Transforming University Education:

A Report by the Future of Teaching and Learning Working Group

March 2023

Carleton University

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Note from the Chair

The chance to step back and think about the future is a real privilege. For the past several years, distressing and unpredictable global and local phenomena have pushed us together and pulled us apart. Meanwhile, technological innovation and growing waves of social justice have created incredible moments of hope and reconciliation. We convened this Working Group to envision Carleton's future for teaching and learning in this shifting world in a way that builds on the momentum of our successes and guides fresh ideas yet to be born.

To keep our conversations grounded, we looked to global trends and research in teaching and learning, we drew on existing strategic plans and pushed them one step further, being bold in our thinking about what student success could look like and how we might approach teaching and pedagogy with imagination and new expectations. We kept a particular eye on preparing students to navigate grand challenges and understand themselves and their impact on the world around them. We were also intentional about prioritizing wellness and partnerships within and beyond our campus teaching and learning community.

In this document, we present a set of directions forward for innovative thinking around topics such as student engagement, relationship-rich learning, strong pedagogy, experiential learning, educational technologies, and more. These directions are meant to engage all of us as we embrace change and move forward with enacting the future of teaching and learning at Carleton.

Dr. David J Hornsby, Associate Vice-President (Teaching and Learning)

Motivation for the Working Group

Teaching and learning are core to the university's mission. Like other universities across the province and the world, Carleton is experiencing pressures in its teaching and learning environment. Recent global events, including the COVID-19 pandemic, have revealed, and even accelerated inequities and challenges that have real consequences for universities and the students they serve. If the goal of education is to spur social transformation, then universities need to respond fully to such pressures. In the past decade, we have seen an increased awareness around mental health and the importance of whole person wellness at the same time as students, governments, and other stakeholders demand increased partnerships and community and industry-based learning. Online and hybrid learning offer opportunities and demands for new and enhanced skillsets and reinforce the importance of transferrable skills development.

Thus, motivated and guided by the literature about trends in post-secondary teaching and learning and evidence-based teaching practices as well as the needs of Carleton's teaching and learning community (see Guiding Documents), we developed a series of directions to guide the future of teaching and learning at Carleton.

The proposed directions build on Carleton's current Strategic Integrated Plan and strategic documents, particularly the Academic Plan, Kinàmàgawin 41 Calls to Action, Digital Strategy, Equity, Diversity, and Inclusion Action Plan, Coordinated Accessibility Strategy, and the Strategic Plan for Community Engagement. Highlighted across several of these are priorities relating to community partnerships, interdisciplinarity, and scholarly teaching.

In our discussions we talked at length about the concept of "productive failure" and about providing space for instructors and students to feel safe in experimenting and reflecting on improvement. This kind of environment fosters generosity in our classroom discussions, trust in our approach to teaching and learning, and innovation in our treatment of complex subject material and problems.

| Process

We convened as a Working Group in April 2022 and met virtually every month between May and October 2022 (Figure 1).
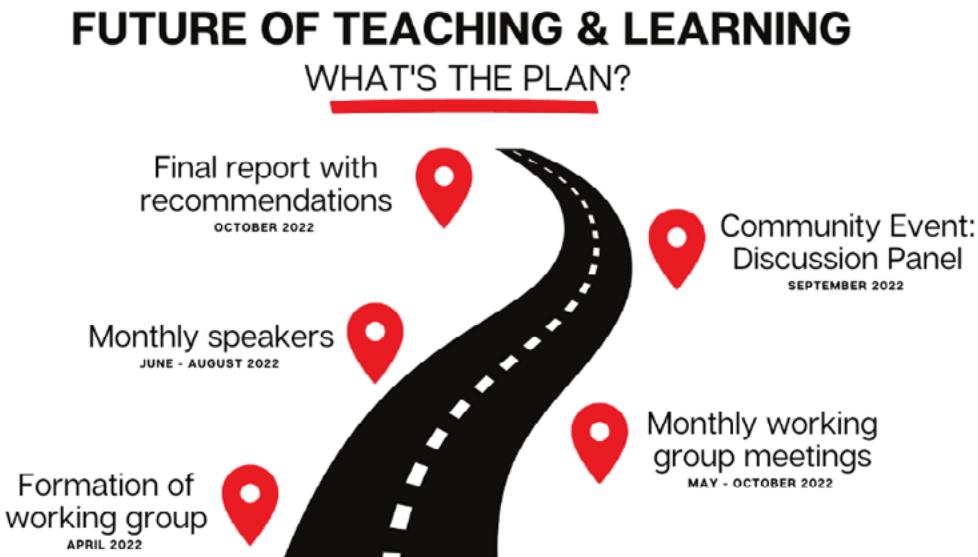
Figure 1. Roadmap for the Future of Teaching and Learning Working Group

Guiding Documents

The project team prepared two documents that were introduced in the initial meetings and guided subsequent meetings:

1. _Trends in Post-Secondary Education_ summarized trends from a variety of national and international reports about the future of post-secondary education.
2. _Directions for Discussion_ synthesized Trends and identified three major categories of prompts around which to centre the Working Group discussions: teaching culture and practices, community, and wellness, and learning spaces and pathways.

The Working Group also looked into data specific to the Carleton context, including the summary of findings of two teaching and learning surveys sent to Carleton students and instructors in 2021.

Invited Speakers and Community Feedback

We invited guest speakers to engage in conversations on a variety of topics relating to the future of teaching and learning in post-secondary education. Speakers included:

- **Paul Davidson** (President, Universities Canada). Mr. Davidson presented to the Working Group about universities as dynamic and responsive to constant challenges and pressures, including a shifting labour market and the ongoing effects of the COVID-19 pandemic (e.g., immigration).

- **Dr. Robert Luke** (CEO, eCampus Ontario). Dr. Luke presented to the Working Group about trends relating to digital learning, potential collaborations between Ontario universities and colleges, and the role of microcredentials in addressing the skills gap and evolving learner needs.

- **Dr. Tawana Kupe** (Vice-Chancellor and Principal, University of Pretoria). Dr. Kupe participated in a public panel discussion with Dr. David Hornsby centred on the future of hybrid learning experiences, the role the instructor in curating meaningful learning experiences, and the role of creativity and mistakability in student success.

- **Dr. Peter Felten** (Fulbright Canada Distinguished Chair in the Scholarship of Teaching and Learning, Elon University), **Dr. Susan Hrach** (Fulbright Canada Distinguished Chair in the Scholarship of Teaching and Learning, Columbus State University), **Dr. Michelle Eady** (Visiting Professor, University of Wollongong), **Ekpedeme Edem** (Ph.D. candidate in Law and Legal Studies), and **Kiana Moody** (4th-year undergraduate student, Department of Neuroscience). This group participated in a panel discussion [audio recording] open to all members of Carleton's community.

The speakers' insights helped focus us on priority areas and considerations for the final directions forward presented in this document.

There were several opportunities for the wider Carleton community to contribute their thoughts on the future of teaching and learning through an online web form and during the panel discussions. We also collected feedback from TLS staff. We compiled, analyzed, and integrated all community feedback into the final directions forward.

Directions Forward

The future of teaching and learning at Carleton must be anchored in practices that promote student success. To this end, the Working Group defined directions forward that support this goal by looking to current literature, field experts, and the Carleton community. We determined that to best align our vision of the future with student success, the future of teaching and learning should be:
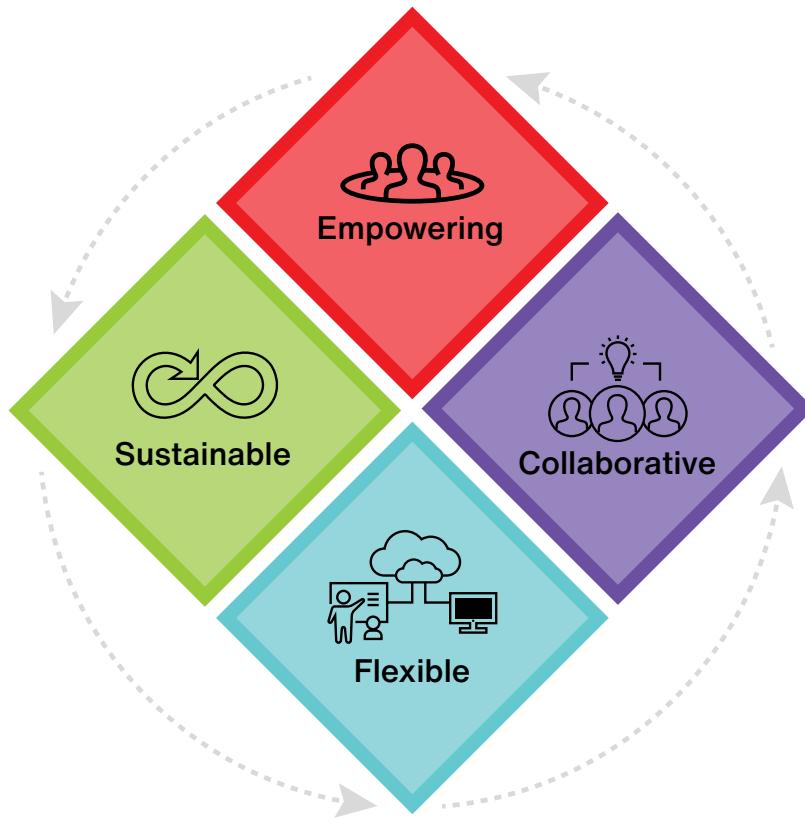
Each direction is described below alongside potential strategies and actions that will move Carleton toward the goal of a dynamic future. Rather than just focusing on specific metrics, the Working Group also wanted to include *narratives of success* for each direction. These will help guide the community in identifying signs of progress in each area and recognize that there are many ways to achieve good learning and teaching practices.

EMPOWERING

Empowering

We will cultivate practices and opportunities that empower and support meaningful learning.

When people's voices and interests are heard, supported, and represented, they are more likely to recognize their own **agency**, feel part of a **community**, and perceive their learning experiences as **relevant**. Post-secondary institutions should strive to design spaces and learning experiences for **inclusion** to ensure everyone is empowered to take control of their learning and development.

As conversations about **wellness** become central to defining success in post-secondary contexts, learning communities have been challenged to respond with policies and programs that promote the wellness of their members. While some initiatives focus on physical and mental health, others focus on improving a sense of **belonging** for students and teaching teams[1], even before their first campus interaction.

How can Carleton move in this direction?

Universities can support the well-being of students and teaching teams by prioritizing **relationship-rich learning**[2], socially-just pedagogies, and teaching approaches that reduce barriers to **engagement**.

By promoting **socially just pedagogies**[3] as well as practices that increase **self-efficacy**[4], post-secondary communities can better honour students' and instructors' **agency** in curricular and extra-curricular activities, on and off campus.

Strategy	Sample Actions
Promote teaching activities for student success	• Develop pedagogical resources that support relationship-rich education and socially just pedagogies, including Indigenous-specific curricula • Showcase successful examples of non-disposable and authentic assignments[5] and flexible deliverables • Encourage student-centred assessments that enable feedback helpful to student learning

[1]Note that we use the term *teaching teams* throughout the document to refer to instructors as well as teaching assistants, lab coordinators, teaching librarians, students as partners, and many others who are central to designing and facilitating pedagogical experiences.

[2]Relationship-rich education emphasizes the importance of quality relationships among students, instructors, staff, and other mentors in learning environments (see Felten and Lambert, 2020).[3]Socially just pedagogies are approaches to teaching and learning that are oriented to address systems and dynamics of social oppression, privilege, and discrimination (see, for example, Alvarez, 2019).

[3]Socially just pedagogies are approaches to teaching and learning that are oriented to address systems and dynamics of social oppression, privilege, and discrimination (see, for example, Alvarez, 2019).

[4]Self-efficacy refers to an individual's belief of self-worth and confidence in their ability to exert control over one's own motivation, behavior, and social environment (Bandura, 1977, 1986, 1997).

[5]Non-disposable assignments (NDAs) result in artifacts that "add value to the world" beyond the creator's learning (Wiley, 2013, para 4). A framework for designing non-disposable assignments can be found in Seraphin et al. (2018). Authentic assignments replicate real-world tasks (Svinicki, 2004). See Wiley and Hilton (2018, Table 1) for a comparison between NDAs, authentic assignments, and more.

Make learning more accessible	• Provide exemplars and templated course elements that embody universal design for learning (UDL)[6] • Promote the use of open course materials (e.g., OERs[7], digital course packs) • Create a robust and equitable digital learning ecosystem • Dedicate equipment and spaces for digital teaching and learning
Create a sense of welcome, belonging, and mattering	• Work with partners across campus to ease students' transition to university life and study • Design spaces for informal and collaborative learning among and with students • Increase peer mentorship programs for students and teaching teams
Support teaching innovation	• Allocate funds to teaching grants and awards that encourage and rewards experimentation and innovation • Provide safe and inclusive spaces for teaching teams to try out new teaching approaches and receive constructive feedback • Increase incentives for engaging in course innovation (e.g., financial, tenure and promotion decisions) • Encourage creative teaching practices using modern technologies (e.g., XR[8], maker spaces,)

Narratives of success: How will we know if Carleton is on the right path?

As members of the community are empowered to prioritize wellness and relevant, engaging experiences both within and outside of the classroom, some indicators that we are achieving our goals in this area include:

- Increased feeling of belonging and support from students and teaching teams

- Improved student success through higher retention and completion rates

- More meaningful learning experiences reported by teaching teams and students (e.g., students achieving personal and professional growth, developing useful skills)

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[6]Building on a variety of research on how humans learn, including the fields of neuroscience, the learning sciences, and cognitive psychology, Universal Design for Learning (UDL) is a set of principles and guidelines that promote inclusive and accessible learning and can be applied in any discipline.

[7]Open education resources (OER) are teaching materials ranging from a single lesson plan to an entire textbook, for example, that reside in the public domain. Instructors can use, customize and re-use them at no cost, and they are free to students.

[8]The term XR (from *extended reality*) includes augmented reality, virtual reality, and mixed reality immersive technologies

- Increased engagement with clubs/groups on campus, wellness programs (e.g., athletics, healthy workplace, peer mentorship)

- Increased availability of open textbooks and software

- More campus spaces that place relationship-rich learning at the centre

- Instructors and departments feel empowered to mobilize research-informed strategies to improve the design of curricula and courses

- Alumni and external partner engagement in community-building with current students (e.g., mentorship)

The Future of Teaching and Learning is
COLLABORATIVE

We will foster connections among and between teaching teams and students through experiential and immersive learning for all.

Carleton has a strong history of **interdisciplinary** teaching and research and is thus well-placed to respond to a changing workforce where interdisciplinary skills are valued. Cross-Faculty teaching teams foster wider skillsets among students by creating engaging learning moments that transcend disciplines.

More broadly, community and industry-based **partnerships** are fast becoming essential for learners' personal and professional growth, and post-secondary institutions must respond by preparing learners for work and life by intentionally and thoughtfully integrating such collaborations, locally and globally, throughout the post-secondary experience.

How can Carleton move in this direction?

By working **collaboratively** with others from diverse backgrounds and in different contexts (classroom, workplaces, community), learners develop their personal, academic, and professional skills, including **communication**, **empathy and compassion**, **conflict management**, and **ethical behaviour**.

Providing immersive learning opportunities in post-secondary education is essential to produce graduates ready for the workforce and to exercise civic responsibilities.

When learners **critically reflect** on their activities and those around them, they consolidate the knowledge and skills acquired in these situations and hone their ability to articulate their skills. This, in turn, helps prepare graduates for their future personal and professional endeavours.

Strategy	Sample Actions
Expand all types of experiential learning	• Celebrate experiential learning in its many forms via showcases, sample activities and rubrics, etc. • Facilitate innovative and immersive experiential learning experiences (e.g., XR, work integrated learning, HyFlex, active learning) • Develop a university-level capstone experience • Recognize extra-curricular experiential learning (e.g., designation of such experiences on degrees)
Promote relationship-rich learning	• Extend undergraduate research and students as partners programming • Encourage scholarship of teaching and learning

|	
	• Create opportunities for cross-disciplinary communities of practice (e.g., academic integrity, assessment, artificial intelligence, equity) • Support collaborative syllabus, assignment, and rubric design • Support the development of new programs and curricula in collaboration with departments, schools, and Faculties
Support community and industry-based pedagogy and partnerships	• Collaborate with campus partners to facilitate the integration of community- and employer-based learning activities into courses • Leverage Carleton's location in Canada's capital to provide rich and unique experiential learning opportunities for our students • Open more pathways for sharing student partnership-based learning deliverables beyond the classroom

Narratives of success: How will we know if Carleton is on the right path?

As we focus on interdisciplinarity and strengthen partnerships between teaching teams, students, departments, and the wider community, some indicators that we are achieving our goals in this area include:

- More teaching teams and students engaging in collaborative projects and sharing their work with the community (e.g., showcases, publications, workshops, conferences)

- Better articulation of skillsets by students and in curriculum

- Increased positive feedback from employers and community partners working with students

- More interdisciplinary learning experiences across courses, departments, and Faculties

- Improved instructor confidence defining and integrating experiential learning into new and existing courses

- More group studying and team-based learning within and outside courses and classrooms
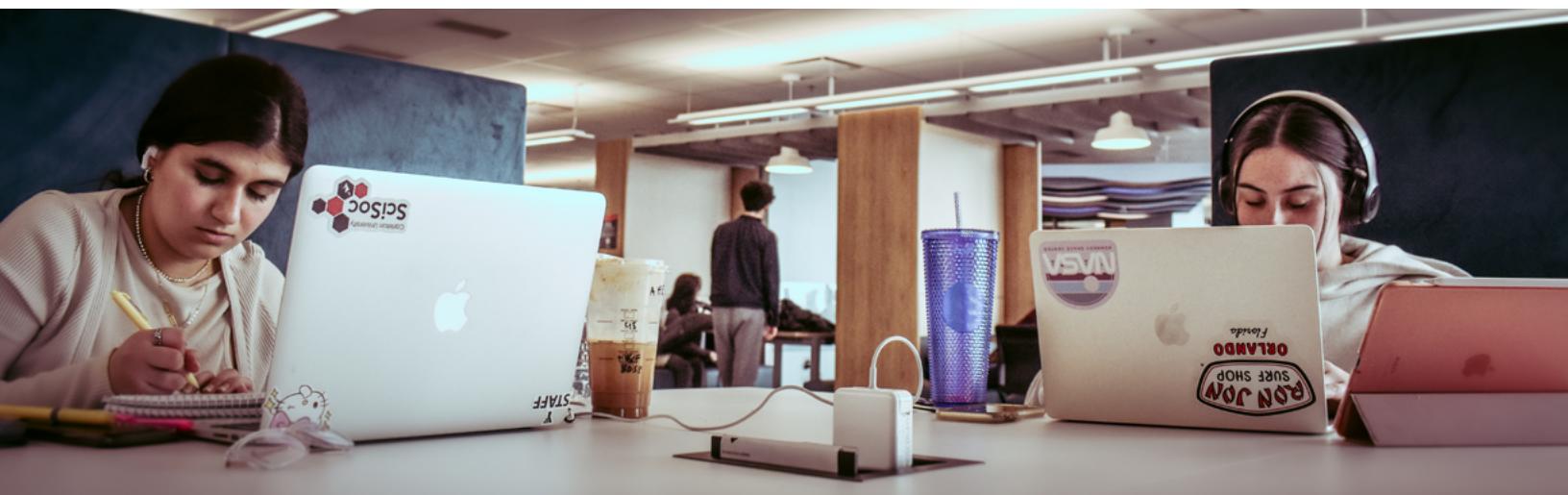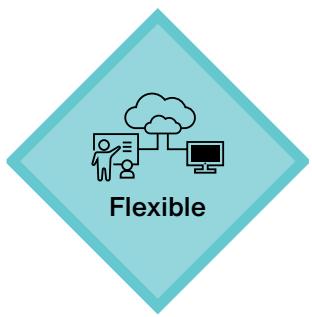
The Future of Teaching and Learning is

FLEXIBLE

We will increase opportunities for learning in accessible and flexible formats.

"Accessible": The development of accessible learning opportunities means reducing barriers to increase participation from students in **equity-denied groups**, including those with disabilities. financial concerns, and other systemic obstacles.

"Flexible": Flexible approaches to teaching and learning provide choice, autonomy, and opportunities to innovate for instructors and students. Flexibility should not be equated with individualized education plans or unlimited options for students, which are not scalable or sustainable for institutions.

Complex societal problems demand diverse types of knowledge and skillsets to develop and implement **innovative** solutions. As a result, post-secondary institutions have been challenged to think beyond traditional degree pathways and teaching modalities to offer novel types of learning opportunities – in other words, to provide experiences that address learners' and societal needs whilst promoting the growth of a **diverse** student population.

Flexible opportunities to acquire the skills and knowledge needed to prepare or advance a career are being increasingly recognized as essential to attract and retain talent. Flexibility in post-secondary programming can take many forms, including offering more **degree pathways**, integrating discrete **skills certifications**, valuing expertise gained outside of the institution, and increasing **online and hybrid** learning opportunities.

The widespread adoption of **digital tools** and educational technologies during the pandemic provides an opportunity to enrich our courses moving forward. Digital tools and technology can support innovative pedagogical approaches and enhance learning experiences by allowing instructors to revisit how learners encounter and interact with content and each other.

Institutions should seek to be as flexible as possible to promote the success of diverse learners with diverse needs. Simultaneously, Faculties, departments, and academic programs should maintain a **commitment to strong pedagogical practices** known to support good learning. Practices such as active and peer learning are well-known to promote student success and should be prioritized regardless of the length, pathway, or modality of the learning experience. The university is committed to supporting instructors in these efforts.

How can Carleton move in this direction?

Strategy	Sample Actions
Create more digital experiences	• Develop more online/mixed modality programs and courses • Enhance online and blended learning experiences for specific audiences (e.g., Indigenous students in remote locations, professionals, international students, students returning to post-secondary to complete their degree) • Collaborate with campus and community partners on online professional development for teaching teams
Provide flexible professional development for teaching teams	• Design training rooted in efficiency pedagogy (i.e., honouring people's time and effort) • Increase peer-to-peer professional development opportunities • Celebrate (e.g., showcase) successful online and blended pedagogies • Increase focus on innovation, scholarship of teaching and learning, and excellence in teaching in tenure and promotion processes
Integrate discrete skills into academic programming	• Develop online certification opportunities for discrete skills development (e.g., bridge-in/out or supplement degree programs) • Improve articulation of disciplinary and transferable skills in course learning outcomes • Enhance ongoing skills development through extra-curricular activities with critical reflection wraparound

Narratives of success: How will we know if Carleton is on the right path?

As we seek to maximize flexibility for learning opportunities for students while standing firmly with teaching teams in the implementation of practices known to promote student success, some indicators that we are achieving our goals in this area include:

- Increased offering of online courses, programs, and other digital learning experiences

- More teaching teams engaging with professional development opportunities and feeling sufficiently supported

- More instructors integrating online learning moments/experiences in their course

- More grant recipients for teaching innovation opportunities

- Increased use of innovation spaces on and off campus

- More programs making discrete skills certificates or wraparounds a required component

- Improved graduation rate

The Future of Teaching and Learning is
SUSTAINABLE

Sustainable

We will modernize our pedagogical strategies, digital and physical spaces to promote innovative and responsive teaching and learning.

Changes in technology, health, culture, and sociopolitical climate demand adaptability from post-secondary institutions to remain in step with evolving societal needs. The apex of a need for **rapid adaptation** was demonstrated by the global pandemic, with institutions, teaching teams, and students strained and stretched by efforts to adapt to an exclusively online learning environment imposed in March 2020.

This shift emphasized the need for a higher level of preparedness to **meet learners where they are**. Outside of the global health crisis, learner needs continue to evolve rapidly with a shifting labour market and demands for new skills. Reimagining learning experiences needs to be done carefully keeping robust approaches to our programs and services at the core.

To ensure post-secondary education remains a sustainable enterprise, learning opportunities must be attuned to the needs of tomorrow's learners and deliver **relevant experiences** for students that bolster their skills and prepare them for their next venture. As a result, teaching teams are challenged to deliver courses and learning experiences that support the development of **transferrable skills** and inspire **lifelong learning**. This calls for rethinking and redesigning courses to emphasize these needs, which requires appropriate support to ensure the highest quality learning experiences are being produced by these transformations.

How can Carleton move in this direction?

Strategy	Sample Actions
Promote adaptable and agile teaching practices	• "Future-proof" courses based on pandemic lessons learned • Create resources for scalable activities and assessments that transcend modality and foster student success • Develop guidelines for preparing clear and engaging syllabi and program maps to show purpose, skills gained, and contextual relevance of every learning experience • Deploy technologies that enable efficient workflows for managing complex projects and assessments

Ensure campus spaces accommodate diverse teaching approaches	• Develop more accessible spaces with movable furniture, collaborative classroom set-ups, etc.
	• Facilitate arts-based[9] and embodied learning[10]
	• Leverage outdoor campus spaces for land-based and community-engaged learning as per Kinàmàgawin Calls to Action
Leverage off-campus learning spaces	• Build lasting partnerships to develop internships and other experiential learning opportunities
	• Support study abroad and academic exchange programs
	• Incentivize and facilitate engagement with off-campus learning spaces

[9]Arts-based learning includes creative and interdisciplinary approaches to learning through music, literature, visual arts, film, and more (see, for example, the discussion in Chemi and Ponsillo, 2022)

[10]Embodied learning refers to the hands-on and physically engaged aspects of learning (see, for example, Hrach, 2021).

Narratives of success: How will we know if Carleton is on the right path?

As we prioritize meeting learners where they are to provide relevant experiences that instill a desire for lifelong learning, some indicators that we are achieving our goals in this area include:

- More engagement with TLS resources, consultations, and workshops

- More teaching team-driven initiatives, e.g., communities of practice and communities of inquiry

- More students reporting off-campus experiences on their co-curricular record and/or academic transcript

- Teaching teams spending less time on trivial tasks and more time improving efficacy in their course/ activity preparation and delivery

Next Steps

In times of societal pressure and disruptions, augmented by the COVID-19 pandemic, Carleton's community of scholars and educators must ensure their graduates are resilient and future-ready for a rapidly changing world beyond the university. The strategies outlined in this document invite us all to reflect on how we teach and show our commitment to supporting our students on their academic journey, which we want to be a successful one. We want our students to learn, grow, and graduate. We want to equip them with the tools and confidence they need to navigate the complexities of the world around them. We want them to realize their full potential. By providing a teaching and learning environment that allows them to become lifelong learners, we want our graduates to be ready to actively contribute to society regardless of the uncertainties and challenges the future may hold.

From here, the path forward requires the participation of all members of our community, both through their own individual actions and in collaboration with others. TLS will work with academic units to support the development of operational plans for teaching and learning that are grounded in actionable and measurable initiatives and incorporate elements of this report and consider the context and values of the unit.

To support such initiatives, the university will need to invest in people, resources and provide incentives to encourage experimentation and teaching excellence. This investment will lead to improved outcomes for Carleton's graduates and ensure that Carleton is well-positioned to engage with emerging issues and opportunities shaping the future of teaching and learning. It will also confirm Carleton's leadership role in terms of collaborative, inclusive and innovative pedagogical philosophies and practices.

We thank all members of the Carleton community whose invaluable comments, feedback, and ideas helped shape this document.

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