of film and the moving image: video, video platform, animation, moving image media – to name a few issues we already teach in our MA courses.

The change of our program title from MA in Film Studies, to MA in Film and Moving Image Studies is long overdue and will better align the program title with the course content taught therein. To give several examples, courses taught over the past two years under existing rubrics (i.e. “Special Topics in Film” courses) include “Gender Issues in Film: Women’s Cinema and Digital Platforms”; “Internet & Video Graphic Research”; “Topics in Experimental Film & Video: Expanded Cinema”; and “Media Platforms.” In brief, many courses already focus on film in an expanded sense. “Film and the Moving Image” captures the content of all the aforementioned courses. The change of program title therefore reflects existing teaching practices and course titles and will better prepare students for the content of our classes.

The title change will also serve as a crucially important recruitment tool, as many students come to our program seeking to further study “film in the digital era” or “animation and digital distribution platforms” or “video streaming” – topics encompassed by the “Film and the Moving Image” rubric.

Additionally, we note that this program title change and proposed course title are distinct from other media courses taught in the Faculty of Fine Arts, such as ARTH 642: Aspect of Media and New Media, which focuses on the art historical and gallery contexts of new media.

To reflect this change in our program and our discipline, we also propose to change two of our MA course titles from “Film Studies” to “Film and Moving Image Studies” in addition to the course title for MA cross-listed PhD course.

FMST 665 - Topics in Film Studies (3 credits), course title changes to **FMST 665** - Topics in Film and Moving Image Studies (3 credits).

FMST 865 – Topics in Film Studies (3 credits), course title changes to **FMST 865** – Topics in Film and Moving Image Studies (3 credits)

This proposed course title change reflects the new title of our program – Film and Moving Image Studies – and better reflects the topics of the courses taught under this rubric. Among the recent courses taught as FMST 665/FMST 865 are platform-related topics, moving image ethnography, and other topics that presume “film and the moving image” rather than simply “film” as its object.

FMST 600 – Method in Film Studies (6 credits), course title change to **FMST 601** - Methods in Film and Moving Image Studies I (3 credits) and **FMST 602** - Methods in Film and Moving Image Studies II (3 credits)

FMST 600 is a required course for all students in our MA program. Students take this course in their first year of study. It is a course aimed at preparing students for graduate study in our program. This includes preparing them for the thesis proposal, for conferences, as well as giving students a background in film studies scholarship.

We seek two changes to this core class in Film Studies:

- To change the title from “Methods in Film Studies” to “Methods in Film and Moving Image Studies” to reflect the content of the course, which, over the past two decades, has increasingly included discussions of video, television, and other moving image media forms that are adjacent to film (but excluded from the category of “film”). This will reflect our program name change.
- To break up the Fall-Winter FMST 600/3 Methods in Film Studies course into **two separate courses**, FMST 601/2: Methods in Film and Moving Image Studies I (3 credits) and FMST 602/4: Methods in Film and Moving Image Studies II (3 credits).

Students who, for visa or other reasons beyond their control, arrive in the Winter semester, are currently unable to take this class in their first year. Instead, they must wait until the Fall of their second year to take the course, which defeats the purpose of the course in preparing them for graduate work in Film Studies. We would like to make this change in curriculum to better accommodate those students who begin their studies in the Winter semester for reasons out of their control. Breaking up this Fall-Winter course into two separate courses would allow students arriving for Winter semester to benefit from Methods in their first semester in the program. Students arriving in the Winter would then take the Winter portion of Methods followed by the Fall portion of Methods in their second year in the program. It should be noted that although these courses can be taken in any order, it is strongly recommended that students enroll in FMST 601 prior to FMST 602.

While we considered giving distinct titles to Methods I and Methods II, we decided against that, since they are fundamentally continuous, if distinct, courses. To better distinguish them we offer distinct descriptions of the courses.

We should add that while for this curriculum revision we seek to make these above changes to our courses, as of Winter 2021 we will begin a second phase of curriculum revisions. In this second phase we will revise more of our courses to reflect the content taught within them, and the parameters of “film and the moving image” that will be our new program title.

These changes require no additional resources.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Jean-Claude Bustros". The signature is fluid and cursive, with a large initial "J" and "C".

Jean-Claude Bustros, Chair

Mel Hoppenheim School of Cinema



PROGRAM CHANGE: Degree Program Title

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Studies
Degree: MA
Calendar Section/Graduate Page Number: Film Studies MA

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Film Studies MA</p>	<p><u>Film and Moving Image Studies</u> <u>MA</u></p>
<p>Rationale: This program name change seeks to reflect the changing parameters of film studies as a field, which over the past 20 years has increasingly included the study of other film-related moving image media, including television, video, online video (YouTube and TikTok) and the prominence of platforms like Netflix, which blur the boundaries between film and television content.</p> <p>This proposed change also aligns with disciplinary transformations, including the 2002 name change of the largest organization for the study of cinema, “Society for Cinema Studies” to the “Society for Cinema and Media Studies.”</p> <p>The change of our program title from MA in Film Studies, to MA in Film and Moving Image Studies, is long overdue and will better align the program title with the course content taught therein.</p>	
<p>Resource Implications: None</p>	

PROGRAM CHANGE: Degree Requirements MA Film and Moving Image Studies

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Studies
Degree: MA
Calendar Section/Graduate Page Number:

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Degree Requirements</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Option A – Thesis</p> <p>9 credits – Required Courses FMST 600 - Methods in Film Studies (6 credits) and FMST 610 - Topics in Cinema Québécois (3 credits) or FMST 605 - Topics in English Canadian Cinema (3 credits)</p> <p>9 credits – Elective Courses FMST 615 - Topics in European Cinema (3 credits) FMST 620 - Topics in Non-European Cinema (3 credits) FMST 625 - Topics in Film History (3 credits) FMST 630 - Topics in Film Theory (3 credits) FMST 635 - Topics in Aesthetics and Cultural Theory (3 credits) FMST 640 - Gender Issues in Film (3 credits) FMST 645 - Topics in Film Genres (3 credits) FMST 650 - Topics in Experimental Film and Video (3 credits) FMST 655 - Topics in Documentary (MA) (3 credits) FMST 660 - Topics in Film Directors (3 credits) FMST 665 - Topics in Film Studies (3 credits) FMST 670 - Independent Study (3 credits) FMST 675 - Practicum (3 credits) FMST 680 - Practicum (3 credits)</p>	<p>Degree Requirements</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Option A – Thesis</p> <p>9 credits – Required Courses FMST 601 - Methods in Film and Moving Image Studies I (3 credits) and FMST 602 - Methods in Film and Moving Image Studies II (3 credits) and FMST 610 - Topics in Cinema Québécois (3 credits) or FMST 605 - Topics in English Canadian Cinema (3 credits)</p> <p>9 credits – Elective Courses FMST 615 - Topics in European Cinema (3 credits) FMST 620 - Topics in Non-European Cinema (3 credits) FMST 625 - Topics in Film History (3 credits) FMST 630 - Topics in Film Theory (3 credits) FMST 635 - Topics in Aesthetics and Cultural Theory (3 credits) FMST 640 - Gender Issues in Film (3 credits) FMST 645 - Topics in Film Genres (3 credits) FMST 650 - Topics in Experimental Film and Video (3 credits) FMST 655 - Topics in Documentary (MA) (3 credits) FMST 660 - Topics in Film Directors (3 credits) FMST 665 - Topics in Film and Moving Image Studies (3 credits) FMST 670 - Independent Study (3 credits)</p>

FMST 685 - Practicum (6 credits)
The maximum value of practicum (internship) credits allowable in this option is 6.
27 credits – Research and Thesis
FMST 690 - MA Research and Thesis (27 credits)

Option B – Course-based

9 credits – Required Courses

FMST 600 - Methods in Film Studies (6 credits)

and

FMST 610 - Topics in Cinema Québécois (3 credits)

or

FMST 605 - Topics in English Canadian Cinema (3 credits)

36 credits – Additional Courses

FMST 615 - Topics in European Cinema (3 credits)

FMST 620 - Topics in Non-European Cinema (3 credits)

FMST 625 - Topics in Film History (3 credits)

FMST 630 - Topics in Film Theory (3 credits)

FMST 635 - Topics in Aesthetics and Cultural Theory (3 credits)

FMST 640 - Gender Issues in Film (3 credits)

FMST 645 - Topics in Film Genres (3 credits)

FMST 650 - Topics in Experimental Film and Video (3 credits)

FMST 655 - Topics in Documentary (MA) (3 credits)

FMST 660 - Topics in Film Directors (3 credits)

FMST 665 - Topics in Film Studies (3 credits)

FMST 670 - Independent Study (3 credits)

FMST 675 - Practicum (3 credits)

FMST 680 - Practicum (3 credits)

FMST 685 - Practicum (6 credits)

FMST 675 - Practicum (3 credits)
FMST 680 - Practicum (3 credits)
FMST 685 - Practicum (6 credits)
The maximum value of practicum (internship) credits allowable in this option is 6.
27 credits – Research and Thesis
FMST 690 - MA Research and Thesis (27 credits)

Option B – Course-based

9 credits – Required Courses

FMST 601 - Methods in Film [and Moving Image Studies I](#) (3 credits)

and

[FMST 602 - Methods in Film and Moving Image Studies II](#) (3 credits)

and

FMST 610 - Topics in Cinema Québécois (3 credits)

or

FMST 605 - Topics in English Canadian Cinema (3 credits)

36 credits – Additional Courses

FMST 615 - Topics in European Cinema (3 credits)

FMST 620 - Topics in Non-European Cinema (3 credits)

FMST 625 - Topics in Film History (3 credits)

FMST 630 - Topics in Film Theory (3 credits)

FMST 635 - Topics in Aesthetics and Cultural Theory (3 credits)

FMST 640 - Gender Issues in Film (3 credits)

FMST 645 - Topics in Film Genres (3 credits)

FMST 650 - Topics in Experimental Film and Video (3 credits)

FMST 655 - Topics in Documentary (MA) (3 credits)

FMST 660 - Topics in Film Directors (3 credits)

FMST 665 - Topics in Film [and Moving Image Studies](#) (3 credits)

FMST 670 - Independent Study (3 credits)

FMST 675 - Practicum (3 credits)

FMST 680 - Practicum (3 credits)

FMST 685 - Practicum (6 credits)

Rationale:

To break up the Fall-Winter FMST 600/3 Methods in Film Studies course into **two separate courses**, FMST 601/2: Methods in Film and Moving Image Studies I (3 credits) and FMST 602/4: Methods in Film and Moving Image Studies II (3 credits).

To reflect the change in our program name and our discipline, we propose to change the course title of FMST 665 from “Topics in Film Studies” to “ Topics in Film and Moving Image Studies.”

Resource Implications:

None

PROGRAM CHANGE: Degree Requirements PhD Film and Moving Image Studies

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film and Moving Image Studies
Degree: PhD
Calendar Section/Graduate Page Number:

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>6 credits – Electives FMST 805/FMST 605 - Topics in English Canadian Cinema (3 credits) FMST 810/FMST 610 - Topics in Cinema Québécois (3 credits) FMST 815/FMST 615 - Topics in European Cinema (3 credits) FMST 820/FMST 620 - Topics in Non-European Cinema (3 credits) FMST 825/FMST 625 - Topics in Film History (3 credits) FMST 830/FMST 630 - Topics in Film Theory (3 credits) FMST 835/FMST 635 - Topics in Aesthetics and Cultural Theory (3 credits) FMST 840/FMST 640 - Gender Issues in Film (3 credits) FMST 845/FMST 645 - Topics in Film Genres (3 credits) FMST 850/FMST 650 - Topics in Experimental Film and Video (3 credits) FMST 855 - Topics in Documentary (3 credits) FMST 860 - Topics in Film Directors (3 credits) FMST 865/FMST 665 - Topics in Film Studies (3 credits) FMST 870 - Independent Study (3 credits) FMST 880 - Research Seminar (3 credits)</p>	<p>6 credits – Electives FMST 805/FMST 605 - Topics in English Canadian Cinema (3 credits) FMST 810/FMST 610 - Topics in Cinema Québécois (3 credits) FMST 815/FMST 615 - Topics in European Cinema (3 credits) FMST 820/FMST 620 - Topics in Non-European Cinema (3 credits) FMST 825/FMST 625 - Topics in Film History (3 credits) FMST 830/FMST 630 - Topics in Film Theory (3 credits) FMST 835/FMST 635 - Topics in Aesthetics and Cultural Theory (3 credits) FMST 840/FMST 640 - Gender Issues in Film (3 credits) FMST 845/FMST 645 - Topics in Film Genres (3 credits) FMST 850/FMST 650 - Topics in Experimental Film and Video (3 credits) FMST 855 - Topics in Documentary (3 credits) FMST 860 - Topics in Film Directors (3 credits) FMST 865/FMST 665 - Topics in Film and Moving Image Studies (3 credits) FMST 870 - Independent Study (3 credits) FMST 880 - Research Seminar (3 credits)</p>
<p>Rationale: The proposed FMST 865 title change reflects the title change proposed for its cross-listed course, FMST 665 ("Film Studies" to " Film and Moving Image Studies").</p>	
<p>Resource Implications: None</p>	

PROGRAM CHANGE: Film Studies MA Course Preamble

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Studies
Degree: MA
Calendar Section/Graduate Page Number: Film Studies MA

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Courses</p> <p>Each year the program will offer FMST 600, either FMST 605 or FMST 610, plus a selection of courses from those listed below.</p> <p>FMST 600 Methods in Film Studies (6 credits)</p> <p>FMST 605 Topics in English Canadian Cinema (3 credits)</p> <p>...</p>	<p>Courses</p> <p>FMST 601 Methods in Film and Moving Image Studies I (3 credits)</p> <p>...</p> <p>FMST 602 Methods in Film and Moving Image Studies II (3 credits)</p> <p>...</p> <p>FMST 605 Topics in English Canadian Cinema (3 credits)</p> <p>...</p>
<p>Rationale: The note explaining when courses are offered is not considered pro forma and is therefore being deleted from the calendar.</p>	
<p>Resource Implications: None</p>	

COURSE CHANGE: FMST 600 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Studies
Degree: MA
Calendar Section/Graduate Page Number:

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
FMST 600 Methods in Film Studies (6-credits)	
Rationale: The 6-credit FMST 600 course, curenly offered Fall-Winter, would be split into two 3-credit courses (FMST 601 and FMST 602) to be offered each in Fall and Winter. This would allow students who arrive in the Winter semester to benefit from a Methods course right away rather than having to wait until the following Fall.	
Resource Implications: none	
Other Programs within which course is listed: none	

COURSE CHANGE: FMST 601 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Studies
Degree: MA
Calendar Section/Graduate Page Number:

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
	<p>FMST 601 Methods in Film and Moving Image Studies I (3 credits)</p> <p>This is a mandatory course in the Film and Moving Image Studies Program. Course materials examine the ways that moving image history, theory, criticism, and analysis have been and can be written, encompassing established ways of seeing, interpreting and understanding cinema and related media. Although these courses are not sequenced, it is strongly recommended that students enroll in FMST 601 prior to FMST 602.</p> <p>Note: Students who have received credit for FMST 600 may not take this course for credit.</p>
<p>Rationale: The 6-credit FMST 600 course, currently offered Fall-Winter, would be split into two 3-credit courses (FMST 601 and FMST 602) to be offered each in Fall and Winter. This would allow students who arrive in the Winter semester to benefit from a Methods course right away rather than having to wait until the following Fall. FMST 601 and 602 will prepare students for the rest of their graduate studies, so enrolling in either of these method courses in their first semester is essential. Please note: there was no calendar description for FMST 600.</p>	
<p>Resource Implications: None</p>	
<p>Other Programs within which course is listed: None</p>	

COURSE CHANGE: FMST 602 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Studies
Degree: MA
Calendar Section/Graduate Page Number:

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
	<p>FMST 602 Methods in Film and Moving Image Studies II (3 credits) This is a mandatory course in the Film and Moving Image Studies MA Program. Students develop advanced research, writing and presentation skills. In addition to technical and practical matters, students develop productive and original research questions reflecting traditional and emergent approaches to cinema and related media. Although these courses are not sequenced, it is strongly recommended that students enroll in FMST 601 prior to FMST 602. Note: Students who have received credit for FMST 600 may not take this course for credit.</p>
<p>Rationale: The 6-credit FMST 600 course, currently offered Fall-Winter, would be split into two 3-credit courses (FMST 601 and FMST 602) to be offered each in Fall and Winter. This would allow students who arrive in the Winter semester to benefit from a Methods course right away rather than having to wait until the following Fall. FMST 601 and 602 will prepare students for the rest of their graduate studies, so enrolling in either of these method courses in their first semester is essential.</p>	
<p>Resource Implications: none</p>	
<p>Other Programs within which course is listed: none</p>	

COURSE CHANGE: FMST 665 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Studies
Degree: MA
Calendar Section/Graduate Page Number:

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>FMST 665 Topics in Film Studies (3 credits) <i>Cross-listed:</i> FMST 865. From time to time, courses in topics that do not fit into any of the topics courses listed above are offered. These courses may include technical studies such as film acting, or special topics related to an instructor's research project. Note: Students who have received credit for a topic in FMST 665 may not take that same topic under FMST 865 for credit.</p>	<p>FMST 665 Topics in Film <u>and Moving Image Studies</u> (3 credits) <i>Cross-listed:</i> FMST 865. <u>This course covers</u> special topics related to an instructor's research project. <u>Students study limited and more specialized aspects of film and moving image studies.</u> Note: Students who have received credit for a topic in FMST 665 may not take that same topic under FMST 865 for credit.</p>
<p>Rationale: This proposed course title change reflects the proposed new title of our program – Film and Moving Image Studies – and better reflects the topics of the courses taught under this rubric.</p>	
<p>Resource Implications: None</p>	
<p>Other Programs within which course is listed: This course is cross-listed with Film and Moving Image Studies PhD course, FMST 865.</p>	

COURSE CHANGE: FMST 865 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Fine Arts
Department: Mel Hoppenheim School of Cinema
Program: Film Studies
Degree: PhD
Calendar Section/Graduate Page Number:

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>FMST 865/FMST 665 Topics in Film Studies (3 credits) From time to time, courses in topics that do not fit into any of the topics courses listed above are offered. These courses may include technical studies such as film acting, or special topics related to an instructor's research project. Note: Students who have received credit for a topic in FMST 665 may not take that same topic under FMST 865 for credit.</p>	<p>FMST 865/FMST 665 Topics in Film <u>and Moving Image</u> Studies (3 credits) <u>Cross-listed: FMST 665</u> <u>This course covers</u> special topics related to an instructor's research project. <u>Students study limited and more specialized aspects of film and moving image studies.</u> Note: Students who have received credit for a topic in FMST 665 may not take that same topic under FMST 865 for credit.</p>
<p>Rationale: This proposed course title change reflects the proposed new title of our program – Film and Moving Image Studies – and better reflects the topics of the courses taught under this rubric.</p>	
<p>Resource Implications: None</p>	
<p>Other Programs within which course is listed: This course is cross-listed with Film Studies MA course, FMST 665.</p>	

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 25, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (ENCS-104)
(CALENDAR – 2021/2022)
GINA CODY SCHOOL OF ENGINEERING AND COMPUTER SCIENCE**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Gina Cody School of Engineering and Computer Science.

The Gina Cody School of Engineering and Computer Science is proposing to modify the requirements for fast-tracking to the PhD program in addition to a number of other housekeeping changes to the Admission Requirements and Degree Requirements sections of the PhD calendar entry .

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: J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs
E. Shihab, Associate Dean, Graduate Programs and Research, Gina Cody School of Engineering and Computer Science



GINA CODY
SCHOOL OF ENGINEERING
AND COMPUTER SCIENCE

INTERNAL MEMORANDUM

TO: Dr. Bradley Nelson
Chair, Graduate Curriculum Committee
School of Graduate Studies

FROM: Dr. E. Shihab
Associate Dean, Graduate Programs and Research
Faculty of Engineering and Computer Science

CC: Kristy Clarke
Academic Programs and Development
School of Graduate Studies

DATE: February 15, 2021

RE: **Graduate Curriculum Proposal for the 2021-22 Academic Year (ENCS-104)**
Gina Cody Council of Engineering and Computer Science

At its meeting on February 12, 2021, the Faculty Council of the Gina Cody School of Engineering and Computer Science reviewed and approved, as presented, the curriculum changes to the requirements of the doctoral program. Namely, these changes are mostly related to fast-tracking to the PhD program and the PhD seminar. No additional resources are required.

Details of the curriculum changes are indicated and explained in the internal memorandums and in the ENCS-104 dossier.

We kindly request that this proposal be placed on the next agenda of the GCC for approval.

Thank you for your consideration of this proposal.

INTERNAL MEMORANDUM



GINA CODY
SCHOOL OF ENGINEERING
AND COMPUTER SCIENCE

Office of the Dean

TO: Dr. M. Debbabi
Chair of the School Council
Gina Cody School of Engineering and Computer Science

FROM: Dr. E. Shihab
Associate Dean, Graduate Programs and Research
Gina Cody School of Engineering and Computer Science

DATE: January 27, 2021

RE: **Graduate Curriculum Proposal for the 2021-22 Academic Year (ENCS-104)**

At its virtual meeting on January 25, 2021, the Gina Cody School Graduate Studies Committee (GCSGSC) reviewed and approved, with some modifications, the changes to the degree requirements for the doctoral program. The most important changes are related to fast-tracking to the PhD program and the doctoral seminar. No additional resources are required.

Details of the curriculum changes are indicated and explained in the Department's internal memorandum and in the ENCS-104 dossier.

We kindly request that this proposal be placed on the next agenda of the GCS Council for approval.

Thank you for your consideration of this proposal.

INTERNAL MEMORANDUM



GINA CODY
SCHOOL OF ENGINEERING
AND COMPUTER SCIENCE

Office of the Dean

TO: Engineering and Computer Science Graduate Studies Committee (ECSGSC)

FROM: Dr. E. Shihab
Associate Dean, Graduate Programs and Research
Gina Cody School of Engineering and Computer Science

DATE: October 13, 2020

RE: **Graduate Curriculum Proposal for the 2021-22 Academic Year (ENCS-104)**

The Engineering and Computer Science Graduate Studies Committee (ECSGSC) proposed changes to the degree requirements of the PhD program. In particular, these changes involve fast-tracking to the PhD program from the bachelor's and Master's degrees, and seminar.

Details of the graduate curriculum proposal are indicated in the ENCS-104 dossier.

We kindly request that this proposal be placed on the next agenda of the ECGSC for approval.

Thank you for your consideration of this proposal.

PROGRAM CHANGE: Doctoral Thesis Requirements

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
 Department: Gina Cody School of Engineering and Computer Science Departments
 Program: All programs
 Degree: PhD
 Calendar Section/Graduate Page Number: Engineering & Computer Science Programs

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Doctor of/Doctorate in Philosophy (PhD)</p> <p>The PhD program leads to the highest degree offered by the Gina Cody School and is designed to provide students an opportunity to obtain the greatest possible expertise in their chosen field through intensive research. Advancement of analytical and/or experimental knowledge through a combination of specialized courses and a research thesis under the supervision of an experienced researcher forms the main component of the doctoral programs. Where possible, research of interest to industry is encouraged. The objectives of the PhD program is to educate highly qualified researchers required for the expansion of fundamental knowledge and technological innovation through research and development, as well as the needs of institutions of higher learning.</p> <p>Admission Requirements</p> <p>Admission on a full-time basis</p> <ul style="list-style-type: none"> • Master's degree or equivalent with high standing in engineering or computer science, or in a cognate discipline. • Holders of a bachelor's degree will, in general, be considered for admission to a master's program only. After completion of a minimum of two terms of full-time study, they may, upon application, be considered by the GCS Graduate Studies Committee for admission to a PhD program. <p>Admission on a part-time basis</p> <ul style="list-style-type: none"> • Master's degree with high standing in engineering, computer science or a cognate discipline. <p>Applicants should understand that admission is contingent not only upon a superior academic record, but also on the availability of a research supervisor, of relevant programs of study and research, as well as adequate laboratory and library facilities. Where applicable, an ability to write programs in a standard computer language will be assumed. Students lacking this skill will be required to register for appropriate courses.</p>	<p>Doctor of/Doctorate in Philosophy (PhD)</p> <p>The PhD program leads to the highest degree offered by the Gina Cody School and is designed to provide students an opportunity to obtain the greatest possible expertise in their chosen field through intensive research. Advancement of analytical and/or experimental knowledge through a combination of specialized courses and a research thesis under the supervision of an experienced researcher forms the main component of the doctoral programs. Where possible, research of interest to industry is encouraged. The objectives of the PhD program is to educate highly qualified researchers required for the expansion of fundamental knowledge and technological innovation through research and development, as well as the needs of institutions of higher learning.</p> <p>Admission Requirements</p> <p>Admission on a full-time basis</p> <ul style="list-style-type: none"> • Master's degree or equivalent with high standing in engineering or computer science, or in a cognate discipline. • Holders of a bachelor's degree will, in general, be considered for admission to a master's program only. After completion of a minimum of <u>one term</u> of full-time study <u>in the Master's degree</u>, they may, upon application, be <u>recommended</u> by the <u>Department and approved by the GCS Associate Dean of Research and Graduate Studies</u> for admission to a PhD program. <p><u>Direct Entry: In some cases students with high academic performance evidenced by an outstanding GPA, appropriate research publications in the field of study, and recipients of external scholarships and awards (NSERC, CIHR, FRONT) may apply to the PhD program directly (direct entry) from their bachelor's degree in the same discipline.</u></p> <p>Admission on a part-time basis</p> <ul style="list-style-type: none"> • Master's degree with high standing in engineering, computer science or a cognate discipline. <p>Applicants should understand that admission is contingent not only upon a superior academic record, but also on the availability of a research supervisor, of relevant programs of study and research, as well as adequate</p>

Degree Requirements

Fully-qualified candidates are required to complete a minimum of 90 credits.

90 Doctor of Philosophy (PhD)

The requirements listed here apply to students enrolled in the following programs:

Building Engineering PhD
 Civil Engineering PhD
 Mechanical Engineering PhD
 Industrial Engineering PhD
 Information and Systems Engineering PhD
 Electrical and Computer Engineering PhD
 Industrial Engineering PhD
 Mechanical Engineering PhD
 Computer Science PhD
 Software Engineering PhD

12 *Credits of coursework.* See the full list of Engineering Courses. ~~Each student's program must be approved by a supervisory committee consisting of three members of faculty, including the student's research supervisor.~~

8	<i>Credits:</i>		
	ENCS 8011	Doctoral Seminar in Electrical Engineering	2.00
	ENCS 8501	Comprehensive Examination	0.00
	ENCS 8511	Doctoral Research Proposal	6.00

70 *Credits chosen from one of the following Research and Thesis courses:*

ENGR 8911	Doctoral Research and Thesis	70.00
COMP 8901	Doctoral Research and Thesis	70.00
SOEN 8901	Doctoral Research and Thesis	70.00

Credits. A fully-qualified candidate entering the doctoral program with a master's degree is required to complete a minimum of 90 credits. A candidate admitted ~~beyond~~ the bachelor's level is required to complete a minimum of ~~106~~ credits. Candidates admitted with a master's degree in a cognate discipline, or if they need additional knowledge in an area pertinent to their research, will, in general, be required to complete more than the minimum number of credits. Students may not credit any undergraduate equivalent course towards the requirements of ~~a 90-credit or 106-credit~~ PhD program without the permission of their supervisor and of the Graduate Program Director.

Residence. For candidates admitted with a master's degree, the minimum period of residence is two years of full-time study or the equivalent in part-time study. Part-time students may be required by the GCS Graduate Studies Committee, upon the recommendation of the supervisory committee, to carry out a portion of their research on a full-time basis. Where a candidate has been admitted with a bachelor's degree, the minimum period of residence is 36 months of full-time study after completion of the bachelor's degree.

Transfer Credits. Students may be granted transfer credit for courses taken in approved graduate studies

laboratory and library facilities. Where applicable, an ability to write programs in a standard computer language will be assumed. Students lacking this skill will be required to register for appropriate courses.

Degree Requirements

Fully-qualified candidates are required to complete a minimum of 90 credits.

90 Doctor of Philosophy (PhD)

The requirements listed here apply to students enrolled in the following programs:

Building Engineering PhD
 Civil Engineering PhD
 Mechanical Engineering PhD
 Industrial Engineering PhD
 Information and Systems Engineering PhD
 Electrical and Computer Engineering PhD
 Industrial Engineering PhD
 Mechanical Engineering PhD
 Computer Science PhD
 Software Engineering PhD

12 *Credits of coursework.* See the full list of Engineering Courses [and Computer Science Courses](#).

8	<i>Credits:</i>		
	ENCS 8501	Comprehensive Examination	0.00
	ENCS 8511	Doctoral Research Proposal	6.00
	ENCS 8011	Doctoral Seminar	2.00

70 *Credits chosen from one of the following Research and Thesis courses:*

ENGR 8911	Doctoral Research and Thesis	70.00
COMP 8901	Doctoral Research and Thesis	70.00
SOEN 8901	Doctoral Research and Thesis	70.00

Credits. A fully-qualified candidate entering the doctoral program with a master's degree is required to complete a minimum of 90 credits. A candidate admitted [directly from](#) the bachelor's level [or from an incomplete master's](#) is required to complete a minimum of 90 credits [after admission to the PhD program](#). [Transfer credits from an incomplete master's program to the PhD program requires departmental approval at the time of admission](#). Candidates admitted with a master's degree in a cognate discipline, or if they need additional knowledge in an area pertinent to their research, will, in general, be required to complete more than the minimum number of credits. Students may not credit any undergraduate equivalent course towards the requirements [the](#) PhD program without the permission of their supervisor and of the Graduate Program Director.

Residence. For candidates admitted with a master's degree, the minimum period of residence is two years of full-time study or the equivalent in part-time study. Part-time students may be required by the GCS Graduate Studies Committee, upon the recommendation of the supervisory committee, to carry out a portion of their research on a full-time basis. Where a candidate has been admitted with a bachelor's degree, the minimum

<p>prior to their entry into their program. A course submitted for transfer credit must be appropriate to the student's program of study at Concordia University. An application for such credit will be considered only at the time of admission.</p> <p>Courses. Students admitted on the basis of a master's degree will normally be required to complete a minimum of 12 credits in course work. A student admitted on the basis of a bachelor's degree will normally be required to complete a minimum of 28 credits in course work. Students must also successfully complete the PhD seminar ENCS 8011 (2 credits). Each student's program must be approved by a supervisory committee consisting of three members of faculty, including the student's research supervisor. This supervisory committee will also arrange for the student's comprehensive examination, the presentation of the doctoral research proposal, and thesis evaluation.</p> <p>Cross-Registration. A student in the program wishing to take courses under the cross-registration scheme must first obtain approval of the GCS Graduate Studies Committee. (See Inter-University Agreement in Graduate Registration section).</p> <p>Time Limit. Please refer to the Academic Regulation page for further details regarding the Time Limit requirements.</p>	<p>period of residence is 36 months of full-time study after completion of the bachelor's degree.</p> <p>Transfer Credits. Students may be granted transfer credit for courses taken in approved graduate studies prior to their entry into their program. A course submitted for transfer credit must be appropriate to the student's program of study at Concordia University. An application for such credit will be considered only at the time of admission.</p> <p>Courses. Students admitted on the basis of a master's degree will normally be required to complete a minimum of 12 credits in course work. A student admitted on the basis of a bachelor's degree will be required to complete a minimum of <u>12</u> credits in course work <u>at the discretion of the supervisor and Departmental policy.</u> Each student's program must be approved by a supervisory committee consisting of three members of faculty, including the student's research supervisor.</p> <p>Cross-Registration. A student in the program wishing to take courses under the cross-registration scheme must first obtain approval of the GCS Graduate Studies Committee. (See Inter-University Agreement in Graduate Registration section).</p> <p>Time Limit. Please refer to the Academic Regulation page for further details regarding the Time Limit requirements.</p>
<p>Rationale: The proposed changes are aimed at improving the requirements for fast-tracking to the PhD program, as well as other editorial changes aimed at improving the quality of the PhD program.</p>	
<p>Resource Implications: None</p>	

COURSE CHANGE: New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Faculty/School: Gina Cody School of Engineering and Computer Science

Department: All Departments in GCS

Program: All PhD programs in GCS

Degree: PhD

Calendar Section/Graduate Page Number:

Calendar for academic year: 2021/22

Implementation Month/Year: September 2021

Type of Change:

Course Number

Course Description

Course Deletion

Course Title

Editorial

Other - Specify: Note

Credit Value

New Course

Prerequisite

Present Text (from) calendar	Proposed Text
<p>ENCS 8011 PhD Seminar (2 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: ENCS 8511 Doctoral Research Proposal.</p> <p><i>Description:</i> The PhD Seminar is designed to train students to communicate the results of their research projects to the community and participate in research discussions. This is done when the students have sufficiently progressed into their research, normally after 6 (12 for part-time students) months of being admitted to candidacy, which is normally after 24 (48 for part-time students) months of residency, and must be completed before the submission of the thesis. The student's evaluation, reflected by either a pass or fail grade, is based upon attendance in all seminars, a report on the student's thesis research under the direction of the thesis supervisor(s), and a presentation.</p> <p><i>Component(s):</i> Seminar.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> • Students who have completed ENCS 8011 prior to September 2005 may not take this Seminar for credit. • Students admitted prior to September 1997 are not allowed to substitute ENCS 8011 for an equivalent course work. 	<p>ENCS 8011 PhD Seminar (2 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: ENCS 8511 Doctoral Research Proposal.</p> <p><i>Description:</i> The PhD Seminar is designed to train students to communicate the results of their research projects to the community and participate in research discussions. This is done when the students have sufficiently progressed into their research, normally after 6 (12 for part-time students) months of being admitted to candidacy, which is normally after 24 (48 for part-time students) months of residency, and must be completed before the submission of the thesis. The student's evaluation, reflected by either a pass or fail grade, is based upon attendance in all seminars, a report on the student's thesis research under the direction of the thesis supervisor(s), and a presentation.</p> <p><i>Component(s):</i> Seminar.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> ▪ Students should enrol in this course once they have sufficiently progressed into their research, normally after 6 months (12 months for part-time students) of being admitted to candidacy, which is normally after 24 months (48 months for part-time students) of residency, and must be completed before the submission of the thesis.
<p>Rationale:</p>	

COURSE CHANGE: New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Faculty/School: Gina Cody School of Engineering and Computer Science

Department: All Departments in GCS

Program: All PhD programs in GCS

Degree: PhD

Calendar Section/Graduate Page Number:

Calendar for academic year: 2021/22

Implementation Month/Year: September 2021

Type of Change:

Course Number

Course Description

Course Deletion

Course Title

Editorial

Other - Specify: Note

Credit Value

New Course

Prerequisite

Present Text (from) calendar	Proposed Text
<p>ENCS 8501 Comprehensive Examination (0.00 credits)</p> <p><i>Description:</i> Students must take a comprehensive examination, which may be both written and oral. Normally the comprehensive examination is taken when course work has been completed and within 12 (24) months after the first registration as a full time (part time) student in a PhD program. Students will be assessed on the basis of written and oral examinations of fundamentals related to their field of research. The comprehensive examination will normally be administered by a committee (the Comprehensive Examination Committee) consisting of the supervisory committee, at least one member external to the candidate's program and other members appointed at the discretion of the supervisory committee. Students who fail this examination are permitted to take it a second time in the following term. Students failing a second time are withdrawn from the program. Students should consult the program regarding specific examination procedures and requirements.</p> <p><i>Component(s):</i> Lecture.</p>	<p>ENCS 8501 Comprehensive Examination (0.00 credits)</p> <p><i>Description:</i> Students must take a comprehensive examination, which may be both written and oral. Students will be assessed on the basis of written and oral examinations of fundamentals related to their field of research. The comprehensive examination will normally be administered by a committee (the Comprehensive Examination Committee) consisting of the supervisory committee, at least one member external to the candidate's program and other members appointed at the discretion of the supervisory committee. Students should consult the program regarding specific examination procedures and requirements.</p> <p><i>Component(s):</i> Thesis Research.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ Normally the comprehensive examination is taken when course work has been completed and within 12 months (24 months for part-time) after the first registration as a full-time or part-time student in a PhD program. ▪ Students who fail this examination are permitted to take it a second time in the following term. Students failing a second time are withdrawn from the program.
<p>Rationale:</p>	
<p>Resource Implications:</p>	

COURSE CHANGE: New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Faculty/School: Gina Cody School of Engineering and Computer Science

Department: All Departments in GCS

Program: All PhD programs in GCS

Degree: PhD

Calendar Section/Graduate Page Number:

Calendar for academic year: 2021/22

Implementation Month/Year: September 2021

Type of Change:

Course Number

Course Description

Course Deletion

Course Title

Editorial

Other - Specify: Note

Credit Value

New Course

Prerequisite

Present Text (from) calendar	Proposed Text
<p>ENCS 8511 Doctoral Research Proposal (6 credits)</p> <p><i>Prerequisite:</i> Successful completion of the comprehensive examination.</p> <p><i>Description:</i> The goal of the doctoral research proposal is to focus the student's PhD research. The proposal must include an extensive critical review of previous work on the subject of the thesis, and a detailed research plan of action and expected milestones. Students will be assessed on the basis of written and oral presentations that must include: (i) a critical review of previous work relevant to the subject of the thesis, and (ii) a detailed research plan of action and expected milestones. Students are required to defend their doctoral research proposal before a committee that will normally be comprised of the same members as the Comprehensive Examination Committee. Students must demonstrate the viability of their project and their capacity to undertake doctoral thesis research. The proposal may be accepted, returned for modifications, or rejected. The rejection of a proposal will result in the student's withdrawal from the program. Students must pass the doctoral research proposal ENCS 8511 (6 credits), within 18 (36) months after the first registration as a full-time (part-time) student in a PhD program. A student whose proposal is accepted will be admitted to candidacy for the PhD.</p> <p><i>Component(s):</i> Seminar.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> Students admitted prior to September 1997 are not allowed to substitute ENCS 8511 for an equivalent course work. 	<p>ENCS 8511 Doctoral Research Proposal (6 credits)</p> <p><i>Prerequisite:</i> Successful completion of ENCS 8501 Comprehensive Examination.</p> <p><i>Description:</i> The goal of the doctoral research proposal is to focus the student's PhD research. The proposal must include an extensive critical review of previous work on the subject of the thesis, and a detailed research plan of action and expected milestones. Students will be assessed on the basis of written and oral presentations that must include: (i) a critical review of previous work relevant to the subject of the thesis, and (ii) a detailed research plan of action and expected milestones. Students are required to defend their doctoral research proposal before a committee that will normally be comprised of the same members as the Comprehensive Examination Committee. Students must demonstrate the viability of their project and their capacity to undertake doctoral thesis research. A student whose proposal is accepted will be admitted to candidacy for the PhD.</p> <p><i>Component(s):</i> Seminar.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> The proposal may be accepted, returned for modifications, or rejected. The rejection of a proposal will result in the student's withdrawal from the program. Students must pass the doctoral research proposal within 24 months (48 months for part-time) after the first registration as a full-time or part-time student in a PhD program.
<p>Rationale:</p>	

Resource Implications:	

COURSE CHANGE: New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Faculty/School: Gina Cody School of Engineering and Computer Science

Department: All Departments in GCS

Program: All PhD programs in GCS

Degree: PhD

Calendar Section/Graduate Page Number:

Calendar for academic year: 2021/22

Implementation Month/Year: September 2021

Type of Change:

Course Number

Course Description

Course Deletion

Course Title

Editorial

Other - Specify:

Credit Value

New Course

Prerequisite

Present Text (from) calendar	Proposed Text
<p>COMP 8901 Doctoral Research and Thesis (70 credits)</p> <p>Component(s): Lecture.</p>	<p>COMP 8901 Doctoral Research and Thesis (70 credits)</p> <p><u>Description: Students are required to plan and carry out a suitable research, development, or design project, which leads to an advance in knowledge. The thesis involves a literature review of the field of research, and reports on the planning and execution of innovative and original research conducted under supervision of a faculty member. The thesis is the object of an oral defense, under the guidelines of the School of Graduate Studies. Theses will be examined by a committee consisting of the student's supervisory committee, an external examiner, and other examiners as approved by the GCS Dean of Graduate Studies.</u></p> <p>Component(s): <u>Thesis Research.</u></p>
<p>Rationale:</p>	
<p>Resource Implications:</p>	

COURSE CHANGE: New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Faculty/School: Gina Cody School of Engineering and Computer Science

Department: All Departments in GCS

Program: All PhD programs in GCS

Degree: PhD

Calendar Section/Graduate Page Number:

Calendar for academic year: 2021/22

Implementation Month/Year: September 2021

Type of Change:

Course Number

Course Description

Course Deletion

Course Title

Editorial

Other - Specify:

Credit Value

New Course

Prerequisite

Present Text (from) calendar	Proposed Text
<p>ENGR 8911 Doctoral Research and Thesis (70.00 credits)</p> <p><i>Description:</i> Students are required to plan and carry out a suitable research, development, or design project, which leads to an advance in knowledge. The thesis involves a literature review of the field of research, and reports on the planning and execution of innovative and original research conducted under supervision of a faculty member. The thesis is the object of an oral defense, under the guidelines of the School of Graduate Studies. Theses will be examined by a committee consisting of the student's supervisory committee, an external examiner, and other examiners as approved by the GCS Graduate Studies Committee and the Dean of Graduate Studies.</p> <p><i>Component(s):</i> Lecture.</p>	<p>ENGR 8911 Doctoral Research and Thesis (70.00 credits)</p> <p><i>Description:</i> Students are required to plan and carry out a suitable research, development, or design project, which leads to an advance in knowledge. The thesis involves a literature review of the field of research, and reports on the planning and execution of innovative and original research conducted under supervision of a faculty member. The thesis is the object of an oral defense, under the guidelines of the School of Graduate Studies. Theses will be examined by a committee consisting of the student's supervisory committee, an external examiner, and other examiners as approved by the GCS Dean of Graduate Studies.</p> <p><i>Component(s):</i> Thesis Research.</p>
<p>Rationale:</p>	
<p>Resource Implications:</p>	

COURSE CHANGE: New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Faculty/School: Gina Cody School of Engineering and Computer Science

Department: All Departments in GCS

Program: All PhD programs in GCS

Degree: PhD

Calendar Section/Graduate Page Number:

Calendar for academic year: 2021/22

Implementation Month/Year: September 2021

Type of Change:

Course Number

Course Description

Course Deletion

Course Title

Editorial

Other - Specify:

Credit Value

New Course

Prerequisite

Present Text (from) calendar	Proposed Text
<p>SOEN 8901 Doctoral Research and Thesis (70 credits)</p> <p>Component(s): Lecture.</p>	<p>SOEN 8901 Doctoral Research and Thesis (70 credits)</p> <p><u>Description: Students are required to plan and carry out a suitable research, development, or design project, which leads to an advance in knowledge. The thesis involves a literature review of the field of research, and reports on the planning and execution of innovative and original research conducted under supervision of a faculty member. The thesis is the object of an oral defense, under the guidelines of the School of Graduate Studies. Theses will be examined by a committee consisting of the student's supervisory committee, an external examiner, and other examiners as approved by the GCS Dean of Graduate Studies.</u></p> <p>Component(s): <u>Thesis Research.</u></p>
<p>Rationale:</p>	
<p>Resource Implications:</p>	

Resource Implications:	
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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 25, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (BLDG-89)
(CALENDAR – 2021/2022)
DEPARTMENT OF BUILDING, CIVIL AND ENVIRONMENTAL ENGINEERING**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Gina Cody School of Engineering and Computer Science.

The Department of Building, Civil and Environmental Engineering is proposing to modify the program structure for the four MEng degrees in Building Engineering, Civil Engineering, Environmental Engineering, and Construction Engineering and Management by adding two required courses to the range as well as updating the program specific courses in each degree. Furthermore, the course Topic Areas have been updated in addition to a series of course title, description, number and credit value changes. Several obsolete courses have also been deleted.

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: J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs
E. Shihab, Associate Dean, Graduate Programs and Research, Gina Cody School of Engineering and Computer Science

INTERNAL MEMORANDUM

TO: Dr. Bradley Nelson
Chair, Graduate Curriculum Committee
School of Graduate Studies

FROM: Dr. E. Shihab
Associate Dean, Graduate Programs and Research
Faculty of Engineering and Computer Science

CC: Kristy Clarke
Academic Programs and Development
School of Graduate Studies

DATE: February 12, 2021

RE: **Graduate Curriculum Proposal for the 2021-22 Academic Year (BLDG-89)**
Gina Cody Council of Engineering and Computer Science

At its meeting on February 12, 2021, the Faculty Council of the Gina Cody School of Engineering and Computer Science reviewed and approved, as presented, the graduate curriculum changes proposed by the Building, Civil and Environmental Engineering (BCEE). Namely, the Department proposes to streamline all its four MEng programs (Building, Civil, Construction, and Environmental Engineering) in terms of the required courses and topic areas. In addition, the Department proposes the removal of a number of courses not offered for several years, creation of three new courses and an update of some existing courses. No additional resources are required for these changes.

Details of the curriculum changes are indicated and explained in the internal memorandums and in the BLDG-89 dossier.

Thank you for your consideration of this proposal.

INTERNAL MEMORANDUM



GINA CODY
SCHOOL OF ENGINEERING
AND COMPUTER SCIENCE

Office of the Dean

TO: Dr. M. Debbabi
Chair of the School Council
Gina Cody School of Engineering and Computer Science

FROM: Dr. E. Shihab
Associate Dean, Graduate Programs and Research
Gina Cody School of Engineering and Computer Science

DATE: January 11, 2021

RE: **Graduate Curriculum Proposal for the 2021-22 Academic Year (BLDG-89)**
Department of Building, Civil & Environmental Engineering (BCEE)

At its virtual meeting on December 14, 2020, the GCS Graduate Studies Committee (GCSGSC) reviewed and approved, as presented, the proposed changes to the requirements of the four *MEng programs in Building Engineering, Civil Engineering, Construction Engineering and Management, and Environmental Engineering*. In addition, the BCEE Department is proposing a clean-up of its courses not been offered in the last 10 years and revisions to some of its courses to reflect development in research and technology.

Details of the curriculum changes indicated and explained in the Department's internal memorandum and in the BLDG-89 dossier.

We kindly request that this proposal be placed on the next agenda of the GCS Council for approval.

Thank you for your consideration of this proposal.

TO: Dr. Emad Shihab, Chair ECSGCS

FROM: Dr. Ashutosh Bagchi, Chair BCEE

DATE: December 9, 2020

RE: Graduate Curriculum Dossier BLDG 89

Attached please find the dossier BLDG 89. The proposed changes were passed by the BCEE Council on December 9, 2020

1. Program Changes to the 4 MEng programs

The Department of Building, Civil and Environmental Engineering offers 4 MEng degrees: Building Engineering, Civil Engineering, Construction Engineering and Management as well as Environmental Engineering. The latter two are recent additions in Fall 2017. In efforts to streamline all four programs, the following changes are proposed (also see Figure 1):

- Introduction of required courses – Each program will include two mandatory courses. All programs will require BCEE 6001 MEng Seminar (1 credit). This course will be redesigned to give seminars relevant to entering students on a variety of issues (such as: regulations, structure of programs, expectations, various Concordia resources, proper paraphrasing and citations, professional engineering in Canada). The other required course will be program specific.
- Focus on relevant topic areas – In the current MEng programs, it is possible to take nearly the same set of courses to graduate with three of the four MEng degrees (Building, Civil and Construction). In the proposed plan, each MEng program has a set of program elective courses from specific focused Topic Areas. To add breadth, each MEng will be able to take a small portion of credits from any Engineering Topic Area.

2. Update Topic Areas

The course deletions and additions are reflected in the Topic Areas. Some courses were changed to a more appropriate area.

3. Course changes (see Table 1 for summary)

- There are a large number of courses not offered in the last several years (most not since 1999) that will be deleted.
- Three permanent courses will be added; three of these (CIVI 6666, CIVI 6721 and CIVI 6731) were offered previously as slot courses.
- Minor changes to existing courses.

MEng Program Roadmap

Core courses

BCEE 6001 1-credit Seminar core course (for ALL Programs)
Plagiarism, Technical Report, Ethics and Professionalism, Organizational Behavior

MEng. Building
BLDG 6611

MEng Civil
CIVI 6501

MEng Environmental
CIVI 6611

MEng Const. Eng. & Mgmt.
BLDG 6571

Program Specific courses

28 credits minimum

- Building Science (E22)
- Building Environment (E23)
- Energy Conversion (E07)
- Integrative Studies for Building Engineering (E21, max 8 credits)

28 credits minimum

- Structural Engineering (E31)
- Bridge Engineering (E32)
- Transportation Engineering (E34)
- Geotechnical Engineering (E35)
- Structural Mechanics (E06)

28 credits minimum

- Water Resources (E33)
- Industrial Waste Management (E36)
- Environmental Engineering (E37)

28 credits minimum

BLDG 6241 Building Information Modelling in Construction
BLDG 6561 Building Economics I
BLDG 6631 Fundamentals of Facility Management
BLDG 6641 Modular and Off-site Construction
BLDG 6801 Construction Planning and Control
BLDG 6811 Labour and Industrial Relations in Construction
BLDG 6821 Legal issues in Construction
BLDG 6831 Construction Processes
BLDG 6851 Project Cost Estimating
BLDG 6861 Simulations and Design of Construction Operations
BLDG 6921 Trenchless Technology for Rehabilitation Works
BLDG 7811 Project Acquisition and Control
BLDG 7831 Building Economics II
BLDG 7841 Information Technology Applications in Construction
BLDG 7861 Business Practices in Construction
BLDG 7871 Construction Equipment Management
CIVI 6711 Asset Management for Sustainable Civil Infrastructure
CIVI 6721 Infrastructure Systems Modeling and Simulation
CIVI 6731 Big Data Analytics for Smart Cities

12 credits maximum – Chosen from the Engineering Courses section. No more than one E09 course

Table 1: Summary of Course Changes

Course	Course Number	Course Title	Credit Value	Prerequisite	Course Description	Editorial	New Course	Course Deletion	Other (Specify)
BCEE 6001 (BCEE 6961)	x	x			x				Note
BLDG 6111		x			x				
BLDG 6151								x	
BLDG 6221								x	
BLDG 6541		x			X				Note
BLDG 6591								x	
BLDG 6621		x			x				Note
BLDG 6641		x			x				
BLDG 6661		x			X				
BLDG 6731		x			x				Note
CIVI 6931 (BLDG 6931)	x	x							Note
BLDG 6951				x	x				
BLDG 7511								x	
BLDG 6622 (BLDG 7601)	x	x		x	x				Note
BLDG 7811				x	x				
BLDG 7831								x	
CIVI 6541								x	
CIVI 6666							x		Note
CIVI 6721							x		Note
CIVI 6731							x		Note
CIVI 7031								x	
CIVI 7101								x	
CIVI 7121								x	
CIVI 7401								x	
CIVI 7901			x						Note
ENGR 7521								x	
ENGR 7531								x	

MENG Program Road Map

Core Courses

BCEE 6001 1-credit seminar core course (for ALL Programs)
Plagiarism, Technical Report, Ethics and Professionalism, Organizational Behaviour

MENG BUILDING
BLDG 6611: Building Science

MENG CIVIL
CIVI 6501: Foundation Engineering

MENG Environmental
CIVI 6611: Environmental Engineering

MENG Const. Eng. & Mgmt.
BLDG 6571: Project Management

Program Specific Courses

28 credits Minimum:

BUILDING SCIENCE

- BLDG 6541 Thermal Analysis of Buildings
- BLDG 6601 Building Enclosure
- BLDG 6621 Non-structural Building Materials
- BLDG 6622 Durability of Building Materials and Components
- BLDG 6651 Fire and Smoke Control in Buildings
- BLDG 6661 Hygrothermal Performance of the Building Envelope
- BLDG 6671 Diagnostics and Rehabilitation of Building Envelope

BUILDING ENVIRONMENT

- BLDG 6701 Building Environment
- BLDG 6711 Mechanical Systems in Building
- BLDG 6721 Building Acoustics
- BLDG 6731 Building Illumination and Daylighting
- BLDG 6741 HVAC Control Systems
- BLDG 6751 Indoor Air Quality and Ventilation
- BLDG 6761 Intelligent Buildings
- BLDG 6781 Energy Management in Buildings

- BLDG 6791 Thermal Building Simulation
- BLDG 7401 Dispersion of Building Exhaust

ENERGY CONVERSION

- BLDG 6951 Solar Building Modelling and Design
- ENGR 6601 Principles of Solar Engineering
- ENGR 6611 Equipment Design for Solar Energy Conversion
- ENGR 6661 Solar Energy Materials Science
- ENGR 6811 Energy Resources: Conventional and Renewable

INTEGRATIVE STUDIES FOR BUILDING ENGINEERING (8 credits maximum)

- BLDG 6061 Structural Systems for Buildings
- BLDG 6071 Wind Engineering and Building Aerodynamics
- BLDG 6111 Fundamentals of Smart Buildings Operation
- BLDG 6231 Applications of Artificial Intelligence in Building and Civil Engineering
- BLDG 6241 Building Information Modelling in Construction
- BLDG 6561 Building Economics I
- BLDG 6571 Project Management
- BLDG 6581 Decision Analysis
- BLDG 6631 Fundamentals of Facility Management
- BLDG 6641 Modular and Off-site Construction
- BLDG 6861 Simulations and Design of Construction Operations
- BLDG 7511 Integrated Building Design

28 credits Minimum:

STRUCTURAL ENGINEERING

- BLDG 6061 Structural Systems for Buildings
- BLDG 6071 Wind Engineering and Building Aerodynamics
- CIVI 6001 Advanced Reinforced Concrete
- CIVI 6011 Pre-cast and Pre-stressed Concrete Structures
- CIVI 6021 Durability of Concrete Materials
- CIVI 6031 Seismic Assessment and Retrofit of Structures
- CIVI 6051 Design of Industrial Structures
- CIVI 6061 Structural Health Monitoring
- CIVI 6071 Advanced Steel Structures Design
- CIVI 6831 Civil Infrastructure Rehabilitation
- CIVI 7001 Earthquake Engineering

BRIDGE ENGINEERING

- CIVI 6101 Planning and Design of Bridges
- CIVI 7111 Theory and Design of Modern Bridge Systems

TRANSPORTATION ENGINEERING

- CIVI 6401 Transportation Systems Analysis
- CIVI 6411 Urban Transportation Planning
- CIVI 6441 Traffic Engineering
- CIVI 6451 Pavement Design
- CIVI 6461 Pavement Management Systems

GEOTECHNICAL ENGINEERING

- CIVI 6511 Earth Structures and Slope Stability
 - CIVI 6521 Soil Behavior
 - CIVI 6531 Soil Testing and Properties
- STRUCTURAL MECHANICS**
- ENGR 6151 Continuum Mechanics
 - ENGR 6511 Fundamentals of Finite Element Analysis of Structures
 - ENGR 6541 Structural Dynamics
 - ENGR 6551 Theory of Elastic and Inelastic Stability
 - ENGR 6581 Introduction to Structural Dynamics
 - ENGR 7501 Advanced Finite Element Method in Structural Mechanics

28 credits Minimum:

WATER RESOURCES

- CIVI 6301 Hydrology
- CIVI 6331 Hydraulic Engineering
- CIVI 6381 Hydraulic Structures
- CIVI 7311 Advanced Analysis of Groundwater Flow and Contamination

INDUSTRIAL WASTE MANAGEMENT

- CIVI 6481 Sustainable Management of Industrial Waste
- CIVI 6491 Engineering Aspects of Site Remediation
- CIVI 6631 Hazardous Material Management and Transportation
- CIVI 6661 Environmental Impact Assessment
- CIVI 6671 Fate and Transport of Contaminants in the Environment

ENVIRONMENTAL ENGINEERING

- CIVI 6601 Modelling in Building and Environmental Engineering
- CIVI 6621 Engineering Aspects of Biological Treatment of Water and Air
- CIVI 6641 Unit Operations in Environmental Engineering
- CIVI 6651 Water Pollution and Control
- CIVI 6666 Climate Change in Engineering Practice
- CIVI 6681 Environmental Nanotechnology
- CIVI 6691 Greenhouse Gases and Control

28 credits Minimum:

- BLDG 6241 Building Information Modelling in Construction
- BLDG 6561 Building Economics I
- BLDG 6631 Fundamentals of Facility Management
- BLDG 6641 Modular and Off-site Construction
- BLDG 6801 Construction Planning and Control
- BLDG 6811 Labour and Industrial Relations in Construction
- BLDG 6821 Legal issues in Construction
- BLDG 6831 Construction Processes
- BLDG 6851 Project Cost Estimating
- BLDG 6861 Simulations and Design of Construction Operations
- BLDG 6921 Trenchless Technology for Rehabilitation Works
- BLDG 7811 Project Acquisition and Control
- BLDG 7831 Building Economics II
- BLDG 7841 Information Technology Applications in Construction
- BLDG 7861 Business Practices in Construction
- BLDG 7871 Construction Equipment Management
- CIVI 6711 Asset Management for Sustainable Civil Infrastructure
- CIVI 6721 Infrastructure Systems Modeling and Simulation
- CIVI 6731 Big Data Analytics for Smart Cities

12 Credits maximum – Chosen from the Engineering Courses section. No more than one E09 course

PROGRAM CHANGE: MEng Building

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: MEng Building
Degree: MEng
Calendar Section/Graduate Page Number: 293

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text						
<p>Building Engineering MEng</p> <p>The Department offers two 45-credit programs leading to the MAsc or MEng degrees with specialization in one of the following four branches:</p> <p>Building Science (E21—Integrative Studies for Building Engineering, E22—Building Science) Building Environment (E07—Energy Conversion, E21—Integrative Studies for Building Engineering, E23—Building Environment) Construction Management (E21—Integrative Studies for Building Engineering, E24—Construction Management) Building Structures (E06—Structural Mechanics, E21—Integrative Studies for Building Engineering, E31—Structural Engineering)</p> <p>Applicants lacking the appropriate engineering background will be required to enrol in an extended program of specified courses. These courses are in addition to the regular 45-credit program.</p> <p>Degree Requirements</p> <p>The requirements described here are in addition to the general degree requirements for the Master's programs in the Gina Cody School of Engineering and Computer Science.</p> <p>Please see the Engineering Courses page for course descriptions.</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits</p> <p>Students must complete 45 credits of 6000 or 7000 level course as outlined below.</p>	<p>Building Engineering MEng</p> <p>Degree Requirements</p> <p>The requirements described here are in addition to the general degree requirements for the Master's programs in the Gina Cody School of Engineering and Computer Science.</p> <p>Please see the Engineering Courses page for course descriptions.</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Building Engineering MEng (45 credits)</p> <p>5 <u>Credits of Core Courses</u></p> <table border="0"> <tr> <td><u>BCEE 6001</u></td> <td><u>MEng Seminar</u></td> <td><u>1.00</u></td> </tr> <tr> <td><u>BLDG 6611</u></td> <td><u>Building Science</u></td> <td><u>4.00</u></td> </tr> </table> <p>28 <u>Credits minimum chosen from the groups listed below to facilitate the selection of courses in a particular area of interest.</u></p> <p><u>Building Science</u> <u>Building Environment</u> <u>Energy Conversion</u> <u>Integrative Studies For Building Engineering</u></p> <p><u>Note: A maximum of 2 courses (8 credits) can be taken from the Integrative Studies for Building Engineering list to be counted towards the 28 credits. Additional courses from this list would count towards the 12-credit group below.</u></p>	<u>BCEE 6001</u>	<u>MEng Seminar</u>	<u>1.00</u>	<u>BLDG 6611</u>	<u>Building Science</u>	<u>4.00</u>
<u>BCEE 6001</u>	<u>MEng Seminar</u>	<u>1.00</u>					
<u>BLDG 6611</u>	<u>Building Science</u>	<u>4.00</u>					

Building Engineering MEng (45 credits)

21 *Credits minimum must be chosen from one of the course groups in List A: Course Groups in Building Engineering Program. This set of courses may also include the project and seminar courses:*

ENGR 6991	Project and Report III	5.00
BCEE 6961	Graduate Seminar in Building and Civil Engineering	1.00
ENCS 6931	Industrial Stage and Training	9.00

12 *Credits minimum must be chosen from the Geotechnical Engineering and those Course Groups of List A Course Groups in Building Engineering Program other than the group already chosen for the completion of the 21 credits above. These groups of courses could include special program courses put on for or by a given industry in conjunction with the Gina Cody School.*

12 Credits maximum chosen from the [Engineering Courses](#) section including ~~E72 Business Administration (MBA courses)~~.

List A: Course Groups in Building Engineering Program (21 credits)

- ~~Group 1 Building Environment~~
- ~~Group 2 Building Science~~
- ~~Group 3 Building Structures~~
- ~~Group 4 Construction Management~~

Group 1 Building Environment		
BLDG 6611	Building Science	4.00

Group 2 Building Science		
BLDG 6611	Building Science	4.00

Plus courses in the following Topic Areas:

- ~~E07 Energy Conversion~~
- ~~E21 Integrative Studies for Building Engineering~~
- ~~E23 Building Environment~~

Note: Students who completed the undergraduate equivalent of BLDG 6611 must replace it by a course to be approved by the Graduate Program Director.

12 Credits maximum chosen from the [Engineering Courses](#) section. *No more than one course (4 credits) can be selected from [Topic Area E09 - Professional Leadership Skills](#).*

The 28 credits minimum are to be selected from the following courses.

Building Science

BLDG 6541	Thermal Analysis of Buildings	4.00
BLDG 6601	Building Enclosure	4.00
BLDG 6621	Non-structural Building Materials	4.00
BLDG 6622	Durability of Building Materials and Components	4.00
BLDG 6651	Fire and Smoke Control in Buildings	4.00
BLDG 6661	Hygrothermal Performance of the Building Envelope	4.00
BLDG 6671	Diagnostics and Rehabilitation of Building Envelope	4.00

Building Environment

BLDG 6701	Building Environment	4.00
BLDG 6711	Mechanical Systems in Building	4.00
BLDG 6721	Building Acoustics	4.00
BLDG 6731	Building Illumination and Daylighting	4.00
BLDG 6741	HVAC Control Systems	4.00
BLDG 6751	Indoor Air Quality and Ventilation	4.00
BLDG 6761	Intelligent Buildings	4.00
BLDG 6781	Energy Management in Buildings	4.00
BLDG 6791	Thermal Building Simulation	4.00
BLDG 7401	Dispersion of Building Exhaust	4.00

Energy Conversion

BLDG 6951	Solar Building Modelling and Design	4.00
ENGR 6601	Principles of Solar Engineering	4.00
ENGR 6611	Equipment Design for Solar Energy Conversion	4.00
ENGR 6661	Solar Energy Materials Science	4.00
ENGR 6811	Energy Resources: Conventional and Renewable	4.00

Group 3 Building Structures

~~Topic Areas:-~~

~~E06 Structural Mechanics~~

~~E21 Integrative Studies for Building Engineering~~

~~E31 Structural Engineering~~

Group 4 Construction Management

~~Topic Areas:-~~

~~E21 Integrative Studies for Building Engineering~~

~~E24 Construction Management~~

~~Note: Students who have taken ENCS 6931 cannot take any of the following three courses: ENGR 6971, ENGR 6981 or ENGR 6991 and vice versa.~~

Integrative Studies For Building Engineering

<u>BLDG 6061</u>	<u>Structural Systems for Buildings</u>	<u>4.00</u>
<u>BLDG 6071</u>	<u>Wind Engineering and Building Aerodynamics</u>	<u>4.00</u>
<u>BLDG 6111</u>	<u>Fundamentals of Smart Buildings Operation</u>	<u>4.00</u>
<u>BLDG 6231</u>	<u>Applications of Artificial Intelligence in Building and Civil Engineering</u>	<u>4.00</u>
<u>BLDG 6241</u>	<u>Building Information Modelling in Construction</u>	<u>4.00</u>
<u>BLDG 6561</u>	<u>Building Economics I</u>	<u>4.00</u>
<u>BLDG 6571</u>	<u>Project Management</u>	<u>4.00</u>
<u>BLDG 6581</u>	<u>Decision Analysis</u>	<u>4.00</u>
<u>BLDG 6631</u>	<u>Fundamentals of Facility Management</u>	<u>4.00</u>
<u>BLDG 6641</u>	<u>Modular and Off-site Construction</u>	<u>4.00</u>
<u>BLDG 6861</u>	<u>Simulations and Design of Construction Operations</u>	<u>4.00</u>
<u>BLDG 7511</u>	<u>Integrated Building Design</u>	<u>4.00</u>

Rationale:

All 4 MEng programs in BCEE are modified to include core courses and program electives in relevant Topic Areas to better differentiate the programs.

Extended program requirements are listed in the GCS MEng section; they can be removed here.

Resource Implications:

None. The programs consist largely of existing courses.

PROGRAM CHANGE: MEng Civil

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: MEng Civil
Degree: MEng
Calendar Section/Graduate Page Number: 294

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text						
<p>Civil Engineering MEng</p> <p>The Department offers two 45-credit programs leading to the MAsc or MEng degrees with specialization in one of the following six branches:</p> <ul style="list-style-type: none"> — Structural Engineering (E06, E31, E32) — Water Resources (E04, E33) — Geotechnical Engineering (E35) — Transportation (E03, E34) — Environmental Engineering (E36, E37) — Construction Management (E21, E24) <p>Applicants lacking the appropriate background will be required to enrol in an extended program of specified courses. These courses are in addition to the regular 45-credit program.</p> <p>Degree Requirements -</p> <p>The requirements described here are in addition to the general degree requirements for the Master's programs in the Gina Cody School of Engineering and Computer Science.</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Please see the Engineering Courses page for course descriptions.</p> <p>Students must complete 45 credits of 6000 or 7000 level courses. The courses must be selected as follows:</p>	<p>Civil Engineering Meng</p> <p>Degree Requirements</p> <p>The requirements described here are in addition to the general degree requirements for the Master's programs in the Gina Cody School of Engineering and Computer Science.</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Please see the Engineering Courses page for course descriptions.</p> <p align="center"><u>Civil Engineering Meng (45 credits)</u></p> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; padding-right: 20px;"><u>5</u></td> <td style="vertical-align: top;"><u>Credits of Core Courses</u> <u>BCEE 6001 MEng Seminar</u> <u>1.00</u> <u>CIVI 6501 Foundation Engineering</u> <u>4.00</u></td> </tr> <tr> <td style="vertical-align: top; padding-right: 20px;"><u>28</u></td> <td style="vertical-align: top;"><u>Credits minimum chosen from the groups listed below, to facilitate the selection of courses in a particular area of interest.</u> <u>Structural Engineering</u> <u>Bridge Engineering</u> <u>Transportation Engineering</u> <u>Geotechnical Engineering</u> <u>Structural Mechanics</u></td> </tr> <tr> <td style="vertical-align: top; padding-right: 20px;"><u>12</u></td> <td style="vertical-align: top;"><u>Credits maximum chosen from the Engineering Courses section. <i>No more than one course (4 credits) can be selected from Topic Area E09 - Professional Leadership Skills.</i></u></td> </tr> </table>	<u>5</u>	<u>Credits of Core Courses</u> <u>BCEE 6001 MEng Seminar</u> <u>1.00</u> <u>CIVI 6501 Foundation Engineering</u> <u>4.00</u>	<u>28</u>	<u>Credits minimum chosen from the groups listed below, to facilitate the selection of courses in a particular area of interest.</u> <u>Structural Engineering</u> <u>Bridge Engineering</u> <u>Transportation Engineering</u> <u>Geotechnical Engineering</u> <u>Structural Mechanics</u>	<u>12</u>	<u>Credits maximum chosen from the Engineering Courses section. <i>No more than one course (4 credits) can be selected from Topic Area E09 - Professional Leadership Skills.</i></u>
<u>5</u>	<u>Credits of Core Courses</u> <u>BCEE 6001 MEng Seminar</u> <u>1.00</u> <u>CIVI 6501 Foundation Engineering</u> <u>4.00</u>						
<u>28</u>	<u>Credits minimum chosen from the groups listed below, to facilitate the selection of courses in a particular area of interest.</u> <u>Structural Engineering</u> <u>Bridge Engineering</u> <u>Transportation Engineering</u> <u>Geotechnical Engineering</u> <u>Structural Mechanics</u>						
<u>12</u>	<u>Credits maximum chosen from the Engineering Courses section. <i>No more than one course (4 credits) can be selected from Topic Area E09 - Professional Leadership Skills.</i></u>						

Civil Engineering Meng (45 credits)

- 21 Credits minimum chosen from one of the course groups in List B: Course Groups in Civil Engineering Program. This set of courses may also include the project and seminar courses:
- | | | |
|-----------|--|------|
| ENGR 6991 | Project and Report III | 5.00 |
| BCEE 6961 | Graduate Seminar in Building and Civil Engineering | 1.00 |
| ENCS 6931 | Industrial Stage and Training | 9.00 |
- 12 Credits minimum chosen from those Course Groups of List B other than the group chosen in Environmental Engineering and Water Resources. These groups of courses could include special program courses put on for or by a given industry in conjunction with the Gina Cody School.
- 12 Credits maximum chosen from the Engineering Courses section including E72 Business Administration (MBA courses).

List B: Course Groups in Civil Engineering Program

~~Group 1— Environmental Engineering and Water Resources~~
~~Group 2— Geotechnical and Transportation Engineering~~
~~Group 3— Structural Engineering~~
~~Group 4— Construction Management~~

Notes:

~~Students who have taken ENCS 6931 cannot take any of the following three courses: ENGR 6971, ENGR 6981 or ENGR 6991; and vice versa.~~
~~Students who have taken ENCS 6931 cannot take any of the following three courses: ENGR 6971, ENGR 6981 or ENGR 6991; and vice versa.~~

Group 1— Environmental Engineering and Water Resources

Topic Areas:

~~E04— Fluid Mechanics~~
~~E33— Water Resources~~
~~E36— Industrial Waste Management~~
~~E37— Environmental Engineering~~

Group 2— Geotechnical and Transportation Engineering

Topic Areas:

~~E03— Systems and Control~~
~~E34— Transportation Engineering~~
~~E35— Geotechnical Engineering~~

Group 3— Structural Engineering

Topic Areas:

~~E06— Structural Mechanics~~
~~E31— Structural Engineering~~
~~E32— Bridge Engineering~~

The 28 credits minimum are to be selected from the following courses.

Structural Engineering

BLDG 6061 Structural Systems for Buildings	4.00
BLDG 6071 Wind Engineering and Building Aerodynamics	4.00
CIVI 6001 Advanced Reinforced Concrete	4.00
CIVI 6011 Pre-cast and Pre-stressed Concrete Structures	4.00
CIVI 6021 Durability of Concrete Materials	4.00
CIVI 6031 Seismic Assessment and Retrofit of Structures	4.00
CIVI 6051 Design of Industrial Structures	4.00
CIVI 6061 Structural Health Monitoring	4.00
CIVI 6071 Advanced Steel Structures Design	4.00
CIVI 6831 Civil Infrastructure Rehabilitation	4.00
CIVI 7001 Earthquake Engineering	4.00

Bridge Engineering

CIVI 6101 Planning and Design of Bridges	4.00
CIVI 7111 Theory and Design of Modern Bridge Systems	4.00

Transportation Engineering

CIVI 6401 Transportation Systems Analysis	4.00
CIVI 6411 Urban Transportation Planning	4.00
CIVI 6441 Traffic Engineering	4.00
CIVI 6451 Pavement Design	4.00
CIVI 6461 Pavement Management Systems	4.00

Geotechnical Engineering

CIVI 6511 Earth Structures and Slope Stability	4.00
CIVI 6521 Soil Behaviour	4.00
CIVI 6531 Soil Testing and Properties	4.00

Group 4 – Construction Management

Topic Areas:

~~E21 – Integrative Studies for Building Engineering~~

~~E24 – Construction Management~~

Structural Mechanics

ENGR 6151 Continuum Mechanics 4.00

ENGR 6511 Fundamentals of Finite Element Analysis of Structures 4.00

ENGR 6541 Structural Dynamics 4.00

ENGR 6551 Theory of Elastic and Inelastic Stability 4.00

ENGR 6581 Introduction to Structural Dynamics 4.00

ENGR 7501 Advanced Finite Element Method in Structural Mechanics 4.00

Rationale:

All 4 MEng programs in BCEE are modified to include core courses and program electives on relevant Topic Areas to better differentiate the programs.

Extended program requirements are listed in the GCS MEng section; they can be removed here.

Resource Implications:

None

PROGRAM CHANGE: MEng Construction

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: MEng Construction Engineering and Management
Degree: MEng
Calendar Section/Graduate Page Number: 296

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text																						
<p>Construction Engineering and Management MEng</p> <p>The Department offers two 45-credit programs leading to the MAsc or MEng degrees with specialization in one of the following four branches:</p> <p>Building Science (E21—Integrative Studies for Building Engineering, E22—Building Science)</p> <p>Building Environment (E07—Energy Conversion, E21—Integrative Studies for Building Engineering, E23—Building Environment)</p> <p>Construction Management (E21—Integrative Studies for Building Engineering, E24—Construction Management)</p> <p>Building Structures (E06—Structural Mechanics, E21—Integrative Studies for Building Engineering, E31—Structural Engineering)</p> <p>Applicants lacking the appropriate engineering background will be required to enrol in an extended program of specified courses. These courses are in addition to the regular 45-credit program.</p> <p>Admission Requirements</p> <p>Bachelor's degree in engineering or architecture, or equivalent with an above average standing.</p> <p>The department will recommend on the acceptability of an applicant for admission to the program and may require the applicant to do specific remedial coursework to meet the program requirements.</p> <p>Degree Requirements</p> <p>The requirements described here are in addition to the general degree requirements for the Master's programs in the Gina Cody School of Engineering and Computer Science.</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p>	<p>Construction Engineering and Management MEng</p> <p>Degree Requirements</p> <p>The requirements described here are in addition to the general degree requirements for the Master's programs in the Gina Cody School of Engineering and Computer Science.</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Please see the Engineering Courses page for course descriptions.</p> <p>Construction Engineering and Management MEng (45 credits)</p> <p>5 Credits of Core Courses:</p> <table border="0"> <tr> <td>BCEE 6001 - MEng Seminar</td> <td align="right">1.00</td> </tr> <tr> <td>BLDG 6571 - Project Management</td> <td align="right">4.00</td> </tr> </table> <p>28 Credits <u>minimum</u> chosen from:</p> <table border="0"> <tr> <td>BLDG 6241 Building Information Modelling in Construction</td> <td align="right"><u>4.00</u></td> </tr> <tr> <td>BLDG 6561 Building Economics I</td> <td align="right"><u>4.00</u></td> </tr> <tr> <td>BLDG 6631 Fundamentals of Facility Management</td> <td align="right"><u>4.00</u></td> </tr> <tr> <td>BLDG 6641 Modular and Off-site Construction</td> <td align="right"><u>4.00</u></td> </tr> <tr> <td>BLDG 6801 Construction Planning and Control</td> <td align="right"><u>4.00</u></td> </tr> <tr> <td>BLDG 6811 Labour and Industrial Relations in Construction</td> <td align="right"><u>4.00</u></td> </tr> <tr> <td>BLDG 6821 Legal issues in Construction</td> <td align="right"><u>4.00</u></td> </tr> <tr> <td>BLDG 6831 Construction Processes</td> <td align="right"><u>4.00</u></td> </tr> <tr> <td>BLDG 6851 Project Cost Estimating</td> <td align="right"><u>4.00</u></td> </tr> </table>	BCEE 6001 - MEng Seminar	1.00	BLDG 6571 - Project Management	4.00	BLDG 6241 Building Information Modelling in Construction	<u>4.00</u>	BLDG 6561 Building Economics I	<u>4.00</u>	BLDG 6631 Fundamentals of Facility Management	<u>4.00</u>	BLDG 6641 Modular and Off-site Construction	<u>4.00</u>	BLDG 6801 Construction Planning and Control	<u>4.00</u>	BLDG 6811 Labour and Industrial Relations in Construction	<u>4.00</u>	BLDG 6821 Legal issues in Construction	<u>4.00</u>	BLDG 6831 Construction Processes	<u>4.00</u>	BLDG 6851 Project Cost Estimating	<u>4.00</u>
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BLDG 6811 Labour and Industrial Relations in Construction	<u>4.00</u>																						
BLDG 6821 Legal issues in Construction	<u>4.00</u>																						
BLDG 6831 Construction Processes	<u>4.00</u>																						
BLDG 6851 Project Cost Estimating	<u>4.00</u>																						

Please see the Engineering Courses page for course descriptions.

Construction Engineering and Management MEng (45 credits)

- 8 Credits of Core Courses:

BLDG 6571	Project Management	4.00
BLDG 6831	Construction Processes	4.00

- 8 Credits chosen from:

CIVI 6011	Pre-cast and Pre-stressed Concrete Structures	4.00
CIVI 6101	Planning and Design of Bridges	4.00
CIVI 6411	Urban Transportation Planning	4.00
CIVI 6451	Pavement Design	4.00
CIVI 6461	Pavement Management Systems	4.00
CIVI 6611	Environmental Engineering	4.00
CIVI 6661	Environmental Impact Assessment	4.00
BLDG 6611	Building Science	4.00
BLDG 6621	Modern Building Materials	4.00
BLDG 6701	Building Environment	4.00
BLDG 6711	Mechanical Systems in Building	4.00
BLDG 6731	Building Illumination	4.00
BLDG 6751	Indoor Air Quality and Ventilation	4.00

- 24 Credits minimum chosen from ~~Course Group 1 – Construction Management~~
 Note: These groups of courses could also include special program courses put on for or by a given industry in conjunction with the Gina Cody School.

- 5 Credits or less can be chosen from the [Engineering Courses](#) section, which includes E72 (MBA courses) other than the courses listed in the program requirements above.

- [BLDG 6861 Simulations and Design of Construction Operations](#) 4.00
- [BLDG 6921 Trenchless Technology for Rehabilitation Works](#) 4.00
- [BLDG 7811 Project Acquisition and Control](#) 4.00
- [BLDG 7831 Building Economics II](#) 4.00
- [BLDG 7841 Information Technology Applications in Construction](#) 4.00
- [BLDG 7861 Business Practices in Construction](#) 4.00
- [BLDG 7871 Construction Equipment Management](#) 4.00
- [CIVI 6711 Asset Management for Sustainable Civil Infrastructure](#) 4.00
- [CIVI 6721 Infrastructure Systems Modeling and Simulation](#) 4.00
- [CIVI 6731 Big Data Analytics for Smart Cities](#) 4.00

12 [Credits maximum chosen from the Engineering Courses section. No more than one course \(4 credits\) can be selected from \[Topic Area E09 - Professional Leadership Skills\]\(#\).](#)

<p>Rationale: All 4 MEng programs in BCEE are modified to include core courses and program electives in relevant Topic Areas to better differentiate the programs.</p> <p>Admission and extended program requirements are listed in the GCS MEng section; they can be removed here.</p>	
<p>Resource Implications: None.</p>	

PROGRAM CHANGE: MEng Environmental

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: MEng Environmental Engineering
Degree: MEng
Calendar Section/Graduate Page Number: 298

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>Environmental Engineering MEng</p> <p>Admission Requirements</p> <p>Bachelor's degree in engineering or the sciences (chemistry, biology, environmental sciences, geography, microbiology and urban studies) or equivalent with an above average standing.</p> <p>The Department will recommend on the acceptability of an applicant for admission to the program and may require the applicant to do specific remedial coursework to meet the program requirements. The specific courses will be identified in the admission letter on a case by case basis at the time of admission.</p> <p>Degree Requirements</p> <p>The requirements described here are in addition to the general degree requirements for the Master's programs in the Gina Cody School of Engineering and Computer Science.</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Please see the Engineering Courses page for course descriptions.</p> <p>Students must complete 45 credits of 6000 or 7000 level courses. The courses must be selected as follows:</p>	<p>Environmental Engineering MEng</p> <p>Degree Requirements</p> <p>The requirements described here are in addition to the general degree requirements for the Master's programs in the Gina Cody School of Engineering and Computer Science.</p> <p>Fully-qualified candidates are required to complete a minimum of 45 credits.</p> <p>Please see the Engineering Courses page for course descriptions.</p> <p>Environmental Engineering MEng (45 credits)</p> <p><u>5</u> Credits of Core Courses: BCEE 6001 - MEng Seminar 1.00 CIVI 6611 Environmental Engineering 4.00</p> <p><u>28</u> <u>Credits minimum chosen from the groups listed below, to facilitate the selection of courses in a particular area of interest.</u> Water Resources Industrial Waste Management Environmental Engineering</p> <p><u>12</u> <u>Credits maximum chosen from the Engineering Courses section. No more than one course (4 credits) can be taken from Topic E09 - Professional Leadership Skills. Graduate courses outside engineering require GPD approval prior to registration.</u></p>

Environmental Engineering MEng (45 credits)

- 20 ~~Credits minimum chosen from Course Group 1 in List B Course Groups in Environmental Engineering Program:~~
- 9 ~~Credits:~~
 CIVI 7901 ~~Environmental Engineering Research Project~~ 9.00
Note: The proposed topic for the project must be selected in consultation with a faculty supervisor. The Environmental Engineering Research project report will be evaluated by two faculty members from the Department.
- 12 ~~Credits minimum must be chosen from List B: Course Groups in Environmental Engineering Program other than the group already chosen for the completion of the credits above. These groups of courses could include special program courses put on for or by a given industry in conjunction with the Gina Cody School.~~
- 4 ~~Credits maximum chosen from the Engineering Courses section including E72 – Business Administration Program~~

List B: Course Groups in Environmental Engineering Program

Group 1 – Environmental Engineering and Water Resources:-

Topic Areas:-

- E33 – Water Resources
- E36 – Industrial Waste Management
- E37 – Environmental Engineering

Group 2 – Geotechnical and Transportation Engineering:-

Topic Areas:-

- E03 – Systems and Control
- E34 – Transportation Engineering
- E35 – Geotechnical Engineering

Group 3 – Structural Engineering:-

Topic Areas:-

- E06 – Structural Mechanics
- E31 – Structural Engineering
- E32 – Bridge Engineering

Group 4 – Construction Management:-

Topic Areas:-

- E21 – Integrative Studies for Building Engineering
- E24 – Constructive Management

CIVI 7901. The proposed topic for the project must be selected in consultation with a faculty supervisor. The Environmental Engineering Research project report will be evaluated by two faculty members from the Department.

The 28 credits minimum are to be selected from the following courses.

Water Resources

<u>CIVI 6301 Hydrology</u>	<u>4.00</u>
<u>CIVI 6331 Hydraulic Engineering</u>	<u>4.00</u>
<u>CIVI 6381 Hydraulic Structures</u>	<u>4.00</u>
<u>CIVI 7311 Advanced Analysis of Groundwater Flow and Contamination</u>	

Industrial Waste Management

<u>CIVI 6481 Sustainable Management of Industrial Waste</u>	<u>4.00</u>
<u>CIVI 6491 Engineering Aspects of Site Remediation</u>	<u>4.00</u>
<u>CIVI 6631 Hazardous Material Management and Transportation</u>	<u>4.00</u>
<u>CIVI 6661 Environmental Impact Assessment</u>	<u>4.00</u>
<u>CIVI 6671 Fate and Transport of Contaminants in the Environment</u>	

Environmental Engineering

<u>CIVI 6601 Modelling in Building and Environmental Engineering</u>	<u>4.00</u>
<u>CIVI 6621 Engineering Aspects of Biological Treatment of Water and Air</u>	<u>4.00</u>
<u>CIVI 6641 Unit Operations in Environmental Engineering</u>	<u>4.00</u>
<u>CIVI 6651 Water Pollution and Control</u>	<u>4.00</u>
<u>CIVI 6666 Climate Change in Engineering Practice</u>	<u>4.00</u>
<u>CIVI 6681 Environmental Nanotechnology</u>	<u>4.00</u>
<u>CIVI 6691 Greenhouse Gases and Control</u>	

Rationale:

All 4 MEng programs in BCEE are modified to include core courses and 28 credits from a list of specified courses to better differentiate the programs. Students can add breadth to the program by the optional selection of 12 credits outside program courses.

Admission and extended program requirements are listed in the GCS MEng section; they can be removed here.

Resource Implications:

None.

PROGRAM CHANGE: BCEE Topic Areas Changes

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsc, PhD, GradCert
Calendar Section/Graduate Page Number: 337

Type of Change:

Editorial Requirements Regulations Program Deletion New Program

Present Text (from 2020/2021) calendar	Proposed Text
<p>List of Courses by Topic Areas</p> <p>E00 - REVIEW/MAKE-UP COURSES Students who lack the mathematics and systems background for graduate programs in engineering may be required to take the course in this section. This course cannot be taken for credit towards the requirements of a graduate degree.</p> <p>ENCS 6001 Elements of Engineering Mathematics</p> <p>E01 - MATHEMATICAL METHODS</p> <p>ENCS 6021 Engineering Analysis ENCS 6111 Numerical Methods ENCS 6141 Probabilistic Methods in Design ENCS 6161 Probability and Stochastic Processes ENCS 6181 Optimization Techniques I (*) ENCS 6191 Fuzzy Sets and Fuzzy Logic</p> <p>E02 - DEVELOPMENTS IN ENGINEERING</p> <p>Note: Subject matter will vary from term to term and from year to year. Students may re-register for these courses, providing that the course content has changed. Changes in content will be indicated by the letter following the course number, e.g., CIVI 691A, CIVI 691B, etc.</p> <p>ENCS 591 Topics in Engineering and Computer Science ENCS 691 Topics in Engineering and Computer Science I</p>	<p>List of Courses by Topic Areas</p> <p>E00 - REVIEW/MAKE-UP COURSES Students who lack the mathematics and systems background for graduate programs in engineering may be required to take this course. This course cannot be taken for credit towards the requirements of a graduate degree.</p> <p>ENCS 6001 Elements of Engineering Mathematics</p> <p>E01 - MATHEMATICAL METHODS</p> <p>ENCS 6021 Engineering Analysis ENCS 6111 Numerical Methods ENCS 6141 Probabilistic Methods in Design ENCS 6161 Probability and Stochastic Processes ENCS 6181 Optimization Techniques I ENCS 6191 Fuzzy Sets and Fuzzy Logic Notes: The following course is cross-listed: ENCS 6181</p> <p>E02 - DEVELOPMENTS IN ENGINEERING</p> <p>Note: Subject matter will vary from term to term and from year to year. Students may re-register for these courses, providing that the course content has changed. Changes in content will be indicated by the letter following the course number, e.g., CIVI 691A, CIVI 691B, etc.</p> <p>ENCS 591 Topics in Engineering and Computer Science ENCS 691 Topics in Engineering and Computer Science I</p>

ENGR 691 Topics in Engineering I
ENGR 791 Topics in Engineering II
BLDG 691 Topics in Building Engineering I
BLDG 791 Topics in Building Engineering II
CIVI 691 Topics in Civil Engineering I
CIVI 791 Topics in Civil Engineering II
COEN 691 Topics in Computer Engineering I
COEN 791 Topics in Computer Engineering II
ELEC 691 Topics in Electrical Engineering I
ELEC 791 Topics in Electrical Engineering II
INDU 691 Topics in Industrial Engineering
INSE 691 Topics in Information Systems Engineering
MECH 691 Topics in Mechanical Engineering I
MECH 791 Topics in Mechanical Engineering II

E03 - SYSTEMS AND CONTROL

ELEC 6041 Large-scale Control Systems
ELEC 6061 Real-time Computer Control Systems
ELEC 6091 Discrete Event Systems
ENGR 6071 Switched and Hybrid Control Systems
ENGR 6131 Linear Systems (±)
ENGR 6141 Nonlinear Systems
ENGR 6412 Autonomy for Mobile Robots (±)
ENGR 7121 Analysis and Design of Linear Multivariable Systems
ENGR 7131 Adaptive Control
ENGR 7181 Digital Control of Dynamic Systems
MECH 6681 Dynamics and Control of Nonholonomic Systems

E04 - FLUID MECHANICS

ENGR 6201 Fluid Mechanics
ENGR 6221 Microfluidic Systems
ENGR 6241 Hydrodynamics
ENGR 6251 The Finite Difference Method in Computational Fluid Dynamics
ENGR 6261 The Finite Element Method in Computational Fluid Dynamics
ENGR 6281 Modelling Turbulent Flows
ENGR 6291 Rheology

E05 - DYNAMICS AND VIBRATIONS OF MECHANICAL AND BIOMECHANICAL SYSTEMS

ENGR 6191 Introduction to Biomedical Engineering
ENGR 6301 Advanced Dynamics
ENGR 6311 Vibrations in Machines and Structures (±)
MECH 6301 Vibration Problems in Rotating Machinery
MECH 6311 Noise and Vibration Control
MECH 6321 Optimum Design of Mechanical Systems
MECH 6341 Engineering Analysis of Smart Materials and Structures
MECH 6351 Modal Analysis of Mechanical Systems
MECH 6361 Mechanics of Biological Tissues
ENGR 7331 Random Vibrations

ENGR 691 Topics in Engineering I
ENGR 791 Topics in Engineering II
BLDG 691 Topics in Building Engineering I
BLDG 791 Topics in Building Engineering II
CIVI 691 Topics in Civil Engineering I
CIVI 791 Topics in Civil Engineering II
COEN 691 Topics in Computer Engineering I
COEN 791 Topics in Computer Engineering II
ELEC 691 Topics in Electrical Engineering I
ELEC 791 Topics in Electrical Engineering II
INDU 691 Topics in Industrial Engineering
INSE 691 Topics in Information Systems Engineering
MECH 691 Topics in Mechanical Engineering I
MECH 791 Topics in Mechanical Engineering II

E03 - SYSTEMS AND CONTROL

ELEC 6041 Large-scale Control Systems
ELEC 6061 Real-time Computer Control Systems
ELEC 6091 Discrete Event Systems
ENGR 6071 Switched and Hybrid Control Systems
ENGR 6131 Linear Systems
ENGR 6141 Nonlinear Systems
ENGR 6412 Autonomy for Mobile Robots
ENGR 7121 Analysis and Design of Linear Multivariable Systems
ENGR 7131 Adaptive Control
ENGR 7181 Digital Control of Dynamic Systems
MECH 6681 Dynamics and Control of Nonholonomic Systems

[Notes: The following courses are cross-listed:](#)

[ENGR 6131](#)

[ENGR 6414](#)

E04 - FLUID MECHANICS

ENGR 6201 Fluid Mechanics
ENGR 6221 Microfluidic Systems
ENGR 6241 Hydrodynamics
ENGR 6251 The Finite Difference Method in Computational Fluid Dynamics
ENGR 6261 The Finite Element Method in Computational Fluid Dynamics
ENGR 6281 Modelling Turbulent Flows
ENGR 6291 Rheology

E05 - DYNAMICS AND VIBRATIONS OF MECHANICAL AND BIOMECHANICAL SYSTEMS

ENGR 6191 Introduction to Biomedical Engineering
ENGR 6301 Advanced Dynamics
ENGR 6311 Vibrations in Machines and Structures
MECH 6301 Vibration Problems in Rotating Machinery
MECH 6311 Noise and Vibration Control

MECH 6321 Optimum Design of Mechanical Systems
MECH 6341 Engineering Analysis of Smart Materials and Structures
MECH 6351 Modal Analysis of Mechanical Systems
MECH 6361 Mechanics of Biological Tissues
ENGR 7331 Random Vibrations

Note: The following course is cross-listed:

ENGR 6311

E06 - STRUCTURAL MECHANICS

ENGR 6151 Continuum Mechanics
ENGR 6501 Applied Elasticity
ENGR 6511 Fundamentals of Finite Element Analysis of Structures (±)
ENGR 6541 Structural Dynamics
ENGR 6551 Theory of Elastic and Inelastic Stability
ENGR 6561 Theory of Plates and Shells
ENGR 6571 Energy Methods in Structural Mechanics
ENGR 6581 Introduction to Structural Dynamics (±)
ENGR 7501 Advanced Finite Element Method in Structural Mechanics
~~ENGR 7521 Advanced Matrix Analysis of Structures~~
~~ENGR 7531 Boundary Element Method in Applied Mechanics~~

E07 - ENERGY CONVERSION

BLDG 6951 Solar Building Modelling and Design
ENGR 6601 Principles of Solar Engineering
ENGR 6611 Equipment Design for Solar Energy Conversion
ENGR 6661 Solar Energy Materials Science
ENGR 6811 Energy Resources: Conventional and Renewable

E06 - STRUCTURAL MECHANICS

ENGR 6151 Continuum Mechanics
ENGR 6501 Applied Elasticity
ENGR 6511 Fundamentals of Finite Element Analysis of Structures
ENGR 6541 Structural Dynamics
ENGR 6551 Theory of Elastic and Inelastic Stability
ENGR 6561 Theory of Plates and Shells
ENGR 6571 Energy Methods in Structural Mechanics
ENGR 6581 Introduction to Structural Dynamics
ENGR 7501 Advanced Finite Element Method in Structural Mechanics

Note: The following courses are cross-listed:

ENGR 6511, ENGR 6581

E07 - ENERGY CONVERSION

BLDG 6951 Solar Building Modelling and Design
ENGR 6601 Principles of Solar Engineering
ENGR 6611 Equipment Design for Solar Energy Conversion
ENGR 6661 Solar Energy Materials Science
ENGR 6811 Energy Resources: Conventional and Renewable

E08 - ACADEMIC COMMUNICATION SKILLS

ENCS 5721 Composition and Argumentation for Engineers
 ENCS 6721 Technical Writing and Research Methods for Scientists and Engineers

E09 - PROFESSIONAL LEADERSHIP SKILLS

ENCS 6031 Cultures of Engineering Practice
 ENCS 6041 Creativity, Innovation, and Critical Thinking
 ENCS 6042 Communication Techniques for the Innovation Process
 ENCS 6821 Development and Global Engineering

E10 - ROBOTICS

ENGR 6411 Robotic Manipulators I: Mechanics (*)
 ENGR 7401 Robotic Manipulators II: Control

E11 - AERONAUTICS AND ASTRONAUTICS

ENGR 6421 Standards, Regulations and Certification
 ENGR 6441 Materials Engineering for Aerospace
 ENGR 6461 Avionic Navigation Systems
 ENGR 6471 Integration of Avionics Systems (*)
 ENGR 6951 Seminar on Space Studies
 ENGR 7201 Micro-Gravity Fluid Dynamics
 ENGR 7461 Avionic Systems Design ENGR
 7961 Industrial "Stage" and Training MECH
 6091 Flight Control Systems
 MECH 6111 Gas Dynamics (*)
 MECH 6121 Aerodynamics (*)
 MECH 6161 Gas Turbine Design (*)
 MECH 6171 Turbomachinery and Propulsion (*)
 MECH 6231 Helicopter Flight Dynamics
 MECH 6241 Operational Performance of Aircraft
 MECH 6251 Space Flight Mechanics and Propulsion Systems
 MECH 6471 Aircraft Structures
 MECH 6791 Aircraft Hydro-Mechanical and Fuel Systems (*)
 MECH 6891 Aircraft Pneumatic and Electrical Power Systems (*)
 MECH 6941 Concurrent Engineering in Aerospace Systems
 MECH 6961 Aerospace Case Study I
 MECH 6971 Aerospace Case Study II

E08 - ACADEMIC COMMUNICATION SKILLS

ENCS 5721 Composition and Argumentation for Engineers
 ENCS 6721 Technical Writing and Research Methods for Scientists and Engineers

E09 - PROFESSIONAL LEADERSHIP SKILLS

ENCS 6031 Cultures of Engineering Practice
 ENCS 6041 Creativity, Innovation, and Critical Thinking
 ENCS 6042 Communication Techniques for the Innovation Process
 ENCS 6821 Development and Global Engineering

E10 - ROBOTICS

ENGR 6411 Robotic Manipulators I: Mechanics
 ENGR 7401 Robotic Manipulators II: Control

Note: The following course is cross-listed:

[ENGR 6411](#)

E11 - AERONAUTICS AND ASTRONAUTICS

ENGR 6421 Standards, Regulations and Certification
 ENGR 6441 Materials Engineering for Aerospace
 ENGR 6461 Avionic Navigation Systems
 ENGR 6471 Integration of Avionics Systems
 ENGR 6951 Seminar on Space Studies
 ENGR 7201 Micro-Gravity Fluid Dynamics
 ENGR 7461 Avionic Systems Design ENGR
 7961 Industrial "Stage" and Training MECH
 6091 Flight Control Systems
 MECH 6111 Gas Dynamics
 MECH 6121 Aerodynamics
 MECH 6161 Gas Turbine Design
 MECH 6171 Turbomachinery and Propulsion
 MECH 6231 Helicopter Flight Dynamics
 MECH 6241 Operational Performance of Aircraft
 MECH 6251 Space Flight Mechanics and Propulsion Systems
 MECH 6471 Aircraft [Structures](#)
 MECH 6791 Aircraft Hydro-Mechanical and Fuel Systems
 MECH 6891 Aircraft Pneumatic and Electrical Power Systems
 MECH 6941 Concurrent Engineering in Aerospace Systems
 MECH 6961 Aerospace Case Study I
 MECH 6971 Aerospace Case Study II

Note: The following courses are cross-listed:

[ENGR 6471, MECH 6111, MECH 6121, MECH 6161, MECH 6171, MECH 6791, MECH](#)

[6891](#)

E12 - INDUSTRIAL ENGINEERING

INDU 6111 Theory of Operations Research
INDU 6121 Applied Optimization
INDU 6131 Graph Theory with System Applications
INDU 6141 Logistics Network Models (*)
INDU 6151 Decision Models in Service Sector (*)
INDU 6161 Design and Operations of Supply Chain Networks
INDU 6211 Production Systems and Inventory Control
INDU 6221 Lean Enterprise
INDU 6231 Scheduling Theory
INDU 6241 Lean Manufacturing
INDU 6251 Facilities Planning and Warehouse Operations
INDU 6310 Applied Probability and Statistics for Engineers
INDU 6311 Discrete System Simulation
INDU 6321 Introduction to Six Sigma (*)
INDU 6331 Advanced Quality Control
INDU 6341 Advanced Concepts in Quality Improvement (*)
INDU 6351 System Reliability
INDU 6361 Discrete Optimization
INDU 6371 Stochastic Optimization
INDU 6381 Applications of Reliability Engineering
INDU 6391 Reliability and Maintenance for Design and Manufacturing
INDU 6411 Human Factors Engineering (*)
INDU 6421 Systems Safety Engineering and Management
INDU 6521 Quantitative Methods in Healthcare Systems
INDU 6611 Applied Industrial Systems Analytics

E21 - INTEGRATIVE STUDIES FOR BUILDING ENGINEERING

BLDG 6111 ~~Computer-Aided Building Operation-~~
~~BLDG 6151 Database Applications in Building and Civil Engineering-~~
~~BLDG 6221 Design of Computer Aided Systems in Building and Civil Engineering~~
BLDG 6231 Applications of Artificial Intelligence in Building and Civil Engineering
BLDG 6241 Building Information Modelling in Construction
~~BLDG 6541 Heat Transfer~~
BLDG 6561 Building Economics I-(*)
BLDG 6571 Project Management
BLDG 6581 Decision Analysis
~~BLDG 6591 Computer-Aided Building Design (*)~~
BLDG 6631 Fundamentals of Facility Management
BLDG 6861 Simulations and Design of Construction Operations
BLDG 7511 Integrated Building Design

E12 - INDUSTRIAL ENGINEERING

INDU 6111 Theory of Operations Research
INDU 6121 Applied Optimization
INDU 6131 Graph Theory with System Applications
INDU 6141 Logistics Network Models
INDU 6151 Decision Models in Service Sector
INDU 6161 Design and Operations of Supply Chain Networks
INDU 6211 Production Systems and Inventory Control
INDU 6221 Lean Enterprise
INDU 6231 Scheduling Theory
INDU 6241 Lean Manufacturing
INDU 6251 Facilities Planning and Warehouse Operations
INDU 6310 Applied Probability and Statistics for Engineers
INDU 6311 Discrete System Simulation
INDU 6321 Introduction to Six Sigma
INDU 6331 Advanced Quality Control
INDU 6341 Advanced Concepts in Quality Improvement
INDU 6351 System Reliability
INDU 6361 Discrete Optimization
INDU 6371 Stochastic Optimization
INDU 6381 Applications of Reliability Engineering
INDU 6391 Reliability and Maintenance for Design and Manufacturing
INDU 6411 Human Factors Engineering
INDU 6421 Systems Safety Engineering and Management
INDU 6521 Quantitative Methods in Healthcare Systems
INDU 6611 Applied Industrial Systems Analytics

Note: The following courses are cross-listed:

[INDU 6141](#), [INDU 6151](#), [INDU 6321](#), [INDU 6341](#), [INDU 6411](#)

E21 - INTEGRATIVE STUDIES FOR BUILDING ENGINEERING

BLDG 6111 [Fundamentals of Smart Buildings Operation](#)
BLDG 6231 Applications of Artificial Intelligence in Building and Civil Engineering
BLDG 6241 Building Information Modelling in Construction
BLDG 6561 Building Economics I
BLDG 6571 Project Management
BLDG 6581 Decision Analysis
BLDG 6631 Fundamentals of Facility Management
[BLDG 6641 Modular and Off-site Construction](#)
BLDG 6861 Simulations and Design of Construction Operations
BLDG 7511 Integrated Building Design

Note: The following course is cross-listed:

[BLDG 6561](#)

E22 - BUILDING SCIENCE

BLDG 6601 Building Enclosure
BLDG 6611 Building Science
BLDG 6621 ~~Modern Building Materials (*)~~
~~BLDG 6641 Industrialized Building~~
BLDG 6651 Fire and Smoke Control in Buildings (*)
BLDG 6661 ~~Hydrothermal~~ Performance of the Building Envelope
BLDG 6671 Diagnostics and Rehabilitation of Building Envelope
~~BLDG 7601 Durability of Building Materials~~

E23 - BUILDING ENVIRONMENT

BLDG 6701 Building Environment
BLDG 6711 Mechanical Systems in Building
BLDG 6721 Building Acoustics
BLDG 6731 Building Illumination
BLDG 6741 HVAC Control Systems
BLDG 6751 Indoor Air Quality and Ventilation
BLDG 6761 Intelligent Buildings
BLDG 6781 Energy Management in Buildings
BLDG 6791 Thermal Building Simulation
BLDG 7401 Dispersion of Building Exhaust

E24 - CONSTRUCTION MANAGEMENT

BLDG 6801 Construction Planning and Control (*)
BLDG 6811 Labour and Industrial Relations in Construction (*)
BLDG 6821 Legal issues in Construction (*)
BLDG 6831 Construction Processes (*)
BLDG 6851 Project Cost Estimating (*)
BLDG 6921 Trenchless Technology for Rehabilitation Works
BLDG 7811 Project Acquisition and Control
BLDG 7831 Building Economics II
BLDG 7841 Information Technology Applications in Construction
BLDG 7861 Business Practices in Construction
BLDG 7871 Construction Equipment Management
CIVI 6711 Asset Management for Sustainable Civil Infrastructure

E22 - BUILDING SCIENCE

[BLDG 6541 Thermal Analysis of Buildings](#)
BLDG 6601 Building Enclosure
BLDG 6611 Building Science
BLDG 6621 [Non-structural Building Materials](#)
[BLDG 6622 Durability of Building Materials and Components](#)
BLDG 6651 Fire and Smoke Control in Buildings
BLDG 6661 [Hygrothermal](#) Performance of the Building Envelope
BLDG 6671 Diagnostics and Rehabilitation of Building Envelope

Note: The following courses are cross-listed:
[BLDG 6621, BLDG 6541, BLDG 6651](#)

E23 - BUILDING ENVIRONMENT

BLDG 6701 Building Environment
BLDG 6711 Mechanical Systems in Building
BLDG 6721 Building Acoustics
BLDG 6731 Building Illumination [and Daylighting](#)
BLDG 6741 HVAC Control Systems
BLDG 6751 Indoor Air Quality and Ventilation
BLDG 6761 Intelligent Buildings
BLDG 6781 Energy Management in Buildings
BLDG 6791 Thermal Building Simulation
BLDG 7401 Dispersion of Building Exhaust

Note: The following courses are cross-listed:
[BLDG 6721, BLDG 6731, BLDG 6751](#)

E24 - CONSTRUCTION MANAGEMENT

BLDG 6801 Construction Planning and Control
BLDG 6811 Labour and Industrial Relations in Construction
BLDG 6821 Legal issues in Construction
BLDG 6831 Construction Processes
BLDG 6851 Project Cost Estimating
BLDG 6921 Trenchless Technology for Rehabilitation Works
BLDG 7811 Project Acquisition and Control
BLDG 7831 Building Economics II
BLDG 7841 Information Technology Applications in Construction
BLDG 7861 Business Practices in Construction
BLDG 7871 Construction Equipment Management
CIVI 6711 Asset Management for Sustainable Civil Infrastructure
CIVI 6721 Infrastructure Systems Modeling and Simulation
CIVI 6731 Big Data Analytics for Smart Cities

Note: The following courses are cross-listed:
[BLDG 6801, BLDG 6811, BLDG 6821, BLDG 6831, BLDG 6851](#)

E31 - STRUCTURAL ENGINEERING

BLDG 6061 Structural Systems for Buildings
BLDG 6071 Wind Engineering and Building Aerodynamics
~~BLDG 6931 Infrastructure Rehabilitation~~
CIVI 6001 Advanced Reinforced Concrete
CIVI 6011 Pre-cast and Pre-stressed Concrete Structures
CIVI 6021 Durability of Concrete Materials
CIVI 6031 Seismic Assessment and Retrofit of Structures
CIVI 6051 Design of Industrial Structures
CIVI 6061 Structural Health Monitoring
CIVI 6071 Advanced Steel Structures Design
CIVI 7001 Earthquake Engineering
~~CIVI 7031 Dynamics of Foundations~~

E32 - BRIDGE ENGINEERING

CIVI 6101 Planning and Design of Bridges
~~CIVI 7101 Theory and Design of Orthotropic Bridges~~
CIVI 7111 Theory and Design of Modern Bridge Systems
~~CIVI 7121 Cable Stayed Bridges~~

E33 - WATER RESOURCES

CIVI 6301 Hydrology (*)
CIVI 6331 Hydraulic Engineering
CIVI 6381 Hydraulic Structures
CIVI 7311 Advanced Analysis of Groundwater Flow and Contamination

E34 - TRANSPORTATION ENGINEERING

CIVI 6401 Transportation Systems Analysis
CIVI 6411 Urban Transportation Planning (*)
CIVI 6441 Traffic Engineering
CIVI 6451 Pavement Design
CIVI 6461 Pavement Management Systems
~~CIVI 7401 Design of Transportation Terminals~~

E31 - STRUCTURAL ENGINEERING

BLDG 6061 Structural Systems for Buildings
BLDG 6071 Wind Engineering and Building Aerodynamics
CIVI 6001 Advanced Reinforced Concrete
CIVI 6011 Pre-cast and Pre-stressed Concrete Structures
CIVI 6021 Durability of Concrete Materials
CIVI 6031 Seismic Assessment and Retrofit of Structures
CIVI 6051 Design of Industrial Structures
CIVI 6061 Structural Health Monitoring
CIVI 6071 Advanced Steel Structures Design
~~CIVI 6931 Civil Infrastructure Rehabilitation~~
CIVI 7001 Earthquake Engineering

E32 - BRIDGE ENGINEERING

CIVI 6101 Planning and Design of Bridges
CIVI 7111 Theory and Design of Modern Bridge Systems

E33 - WATER RESOURCES

CIVI 6301 Hydrology
CIVI 6331 Hydraulic Engineering
CIVI 6381 Hydraulic Structures
CIVI 7311 Advanced Analysis of Groundwater Flow and Contamination

Note: The following courses are cross-listed:
CIVI 6301

E34 - TRANSPORTATION ENGINEERING

CIVI 6401 Transportation Systems Analysis CIVI 6411 Urban Transportation Planning
CIVI 6441 Traffic Engineering

CIVI 6451 Pavement Design
CIVI 6461 Pavement Management Systems

Note: The following courses are cross-listed:
CIVI 6411

E35 - GEOTECHNICAL ENGINEERING

CIVI 6501 Foundation Engineering
CIVI 6511 Earth Structures and Slope Stability
CIVI 6521 Soil Behaviour
CIVI 6531 Soil Testing and Properties
~~CIVI 6541 Reinforced Earth~~

E36 - INDUSTRIAL WASTE MANAGEMENT

CIVI 6481 Sustainable Management of Industrial Waste
CIVI 6491 Engineering Aspects of Site Remediation
CIVI 6631 Hazardous Material Management and Transportation
CIVI 6661 Environmental Impact Assessment (+)
CIVI 6671 Fate and Transport of Contaminants in the Environment

E37 – ENVIRONMENTAL ENGINEERING

CIVI 6601 Modelling in Building and Environmental Engineering
CIVI 6611 Environmental Engineering
CIVI 6621 Engineering Aspects of Biological Treatment of Water and Air
CIVI 6641 Unit Operations in Environmental Engineering
CIVI 6651 Water Pollution and Control
CIVI 6681 Environmental Nanotechnology
CIVI 6691 Greenhouse Gases and Control
CIVI 6901 Selected Topics in Civil Engineering I

E63 - PROJECT, REPORT AND INDUSTRIAL TRAINING

ENCS 6931 Industrial Stage and Training
ELEC 6961 Graduate Seminar in Electrical and Computer Engineering
INSE 6961 Graduate Seminar in Information and Systems Engineering
ENGR 692 Case Study and Report
ENGR 6971 Project and Report I
ENGR 6981 Project and Report II
ENGR 6991 Project and Report III
INDU 6990 Industrial Engineering Capstone
INDU 6991 Engineering Management Industrial Stage I
INDU 6992 Engineering Management Industrial Stage II

E35 - GEOTECHNICAL ENGINEERING

CIVI 6501 Foundation Engineering
CIVI 6511 Earth Structures and Slope Stability
CIVI 6521 Soil Behaviour
CIVI 6531 Soil Testing and Properties

E36 - INDUSTRIAL WASTE MANAGEMENT

CIVI 6481 Sustainable Management of Industrial Waste
CIVI 6491 Engineering Aspects of Site Remediation
CIVI 6631 Hazardous Material Management and Transportation
CIVI 6661 Environmental Impact Assessment
CIVI 6671 Fate and Transport of Contaminants in the Environment

Note: The following course is cross-listed : CIVI 6661

E37 - ENVIRONMENTAL ENGINEERING

CIVI 6601 Modelling in Building and Environmental Engineering
CIVI 6611 Environmental Engineering
CIVI 6621 Engineering Aspects of Biological Treatment of Water and Air
CIVI 6641 Unit Operations in Environmental Engineering
CIVI 6651 Water Pollution and Control
[CIVI 6666 Climate Change in Engineering Practice](#)
CIVI 6681 Environmental Nanotechnology
CIVI 6691 Greenhouse Gases and Control
CIVI 6901 Selected Topics in Civil Engineering I

E63 - PROJECT, REPORT AND INDUSTRIAL TRAINING

[BCEE 6001 MEng Seminar](#)
[CIVI 7901 Environmental Engineering Research Project](#)
ENCS 6931 Industrial Stage and Training
ELEC 6961 Graduate Seminar in Electrical and Computer Engineering
INSE 6961 Graduate Seminar in Information and Systems Engineering
ENGR 692 Case Study and Report
ENGR 6971 Project and Report I
ENGR 6981 Project and Report II
ENGR 6991 Project and Report III
INDU 6990 Industrial Engineering Capstone
INDU 6991 Engineering Management Industrial Stage I
INDU 6992 Engineering Management Industrial Stage II

COURSE CHANGE: BCEE 6961 GRADUATE SEMINAR IN BUILDING AND CIVIL ENGINEERING

New Course Number: BCEE 6001 MENG SEMINAR

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng
Calendar Section/Graduate Page Number: 347

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BCEE 6961 Graduate Seminar in Building and Civil Engineering (1.00 credit)</p> <p><i>Description:</i> MEng students must attend a set of seminars identified by the Department and submit a comprehensive report on selected topics. The report, including an abstract, must be suitably documented and illustrated, should be at least 1000 words in length, must be type-written on one side of 21.5 cm by 28 cm white paper of quality, and must be enclosed in binding. Students are referred to Form and Style: Thesis, Reports, Term Papers, fourth edition by Campbell and Ballou, published by Houghton Mifflin.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> This course cannot be taken by MASc or PhD students. 	<p>BCEE <u>6001</u> Graduate Seminar in Building and Civil Engineering (1.00 credit)</p> <p><i>Prerequisite/corequisite:</i> Students must be enrolled in an MEng program offered by the Department of Building, Civil and Environmental Engineering.</p> <p><i>Description:</i> MEng students attend a set of seminars identified by the Department</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> This course cannot be taken by MASc or PhD students. This course is equivalent to BCEE 6961. Students who have completed BCEE 6961 cannot take this course for credit.
<p>Rationale: The report will be removed to allow flexibility in course delivery, such a series of seminars presented by internal Concordia offices and faculty members. The course number is changed to reflect that the course is to be taken early in the program.</p>	
<p>Resource Implications: The course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None</p>	

COURSE CHANGE: BLDG 6111 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 500

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 6111 Computer Aided Building Operation (4.00 credits)</p> <p>Prerequisite/corequisite: The following course must be completed previously: BLDG-6711.</p> <p>Description: Computer systems for energy management, including scheduling and operation of HVAC systems and lighting. Applications for intelligent buildings. Use of simulation and knowledge based software for automatic regulation of building operation. Diagnosis of malfunctions and modifications of operations. Computerized building security systems. Actions during extraordinary conditions such as fire emergencies.</p> <p>A project is required.</p> <p>Component(s): Lecture.</p>	<p>BLDG 6111 Fundamentals of Smart Buildings Operation (4.00 credits)</p> <p><i>Description:</i> This course introduces the topic of smart buildings operation, with emphasis on HVAC and lighting systems. Basic concepts of building operation dynamics are presented, including analytical and numerical methods to model the thermal response of buildings to weather conditions and user loads. An overview of the structure of building automation systems (BAS) and building energy management systems (BEMS) is presented. The role of utility fee structures is presented, along with the concept of building-grid interaction and energy flexibility. Finally, a brief introduction to occupants' behaviour considerations, and applications of artificial intelligence techniques are presented. A project is required.</p> <p>Component(s): Lecture.</p>
<p>Rationale: The title and description change reflect the current terminology and methodologies used in this topic. The overall course contents are updated, but remain conceptually similar, so a new course number is not warranted.</p>	
<p>Resource Implications: The course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None</p>	

COURSE CHANGE: BLDG 6151 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: All BCEE graduate programs
Degree: MEng, MAsC, PhD, GradCert
Calendar Section/Graduate Page Number:

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 6151 Database Applications in Building and Civil Engineering (4 credits) Components, properties and limits of databases and database management systems (DBMS). Database requirements for engineering tasks. Design of database schema and implementation in commercially available DBMS. Engineering data modelling techniques. Topics include: the entity/relationship model; the relational data model; the standard database language SQL; and the object-oriented data model. A project is required. Note: Students who have taken ENGR 6151 may not take this course for credit.</p>	
<p>Rationale: The course has not been offered for many years. The information in this course is outdated; some slot courses and permanent courses have been developed with updated content.</p>	
<p>Resource Implications: None</p>	
<p>Other Programs within which course is listed: None</p>	

COURSE CHANGE: BLDG 6221 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: All BCEE graduate programs
Degree: MEng, MAsC, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 347

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 6221 Design of Computer-Aided Systems in Building and Civil Engineering (4 credits) Object-oriented modelling of physical components, design objectives, performance requirements and engineering processes. Identification of objects and definition of their arrangement and interaction to model engineering processes. Overview of the life-cycle of an engineering software project. Project on implementation of a small-scale computer-aided engineering system. Note: Students who have taken ENGR 6221 may not take this course for credit.</p>	
<p>Rationale: This course has not been offered for many years. The information in this course is outdated; some slot courses and permanent courses have been developed with updated content.</p>	
<p>Resource Implications: None</p>	
<p>Other Programs within which course is listed: None</p>	

COURSE CHANGE: BLDG 6541 New Course Number:

Proposed [] Undergraduate or [X] Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 347

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 6541 Heat Transfer (4.00 credits)</p> <p><i>Description:</i> Steady state heat conduction. Convection and radiation heat exchange. Refrigeration cycles. Theory of air vapour mixtures. Introduction to heat transfer in building environment. Unsteady state of heat transfer. Case studies.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> ▪ Cannot be taken for credit by students who have completed the Bachelor of/Baccalaureate in Engineering (Building) Program. 	<p>BLDG 6541 Thermal Analysis in Buildings (4.00 credits)</p> <p><i>Description:</i> Two- and three-dimensional steady-state and transient conductive heat transfer together with convection and radiation is studied as applied to building materials, geometries and orientation. Heating and cooling load analyses are carried out including the effects of building envelope type, construction type, solar radiation, wind speed, and daily load variations. Thermal load analysis is modelled using computer applications. A project is required.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> ▪ This course cannot be taken by students that have completed BLDG 476.
<p>Rationale: This course will be offered cross-listed with undergraduate course BLDG 476. The title change gives the two courses the same title. While the course descriptions slightly differ, the contents are the same.</p>	
<p>Resource Implications: The course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None</p>	

COURSE CHANGE: BLDG 6591 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 348

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 6591-Computer Aided Building Design (*) (4 credits) Prerequisites: BLDG 6561- Identification of objectives, decision variables, processes and information flow in building design. Application and evaluation of computer systems to components of the building design process. Determination of decision variables in problem modelling and sensitivity of results. Current applications in structural analysis and design, space layout, electrical distribution systems, HVAC design, lighting design, estimating, specification editing and scheduling. Evaluation of issues of interdisciplinary information control and interchange. A project is required.</p>	
<p>Rationale: This course has not been offered for many years. The information in this course is outdated; some slot courses and permanent courses have been developed with updated content.</p>	
<p>Resource Implications: None</p>	
<p>Other Programs within which course is listed: None</p>	

COURSE CHANGE: BLDG 6621 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: All BCEE graduate programs
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 348

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 6621 Modern Building Materials (4.00 credits)</p> <p>Prerequisite/corequisite: The following course must be completed previously or concurrently: BLDG 6611.</p> <p>Description: Structural, thermal and acoustical properties of new building materials such as: plastics, synthetic fibres, adhesives, sealants, caulking compounds, forams, sandwich panels, composites, polymer concrete systems, fibre reinforced concretes, plastic mortars, polymers for flooring, roofing, synthetic wall papers. Consideration of corrosion, bio- and thermal degradation, stability under ultraviolet and solar radiation. A project is required.</p> <p>Component(s): Lecture; Reading.</p> <p>Notes:</p> <ul style="list-style-type: none"> • This is a cross-listed course. • Cannot be taken for credit by students who have completed the undergraduate equivalent. 	<p>BLDG 6621 <u>Non-structural</u> Building Materials (4.00 credits)</p> <p><i>Description:</i> <u>The mechanical, thermal and hygrothermal properties of non-traditional building materials are discussed, such as: plastics, fibres, adhesives, sealants and coatings, plastic cellular foams, sandwich panels, composites, polymer and fibre-reinforced mortars, polymer and polymer composite membranes, water resistive membrane and air and vapour control barriers. The degradation of materials is introduced including the effects of actions due to corrosion, biological agents, heat and solar radiation, and thermal dilation. The application of materials and building products in buildings is demonstrated through the use of specifications, their performance assessment by testing, and relation to the building code. A project is required.</u></p> <p>Component(s): Lecture; Reading.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ <u>Students who have completed BLDG 462 cannot take this course for credit.</u>

Rationale:
 The revised course title and description provide a clearer title and updated description. Note changed to give specific undergraduate equivalent course exclusion.

Resource Implications:
 The course will be part of a faculty member's teaching load and drawn from our current course allotment.

Other Programs within which course is listed:
 None.

COURSE CHANGE: BLDG 6641 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: All BCEE graduate programs
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 348

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 6641 Industrialized Building (4.00 credits)</p> <p><i>Description:</i> Trends toward off site fabrication of buildings. Needs and technical requirements of international markets. Principal types of industrialized systems, materials and components. Optimization of industrialized production. Planning, design, construction and maintenance. Codes and standards. A case study and project.</p>	<p>BLDG 6641 <u>Modular and Off-site Construction</u> (4.00 credits)</p> <p><i>Description:</i> <u>This course covers fundamentals of modular and off-site construction (MOC). The MOC design methods and techniques are practiced for wall and floor framings, and building layout design. Concepts of strategic and operational planning, continuous improvement, just-in-time production, pull philosophy, value stream mapping (VSM), 5S (Standardize, Sort, Shine, Sustain, and Straighten) and the visual workplace are discussed in terms of productivity improvement. The physical demand assessment and management using ergonomic posture assessment techniques is introduced for the development of workplace design and factory layout in timely completion of MOC without sacrificing safety. A project is required</u></p>
<p>Rationale: The title and description change reflect the current terminology and methodologies used in this topic. The overall course contents are updated, but remain conceptually similar, so a new course number is not warranted. The course has been moved from Topic Area E22 to the more appropriate E21.</p>	
<p>Resource Implications: The course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None</p>	

COURSE CHANGE: BLDG 6661 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 349

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 6661 Hydrothermal Performance of the Building Envelope (4.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously or concurrently: BLDG 6611.</p> <p><i>Description:</i> Modelling of dynamic building envelope thermal performance. Thermal bridges. Modelling of transient moisture transfer, condensation and accumulation. Advanced glazings and evaluation of window performance. Active building envelope components for heat and moisture control. Experimental techniques for performance evaluation of the building envelope; infrared thermography, guarded hot box and calibrated hot box tests. A project is required.</p> <p><i>Component(s):</i> Lecture.</p>	<p>BLDG 6661 Hygrothermal Performance of the Building Envelope (4.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously or concurrently: BLDG 6611.</p> <p><i>Description:</i> <u>This course covers modelling of dynamic building envelope thermal performance including thermal bridges, modelling of transient moisture transfer, condensation and accumulation. Strategies for heat and moisture control such as advanced glazings and active building envelope components are analyzed. Experimental techniques for performance evaluation of the building envelope including infrared thermography, guarded hot box and calibrated hot box tests are introduced.</u> A project is required.</p> <p><i>Component(s):</i> Lecture.</p>
<p>Rationale: The title change corrects an editorial error. The description is updated to full sentences.</p>	
<p>Resource Implications: The course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None</p>	

COURSE CHANGE: BLDG 6731 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 349

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 6731 Building Illumination (4.00 credits)</p> <p><i>Description:</i> Quantitative and qualitative aspects of illumination systems. Photometric quantities, visual perception and colour theory, standards, daylight and artificial illumination systems, radiative transfer. Fixture and lamp characteristics, control devices for improved energy efficiency. Design of advanced fenestration systems for daylighting. Field measurements and artificial sky tests. Virtual reality and other computer simulation techniques for lighting. A project is required.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> • This is a cross-listed course. 	<p>BLDG 6731 Building Illumination <u>and Daylighting</u> (4.00 credits)</p> <p><i>Description:</i> <u>Radiative transfer in enclosures, quantitative and qualitative aspects of illumination systems are introduced. Photometric parameters, visual perception and colour theory concepts, lighting standards, daylight and artificial illumination systems are presented. An overview of lighting systems and their design for improved energy efficiency is given. Design of advanced fenestration systems for daylighting, including motorized shading and semi-transparent photovoltaics is presented. High-performance building case studies are presented. Computer simulation techniques and software for lighting and daylighting are introduced.</u> A project is required.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> ▪ <u>Students who have completed BLDG 474 cannot take this course for credit.</u>
<p>Rationale: As the course is cross-listed, the title change reflects the title of the undergraduate course. The course description is updated to full sentences with minor updates. Exclusion note added for undergraduate cross-listed course.</p>	
<p>Resource Implications: The course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None</p>	

COURSE CHANGE: BLDG 6931 New Course Number: CIVI 6931

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 351

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 6931 Infrastructure Rehabilitation (4.00 credits)</p> <p><i>Description:</i> State of Canadian urban infrastructure. Rehabilitation techniques as applicable to steel and concrete structures; degradation mechanisms; detection and classification of defects. Evaluation and assessment of the conditions of buildings and bridges. Rehabilitation materials and methods. Codes and guidelines. Case studies.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <p>Students who have taken ENGR 6731 may not take this course for credit.</p>	<p><u>CIVI 6931</u> <u>Civil</u> Infrastructure Rehabilitation (4.00 credits)</p> <p><i>Description:</i> <u>This course covers the following topics:</u> <u>state</u> of Canadian urban infrastructure; <u>rehabilitation</u> techniques as applicable to steel and concrete structures; degradation mechanisms, detection and classification of defects; <u>evaluation</u> and assessment of the conditions of buildings and bridges; rehabilitation materials and methods; <u>codes</u> and guidelines; <u>case</u> studies.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <p><u>This course is equivalent to BLDG 6931.</u> Students who have taken <u>BLDG 6931</u> may not take this course for credit.</p>
<p>Rationale: The course covers civil infrastructure (roads, bridges, dams) that are exposed to external environments. The CIVI designation and the title change better reflect the course content.</p>	
<p>Resource Implications: The course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None</p>	

COURSE CHANGE: BLDG 7601 New Course Number: BLDG 6622

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: All BCEE graduate programs
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 351

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 7601 Durability of Building Materials (4.00 credits)</p> <p>Prerequisite/corequisite: The following course must be completed previously: BLDG-6611 or equivalent.</p> <p>Description: Concepts underlying long-term performance of building materials such as: ceramics, stucco and synthetic stucco, lightweight concrete, wood and wood-based products, thermal insulation, selected composite materials, sealants, membranes used for waterproofing and air barriers. Methods of fabrication, properties and evaluation for durability. Failure mechanisms under combined actions of mechanical and environmental loads (temperature, moisture, freeze-thaw, solar radiation, salt solutions, air pollution, and microorganisms). A case study and project.</p>	<p>BLDG <u>6622</u> Durability of Building Materials <u>and Components</u> (4.00 credits)</p> <p><i>Description:</i> Concepts underlying the long-term performance of <u>traditional and non-traditional</u> building materials are discussed. <u>Traditional materials covered include: wood and wood-based products, stone, tile and brick masonry, stucco, concretes, steel and selected mortar and concrete composite materials. Non-traditional materials covered include sealants and coatings, plastic foam, glass and mineral fibre insulation products, polymer-based membranes used for waterproofing, air and vapour control barriers.</u> Failure mechanisms under combined actions of mechanical and environmental loads (temperature, moisture, freeze-thaw, solar radiation, salt solutions, <u>and biological agents</u>) are introduced. <u>A project is required.</u></p> <p><i>Component(s):</i> Lecture.</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> <u>Students who have completed BLDG 7601 may not take this course for credit</u>
<p>Rationale: The course title and description are changed to update the course contents. The course number is changed to 6000-level as the prerequisite is removed.</p>	
<p>Resource Implications: The course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None.</p>	

COURSE CHANGE: BLDG 7811 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number:

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>BLDG 7811 Project Acquisition and Control (4.00 credits)</p> <p><i>Prerequisites:</i> The following courses must be completed previously: BLDG 6571; BLDG 6801.</p> <p><i>Description:</i> Study of techniques and procedures used for construction project procurement and control. Topics treated include: marketing, bidding strategies, work break down structure and contract packages, techniques for integrated time and cost control; management information systems for control, procurement; productivity measurement, contingency and escalation analysis and control. A project is required.</p> <p><i>Component(s):</i> Lecture.</p>	<p>BLDG 7811 Project Acquisition and Control (4.00 credits)</p> <p><i>Prerequisites:</i> The following courses must be completed previously: BLDG 6571.</p> <p><i>Description:</i> <u>This course focuses on</u> techniques and procedures used for construction project and control. <u>The course topics mainly</u> include <u>trends and practices in competitive</u> bidding, <u>project configuration</u> and contract packages, <u>and procurement</u>. Practical techniques for integrated time and cost control, <u>trending and forecasting, and contingency and escalation analysis are introduced and discussed</u>. Procurement <u>and productivity measurement and modeling are reviewed</u>. A project is required</p> <p><i>Component(s):</i> Lecture.</p>
<p>Rationale: Update of description and removal of prerequisite</p>	
<p>Resource Implications: The course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None</p>	

COURSE CHANGE: CIVI 6541 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: All BCEE graduate programs
Degree: MEng, MAsC, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 354

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>CIVI 6541 Reinforced Earth (4 credits) Design of geotechnical structures reinforced with geotextiles and geogrids to improve their strength and deformation properties. Use of geonets and geomembranes to accelerate the drainage and consolidation of soil systems. Soil nailing and inclined piling to prevent downhill creep and slope failure. Analysis and design of stone columns used to support light structures and prevent instability due to soil liquefaction. A project is required.</p>	
<p>Rationale: This course has not been offered for a number of years.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: CIVI 6666 CLIMATE CHANGE IN ENGINEERING PRACTICE

New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number:

Type of Change:

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

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p>CIVI 6666 Climate Change in Engineering Practice (4 credits)</p> <p><i>Description:</i> This course provides a broad understanding on the climate change phenomenon and its implications on engineering practice and design. By focusing on the emerging needs in various engineering areas related to built-environment, infrastructure, food, water and energy systems, various data sources and modeling tools are introduced for quantifying the effects of climate change across various spatial and temporal scales.</p> <p>Formal approaches to climate change impact assessment and quantifying the associated risk, exposure and vulnerability are reviewed with a critical evaluation of their pros and cons. Real-world engineering implications of climate change are highlighted in several real-world case studies taken from Canada and beyond. A project is required.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> This course is equivalent to CIVI 691 Climate Change and Water Resources and ENGR 691 Climate Change and Engineering Practice. Students that have taken CIVI 691 Climate Change and Water Resources or ENGR 691 Climate Change and Engineering Practice may not take this course for credit.

Rationale:
 This course was offered as twice as a slot course under CIVI 691 Climate Change and Water Resources, Winter 2016 (17 students) Fall 2018 (11 students) and approximately 10 as ENGR 691 in Fall 2020. Course to be given in Topic area E37.

Resource Implications:
 The course will be part of a faculty member's teaching load and drawn from our current course allotment.

Other Programs within which course is listed:

None

COURSE CHANGE: CIVI 6721 INFRASTRUCTURE SYSTEMS MODELING AND SIMULATION

New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsC, PhD, GradCert
Calendar Section/Graduate Page Number:

Type of Change:

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

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p>CIVI 6721 Infrastructure Systems Modeling and Simulation (4 credits)</p> <p><i>Description:</i> This course explores the design and operational considerations in urban infrastructure systems and how modeling and simulation assist in efficient, effective and sustainable management of them. Particular attention is given to the analysis of urban infrastructure as complex interdependent systems with respect to reliability and resilience perspectives. A project is required.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ Students who have taken CIVI 691 under the course title Sustainable Cities Infrastructure Modelling and Simulation cannot take this course for credit.
<p>Rationale: This course was previously offered as a slot course (CIVI 691) Sustainable Cities Infrastructure Modeling and Simulation in Winter 2017 (43 students), Winter 2018 (47 students) Winter 2019 (46 students) and in Winter 2020 (47 students). This course will be offered in Topic E30 Civil and Urban Infrastructure Engineering.</p>	
<p>Resource Implications: The course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None</p>	

COURSE CHANGE: CIVI 6731 BIG DATA ANALYTICS FOR SMART CITIES

New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MASc, PhD, GradCert
Calendar Section/Graduate Page Number:

Type of Change:

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

Present Text (from 20xx/20xx) calendar	Proposed Text
	<p>CIVI 6731 Big Data Analytics for Smart Cities (4 credits)</p> <p><i>Description:</i> This multi-disciplinary course will introduce various urban infrastructure sectors (transportation and mobility, buildings and housing, water distribution, sewer disposal, and urban energy systems) and explains how to solve such problems in action through digitalization and city big-data analytics. Topics covered include: socio-technical model of infrastructure; applications of Internet of Things (IoT) in construction and operation of urban infrastructure; big/open city data; data mining techniques for managing smart urban transportation; energy systems; buildings; water and wastewater. A project is required.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▪ Students who have taken CIVI 691 under the same course title cannot take this course for credit.
<p>Rationale: Data analytics is increasing becoming important in many areas of engineering; this course focuses on civil and urban infrastructure. This course was previously offered as a slot course (CIVI 691) in Winter 2019 with 40 students and in Winter 2020 with 55 students. This course will be offered in Topic E30 Civil and Urban Infrastructure Engineering.</p>	
<p>Resource Implications: The course will be part of a faculty member's teaching load and drawn from our current course allotment.</p>	
<p>Other Programs within which course is listed:</p> <p>None</p>	

COURSE CHANGE: CIVI 7031 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: All BCEE graduate programs
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 355-356

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>CIVI 7031 Dynamics of Foundations (4 credits) Prerequisite: ENGR 6581. Principles of soil dynamics; dynamic loads, theory of vibrations and design considerations for foundations of different types; shallow foundations, deep foundations, massive machine bases; problems of soil-structure interaction. A project is required.</p>	
<p>Rationale: This course has not been offered for many years.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: CIVI 7101 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: All BCEE graduate programs
Degree: MEng, MAsC, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 356

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>CIVI 7101 Theory and Design of Orthotropic Bridges (4 credits) <i>Prerequisite: CIVI 6101.</i> Natural and technical orthotropy; orthogonally stiffened plates; methods of bridge analysis and design; materials; specifications; analysis of existing orthotropic structures; numerical examples. A project is required.</p>	
<p>Rationale: This course has not been offered for many years.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: CIVI 7121 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsc, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 356

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>CIVI 7121 Cable Stayed Bridges (4 credits) Prerequisite: CIVI 6101.</p> <p>Basic bridge systems; methods of structural analysis; aerodynamic stability; structural details; typical structures. A project is required.</p>	
<p>Rationale: This course has not be offered for many years.</p>	
<p>Resource Implications: None</p>	
<p>Other Programs within which course is listed: None</p>	

COURSE CHANGE: CIVI 7401 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: All BCEE graduate programs
Degree: MEng, MAsC, PhD, Grad. Cert.
Calendar Section/Graduate Page Number:

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>CIVI 7401 Design of Transportation Terminals (4 credits) <i>Prerequisites: CIVI 6401 or 6411.</i> Functions of transportation terminals; airports, seaports, public transit terminals; systems approach to passenger and freight terminal design; criteria for evaluating the inter-modal transfer process and user requirements. Simulation models and analytical techniques for quality of service analysis and evaluation of terminal configurations; requirements of new systems; high capacity aircraft; V/STOL aircraft, LRT and HST systems. A project is required.</p>	
<p>Rationale: This course has not been offered for many years.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: CIVI 7901 ENVIRONMENTAL ENGINEERING RESEARCH PROJECT

New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

Calendar for academic year: 2021/20222
Implementation Month/Year: September 2021

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: MEng Environmental Engineering
Degree: MEng
Calendar Section/Graduate Page Number: 356

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>CIVI 7901 Environmental Engineering Research Project (9 Credits)</p> <p><i>Prerequisite/corequisite:</i> Students must have completed at least 20 credits in the Environmental Engineering program prior to enrolling. Permission of the Department Graduate Program Director is required.</p> <p><i>Description</i> This is a research project to be completed under the supervision of a full-time faculty member from the Department. The research topic must be in the field of environmental engineering, and should be selected in consultation and with the approval of a faculty supervisor. The course is graded on the basis of the student's performance during the work period, which includes a technical report that is assessed by two faculty members in the area.</p> <p><i>Component(s):</i> Lecture.</p>	<p>CIVI 7901 Environmental Engineering Research Project (<u>8 Credits</u>)</p> <p><i>Prerequisite/corequisite:</i> Students must have completed at least 20 credits in the Environmental Engineering program prior to enrolling. Permission of the Department Graduate Program Director is required.</p> <p><i>Description</i> This is a research project completed under the supervision of a full-time faculty member from the Department. The research topic must be in the field of environmental engineering, and selected in consultation and with the approval of a faculty supervisor. The course is graded on the basis of the student's performance during the work period, which includes a technical report that is assessed by two faculty members in the area.</p> <p><i>Component(s):</i> Lecture.</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> ▪ <u>This course is offered over two terms (Fall and Winter).</u> ▪ <u>This course cannot be taken for credit if the student has completed any of the following courses: ENCS 6931, ENGR 6971, 6981, 6991.</u>
<p>Rationale: Carrying out a 9-credit research project is not feasible in one term. Given that the one-credit project is now mandatory, the credits were reduced to 8.</p>	
<p>Resource Implications: This project course is not counted towards the teaching load.</p>	
<p>Other Programs within which course is listed:</p> <p>None</p>	

COURSE CHANGE: ENGR 7521 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program:
Degree: MEng, MAsC, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 375

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>ENGR 7521 Advanced Matrix Analysis of Structures (4 credits) Prerequisite: ENGR 6511. Displacement method for two and three dimensional analysis of structures. Nonlinear large displacement analysis by stiffness method. Matrix formulations of vibration and stability problems. Computer applications. A project is required.</p>	
<p>Rationale: This course has not been offered for many years.</p>	
<p>Resource Implications: None</p>	
<p>Other Programs within which course is listed: None</p>	

COURSE CHANGE: ENGR 7531 New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Department of Building, Civil & Envir. Engineering
Program: All BCEE graduate programs
Degree: MEng, MAsC, PhD, Grad. Cert.
Calendar Section/Graduate Page Number: 375

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>ENGR 7531 Boundary Element Method in Applied Mechanics (4 credits) Boundary integral formulations of Axi-Symmetric, two- and three-dimensional potential and elastostatic problems. Treatment of thermal effects, singularity elements, infinite boundary elements. Coupling of boundary elements and finite elements. Introduction to non-linear, elastostatic problems. Numerical implementation. A case study or a project is required.</p>	
<p>Rationale: This course has not been offered for many years.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

CONCORDIA UNIVERSITY
GINA CODY SCHOOL OF ENGINEERING AND COMPUTER SCIENCE
DEPARTMENT OF BUILDING, CIVIL AND ENVIRONMENTAL ENGINEERING

CIVI 6666: Climate Change in Engineering Practice – Fall 2020

2.1 General information

- Targeted students: MEng, MASc and PhD readers in building, civil and environmental engineering as well as other research students in GCS working on topics related to climate change.
- Designed by Ali Nazemi (BCEE), PhD, P.Eng. ali.nazemi@concordia.ca (email)
- Course website: Moodle

2.2 Background

Climate change has already altered environmental conditions, and caused vulnerabilities in wide range of energy, water, food and infrastructure systems. The main challenge of climate change to engineering practice is the fact that the future of climate and environmental variables cannot be inferred from the past. This challenges the stationarity assumption in engineering design standards, requiring developing new scientific methodologies and tools to characterize non-stationarity in engineering design and operation and to incorporate future projections of climate and environmental variables as a basis for impact assessment and engineering design. This course aims at creating this knowledge-base in graduate students of building, civil and environmental engineering and to familiarize future professionals with tools and methodologies for climate change impact assessment.

2.3 Course description

Weather vs. climate, sources of weather and climate data, global warming, diagnosing signals of change in climate normals and extremes, Global Climate Models (GCMs), Downscaling GCMs' outputs, impact models, top-down impact assessment framework, communication of climate change, real-world applications; Course projects required.

2.4 Aim and objectives

This course aims at providing a broad understanding on the effects of climate change on various areas of engineering and to build-up the knowledge base required to apply top-down impact assessment for quantifying climate change impacts – see Figure 1. Application of this framework will be highlighted in few real-world engineering applications. The key objectives of this course are:

- To highlight the scientific breakthroughs in climate change science and their engineering relevance.
- To introduce available data and modeling tools to quantify the effects of climate change on engineering infrastructure as well as water, food, energy and environment systems.
- To guide students' learning towards real-world applications with rigid engineering relevance.

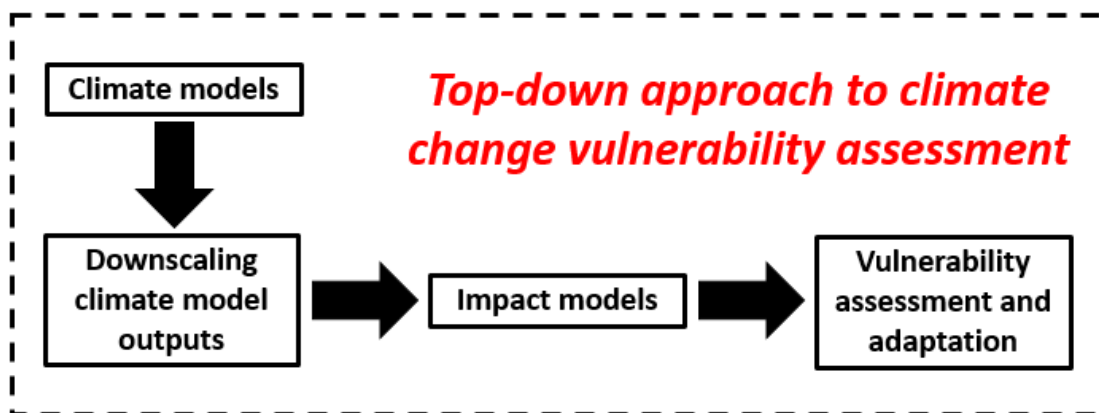


Figure 1. Top-down approach to climate change impact assessment, endorsed by Intergovernmental Panel of Climate Change

2.5 Resources and materials

Due to the nature of this course, lectures and related materials including books, reports, papers and data sources are updated every semester to reflect the most recent advancements in climate change science and engineering implications of warming climate. Each lecture is associated with few materials, which will be uploaded in the course website. Some of these materials are available through Concordia library as well. The course builds upon two textbooks. It is suggested that the first book is obtained by students:

- Wilby, R. L. (2017) Climate Change in Practice, Cambridge University Press (<https://www.cambridge.org/core/books/climate-change-in-practice/9CC611732652419A328DFD4374D07066>)
- Maraun, D., & Widmann, M. (2018). Statistical downscaling and bias correction for climate research, Cambridge University Press (<http://www.cambridge.org/gb/academic/subjects/earth-and-environmental-science/climatology-and-climate-change/statistical-downscaling-and-bias-correction-climate-research?format=HB>)

Other relevant sources for this course are as the following:

- Fifth Intergovernmental Panel on Climate Change Reports (<https://www.ipcc.ch/report/ar5/>)
- Canadian Climate Data Accessibility Portal <https://www.concordia.ca/ginacody/building-civil-environmental-eng/research/water-security-climate-change-lab/data-applications/ccdap.html>
- NASA-NEX (<https://nex.nasa.gov/nex/>)
- IPCC-CMIP5 (http://cmip-pcmdi.llnl.gov/cmip5/data_portal.html)
- IPCC-CMIP6 (<https://www.wcrp-climate.org/wgcm-cmip/wgcm-cmip6>)

2.6 Marking scheme

- Assignment I & II: 20% (10% each)
- Midterm (take home exam): 20%
- Course Project: 25% (5% proposal, 20% actual project)
- Final Exam (take home exam): 40%
- Class discussion I and II: 5% bonus (2.5% each)

2.7 Course project

Every student is responsible to propose a topic for course project. Topics are open but should be relevant to climate change and engineering practice, with direct technical and/or social implications. The reports should be in the form of technical or review papers with maximum of 25 pages, including main text, references, figures, tables and appendices. Writing style, page formatting, effective use of figures/tables and previous literature will be considered for marking course projects.

2.8 Policy on late submissions/missing dates

- Late submission of Assignments and Course Project Proposals is possible but will be penalized. The penalty for late submission of Assignment I and II as well as the proposal for the course project will be 10% of the total mark per calendar day.
- There will be no late submission policy for the course project and take-home exams. They have to be delivered on or before the date of the final exam.
- If you cannot commit to the due dates as they announced, please contact immediately.
- There is no makeup for midterm. In case a student misses the midterm exam for any reason whatsoever, the mark earned in final will be used for the midterm as well.

2.9 Course agenda

Quarter	Week	Lecture #	Lecture Title	Assignments and project timeline
1	1	0	Introduction and course outline	---
		1	Climate Change and Engineering Practice: A Context	
	2	2	What is climate? (Climate data analysis I)	---
		3	How do we know that climate is changing and why does climate change?	
	3	4	Climate data analysis II	Assignment I provided
5		Climate data analysis III		
2	4	6	How can we represent the future climate change?	---
		7	What is the state of climate modeling and where can we get the data?	
	5	8	Climate model downscaling I	---
		9	Climate model downscaling II	
	6	10	Climate model downscaling III	Assignment I due/ Assignment II provided
		11	Application: Climate change impacts on extreme precipitation	
	7	12	Application: Climate change impacts on extreme heat	---
N/A		Class discussion (topic TBA)		
3	8	13	What is climate vulnerability?	Midterm Exam (covers lectures 1 to 10)
		14	How should climate vulnerability be quantified?	
	9	15	What are impact models and how they can be formed?	Assignment II due
		16	Setting up impact models	
	10	17	Application: Climate change impacts on freeze and thaw patterns	Due for course project proposals
		18	Application: Climate change impacts on snow depth dynamics	
	11	19	Application: Climate change impacts on renewable energy production	---
20		Application: Climate change impacts on renewable energy demand		
4	12	21	What are integrated impact assessment models?	---
		22	Building integrated impact assessment models (Guest lecture) ¹	
	13	23	Application: Climate change impacts on water quantity and quality	---
		24	Class discussion: How should climate change and its impacts be communicated?	
To be announced			Final exam (covers lectures 1 to 23)	Course project due

¹ Dr. Elmira Hassanzadeh, Polytechnique Montreal.



Department of Building, Civil and Environmental Engineering

Course: CIVI 6721 - Infrastructure Systems Modeling and Simulation

Course objectives:

- This course explores the operational and strategic considerations in infrastructure systems and how simulation (System Dynamics) and optimization models could assist in efficient, effective and sustainable infrastructure management practices. A particular attention is given to characterizing, modeling and assessment of infrastructure resilience and interdependency. Case Studies in various infrastructure sectors including Water, Sewer, Energy, Waste Management, Transportation, and Public Buildings. A project.

Course Topics:

- Infrastructure Systems & Cities
 - Characteristics of infrastructure systems
 - Governing principles of infrastructure systems
 - Taxonomy of Issues:
 - Economy of scale and efficiency
 - Level of service
 - Supply-demand imbalance
 - Design-operation mismatch
 - Maintenance and interventions
 - A systems approach to urban infrastructure:
 - Demand analysis
 - Technology selection
 - Network planning
 - Overview of infrastructure sectors
 - Water supply, treatment & distribution
 - Sewer collection & treatment systems
 - Transportation networks
 - Waste collection, management, disposal, and recycling
 - Energy production, distribution, and storage
 - Public buildings as infrastructure
- Infrastructure Assessment Modeling: From concepts to analysis
 - Infrastructure Resilience Assessment Models
 - Resilience definition and attributes
 - Resilience capacities
 - Resilience assessment cycle
 - Methods of resilience assessment
 - Quality-based method
 - Acceptance method
 - Economic resilience method
 - Cumulative system impact

- Total recovery effort
 - Infrastructure Reliability Models
 - Modeling infrastructure reliability as a function of component failures
 - Modeling infrastructure reliability as a function of service level and capacity
 - Assessment of Infrastructure Interdependencies
 - Definition and attributes of infrastructure interdependencies
 - Types of interdependencies
 - Consequences of interdependencies
 - Modeling infrastructure interdependencies:
 - Conditional resilience assessment
 - Coupled reliability analysis
- Infrastructure Simulation Modeling: From insights to scenarios
 - Introduction to System Dynamics (SD) modeling and simulation
 - Causality and causal relationships, causal trees, and circular effects
 - Causal modeling and system dynamics
 - Stocks and flows (source-sink analysis)
 - Feedback structures
 - Threshold and operational delays
 - Introduction to Vensim software
 - Infrastructure systems modeling & simulation using SD
 - Examples of stock and flows, feedback structures and delays in infrastructure systems
 - Resilience assessment using SD modeling & simulation
 - Reliability analysis using SD modeling & simulation
 - Interdependency analysis using SD modeling & simulation
 - Case study (Vensim)
- Infrastructure Optimization Modeling: From design to interventions
 - Overview of optimization models and techniques
 - Unconstrained models
 - Constrained models:
 - Linear programming models
 - Multi-objective optimization
 - Non-linear optimization models
 - Introduction to use of excel solver
 - Case studies in infrastructure systems:
 - Maintenance scheduling (Case study: Potholes)
 - Capacity planning (Case study: Wastewater treatment)
 - Service leveling and sourcing (Case study: Water supply)
 - Protection & adaptation planning (Case study: Ports structures)
 - Emergency management (Case study: Bus lines rerouting)

Suggested Text:

This course does not have a course text. There are however some suggested references:

- Goodman, A. S., & Hastak, M. (2015). Infrastructure planning, engineering, and economics. McGraw-Hill Education/ASCE.

- Labi, S. (2014). Introduction to Civil Engineering Systems: A Systems Perspective to the Development of Civil Engineering Facilities. John Wiley & Sons.

Course Evaluation:

- Participation 10%
- Assignments 20%
- Final exam 40%
- Project:
 - Presentation 10%
 - Report 20%

Course Project:

Subject - A number of topics will be explored in this course in modeling and simulation of urban infrastructure as complex systems. Choose a specific infrastructure system as your case study. Based on the course material, your own experiences, and any additional references you consider to be appropriate, provide an assessment of the current state of your case study infrastructure with respect to various attributes discussed in the course. Set out what you believe to be the main challenges with respect to efficient, effective, resilient, reliable, and sustainable management of this infrastructure system. Develop a model representing your case study infrastructure system. Through a simulation approach (using Vensim software) show what would be the future state of the infrastructure and what could be changed (and how) to address the above identified main challenges. A free educational version of software (Vensim PLE) is available from www.vensim.com

Delivery - The course project is a group activity (3 students) which consists of a 15-minute presentation and a project report of 2500±10% words. Please refer to the Moodle page of the course for more information about submission of project, presentation requirements and the marking criteria.

Submissions – The presentation and project report files shall be submitted via Moodle before the corresponding deadlines individually (same versions for a group). Please name your files as “Group Name_Student Name.pdf or doc”.

Disclaimer:

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

COURSE OUTLINE

CIVI 6731 Big Data Analytics for Smart Cities

INSTRUCTOR

Mazdak Nik-Bakht

EMAIL mazdak.nikbakht@concordia.ca

COURSE DESCRIPTION

This multi-disciplinary course describes how digitalization upgrades legacy urban infrastructure into smart infrastructure/building systems with higher efficiency, sustainability and resilience. Problems from various urban infrastructure service sectors (transportation and mobility, buildings and housing, water distribution, sewer disposal, and urban energy systems) are introduced, and tackling such problems in action, using data analytics, will be explained. This course helps civil and building engineering professionals to understand urban data/information standards; develop quantitative and qualitative data analysis skills; and apply them to the context of planning, design, construction and management of the built environment as a complex system of systems.

LEARNING OUTCOMES

Upon successful completion of this course, the students will have reliably demonstrated the ability to:

1. Define the concept of smart urban infrastructure (as a socio-technical, complex system of systems) and state principals of migration from legacy to smart infrastructure;
2. Recognize the main sources of big data in smart city, identify the capabilities of big data analytics for diagnostic and predictive modeling in urban infrastructure systems, and explore the challenges in working with city big data;
3. Identify the main opportunities and challenges of digitalization and data-driven decision making in different sectors/sub-sectors of urban infrastructure and give examples of data-driven solutions for infrastructure from smart cities around the globe;
4. Employ city data from structured open databases (e.g. city of Montréal and other cities' data portal) as well as unstructured data resources (such as social media, etc.) and successfully develop scalable solutions (applicable to large datasets) for specific infrastructure problems by following fundamental steps of data mining procedures;
5. Analyze large data-sets associated with infrastructure sectors/subsectors and compare the performance of different analytics for evaluation of infrastructure solutions through data analytics trends;
6. Assemble procedures to collect and analyze data, visualize the analytics, and validate data-driven solutions based on the main infrastructure performance criteria (efficiency, sustainability, and resilience).

SUGGESTED REFERENCES

This course will not be using a single specific text book. It will entail reading articles, papers and case studies on a weekly basis; which will be posted through the course website.

There are, however, some suggested references, which may assist students with different learning objectives of the course (the items marked with * are the primary resources used in the course.)

<u>Topic</u>	<u>Reference</u>
<i>Smart Cities Theory</i>	<ul style="list-style-type: none"> • Bibri S. E. (2018) “Smart Sustainable Cities of the Future : the Untapped Potential of Big Data Analytics and Context-Aware Computing for Advancing Sustainability”, Springer [<i>eBook Available online through Concordia University Library</i>] • Raj P. & Raman A. (2015) “Intelligent Cities Enabling Tools and Technology”, CRC Press Taylor & Francis Group [<i>eBook Available online through Concordia University Library</i>] • Deakin M. (2013) “Smart Cities: Governing, Modelling and Analysing the Transition”, Routledge [<i>eBook Available online through Concordia University Library</i>] • McClellan S., Jimenez, J., Koutitas, G. (2018) “Smart Cities – Applications, Technologies, Standards, and Driving Factors”, Springer [<i>eBook Available online through Concordia University Library</i>]
<i>Data Mining</i>	<ul style="list-style-type: none"> • Kotu V., & Deshpande B.*, “Data Science: Concepts and Practice-2nd Edition”, Elsevier [<i>1st Edition eBook available through Concordia University Library, under title: "Predictive analytics and data mining : concepts and practice with RapidMiner"</i>] • Witten, I., Frank, E., Hall, M. & Pal, C. (2016) “Data Mining: Practical Machine Learning Tools and Techniques” (4th Edition), Elsevier [<i>eBook Available online through Concordia University Library</i>] • Provost, F., and Fawcett, T. (2013) “Data Science for Business” (Sebastopol, CA: O’Reilly Media Inc.) [<i>Available in Webster Library</i>]
<i>Software Tool</i>	<ul style="list-style-type: none"> • RapidMiner GmbH (2017)* “RapidMiner 8 Operator Reference Manual”, RapidMiner [<i>available online at https://docs.rapidminer.com]</i> • North, M. (2018) “Data Mining for the Masses-3rd Edition: With Implementations in RapidMiner and R”, 3rd Edition, CreateSpace Independent Publishing Platform [<i>1st Edition available online</i>] • Hofman, M. & Klinkenberg, R. (2014) “RapidMiner Data Mining Use Cases and Business Analytics Applications”, CRC Press Taylor & Francis Group [<i>Available online</i>]

OTHER RESOURCES

We will be using the following resources for acquiring data and applying analysis techniques learned in the course (all open access):

- RapidMiner: The data mining platform with Graphical User Interface has an educational free licence, which can be acquired from: <https://rapidminer.com/educational-program/>
- Open data portals of cities in North America, Europe and Asia; most specifically: Portail données ouvertes Montréal: <http://donnees.ville.montreal.qc.ca/>
- Educational datasets freely available; most specifically on:
 - UCI Machine Learning Repository: <https://archive.ics.uci.edu/ml/index.php>; and
 - Kaggle : <https://www.kaggle.com/datasets>

TENTATIVE SCHEDULE

Topic	No. of Weeks	Learning objectives
Conceptualization of Smart City, Infrastructure & Building	1	Recall, define and comprehend sociotechnical model of infrastructure in legacy and smart cities
Understanding City Big Data	2	Sources and types of city data; CRISP-DM standard; selection of the proper analysis tools, data visualization, cleaning and preparation
Supervised Learning	4	Association rules, classification techniques, regression, and applications in smart city infrastructure
Unsupervised Learning	2	Clustering technique and anomaly detection; theory, algorithms and applications for infrastructure assessment
Data-driven Model Building for Smart Infrastructure	2	Model evaluation; overfitting prevention; predictive modeling in infrastructure management
Stakeholder Management for Smart City Infrastructure	1	Community engagement in smart cities; text mining and applications for evaluation of communities in stakeholder management for urban infrastructure projects

Please note: this schedule is subject to change as resources and circumstances require.

For information on withdrawing from this course without academic consequences, please consult with the Concordia University Academic Calendar

COURSE GRADING

Module	
Background Quiz	0%
Homework Assignments (4) and Participation	35%
Term Project	30%
Examination	35%

FINAL EXAM

The final exam for this course is comprehensive, covering materials of weeks 1 through 14 and is scheduled during the exams period. The exact date will be announced subsequently.

EVALUATION TIMELINE

Week	Item Due
2	Background Quiz
5	Assignment 1
6	Term project (context definition)
7	Assignment 2
9	Assignment 3
10	Term project (problem statement)
12	Assignment 4
13&14	Presentations
17 (May 01 st)	Term paper

TERM PROJECT

Students must select an infrastructure sector; and an infrastructure service sub-sector; explore a problem which can be potentially solved by the aid of open city data available. The main aim is to improve efficiency, sustainability or resilience of the existing system (or a combination of these criteria). Results, patterns and correlations detected in data must be carefully interpreted in the context of infrastructure. Consultation to decision makers or policy makers should be provided based on the findings.

Please note: All dates (Except for the background quiz) are TENTATIVE and may change as the circumstances require.

ASSIGNMENT POLICY

Assignments in this course are meant to be handled and submitted individually. While datasets you will be working on are different from one another, you are encouraged to collaborate with your fellow students in solving your homework assignments.

However, the followings are the rules of collaboration:

- Please individually spend at least 45 minutes ~ 1 hour on each problem before going to your group.
- Interpretation of the findings in each assignment must be done individually and independently (remember that your data-set, hence the findings, will be different from everybody else in class).
- Writing-up solution to the problem set is an individual responsibility. No collaboration is allowed in writing the solution report.
- Provide the list of people with whom you collaborated on solving your homework problem.
- **It is a violation of the course collaboration policy to submit a problem solution that you cannot orally explain to a member of the course staff.**
- Collaboration is NOT allowed on the quiz and exam!! Please refer to the Concordia University Academic Code of Conduct available at: <http://www.concordia.ca/content/dam/concordia/docs/AcademicCodeConduct2011.pdf> and Code of Rights & Responsibilities available at: <http://www.concordia.ca/content/dam/common/docs/policies/official-policies/BD-3.pdf>
- All assignments must be submitted online via moodle.
- Penalty will be applied automatically to late submissions as 10% per hour (starting right at the expiry of the deadline)

QUESTIONS & ANSWERS (Q&A)

In this course, we will use **piazza**, for discussions and Q&A outside the lecture and office hours. The system is highly catered to getting you help, fast and efficiently from classmates, the TA, and myself. **No questions will be answered via email!** Rather than emailing questions to the teaching staff, you must post your questions on piazza and mark it with a proper tag (so that other students who may have the same or similar questions can track your question). You may also answer questions posted by other students; leave comments on them; or even leave comments on the teacher's answers.

Please refer to the [document](#) posted on the course website (on moodle) for rules of participation through piazza.

Your activity on piazza will contribute to your participation grade in the course. That includes asking good questions, giving good answers to other people's questions, creating interesting discussions, posting relevant items to expand the topics discussed in class, etc.

Find our class page at: <https://piazza.com/concordia.ca/winter2019/civi691/home>. You may also download the piazza app on your cellular phones or tablet device.

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 25, 2021

**SUBJECT: GRADUATE CURRICULUM CHANGES (MECH-131)
(CALENDAR – 2021/2022)
DEPARTMENT OF MECHANICAL, INDUSTRIAL AND AEROSPACE
ENGINEERING**

The Graduate Curriculum Committee (GCC) reviewed the curriculum changes approved by the Gina Cody School of Engineering and Computer Science.

The Department of Mechanical, Industrial and Aerospace Engineering is proposing to modify the prerequisite for two Industrial Engineering courses and the course description of one Mechanical Engineering course.

The GCC approved the curriculum changes as is. I therefore recommend that the Academic Programs Committee approve and recommend to Senate the above-mentioned curriculum changes in their final form.



cc: J. Johnston, University Curriculum Administrator, Office of the Provost and Vice-President, Academic Affairs
E. Shihab, Associate Dean, Graduate Programs and Research, Gina Cody School of Engineering and Computer Science



GINA CODY
SCHOOL OF ENGINEERING
AND COMPUTER SCIENCE

INTERNAL MEMORANDUM

TO: Dr. Bradley Nelson
Chair, Graduate Curriculum Committee
School of Graduate Studies

FROM: Dr. E. Shihab
Associate Dean, Graduate Programs and Research
Faculty of Engineering and Computer Science

CC: Kristy Clarke
Academic Programs and Development
School of Graduate Studies

DATE: November 27, 2020

RE: **Graduate Curriculum Proposal for the 2020-21 Academic Year (MECH-131)**
Gina Cody Council of Engineering and Computer Science

At its meeting on November 27, 2020, the Council of the Gina Cody School of Engineering and Computer Science reviewed and approved, with some corrections, the curriculum items proposed by the MIAE Department. No additional resources are required.

Details of the curriculum items are indicated and explained in the internal memorandums and in the MECH 131 dossier.

We kindly request that this proposal be placed on the next agenda of the GCC for approval.

Thank you for your consideration of this proposal.

INTERNAL MEMORANDUM



GINA CODY
SCHOOL OF ENGINEERING
AND COMPUTER SCIENCE

Office of the Dean

TO: Dr. M. Debbabi
Chair of the School Council
Gina Cody School of Engineering and Computer Science

FROM: Dr. E. Shihab
Associate Dean, Graduate Programs and Research
Gina Cody School of Engineering and Computer Science

DATE: November 10, 2020

RE: **Graduate Curriculum Proposal for the 2020-21 Academic Year (MECH-131)
Department of Mechanical, Industrial and Aerospace Engineering (MIAE)**

At its virtual meeting on November 9, 2020, the GCS Graduate Studies Committee (GCSGSC) reviewed and approved, with minor modifications, the curriculum items proposed by the MIAE Department. Namely, the addition/change of a prerequisite to INDU 6231 and INDU 6321, as well as an updated course description of MECH 6751 to reflect the latest industry trends for enhancing student's hands-on learning experience.

Details of the curriculum changes are indicated and explained in the Department's internal memorandum and in the MECH-131 dossier.

We kindly request that this proposal be placed on the next agenda of the GCS Council for approval.

Thank you for your consideration of this proposal.

INTERNAL MEMORANDUM

TO: Dr. Emad Shihab, Associate Dean, Research and Graduate Studies

FROM: Dr. Ivan Contreras, Graduate Program Director of PhD programs, MIAE

DATE: November 4, 2020

SUBJECT: Proposed graduate curriculum changes to three graduate courses.

In what follows, we provide details on three proposals related to changes on the content or prerequisite of one MECH and two INDU graduate courses. Attached are the Calendar Update Form for each of these courses, formatted as per the university's guidelines.

Proposed changes to MECH 6751 Vehicle Dynamics

The contents of MECH6751 are revised to include some fundamental aspects needed for our graduate students, to emphasize dynamic models and simulations, and introduce active safety control systems.

Proposed changes to INDU 6231 Scheduling Theory

The graduate calendar course description for INDU 6231 is updated to include as prerequisite the core course INDU 6121 Applied Optimization.

Proposed changes to INDU 6321 Introduction to Six Sigma

The graduate calendar course description for INDU 6321 is updated to replace the previous prerequisite INDU 6331 for the new prerequisite INDU 6310.

COURSE CHANGE: INDU 6231-SCHEDULING THEORY

New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Mechanical, Industrial and Aerospace Engineering
Program: Industrial Engineering
Degree: MEng, MAsc, PhD
Calendar Section/Graduate Page Number: Engineering Course Descriptions

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>INDU 6231 Scheduling Theory (4.00 credits)</p> <p><i>Description:</i> Models for sequencing and scheduling activities including: static and dynamic problems; deterministic and stochastic models. Single machine processing; parallel machine processing; multistage problems including flow-shops and job-shops. Complexity issues. Exact and heuristic solution methods. Average and worst case performance analysis of heuristic methods. Applications in manufacturing environments. Current research trends. Project: two hours per week.</p> <p><i>Component(s):</i> Lecture; Reading.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> Students who have taken ENCS 6201 may not receive credit for this course. 	<p>INDU 6231 Scheduling Theory (4.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: INDU 6121</p> <p><i>Description:</i> This course covers models for sequencing and scheduling activities, including: static and dynamic problems; deterministic and stochastic models; single machine processing, parallel machine processing, multistage problems including flow-shops and job-shops; complexity issues; exact and heuristic solution methods; average and worst case performance analysis of heuristic methods; applications in manufacturing environments; current research trends. Project: two hours per week.</p> <p><i>Component(s):</i> Lecture; Reading.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> Students who have taken ENCS 6201 may not receive credit for this course.
<p>Rationale: INDU 6231 has a strong methodological content and requires basic knowledge in Optimization. In the last couple of years several students have struggled with this course given the lack of this background. As a consequence, we propose to include as a prerequisite the core course INDU 6121 Applied Optimization.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed: None.</p>	

COURSE CHANGE: INDU 6321-INTRODUCTION TO SIX SIGMA New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Mechanical, Industrial and Aerospace Engineering
Program: Industrial Engineering
Degree: MEng, MAsc, PhD
Calendar Section/Graduate Page Number: Engineering Course Descriptions

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>INDU 6321 Introduction to Six Sigma (4.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: INDU 6331.</p> <p><i>Description:</i> Overview of the Six Sigma concept; Six Sigma deployment practice; Six Sigma methodologies for process improvement and process (DMAIC) and for product design (DMADV); Integration of Lean techniques in Six Sigma (Lean Six Sigma); Overview of different quality management tools applied in Six Sigma; Application of Designed of Experiments in Six Sigma; Design for Six Sigma through the application of the Robust Parameter Design; Six Sigma project management. A project is required.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> This is a cross-listed course. 	<p>INDU 6321 Introduction to Six Sigma (4.00 credits)</p> <p><i>Prerequisite/corequisite:</i> The following course must be completed previously: INDU 6310.</p> <p><i>Description:</i> This course offers an overview of the Six Sigma concept; Six Sigma deployment practice; Six Sigma methodologies for process improvement and process (DMAIC) and for product design (DMADV); Integration of Lean techniques in Six Sigma (Lean Six Sigma); Overview of different quality management tools applied in Six Sigma; Application of Designed of Experiments in Six Sigma; Design for Six Sigma through the application of the Robust Parameter Design; Six Sigma project management. A project is required.</p> <p><i>Component(s):</i> Lecture.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> This is a cross-listed course.
<p>Rationale: INDU 6331 Advanced Quality Control used to be a core course in the previous structure of the MEng program. INDU 6331 is now an area core course in Option V. The new core course that will become the prerequisite for INDU 6321 is INDU 6310 Applied Probability and Statistics for Engineers.</p>	
<p>Resource Implications: None.</p>	
<p>Other Programs within which course is listed:</p> <p>None.</p>	

COURSE CHANGE: MECH 6751 VEHICLE DYNAMICS New Course Number:

Proposed Undergraduate or Graduate Curriculum Changes

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

Faculty/School: Gina Cody School of Engineering and Computer Science
Department: Mechanical, Industrial and Aerospace Engineering
Program: Mechanical Engineering
Degree: MEng, MAsc, PhD
Calendar Section/Graduate Page Number: Engineering Course Descriptions

Type of Change:

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

Present Text (from 2020/2021) calendar	Proposed Text
<p>MECH 6751 Vehicle Dynamics (4 credits) Description: Tire terrain interactions; side slip; cornering and aligning properties of tires; camber angle and camber torque; estimation of braking tractive and cornering forces of tires; steady state handling of road vehicles; steering response and directional stability; handling and directional response of vehicles with multiple steerable axes; handling of articulated vehicles; handling and directional response of tracked and wheeled off-road vehicles; directional response to simultaneous braking and steering. A project on research topics is required.</p> <p>Component(s): Lecture. Notes:</p> <ul style="list-style-type: none"> This is a cross-listed course. 	<p>MECH 6751 Vehicle Dynamics (4 credits) Description: This course focuses on analytical methods for analyses of ride, handling, stability and rollover dynamics of road vehicles. The course introduces mechanics of tires, and tire models for estimating traction/braking and cornering characteristics. Objective methods for assessing vehicle ride are defined and ride dynamics models of vehicles are formulated together with modeling of the passive, semi-active and active suspensions.</p> <p>Analytical methods are introduced for analyses of steady-state and transient handling, tripped and untripped roll dynamics, and directional response characteristics of road vehicles, including articulated vehicles. The course also introduces concepts in active safety and driver-assist technologies such as yaw moment and vehicle stability controls systems. A project is required.</p> <p>Component(s): Lecture. Notes:</p> <ul style="list-style-type: none"> This is a cross-listed course.

Rationale:
 The course content is revised for two reasons:
 1. The course is presently offered as paired equivalent with undergraduate course MECH 448. Its contents represent the continuation of the vehicle system dynamics contents covered in MECH 447. Currently, the course attendees are mostly M.Eng. students, who possess very little background in vehicle systems fundamentals, especially the tire mechanics. It is thus proposed to include some fundamental aspects that are covered in MECH 447.
 2. It is proposed to emphasize dynamic modeling and simulations of vehicles together with some fundamentals on the active safety controls.

Resource Implications:
 None.

Other Programs within which course is listed:

None.