Learning Communities
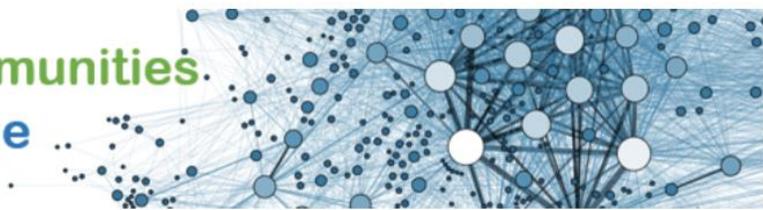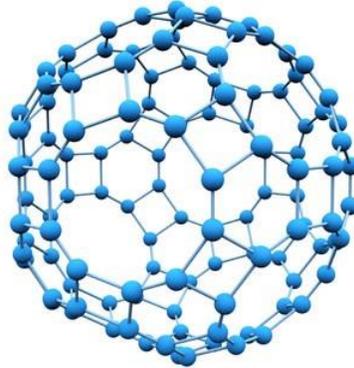# Dawson College

Learning Communities Task Force

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Learning Communities at Dawson College

Submission to the Board of Governors

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Prepared by the Learning Communities Task Force

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Integrative & interdisciplinary learning

"Interdisciplinary teaching promotes greater student engagement in learning, enhances the development of higher cognitive skills, fosters more creative thinking, increases sensitivity to ethical issues, leads to greater tolerance for ambiguity... and creates innovative and holistic knowledge." Interdisciplinarity is the bridge between the academy and the real world."

> Wendy Hill, in "Interdisciplinary Perspectives and the Liberal Arts." In *Remaking College: Innovation and the Liberal Arts* (2013).

Supportive peer & faculty communities

"Students in learning communities spent more time actively involved in learning activities and more time interacting with students and faculty about educational matters than did similar students in the traditional classrooms of the college... What struck us was the fact that such involvements extended well beyond the classroom, so that students spent more time-on-task in learning activities, even after class. The social affiliations students formed in the shared learning environment of the classroom seemed to drive their engagement in learning within and beyond the classroom. Quite simply, they studied more, even after class, because they enjoyed studying together."

> Vincent Tinto, *Learning Communities: Building Gateways to Student Success* (1998).

A. Executive summary

I. Learning Communities at Dawson College: Background

Launched in 2015, Learning Communities project is a unique, multi-sector Dawson initiative that supports the development and delivery of interdisciplinary teaching and integrative learning. The project is grounded in evidence-based approaches to teaching and learning, in particular the contemporary research on "high-impact practices" and learning communities (LCs). George Kuh defines high-impact practices as pedagogical and curricular approaches that increase the time students spend interacting with peers and faculty in the completion of their course work. Utilizing data gathered from across North America in multiple iterations of the National Survey on Student Engagement (NSSE), Kuh and others have concluded that, if carefully designed and implemented, high-impact practices can have verifiably significant impacts on student engagement and learning. Kuh singles out the learning communities approach in particular as a "meta high-impact practice" because it encourages the integration of multiple high-impact practices at the same time; for example, first-year seminars, guided research, fieldwork, e-portfolios (Kuh 2008).

Guided by the research of Kuh and numerous others (see Appendix III for a selective project bibliography), Dawson's Learning Communities project operates on two levels. As a curriculum development methodology, the project facilitates the creation of new paired courses in complementary disciplines and new stand-alone courses with integrated co-curricular activities. New interdisciplinary modalities are under consideration as new program needs and challenges are considered. At the same time, the project doubles as a pedagogical development activity, as teachers from different departments learn how to co-design and co-teach interdisciplinary courses, and how to purposefully foster student-peer and student-faculty relationships that support engagement and learning. The promise of this approach contributed significantly to the framing of Goal 1 of Dawson's 2016-2021 Strategic Plan, which identified learning communities as a key strategy for improving instruction to support multiple facets of the Graduate Profile.

For years, contemporary critics of higher education have observed that the student experience is increasingly characterized by fragmentation and alienation (for a few examples, see Tagg 2003, Cronon 2011, Bass 2012). As disciplines grow more complex, fields of knowledge are increasingly siloed off from each other, and students may be confronted with a plethora of courses that appear to be unrelated. In programs featuring large classes and no common cohort, meaningful relationships with peers and teachers are sometimes hard to develop. Meanwhile, locally and globally, enormously complex social, economic, and environmental challenges await our graduates in the present and the not-too-distant future. Trends in technology and social media use expand the reach and influence of misinformation, and sow divisions that erode individual and collective well-being. These present and future challenges impose on colleges and universities an obligation to acknowledge and counter the forces that contribute to fragmentation and alienation. Effective responses would include helping students learn how to make connections and synthesize new insights across diverse disciplines, and supporting the growth of their interpersonal skills in collaboration, communication and empathy. The Learning Communities initiative was conceived and launched by a group of Dawson teachers and administrators with exactly these aims in mind.

II. Objectives

The objectives of the Learning Communities project are multiple, involving the overlap of institutional, project, curriculum development and faculty development objectives:

i.   Institutional objectives:
Create innovative curricular structures that support multiple facets of Dawson's nine-point Graduate Profile: Learning to learn; mastery of program competencies; communication; critical thinking, problem-solving and creativity; team-work and leadership capabilities; quantitative literacy; health and well-being; ethical understanding and behaviour; social responsibility and community engagement.

ii.   Curriculum development objectives:
Design, launch and assess pilot paired courses and courses with integrated co-curricular activities in Science, Social Science and Certificates.

a. Science Program and three-year Science technical programs:
   - Develop integrative paired courses that help students make connections between vocabularies, key concepts and scientific practices across core scientific disciplines in Science; and between contributing Science disciplines and specific program courses in Science technical programs.

b. Social Science Program:
   - Develop integrative course pairings that combine social science research methods with social science discipline courses such that acquisition of methodologies is tied to specific disciplinary problems.
   - Develop 1st semester paired and clustered General Studies courses that create a coherent community-oriented transition to college-level study for students in the largest program at Dawson.
   - Develop authentic interdisciplinary modes for capstone research projects in the Integrative Seminar.

c. Certificates:
   - Create both paired and stand-alone interdisciplinary courses in General Education and program contexts that infuse classrooms with experiential learning and connect to out-of-class co-curricular enrichment activities.

iii.   Faculty development objectives:
Develop an evidence-based toolkit and a structured workshop process to facilitate faculty collaboration in the design, delivery and assessment of interdisciplinary team-taught courses; institute a faculty community of practice to support consolidation of expertise and diffusion of faculty experiences and know-how.

III. Project highlights 2015-2019

From 2015 through 2019, the project has grown successfully over several phases:

- **Consultation, research and design - 2015-2016**: College-wide discussions among stakeholders in diverse departments and college administrative units; comprehensive literature review and identification of exemplar programs at other colleges and universities; design of pilot curriculum development project; successful applications for grant-funded pilots.
- **Pilot implementations and evaluations – 2016-2018**: Successful testing of a collaborative course design methodology; establishment of a LC faculty community of practice; launch of 26 new courses in three sectors over three years; post-course surveying of students and participating faculty indicating strong positive impacts on learning and engagement in LC courses.
- **Strategic planning - 2019**: Consultations across departments, programs and administrative units; completion of planning frameworks to guide development of LCs in Science, Social Science and Certificates through 2022.

IV. Recommendations

The four planning frameworks in this submission present recommendations in the form of specific strategies/actions, based on the priorities identified by the LC Task Force and the Science, Social Science and Certificate Working Groups over the winter 2019 semester. A commitment to funding Learning Communities through 2022 following the specifics laid out in these planning frameworks would be an important step in sustaining efforts to realize Goal 1 of the current Strategic Plan. Moreover, such a commitment has the potential to place Dawson at the fore of local and indeed international developments in interdisciplinary teaching and integrative learning.

Dawson is currently making important decisions on long-term projects that will guide its evolution over the next 50 years. Investments in a new building and infrastructure and in an exploration of the broad impacts of AI technologies on education are notable examples. At this moment, Learning Communities presents an equally important opportunity to support an evidence-based, faculty-driven initiative that speaks to the heart of Dawson's teaching mission, and represents the best of our traditions of innovation and collaboration.

B. Overview of the Learning Communities project 2015-2019

From its inception in Fall 2015, Learning Communities (LCs) at Dawson College has aimed to create structured opportunities for Dawson faculty from different departments to work together to co-design and co-teach interdisciplinary courses. These new curricular structures are designed to facilitate the forging of interdisciplinary insights and connections; permit a closer integration of classroom and experiential learning focused where appropriate on real-world applications and "wicked" problems; and enhance students' sense of personal belonging, both within the classroom setting and across the college.

The faculty and administrative leaders who were involved in the initial planning shared the opinion that contemporary and future challenges will require highly-developed skills of knowledge integration and interpersonal collaboration, to a level not widely achieved via traditional higher education models. The learning community model is an evidence-based approach to designing and delivering interdisciplinary curriculum. Learning community pedagogical strategies emphasize integrative learning, enhanced by the intentional development of strong student-peer and student-faculty relationships. Learning communities have indeed been highlighted in the work of George Kuh (2008) as a meta-"high-impact practice," permitting multiple complementary high-impact strategies to be deployed at the same time.

In the wake of calls throughout the 1990's for improvements in the quality of undergraduate education (for example the Boyer Commission on undergraduate education, 1998), a wide range of institutions, from community college to liberal arts colleges to research intensive universities, developed learning community pilots and programs. They did so in order to enhance student engagement and learning and improve retention and graduation rates, with the over-arching goal of offering students a more stimulating, coherent and personally satisfying learning experience over their years in college. Today there are hundreds of LC programs in colleges and universities across North America; a recent survey puts the number at more than 800 (Smith et al. 2009). US institutions outnumber Canadian ones, but since the late 1990s, there has been a steady growth of Canadian schools developing LC programs, at the University of Toronto, University of Saskatchewan, Saint Mary's University, University of British Columbia, and Mount Royal University, to name a few. Canadian schools are undoubtedly responding to the same pressures as their American counterparts: calls for increased accountability for achieving learning outcomes; the rapid growth and diffusion of research and data on engagement and learning (from NSSE&CSSE surveys and related analysis); and a widening awareness of scholarly work on innovation in teaching and learning. Consideration of these factors is now germane to strategic planning at colleges and universities across North America.

At Dawson, preliminary consultations in 2015 were followed by a literature review that examined the evolution of the learning community model in higher education and evaluated the evidence of its impacts. Numerous studies have suggested that when learning communities are carefully designed, implemented and supported, they can have significant positive effects on student engagement and learning, as well as on retention and progress to graduation (see for example Tinto 2003, Zhao 2004, Engstrom 2008, Hansen 2009, Dagley 2016, Sedberry Carino 2016, Solanki 2019). At the same time, an internal scan took stock of existing interdisciplinary curricular and co-curricular initiatives at Dawson. As a final preliminary step, a short list of exemplar LC programs at other North American colleges and universities was assembled. The literature review concluded that there were potential gains in student learning and engagement available via the LC approach, and the analysis of exemplar programs suggested the LC model would align with and complement a variety of existing curricular and co-curricular Dawson initiatives.

Designed for integrative learning: Three common learning community formats

1. **Paired or linked course LCs**
- Two courses, two teachers from different disciplines, enrolled with same students, scheduled back-to-back if desired to permit field trips
- One complex interdisciplinary theme
- Designed collaboratively, high level of integration between courses

Course 1 ⟷ Course 2
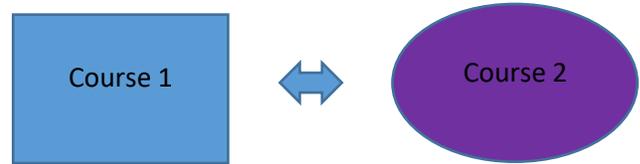
2. **Course cluster LCs**
- Two or more courses, two or more disciplines, enrolled with same or different students.
- One course may be a smaller methodology course or academic skills seminar
- One over-arching interdisciplinary theme
- Designed collaboratively but taught separately by teachers from different departments, with intermittent integrative activities in a common meeting time
- First-semester transition; targeting students with special needs; linking discipline courses with academic skills to support student success

Course 1 ⟷ Course 2
Course 3
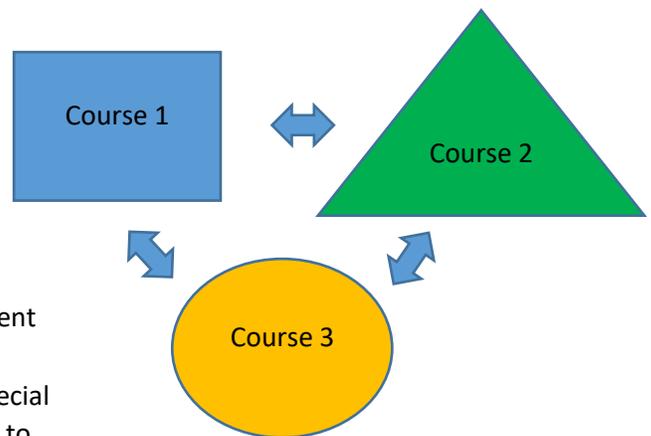
3. **Integrated Curricular & Co-curricular LC**
- One or several autonomous courses enrolled with different students
- Linked to an ongoing campus co-curricular activity, with common meeting time where desirable/feasible, encouraging participation in community-based experiential learning outside the classroom
- One complex theme, problem
- Co-curricular activity co-designed by participating faculty, integrated with learning activities and assignments in participating courses.

Course 1
Course 2
Course 3
Co-curricular activity
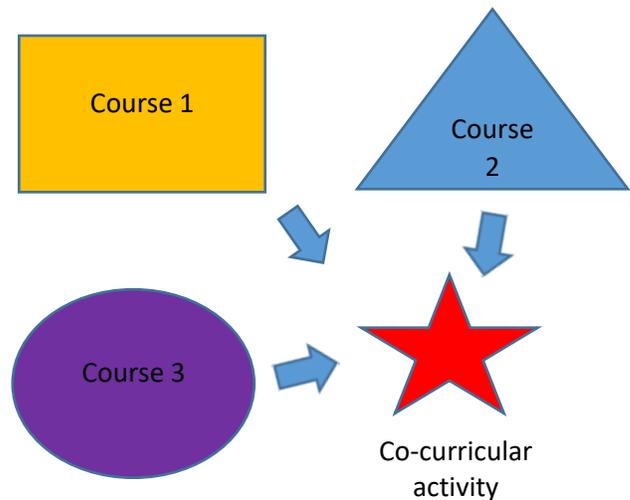
Subsequently, Dawson's 2016-2021 Strategic Plan highlighted learning communities as one of several evidence-based "high-impact practices" whose implementation would effectively support Dawson's Graduate Profile. The college approved a three-year start-up phase (2016-2018) focused on the development, implementation and evaluation of pilot LC courses. These pilots were designed following two widely-employed LC formats: paired courses in complementary disciplines, and stand-alone courses that purposefully integrate co-curricular activities. Teacher course release for two cycles of course development in W2016 and W2017 was funded by two Entente Canada-Quebec grants. A third cycle of course development in W2018 was funded internally by Dawson.

Collaboration among faculty has been central to the design, delivery and assessment of these new courses. Faculty from Science, Social Science and Certificates/Special Areas of Study have worked together to create paired, team-taught interdisciplinary courses; stand-alone team-taught courses; and stand-alone courses that integrate Dawson co-curricular initiatives. Over three consecutive winter terms (2016-2018), three different groups of six to eight teachers were given course release to co-design new courses. By F2018, more than 30 teachers had collaborated in the following ways:

- Consulted and discussed in bi-weekly meetings a selection of resources from the scholarly literature on learning community design, delivery and assessment.
- Worked with their partner or team on a weekly basis to design their courses, in face-to-face meetings and online on a project management blog. Bi-weekly, the entire team of six-eight teachers met to give and receive feedback on their progress through the design workflow: course theme, learning activities, integrative assignments/projects, and feedback/evaluation tools and strategies.
- Co-wrote integrated class schedules and course outlines and submitted them for approval by departments and Deans.
- Co-wrote capsule course description "pitches" for student recruitment, which were refined and revised in consultation with the Academic Advising.
- Co-taught newly designed courses in the subsequent fall or winter semester following the course design process and met regularly with teaching partners to evaluate progress and adapt accordingly.
- After end of term, completed a faculty survey on measured and perceived impacts of the paired course model on student engagement and learning, and participated in team debriefs on responses to post-course student surveys on the same impacts.

Activities and results have been communicated to the Dawson community in an ongoing manner via email news updates and the Learning Communities webpage and blog, accessible under Projects on the Dawson homepage.

Faculty efforts have resulted in a range of highly innovative curricular innovations. Some are offered in a paired course format, including:

- *Imaging Violence and Nonviolence:* Paired courses in Humanities & Cinema-Communications, with annual public exhibitions of student projects, linked for example to the Resist Violence co-curricular project.
- *Mechanics and Calculus 1*: An integrated alignment of content and learning activities in the Science program's required first-semester Math and Physics courses, co-designed and co-taught in back-to-back classes, most in active learning classrooms.
- *Nature Revisited*: Paired courses in English and Physical Education linking readings on nature and environment to the development of wilderness outdoor skills, supported by canoeing and hiking field trips.
- *Social Justice in Canada*? Paired courses in History and Quantitative Methods that introduce students to statistical analysis via exploration and debate of controversial social justice issues.

Others have been developed as stand-alone Complementary Contemporary Issues courses, whose competencies are explicitly multidisciplinary, permitting the integration of co-curricular activities:

- *Peace 365*: A gateway course for Dawson Peace Certificate featuring three interdisciplinary "peace panels" with guests examining challenges related to individual and collective well-being.
- *Business Ethics and the Triple Bottom Line*: A Humanities Ethics course on sustainability ethics in business, with integrated co-curricular activities during Dawson's Entrepreneurship Week.
- *Make Things that Matter*: A project-based Complementary Contemporary Issues course introducing students to design thinking, linked to SPACE co-curricular activities.

Moreover, collaboration in this project has also included faculty, administrators, professionals and support staff from across the college working together to create new institutional procedures and practices that will sustain curricular innovations for the long term. Institutionalizing learning communities involves a host of challenges at different levels, testing a college's ability to coordinate around a common vision, work toward clear goals across multiple departments and units, and troubleshoot along the way. Dawson has succeeded in meeting these challenges, with administrators, professionals and support staff working together to ensure that the pilot courses were successfully scheduled and enrolled. As a result, between 2015 and 2018, 26 new learning community courses have been developed and delivered in three different sectors.

The over-arching objective of the Learning Communities project is to provide effective support to the learning outcomes of Dawson's Graduate Profile, an objective that is underwritten by the identification of LCs as a key strategy for academic development in Dawson's 2016-2021 Strategic Plan. Surveying of participating students over the three-year pilot phase of the project confirms that the learning community model can lead to significant gains in engagement and learning, and the LC leads are building new strategies for data collection and assessment into the next phase of the project. Surveying of participating faculty reveals that teachers perceive these same gains in their LC courses; significantly, they also report an array of positive benefits for teachers, both professional and personal, deriving from their collaborative endeavours. For more detailed information on survey results, see Appendix II.

By any measure, Learning Communities at Dawson has made substantial progress in a relatively short period of time. In 2015, Dawson had no formal structures to support faculty who wanted to co-design

and co-teach interdisciplinary courses. Three years later, a strong foundation has been laid for future developments through 2022.

C. Case studies: Three Dawson Learning Communities

Case 1: Paired courses in Chemistry and Biology in the Enriched Science Profile

Organic Chemistry I & General Biology II

Paired back-to-back courses, offered first in F2017 and again F2018 for Enriched Science students.

Faculty: Yoon-Seo Uh (Chemistry) and Janet Wyman (Biology).

34 Enriched Science students.

Despite the fact that the molecules studied in the Organic Chemistry course are the essential building blocks of the macromolecules studied in the General Biology II course, these two foundational courses have traditionally been taught in silos, without purposeful connections in content or activities. And yet, *all* biological processes are rooted in the interweaving of the chemical reactions of organic molecules. Biology speaks Chemistry, and Organic Chemistry is the alphabet of letters that make up the sentences in General Biology II. In the 2017 winter semester, two teachers, one from the biology department and the other from the chemistry department, began the task of aligning the content, competencies and pedagogical approaches of General Biology II and Organic Chemistry, with the goal of co-teaching integrated, back-to-back sections for the first time.
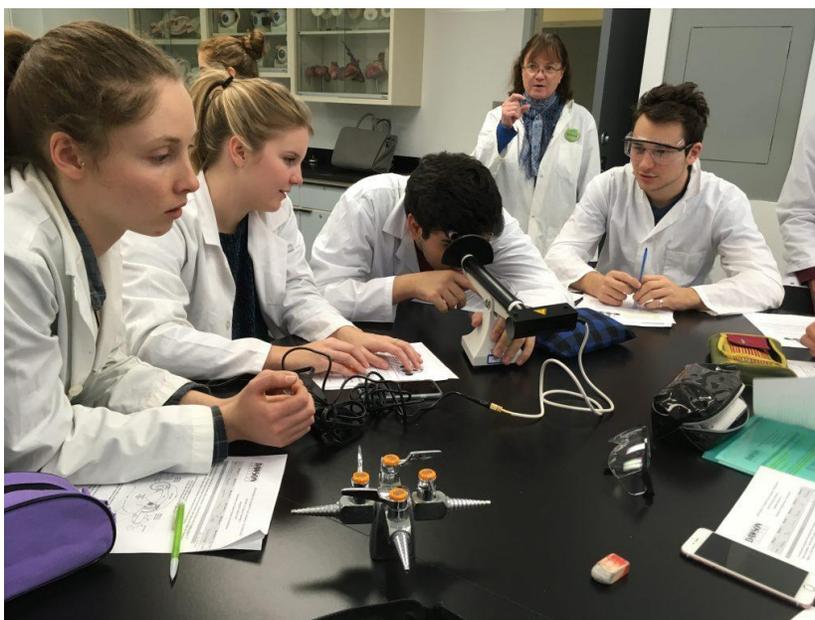
These 75-hour, content-driven courses have traditionally employed a lecture-based pedagogical approach. In order to help students make connections and understand them as the complementary subjects they are, changes were made in both the order of content and the teaching strategies. In both F2017 and F2018, Organic Chemistry and General Biology II were scheduled back-to-back and taught in an active learning classroom to cohorts of 31 and 34 Enriched Science students. Schedules for the two teachers were blocked to allow them to be present during both periods and this allowed for a flexible approach to the management of material, time, and activities while also providing opportunities to connect material using the complementary sets of expertise in the room.

Students were engaged using active learning strategies such as pre-class readings, collaborative group work, peer teaching and case studies. Cross-disciplinary activities included newly designed case studies, including a unique final integrative assessment. This case consisted of several carefully sequenced activities: a chemistry experiment analyzing polarimetry of two enantiomers with distinctly different

odors; a case study to review the anatomy of the nose and signal transduction leading to action potential along the olfactory nerve; and a laboratory activity to determine how it is biologically possible for two different enantiomers to have such distinct smells. Post-course surveying of students indicated high levels of approval for this innovative learning experience.

Case 2: Complementary Contemporary Issues course "Gender Matters" with integrated co-curricular activities in the Women's and Gender Studies Certificate

Gender Matters

Stand-alone team-taught course: Contemporary Issues Complementary course, developed W2018, offered F2018.

Lead faculty: Dipti Gupta (Cinema and Communications).

Gender Matters Working Group: Pat Romano (Humanities), Elliot Berthelet (W/G student), Dipti Gupta (Cin-Com), Louisa Hadley (English), Selma Hamdani (Psychology), Julie Johnson (History), Ben Lander (History), Cory Legassic (Humanities and Sociology), Johanne Rabbat (Religion), Kim Simard (Cin-Com and W/G Studies Coordinator), Laura Shea (Sociology), and Florencia Vallejo Ortiz (W/G student).

Additional Gender Matters guest lecturers: Amanda Beattie (Fine Arts), Neil Hartlen (English), Uzma Jamail (OAD), Julie Johnston (History), Davina MIll (Psychology), Lisa Steffen (History), Michael Wasser (History).

36 students.

"Gender Matters" was designed over the W2018 semester by a 12-person team of Women and Gender Studies teachers and students, with the purpose of introducing students to the interdisciplinary nature of gender studies and the WGS certificate. Each week involved a unique mixture of learning activities, guest lectures, and discussion, all focused on illuminating how diverse disciplines contribute to the ever-widening purview of Women and Gender Studies. Guest teachers from Psychology, English, History, Religion, Humanities, Cinema and Communications, Art History collaborated in co-designing the course schedule and in co-teaching this course. The eight contributing disciplines/teachers were:

- Psychology: Selma Hamdani and Davina Mill: *Don't box me in: Embrace the Spectrum!*
- History and Religion: Johanne Rabbat & Michael Wasser: *Witches' Curses, Hexes & Spells: The Magic of Gender.*
- Humanities: Retired professor, Greta Nemiroff, who started Women and Gender studies at Dawson: *Looking Back: WGS at Dawson.*
- History: Lisa Steffen and Julie Johnson: *Noisy, Notable and Notorious: Women Navigating Public/Private Spaces, 1700 – 1900.*
- Cinema and Communications: Kim Simard & Dipti Gupta: *Representation of the "Other" & "Sexuality" in Cinema.*
- English: Neil Hartlen: *Gender and Genre: The Science Fiction of Ursula K. Le Guin.*
- Humanities: Pat Romano: *Feminists on War and Peace.*
- Fine Arts: Amanda Beattie: *The Feminist Art Movement of the 60's and 70's.*

The students worked together on presentations on key feminists and their contributions in their field of study; complete several short class exercises and mini tests through the term; and built a final term project around a topic of their choice that explores the relationship between WGS and their program/major. Because of the unique 4-7 time slot, the class was able to participate in several off campus field trips, including a visit to the Foundation Phi exhibit of work by Jasmina Cibic. What was most exciting for all involved was the openness of the class to different teachers, and other students as well. According to the lead teacher, Dipti Gupta, students who were not even enrolled in the class dropped in intermittently to listen to the guest lectures and participate in class discussions.

Case 3: Research Methods and Introduction to Geography paired courses in the Social Science General Studies Profile

"Stories of Shaughnessy Village"

Paired back-to-back courses*:* Social Science Research Methods & Introduction to Geography, developed W2016 and offered W2017 and W2018.

Faculty: Mark Beauchamp (History) and Geoffrey Pearce (Geography).

28 Social Science General Studies students.

This course pairing introduces social science students to research methods by immersing them in the past and present of Shaughnessy Village, which is home to Dawson College in downtown Montreal. Classroom learning activities and five different local walking excursions allow students to learn and then apply basic Geography concepts, for example in cartography and GIS data gathering and interpretation. At the same time, as an introduction to social science research, they learn about oral history methodologies, and depart the Dawson campus to conduct interviews with Shaughnessy Village residents, gathering qualitative data on perceived changes over time in this rapidly densifying and gentrifying downtown neighbourhood.

The culminating project sees student interviews and analysis published to an interactive GIS map, and added to a larger Dawson Oral History archive that is affiliated with Concordia University's Centre for

Oral History and Digital Storytelling. The paired course format allows students to appreciate the importance of research methodologies as they learn about a contemporary local issue. Equally important, the back-to-back scheduling of the two courses permits them to practice those methodologies in an authentic fieldwork research context.

D. Planning frameworks 2020-2022

In Winter 2019, based on the successes of the three-year pilot phase of the project, four teams composed of thirteen teachers began planning for a three-year scale-up phase to ensure that more Dawson students can benefit from the learning community model. This process involved

- Recruitment of additional teachers to working groups in Science, Social Science and Certificates
- Definition of workflow and objectives for each working group
- Creation of four project management boards using the Trello platform
- Four different consultation and brainstorming sessions with internal stakeholders, generating more than 300 individual suggestions for future developments
- Definition and clarification of scale-up priorities
- Drafting and revisions of an overall framework for the Learning Communities project
- Drafting and revisions of frameworks and action plans for the three sector working groups

The frameworks below were presented to the Deans Group in June 2019.

I. Learning Communities Project Planning Framework

Vision: Optimize student engagement and learning in relation to multiple facets of the Graduate Profile through high-impact interdisciplinary learning community experiences, such that every Dawson student can reasonably expect to participate in at least one LC experience by graduation.

Goal: Operationalize 3-year plan for LCs based on three priorities:

Priority 1	•Build capacity for innovative LC curriculum development and delivery
Priority 2	•Develop sustainable LC program structures aligned with existing academic systems
Priority 3	•Coordinate effective support services for LCs across college units
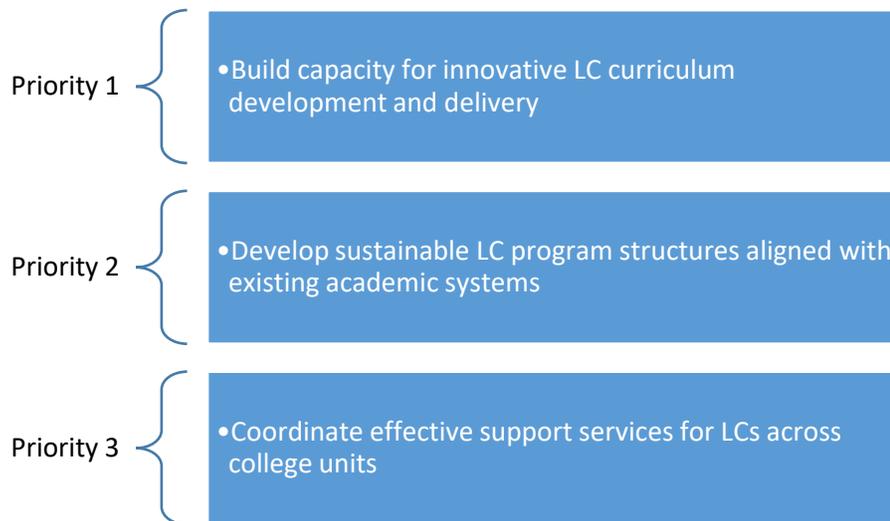
Priority 1: Build capacity for innovative LC curriculum development and delivery

The 3-year pilot phase of the LC project demonstrated that Dawson students can benefit from the learning community model in terms of enhanced engagement and learning, confirming the findings of research on impacts at other colleges and universities. Data gathered over 2016-2019 in student and faculty post-course surveys suggest that these gains support the acquisition of multiple facets of the Graduate Profile. In the next three years, we plan to develop our capacity to offer LCs to more students, such that every Dawson student would have the opportunity to participate in at least one learning community experience by graduation.

Strategies/actions:
- Create effective, sustainable course development strategy building on existing LC course design toolkit, including semester long process, retreat, boot camp or spring institute models.
- Provide a range of opportunities for participating faculty to develop their knowledge of LC and related pedagogies and the scholarly evidence supporting them.
- Define pathways for programs and departments to develop new LCs aligned with student success objectives.
- Identify new connections and enhance existing connections between curricular learning and experiential co-curricular learning.
- Showcase results and impacts of LCs through student exhibits, faculty symposia, webpage news, college website, and external conferences.

Priority 2: Develop a sustainable LC program coordinating structure aligned with existing academic systems

The Dawson LC project has been managed over the three years of the pilot phase in the form of a special project, with a single project lead coordinating most of the conception and implementation activities. The project lead has been supported in 2019-20 by a task force of four others who are leading planning activities in Science, Social Science and Certificates / Special Areas of Study. In order to operationalize LCs for the long term, we plan to develop and implement a formal structure that integrates LC planning and coordination with existing academic systems.

Strategies/actions:
- Create and populate a LC coordinating committee responsible for ongoing planning and coordination of LC course development and implementation; staffing and scheduling in collaboration with departments and programs; assessment of LCs via different evaluation tools and strategies; coordination across college units that provide support services to LCs.
- Create and populate a LC advisory committee that provides channels for input and feedback for partners across the college.
- In collaboration with Deans and the Registrar, refine existing practices and develop new practices for LC planning and decision-making touching on new/existing course approval; staffing and scheduling; pre-registration and online registration; allocation of resources.

Priority 3: Coordinate effective support services for LCs across college units.

For LCs to function effectively at the institutional level, we need effective communication and coordinated action across multiple supporting units. We plan to develop a set of consistent, clearly mapped working partnerships based on a common understanding of the objectives of the LC project.

Strategies/actions:
- Work with Academic Advising to ensure that LC offerings are rationalized in relation to program grids; to ensure that information about the availability and benefits of LCs are available to students in a variety of ways.
- Work with Communications to make information about LCs available in a range of traditional and new media to new and current students; to publicize LC news, successes and opportunities to internal and external audiences.
- Work with the Office of Academic Development to support faculty and curriculum development with appropriate professional services and resources; to develop opportunities for knowledge sharing across the college network and beyond.
- Work with Quality Assurance and Planning Office to create evaluation strategies that provide accurate and robust data to support planning and decision-making.
- Work with Library Services to integrate information literacy outcomes within the design of curricular LCs.
- Work with First Year Office and Student Services to enlist students as collaborators in the design, development, assessment of LCs and in communicating their objectives and benefits to other students.
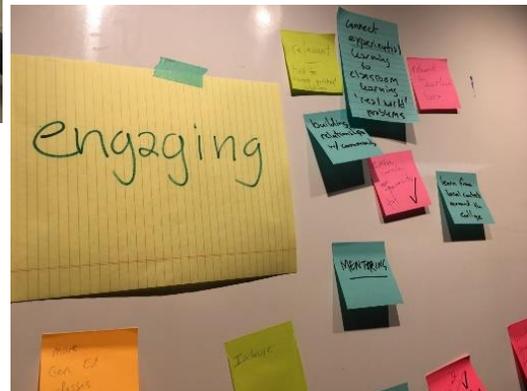
II. Science Sector Learning Communities Planning Framework 2020-2022

Vision: The realities of contemporary science demand that college graduates be equipped not only with sound foundational knowledge in the disciplines, but also with abilities to apply what they know in complex, novel situations and integrate approaches and insights across disciplines. Dawson's Science, Medical Studies and Engineering sector will be the leader in the CEGEP network in offering opportunities for interdisciplinary teaching and integrative learning. We will achieve this by diversifying our uses of co-teaching and cohort-based learning, translating these strategies into gains in student engagement and success.

Goal: By 2022, at least five programs in the Science sector will have at least one sustainable LC initiative.

Priority 1

- Expand access to integrative learning in Science Program

Priority 2

- Pilot new interdisciplinary collaborations between Science disciplines and technical programs

Priority 3

- Create a unique Science sector infrastructure that supports LC curriculum and faculty development
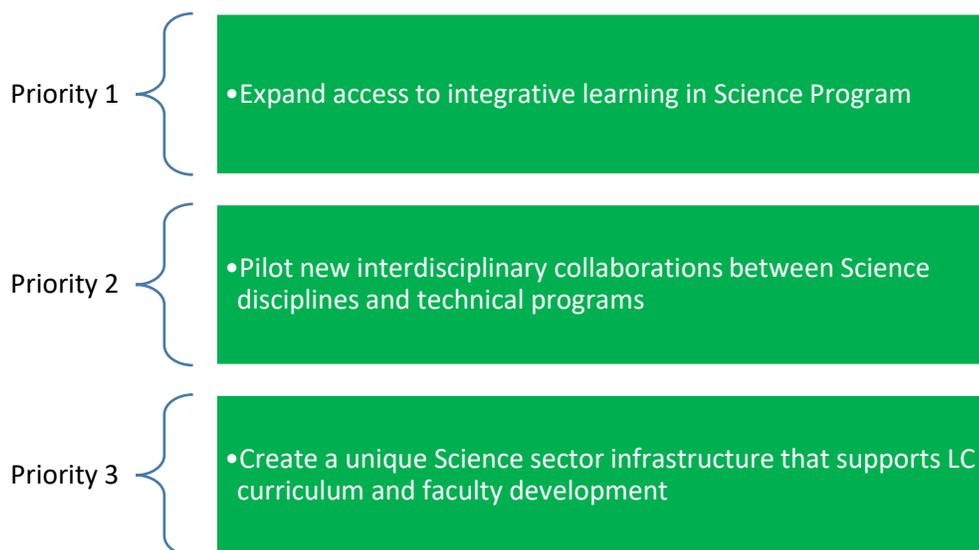
Priority 1: Expand access to integrative learning in Science Program

Paired courses provide structured opportunities for interdisciplinary connections and integrative learning activities and assessments. Data gathered from two years of pilots in Enriched Science (ES) shows us that paired courses have positive impacts on student engagement and learning in both Organic Chemistry/Biology II and Mechanics/Calculus I. We will apply what we have learned from these pilots and selectively develop at least one new paired course in Enriched Science, and at a later date, in Pure and Applied and Health profiles.

Strategies/actions:
- Develop one new ES pairing (in Electricity and Magnetism and Linear Algebra).
- Use key elements from existing ES pairs to promote alignment of key concepts and multi-disciplinary connections in sections outside of ES.
- In the context of the science program revision, plan for
  - multidisciplinary courses
  - models of truly integrative CEs and/or e-portfolios

Priority 2: Pilot new interdisciplinary collaborations between Science disciplines and technical programs

LCs are also well adapted to the integration of science contributing disciplines (biology, chemistry, math and physics) with the various Science sector technical programs. The courses offered by the contributing disciplines, by their theoretical nature, are often perceived by students as disconnected from their program. This may be a contributing factor to relatively low success rates in these required courses. Improved connections contextualizing these courses in the program may improve the learning experience and the success rate of students. We therefore propose to develop at least two new course pairings linking contributing science disciplines with pertinent technical program courses.

Strategies/actions:
- Develop and pilot new paired courses grounding contributing disciplines in the contexts of technical programs. Two potential pilot projects could be:
  o Nursing and Biology: Human Body for Nurses I to IV with a corresponding nursing course in the first 4 semesters of the Nursing program.
  o Direct current circuits and Applied Math in Electronic Engineering Technologies.
- Pilot co-curricular modalities that facilitate cross-disciplinary collaboration:
  o Peer instruction across cohorts: students from advanced courses providing support/data to contextualize learnings from contributing disciplines. For instance, in the Laboratory technology program: Introduction to Statistical Methods (term 1) could be associated with Analytical Spectroscopy or Samples in Analytical Chemistry (term 3).
  o Co-teaching of a partially intensive course including a common topic between two or more technical programs (e.g. PDSB: Protocole de Déplacement Sécuritaire des Bénéficiaires in Nursing and Diagnostic Imaging).
  o Design of activities-case studies, assessment, labs, connecting two courses from different disciplines.
  o Promote existing extracurricular activities with participants for the pre-university Science program to students from relevant technical programs.

Priority 3: Create a unique Science sector infrastructure that supports LC curriculum and faculty development
The nature of the Science program imposes unique constraints on the ability of teachers to make changes in content delivery and assessments. Creating structured opportunities for teachers to communicate and learn from each other will facilitate innovation in curriculum design and pedagogy. We also must provide teachers with adequate structures and physical space, tools, strategies and resources that will increase the likelihood that innovations are sustainable.

Strategies/actions:
- Develop tools and create occasions to complete curriculum mapping across all programs of the Science sector to highlight opportunities for integration.
- Create a virtual location for the documentation and college-wide promotion of Science LC initiatives.
- Create a recruiting framework to expand the cadre of teachers involved in LC projects.
- In collaboration with departments, investigate the development of staffing policies to increase LC initiative sustainability.

- Establish a Science LC community of practice to sustain professional development and communication between teachers from different disciplines.
- Support data collection to identify success bottlenecks that can be addressed by collaboration between departments.
- Identify and assign resources for external professional development opportunities for Science LC teachers.
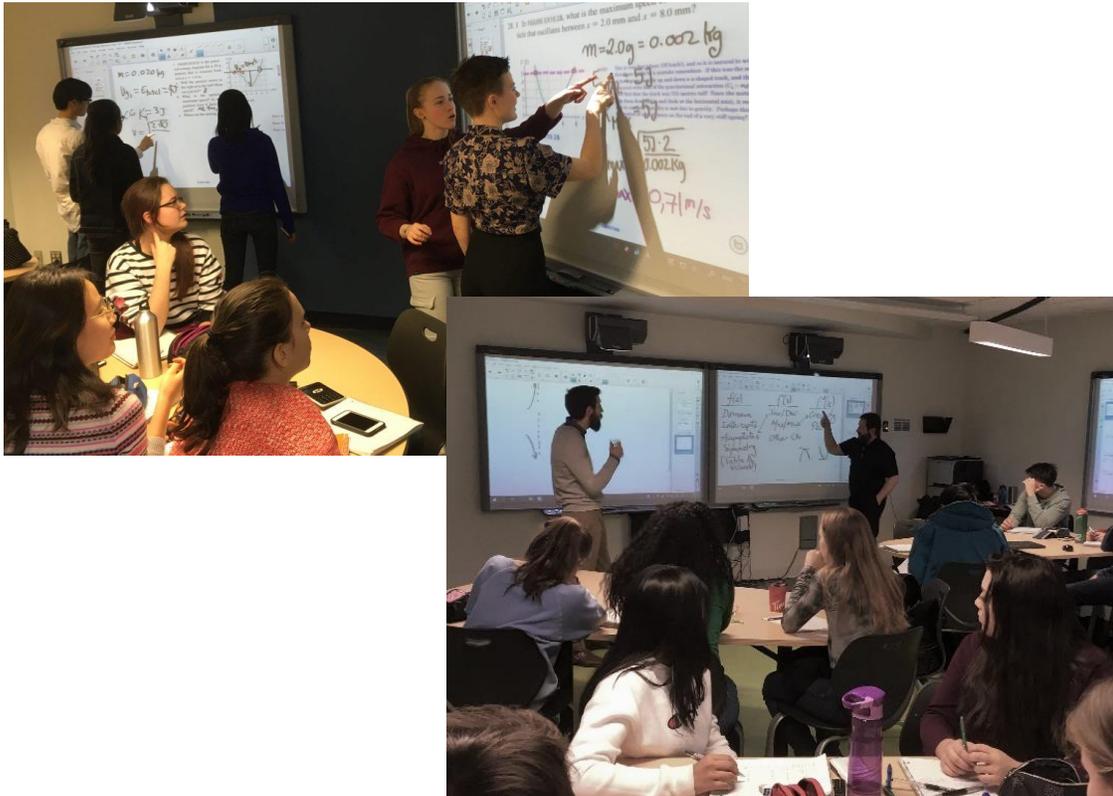
III. Social Science Learning Communities Planning Framework 2020-2022

Vision: General Social Science students will participate in a welcoming, engaging and intellectually committed community of peers and faculty as they follow a coherent and intentionally designed sequence of interdisciplinary/integrative learning experiences.

Goal: By 2022, every General Social Science student will have at least one learning community experience by graduation.

Priority 1
- Develop new learning community formats that enhance personal belonging and intellectual commitment in first-semester General Social Science students

Priority 2
- Improve student success by expanding existing modes of integration in General Social Science research methods sequence and piloting new ones

Priority 3
- Adopt program-level strategies to ensure sustainability of General Social Science learning community initiatives

Priority 4
- Encourage Profiles to promote similar Learning Community initiatives to enhance the sense of engagement and community within the profile.

Priority 1: Develop new learning community curricular formats that enhance personal belonging and intellectual commitment in first-semester General Social Science students

Offering our 600 incoming students various options to join a Learning Community will improve their academic achievement, raise their level of program engagement and increase the overall rate of retention. In their important first semester, these students will be introduced to college learning by participating in a designated cohort. Together, they will follow courses in several different disciplines that have been designed to explore one major issue or problem. This integrative experience will take the form of either a course pairing, or a thematic cluster of courses, and will create an environment that fosters thinking across disciplines, acknowledgement of different perspectives and awareness of genres of knowledge production. Students earn more than the potential for a good mark. Our intention is that they begin to feel an integral part of the Dawson and Social Science communities, even as they develop analytical skills, communication techniques, and the confidence to defend evidence-based arguments. In sum, a Learning Communities approach in Social Science General Studies will enact in numerous ways the mission of supporting student learning and engagement in the classroom, in the broader activities of the campus community, and even in our surrounding off-campus neighbourhoods.

Strategies/actions:
- Continuation and expansion of paired courses between Economics, Psychology and History.
- Pilot thematic clusters of two of the big three (Economics, Psychology and History) and one 100-level option + 1 option.
- Pilot a thematic cluster of first-term RM with two discipline pairs.

Priority 2: Improve student success by expanding existing modes of integration in General Social Science research methods sequence and piloting new ones

In Research Methods, Quantitative Methods and Integrative Seminar classes students are able to perform the individual tasks, assignments and skills required but often fail to see the connection to their other classes, to their own lives and to society. These Methods courses are fundamental to understanding how exciting the production of Social Science scholarship is, but unfortunately most students are left with the impression that these three courses are "boring," "useless" and simply a requirement to be endured. Student feedback from the two pilot LCs that pair RM and QM with discipline courses is overwhelmingly positive. Students appreciate the connection of the Methods course to a discipline, for it raises interesting questions and reveals the value of learning through investigating real-world social problems.

Paired courses are one way to engage students. Another is to thematically and vertically link the three different Methods courses so that the skills learned carry forward to a more fulfilling and satisfying Integrative Seminar course. Additionally, an e-portfolio assessment will be used to facilitate and sustain this vertical integration. A third positive configuration is to link three IS sections, each taught by a teacher in a different Social Science discipline. We foresee that throughout the term, the three separate classes would meet together intermittently using a common meeting block to explore and share ideas guided by growing expertise in three different disciplinary approaches.

Strategies/actions:
- Expand offerings of RM/QM + discipline pairs.
- Introduce vertical integration through an e-portfolio across all three methods courses.
  - Develop IS into a genuinely integrative capstone research course through thematic course clusters: one theme, 3 IS sections with 27 students each.

Priority 3: Adopt program-level strategies to ensure sustainability of General Social Science learning community initiatives

Learning Communities is well placed to tap into the expertise of Dawson's existing pedagogical initiatives. This will be especially helpful when we launch the vertical integration of the three Methods courses in which the expertise of teachers experienced in e-portfolios is needed. Another goal is to make profound connections between certificates and learning communities for General Social Science students. One exciting prospect would be to create IS courses that directly speak to the theme of a particular certificate, for example Decolonization and Indigenization. The Learning Communities can also create tangible links to other co-curricular opportunities at Dawson such as SPACE, Model UN and Sustainable Dawson.

Strategies/actions:
- Extend outreach to UDL, ALC, WID and E-Learning communities for input on enhancing student learning, engagement and well-being; and on the use of e-portfolio in tracking progress/maintaining links in both horizontal and vertical thematic clusters.
- Connect Social Science LCs where appropriate with certificates initiatives and co-curricular opportunities.
- Learn about and publicize ways to encourage pro-social participation and engagement by reaching out to Student Services and the First Year Office.
- Discuss with administration and union ways to encourage teacher participation in LC projects through PD funding, course release, CI calculation adjustments, transfer of availabilities, etc.
- Extend discussion to other programs to initiate planning for future LCs that could cross and connect programs.

Priority 4: Encourage Profiles to promote similar Learning Community initiatives to enhance the sense of engagement and community within the profile.

Profiles are designed to create a community, and thus it seems natural that the Learning Community initiatives started for the General Social Science students could be adapted in each profile. Paired classes and thematic links would enrich the students' experience and engagement within the Profile.

Strategies/actions:
- Engage profile coordinators and teachers to identify possible themes and links in required discipline courses.
- Have a profile celebration at the end of fourth term in which a student can showcase anything they have learned. This could be in person as a mini-conference or be published as a blog or via a poster template.
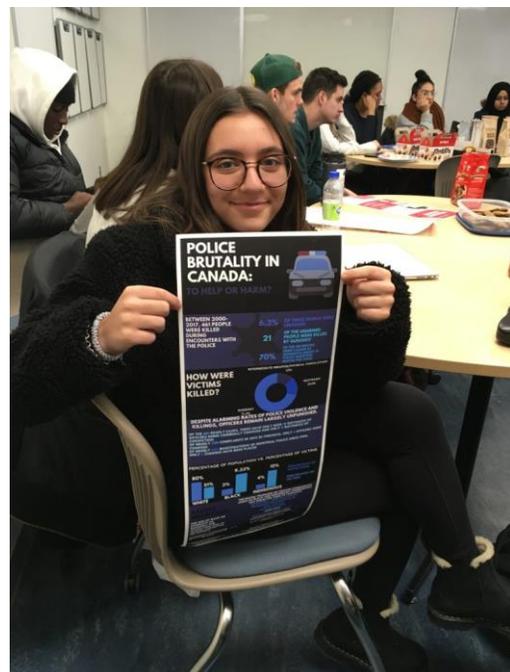
IV. Learning Communities Certificates Planning Framework 2020-2022

Vision: Dawson's unique and engaging interdisciplinary certificates develop multiple facets of the Graduate Profile by connecting curricular and co-curricular learning and offer a guided pathway to success through program and General Education requirements.

Goal: Develop and implement a coherent plan for the creation, management and resourcing of Certificates.

Priority 1

- Define what a certificate is and what its components are

Priority 2

- Develop policies and practices for the creation, management, support and improvement of existing and new certificates

Priority 1: Define what a certificate is and why we have them by identifying fundamental curricular and co-curricular components, and by explicitly linking the outcomes/impacts of certificates to student success and the Graduate Profile

Due to the lack of a shared understanding of certificates across college departments and units, certificates at Dawson exist in a twilight zone, somewhere between programs and profiles on the one hand, and special areas of study on the other. Because the nature and purposes of certificates remain unclear, there are perennial, sometimes skeptical questions about how they are managed and resourced. The first priority, then, is to define what a certificate is by identifying key curricular and co-curricular characteristics and components, and establishing what value they add to the learning and experiences of Dawson students.

Strategies/actions:
- Develop a working definition of certificates: Interdisciplinary teaching, integrative assessments, thematic "real world" content, linking programs and General Education, connecting curricular and co-curricular, utilizing LC modalities/formats and drawing on evidence-based pedagogies.
- Identify common general attributes across certificates: knowledge, application, agency.
- Establish solid academic foundation for individual certificates via specific graduate attributes that map onto the Graduate Profile.

Priority 2: Develop policies for the creation, management and support of certificates that aim to sustain existing certificates and guide the development of new ones.

In the absence of a collective raison d'être, certificates also lack a defined body of policies and practices that would guide the creation of new certificates, convey best practices in their ongoing operation and internal management, and provide guidelines for effective and efficient resourcing with an eye to long-term sustainability. Without a certificate playbook, the teachers, administrators and support staff implicated in certificate management have often been left to their own devices in making good faith, but ad hoc, decisions. To truly thrive and reach their potential, certificates require effective operational guidelines that rationalize faculty management and optimize accessibility to students. A second priority is to develop policies for the creation, management and support of certificates that aim to sustain existing certificates and guide the development of new ones.

Strategies/actions:
- Establish a unique process for certificate creation.
- Develop best practices for certificate management.
- Support certificate coordination.
- Innovate new course structures/formats that expand accessibility to students.
- Gather new data on the impact of certificates on student learning and success.
- Support communities of practice that examine relation between student learning and community, exploring pedagogical approaches address the interrelatedness of engagement, psycho-social well-being and learning.
- Develop a comprehensive communications plan.

E. Student and faculty photographs

Cover: **1**. Student project exhibition, *Imaging Violence and Nonviolence* Humanities & Cinema-Communications paired courses. **2**. Class activity, Mechanics & Calculus 1 paired courses. **3**. Nature art activity, *Nature Revisited* English and Physical Education paired courses.

Page 1: **1**. *Peace 365* Contemporary Issues class. **2**. Canoe trip, *Nature Revisited*. **3**. Student project exhibition, *Imaging Violence and Nonviolence*.

Page 2: **1**. Class activity, *Make Things that Matter/SPACE* Contemporary Issues course. **2**. Social Science strategic planning brainstorming session. **3**. E-Week activity, *Business Ethics and the Triple Bottom Line* Humanities course.

Page 9: **1**. W16 course design, Ben Lander and Elizabeth Kirkland, *Social Justice in Canada?* Canadian History & Quantitative Methods paired courses.

Page 11: **1**. Faculty participants, W17 course design. **2**. Mechanics & Calculus 1 W18 design team, Jean-François Brière, Chris Roderick and Andreea Panait.

Pages 12 & 13: Class activity, Organic Chemistry & Biology II, Yoon-Seo Uh and Janet Wyman.

Page 14: Class field trips, *Gender Matters* Contemporary Issues course.

Page 15: Class field trips, *Stories of Shaughnessy Village* paired Research Methods & Introduction to Geography courses.

Page 18: Faculty participants, W18 course design.

Page 21: Class activities, Mechanics & Calculus I.

Page 24: **1**. Course design W18, Lisa Steffen and Susan Finch, *The Good Life?* Paired Western Civilization and General Psychology courses. **2**. Poster presentation, *Social Justice in Canada?* Canadian History & Quantitative Methods.

Page 26: **1**. *Imaging Violence and Nonviolence.* **2**. Peace panel, *Peace 365* Contemporary Issues, Ivan Freud.

Page 38: 1. Nureva room activity, *Make Things that Matter*/SPACE Contemporary Issues. **2**. Canoe trip finale, *Nature Revisited* English & Physical Education. **3**. Mechanics & Calculus I teaching team, Benjamin Seamone and Chris Roderick.

Appendix I: Learning Community course development, 2016-2019

I.   Science Program – Enriched Science Profile

- Biology II & Organic Chemistry – Janet Wyman (Biology) & Yoon-Seo Uh (Chemistry)
- Physics Mechanics & Calculus I – Jean-François Brière, Chris Roderick, Chris Whittaker (Physics) & Andrea Panait, Benjamin Seamone, Sylvain Muise (Mathematics)

II.   Social Science Program – General Studies Profile

- "The Good Life?": paired back-to-back courses: Western Civilization & General Psychology – Lisa Steffen (History) & Susan Finch (Psychology)
- "Stories of Shaughnessy Village": paired back-to-back courses: Social Science Research Methods & Introduction to Geography – Mark Beauchamp (History) & Geoffrey Pearce (Geography)
- "Counting the Costs: Social Justice in Canada?": paired back-to-back courses: Quantitative Methods & Canadian History – Ben Lander (History) & Elizabeth Kirkland (History)

III.   Certificates and Special Areas of Study

- Women's/Gender Studies:
  - "Imaging Violence and Nonviolence"; paired courses: Humanities Worldviews & Complementary Contemporary Issues Imaging Technologies – Pat Romano (Humanities) & Kim Simard (Cinema and Communications)
  - "Gender Matters"; stand-alone team-taught course – Dipti Gupta (Cinema and Communications)
- Reflections: "War and Peace"; paired courses: European History & Humanities Ethics – Michael Duckett (History) & Julian Nemeth/Gray Miles (Humanities)
- Environment and Sustainability: "Nature Revisited"; paired courses: Physical Education: Nature Retreat & English Literary Themes: Into the Wild - Writing about Nature and Ecology – Doug Smyth (Physical Education) & Ian MacKenzie (English)
- Peace Certificate: "Peace 365"; stand-alone course with integrated co-curricular activities – Ivan Freud (Religion)
- SPACE (Science Participating with Arts and Science in Education): "SPACE: Make Things that Matter"; stand-alone course with integrated co-curricular activities – Joel Trudeau (Physics)
- Entrepreneurship / eWeek: "Business Ethics and the Triple Bottom Line"; stand-alone course with integrated co-curricular activities – Carl Saucier-Bouffard (Humanities)

Appendix II: Impacts on student engagement and learning and on faculty satisfaction and growth

A. Summary of results from F2017 student surveys

In each of the three years of the LC project (2016, 2017 and 2018), student surveys and faculty surveys have been completed in every course pairing and stand-alone course offered in the fall semester. The questions in the student survey were designed to test the hypothesis that the LC model offers potential gains in engagement and learning, as reported in the research literature. (see Appendix III and "Overview of Learning Communities in Higher Education") The questions solicited student feedback pertinent to the impacts of the learning community model, specifically on four outcomes: heightened interest and engagement as a result of complex course themes; gains in integrative learning that sees students making connections between disciplines to advance their understanding; deeper student-student peer relationships that provide a supportive context for learning; and enriched student-teacher relationships that augment that supportive context.

The survey questions were first tested in a preliminary survey of 3 paired-course General Education LCs in Fall 2016. All student survey responses were anonymous, and all student data was gathered solely for institutional quality assurance purposes. Apart from minor revisions for clarity, the F2017 and F2018 surveys were identical to the preliminary F2016 survey. The survey questions were as follows:

> *1.a. Explain your level of interest in the issues, topics, problems or themes that were introduced and explored in these paired courses.*
> *b. What impact did your level of interest in these topics have on your motivation and learning?*
> *2.a. What connections were you able to see between the topics, activities and assignments in the two paired courses?*
> *b. What impact did the presence or absence of connections have on your motivation and learning?*
> *3.a. How would you describe your relations with other students in your paired courses?*
> *b. What impact did the quality of the relationships between students in the class have on your motivation and learning?*
> *4.a. How would you describe your relations with the teachers in your paired courses?*
> *b. What impact did the nature of your relations with the teachers have on your motivation and learning?*

Each answer to the eight survey questions was coded by the LC project lead to identify general trends. The results of three years of surveying Dawson students provides strong support to the argument that the LC model can have significant positive impacts on student learning and engagement. Each year has seen an increase in the number of courses offered, in enrollment in courses, and thus in the survey sample size (F16: 6 courses, n=43; F17 10 courses, n=66, F18: 18 courses, n=209). This has permitted increasing confidence in the interpretation of trends. In the F17 surveys, for example, student answers to the eight survey questions trended strongly toward the positive, reproducing the results of the preliminary F2016 surveys. In an aggregate of all responses to the eight F17 survey questions, 87% of the survey responses were uniquely positive. 12% of the responses offered feedback that was both positive and neutral, or positive along with constructive critical suggestions. For four of the five F17 paired courses, there were no responses to any of the eight questions that could be categorized as entirely negative, or even neutral. Only in the Biology & Organic Chemistry pair were there answers that were entirely neutral or negative, a total of 3% of all answers for that pairing, and 1% for the entire sample.

Analysis of F2018 student surveys is still under way, but preliminary samples suggest these positive trends will be sustained.

A detailed breakdown and summary can be found in archived documents on the Dawson Learning Communities website ([Summary of Fall 2017 Learning Community Student Surveys](#)). Representative samples from the F2017 surveys are included here to illustrate the four central themes:

1. **Development of a strong interest in interdisciplinary course themes and topics, with subsequent positive effects on engagement and learning.**
   "I was extremely interested in the topics discussed. For once, I was learning about something that matters and I loved it."

   "Throughout the courses my level of interest got stronger. At the beginning, I was really only in the courses to succeed and get my credits, but the topics we touched upon really drew me in."

   "I was extremely interested in everything that was covered in both classes. We were able to go more in depth into both courses, allowing us to broaden our horizons."

   "My level of interest in these topics gave me a high level of motivation and learning. It made me want to come to class and do my work. Because I enjoyed the topics, the work assigned seemed easy to complete. It didn't feel like homework - sometimes."

2. **Acquisition of an enhanced ability to draw connections between concepts and practices in different disciplines, with positive effects for engagement and learning.**
   "Considering I didn't know what Shaughnessy Village was beforehand, I found it very interesting to explore issues and topic through it, because I developed a genuine interest in the neighbourhood. Learning about gentrification, social issues, oral history, etc. becomes something that I can connect with when I'm able to see it around me. It brought a new perspective to classroom topics that made me want to come to class."

   "There are a lot of connections between chirality and resonance of the molecules with their functions in a biological system. Enantomics / SN1, SN2, E1, E2 reactions can also be applied while learning new materials in biology."

   "They went hand in hand. Humanities was more lecture notetaking and understanding the concept, whereas in the media lab section, it was more interactive, analyzing and understanding media's portrayal of violence and how consumers view it. "

   "It had a good impact. Some texts I might not have otherwise read for English, but I did because was important for both English and Phys-Ed classes."

3. **Strong relationships between student peers in the common paired class cohort, with positive impacts on engagement and commitment to learning.**
   "Due to the smaller group and the dual courses, I became quite close to all the individuals in my class, as paired course work and constant communication allowed for deeper connections. "

"I built many friendships with my classmates, in other classes this doesn't usually happen, because I do not get the change to spend as much time with them as well as have a more discussion-oriented class."

"When it was hard or if I missed a class everyone would always ask about my wellbeing and ask if I need any help. When I don't understand they are willing to help."
"The class turned out to be an actual community where everyone was helping each other. "

4. **Strong relationships with the co-teachers of the course pairs, with resultant positive impacts on communication, engagement, learning, and academic achievement.**
   "The relationships with the teachers made me feel very comfortable. There was no condescension or dread when talking to them. Instead, we were able to form social connections that made us more empathetic towards each other."

   "I have good relations with both, they are both amazing, motivated, full of passion in wanting to make everything happen and absolutely helpful in anything. They believe in us."

   "It made me want to learn more, to show them that their class is one of the most influential classes I've ever taken. That my learning about resistance and non-violence learn is not limited to the class, but extends outside of it too."

   "It made me feel motivated to learn and study hard in order to make them feel proud and show them that their incredible teaching paid off."

B. **Summary of results from F2017 faculty surveys**

As well as gathering post-course data from students, we also gathered post-course responses from LC faculty. In F2017, post-course surveys were completed by all 10 teachers of F2017 LC sections. The open-ended questions were as follows:
> *1. How would you describe the impact of the learning community format on student engagement and learning?*
> *2. How would you describe the impact of collaborative design and team-teaching on your motivation, learning, and professional/personal growth?*
> *3. What ideas do you have for future curricular & pedagogical developments/adaptations, based on your experiences this term?*
> *4. Any other ideas, experiences or impressions that stand out as significant for you?*

A breakdown and summary of these faculty surveys can be found in our archived documentation ([Summary of Faculty Post-course Surveys Fall 2017](#)), but in general, responses from faculty can be characterized as very positive. Teachers felt strongly about the observed impacts of the LC model on student engagement and learning. They were also unanimously positive about the professional and personal impacts of their collaborative work in course design and team-teaching. All participating faculty also identified and discussed areas for refinements to future iterations of their courses.

Following is a selection of remarks from the F2017 faculty surveys, first on impacts on student engagement and learning:

"What I have valued the most about the LC model comes from the sheer increase in the time one has [from back-to-back scheduling], along with the mutual support and complementary strengths that comes with working with another teacher. The possibility to integrate a content heavy [Humanities] course with a creative, project-focused course opens up so many opportunities to respond to students' different learning styles and engage students emotionally, without needing to compromise on giving students the academic foundation needed to foster meaningful critical thinking."

"I feel confident in saying that the learning community format had a very positive impact on student learning. It created a setting in which students felt connected to each other and to the subject matter. Students reported higher attendance rates than normal and "actually wanting to come to class." Where very few of them knew each other before the class began, they formed tight bonds with their fellow students – often extending their learning and socializing beyond the classroom. They frequently commented on how much they were learning about their own world."

"We strongly felt that the learning community format, scheduling of lectures and laboratory experiments in a back-to-back fashion between the two courses, is ideal. In chemistry lectures, which are scheduled first, the students can take time to learn how small building blocks of macromolecules (i.e. topics in the biology course) are built and function. Because I am fully aware of what the students will learn in the subsequent biology lecture, I can make direct references to the materials and examples that the students will examine in depth with the other teacher. The LC format allows the students to link instantly how Chemistry can be applied to understand the functioning of macromolecules in Biology."

"The student engagement was higher than in most unpaired classes that I have taught… while the student make-up of LCs is, to some degree, self-selected, there is still something more that happens as a result of the culture that is created in such a classroom. Having two teachers in the room together to discuss some of the course material, and getting out of the classroom to walk around in the neighborhood were experiences that were novel to many of the students, and therefore very well-received."

And second, on the professional and personal impacts of collaborative teaching:
"It was a real pleasure working with XXXX. I love to learn about the world by seeing things through his geographical/philosophical lens. The students clearly love and trust him. I continued to enjoy the benefits of having XXXX in my classes as a second teacher brain, and to share ideas outside of class about course design."

"I loved getting to learn from XXXX. It was a real pleasure to be a student and feel connected with the students in that way. It helped create a feeling of community where we were all learners. I was pushed to learn more and think about [History course] in different ways because XXXX would have ideas for my class that I wanted to take up. It was one of the best professional experiences I've had. XXXX and I still speak on a weekly basis about how and what we want to teach in the next iteration of the class. I have many ideas for future collaborations."

"This was our third time pairing our [Humanities and Cin-Com] courses, and the impact has been extremely positive on all of these levels. Our partnership has deepened, and both of us, I think, are reaching out of our comfort zone. We are currently developing a new project based on the pedagogy and experiences with our paired course."

"Enriching in all ways. Positive peer pressure, discussing best practices, debating educational theory, meshing two curricula leads to an experience where you are no longer having to teach and reflect in isolation, but can do so with another colleague. This all leads to the feeling you are truly on an adventure together, learning, discovering, and growing both professionally and personally in a collaborative setting."

Appendix III: Selective bibliography on learning communities in higher education

The comprehensive literature review is accessible on the Learning Communities website. See [An Overview of Learning Communities in Higher Education](#).

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