

BOARD OF GOVERNORS' 121ST REGULAR MEETING

AGENDA

Thursday, December 9, 2021

1:00 p.m. to 4:40 p.m.

[Videoconference](#)

No.	Topic	Lead	Allocated Time	Suggested Start Time
	PUBLIC SESSION			
1	Call to Order	Chair		
2	Agenda (M)	Chair		
3	Conflict of Interest Declaration	Chair		
4	Chair's Remarks	Chair	10	1:05 p.m.
5	President's Report	Steven Murphy	10	1:15 p.m.
6	Academic Council	Laura Elliott	10	1:25 p.m.
	6.1 New Program Proposals: (a) Faculty of Business and Information Technology – Master of Financial Data Analytics* (M) (b) Faculty of Social Science and Humanities – Master of Arts in Social Practice and Innovation* (M) (c) Faculty of Engineering and Applied Science – Master of Applied Science and Master of Engineering in Software Engineering* (M)			
	Committee Reports			
7	Audit & Finance Committee (A&F) Report	Laura Elliott	5	1:35 p.m.
	Finance			
	7.1 Second Quarter Financial Reports* (U)	Laura Elliott	5	1:40 p.m.
	7.2 Budget Assumptions* (U)	Laura Elliott	10	1:45 p.m.
8	Governance Nominations & Human Resources Committee (GNHR) Report	Maria Saros	5	1:55 p.m.
	8.1 Strategic Discussion: Draft Board EDI Statement* (D)	Maria Saros	20	2:00 p.m.

No.		Topic	Lead	Allocated Time	Suggested Start Time
	8.2	Update of Board 3-Year Governance Plan* (D)	Maria Saros	10	2:20 p.m.
9		Strategy & Planning Committee (S&P) Report	Lynne Zucker	10	2:30 p.m.
	9.1	Project Updates – Questions Only (U)			
10		Consent Agenda: (M)	Chair	5	2:40 p.m.
	10.1	Minutes of Public Session of Board Meetings of June 24, 2021*			
	10.2	Minutes of Public Session of A&F Meeting of June 16, 2021*			
	10.3	Minutes of Public Session of GNHR Meeting of May 27, 2021*			
	10.4	Minutes of Public Session of S&P Meeting of May 13, 2021*			
	10.5	Minutes of Public Session of Investment Meeting of June 2, 2021*			
	10.6	Statement of Investment Policies Update*			
	10.7	Policy Against Violence in the Workplace*			
11		Information Items (also available on the Board portal):			
		A&F			
	11.1	Freedom of Expression Annual Report*			
	11.2	Internal Reserves/Surplus Discussion Paper*			
		S&P			
	11.3	ACE Enhancement Project & New Building Project Updates*			
	11.4	AVIN Project*			
		GNHR			
	11.5	Board PD 2020-2021*			
	11.6	2022 Board Election Process*			
12		Other Business	Chair		
13		Adjournment (M)	Chair		2:45 p.m.
		BREAK		15	
		NON-PUBLIC SESSION (material not publicly available)			3:00 p.m.
14		Call to Order	Chair		
15		Conflict of Interest Declaration	Chair		

No.		Topic	Lead	Allocated Time	Suggested Start Time
16		Chair's Remarks		10	3:00 p.m.
	16.1	Durham College Engagement (D)	Chair & Steven Murphy		
17		President's Report	Steven Murphy	10	3:10 p.m.
	17.1	Professor Emeritus Appointment* (M)			
		Committee Reports (confidential items only)			
18		A&F Report	Laura Elliott	5	3:20 p.m.
	18.1	Cyber Insurance Update* (M)	Laura Elliott	10	3:25 p.m.
	18.2	Audit Update* (U)	Brad MacIsaac	10	3:35 p.m.
19		GNHR Report	Maria Saros	5	3:45 p.m.
20		S&P Report	Lynne Zucker	5	3:50 p.m.
	20.1	Strategic Space Planning* (M)	Lynne Zucker	10	3:55 p.m.
21		Consent Agenda (M):	Chair	5	4:05 p.m.
	21.1	Minutes of Non-Public Session of Board Meetings of June 24 & August 11, 2021* (M)			
	21.2	Minutes of Non-Public Session of A&F Meeting of June 16, 2021*			
	21.3	Minutes of Non-Public Session of GNHR Meetings of May 27, 2020*			
	21.4	Minutes of Non-Public Session of Investment Meeting of June 2, 2021*			
	21.5	Minutes of Non-Public Session of S&P Meeting of May 13, 2021*			
	21.6	Appointment of Governor to Academic Council for 2021-2022*			
	21.7	LGIC Nomination*			
22		For Information:			
	22.1	2021-2022 Committee Work Plans*			
	22.2	Advancement Update*			
23		Other Business	Chair		
24		In Camera Session	Chair	30	4:10 p.m.
	24.1	USGC Planning (D) <i>All staff to leave, including C. Foy</i>			
	24.2	Presidential Renewal* (M) <i>S. Murphy to leave and C. Foy to return</i>			
25		Termination (M)	Chair		4:40 p.m.

Becky Dinwoodie, Secretary

Consent Agenda: *To allow the Board to complete a number of matters quickly and devote more of its attention to major items of business, the Agenda has been divided between items that are to be presented individually for discussion and/or information and those that are approved and/or received by consent. A Consent Agenda is not intended to prevent discussion of any matter by the Board, but items listed under the consent sections will not be discussed at the meeting unless a Governor so requests. Governors are supplied with the appropriate documentation for each item, and all items on the Consent Agenda will be approved by means of one omnibus motion.*



BOARD REPORT

ACTION REQUESTED:

Recommendation	<input type="checkbox"/>
Decision	<input checked="" type="checkbox"/>
Discussion/Direction	<input type="checkbox"/>
Information	<input type="checkbox"/>

DATE: December 9, 2021

FROM: Academic Council

SUBJECT: New Program Proposal – Master of Financial Data Analytics

MANDATE:

In accordance with Article 1.4 of By-law No. 2, Academic Council will make recommendations to the Board on matters including the establishment or termination of degree programs. Academic Council is seeking the Board's approval of the establishment of a Master of Financial Data Analytics program.

MOTION FOR CONSIDERATION:

That pursuant to the recommendation of Academic Council, the Board of Governors hereby approves the establishment of a Master of Financial Data Analytics program, as presented.

BACKGROUND/CONTEXT & RATIONALE:

The Master of Financial Data Analytics (MFDA) aims to train highly qualified finance professionals with data analytics skills. MFDA is the first program in Canada to combine finance, information technology, and data analytics, especially AI programming and applications. Students are expected to gain sufficient knowledge and experience in the field of financial data analytics required to be hired in the finance sector upon graduation. The MFDA program includes eight courses and a choice of internship or projects. The courses cover finance and data analytics skills applied to finance. Applicants can be from business/economics/finance background or mathematics/computer science/information technology/engineering/science other quantitative areas. The program prepares students for Financial Risk Manager (FRM) and Chartered Financial Analyst (CFA) designations.

This new program leverages the Faculty's strengths in finance, informatics, and data science by providing a market-oriented master's degree. Finance is the largest business research area in the Faculty of Business and Information Technology (FBIT) with six tenured and tenure-track professors. Data analytics is an inter-disciplinary field and FBIT has talents from both business and Information technology. FBIT professors have supervised graduate students, won SSHRC/NSERC grants, and published in top journals in data analytics. FBIT has established a Business Analytics & AI Research Group, which includes professors, graduate students, and a

business analytics lab. The Faculty is working with Global Association of Risk Professionals (GARP), the issuer of Financial Risk Manager (FRM) on accreditation. GARP has issued a letter of support to this program (previously named “Master of Computational Finance” in the early stage of proposal development). CFA accreditation is also planned.

The choice of program name is based on other programs in business schools and is reflective of its content which is finance and data analytics methods. The course code is MFDA which condenses the name into 4 letters for our information system. The program has two modes of delivery: on campus and online. The preferred mode is on campus. Whether the online mode is offered in any given year will depend on the resources available and market demand.

This degree is an integral part of our other new programs in the Faculty that are being developed such as the Master of Business Analytics and AI, and the MSc/PhD in Business and IT. MFDA includes finance courses and data analytics courses. The data analytics courses are cross-listed with Master of Business Analytics and AI (MBAI). The finance courses can be used in the future MSc/PhD in Business and IT. There will be resource efficiencies through joint program marketing and advising. Surpluses from the professional programs will offset expenses from the research degrees.

RESOURCES REQUIRED:

Master of Financial Data Analytics (MFDA) is a new market-oriented business graduate program. The Faculty of Business and IT has the expertise and capability to deliver the program with existing faculty who would be reassigned to the MFDA from other teaching duties. The budget of MFDA allocates two hires in the context of the overall faculty budget and subject to enrolment targets to facilitate this increase in teaching capacity and project supervision in the Faculty as part of the growth strategy. Sessional hires indicated in the first years of the budget will be utilized to cover undergraduate courses, freeing up FBIT experts to teach in the Graduate Programs.

Normally only tenured and tenure-track professors will teach and supervise MFDA students. Teaching faculty or sessional faculty with Ph.D. or solid financial expertise can be considered. TA hours will be scaled up as needed based on enrollment. TAs will be recruited from second year MFDA students as well as from the pool of Master and Doctor of Computer Science Students. The Computer Science graduate program is shared with the Faculties of Science, Engineering and Applied Science and Business and IT (FBIT).

WRDS with CRSP/Compustat and EIKON is the only technology resource needed. Additional TA hours will be required as enrollment increases.

CONSULTATION AND APPROVAL:

Graduate Studies Committee: 22 June 2021

Final Faculty Council Approval: 15 June 2021

Academic Resource Committee Review: October 2020, March 2021

Academic Council: September 28, 2021

NEXT STEPS:

- The proposal must proceed through the following approval step subsequent to Board approval:
 - Ontario Universities Council on Quality Assurance
 - Ontario Ministry of Colleges and Universities
- The expected date of implementation is the fall semester of 2022

SUPPORTING REFERENCE MATERIALS:

- New Program Proposal with Appendices (Bookmarked PDF File)



University of Ontario Institute of Technology

New Graduate Program Proposal

Name of proposed program:	Master of Financial Data Analytics
Degree Designation/Credential:	MFDA
Faculty (where the program will be housed):	Faculty of Business and IT
Collaborating Faculty (if applicable):	
Program Delivery Location:	North Oshawa Campus
Collaborating Institution(s) (if applicable):	
Proposed Program Start Date:	September 2022
Proposal Contact:	Michael Bliemel and Bin Chang
Prepared Date:	September 21st, 2020-Revised May 3 rd , 2021

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1 Introduction

a) Program Abstract

Please provide a brief overview of the proposed program, in 1000 characters or less, including:

- *A clear statement of the purpose of the program*
- *Any program components, such as fields or pathways (note that fields and pathways are not required)*
- *Any distinctive elements, including alternative modes of delivery (including online)*

The Master of Financial Data Analytics (MFDA) aims to train highly qualified finance professionals with data analytics skills. MFDA is the first program in Canada to combine finance, information technology, and data analytics, especially AI programming and applications. Students are expected to gain sufficient knowledge and experience in the field of financial data analytics required to be hired in the finance sector upon graduation.

The MFDA program includes eight courses and a choice of internship or projects. The courses cover finance and data analytics skills applied to finance. Applicants can be from business/economics/finance background or mathematics/computer science/information technology/engineering/science other quantitative areas.

The program prepares students for Financial Risk Manager (FRM) and Chartered Financial Analyst (CFA) designations.

b) Background and Rationale

- *Identify what is being proposed and provide an academic rationale for the proposed program*
- *Explain the appropriateness of the program name and degree nomenclature; list any program fields, pathways, etc. (note that fields and pathways are not required)*
- *If applicable, describe the mode of delivery and how it will support students in achieving the learning objectives of the program*
- *Describe the ways in which the program fits into the broader array of program offerings*

This new program leverages our strengths in finance, informatics and data science by providing a market-oriented master's degree. Finance is the largest business research area in the Faculty of Business and Information Technology (FBIT) with six tenured and tenure-track professors. Finance faculty members have published in top academic journals, won FBIT Research Excellence awards, and some have published in Financial Times-50 journals, the highest-ranked business journals. The finance lab is equipped with Bloomberg, datastream, capital IQ, SDC, IBES, TickHistory, Rotman Interactive Trading and Rotman Portfolio Manager. Data analytics is an inter-disciplinary field and FBIT has talents from both business and Information technology. FBIT professors have supervised

graduate students, won SSHRC/NSERC grants, and published in top journals in data analytics. FBIT has established a Business Analytics & AI Research Group, which includes professors, graduate students, and a business analytics lab.

We are working with Global Association of Risk Professionals (GARP), the issuer of Financial Risk Manager (FRM) on accreditation. GARP has issued a letter of support to this program (previously named “Master of Computational Finance” in the early stage of proposal development) and it is attached. We also plan for CFA accreditation.

The choice of program name is based on other programs in business schools and is reflective of its content which is finance and data analytics methods. The course code is MFDA which condenses the name into 4 letters for our information system. We design two modes of delivery: on campus and online. The preferred mode is on campus. Whether the online mode is offered in any given year will depend on the resources available and market demand.

This degree is an integral part of our other new programs in the Faculty that are being developed such as the Master of Business Analytics and AI, and the MSc/PhD in Business and IT. MFDA includes finance courses and data analytics courses. The data analytics courses are cross-listed with Master of Business Analytics and AI (MBAI). The finance courses can be used in future MSC/PHD in Business and IT. We will have resource efficiencies through joint program marketing and advising. Surpluses from the professional programs will offset expenses from our research degrees.

c) Mission, Vision, Strategic Plan, and Strategic Mandate Agreement

- *Describe how the program contributes to the University’s Mission and Vision*
- *Explain how the program aligns with the goals and priorities outlined in the Faculty’s(ies’) and University’s Strategic Plans*
- *Identify how the program fits within one or more areas of strength or growth in Ontario Tech University’s Strategic Mandate Agreement*

The Master of Financial Data Analytics contributes to the University’s Mission and Vision by providing a market driven degree in an in-demand field that is at the intersection of Finance, data analytics, and information technology.

MFDA aligns with the goals and priorities in the University and FBIT’s Strategic Plans. It aligns with the goal to be “Canada’s emerging leader in career-ready education and collaborative research that produces new and useful ideas.” It aligns with FBIT’s vision to “become the leading school in the space where diverse business, IT and industry innovations intersect.” In this program, students will learn business and IT skills applied to finance, the skills that are in high demand in the finance industry.

Further the degree fits with the strategic mandate agreement in the area of strength in Informatics/Data Science. MFDA fits our Ontario Tech Vision in several ways, especially to “Provide superior undergraduate and graduate programs that are technology enriched and responsive to the needs of students and the evolving workplace”.

d) Student Demand

- *Provide evidence of student demand, including number of prospective student inquiries; applications and registrations for similar programs; results from surveys/focus groups of existing students, graduates, or professionals in the field*
- *Include information about domestic vs. international student interest*

According to reporting by Bloomberg reporting and data from LinkedIn, job listings requiring artificial intelligence, machine learning, and data analytics in the financial industry increased nearly 60% in the past year.
 (<https://www.bloomberg.com/news/articles/2019-08-20/finance-needs-people-who-work-well-with-robots>). The industry demand drives us to build MFDA.

Our own Commerce students always ask the professors to write reference letters to apply for master programs in finance in other universities in Canada and overseas. Some alumni are doing or have done graduate programs in business at other universities. Parents and students in Ontario University Fairs have asked for information about our master programs. When our own MFDA is available, we expect applications from our own Commerce students.

Enrolment Information

- *Provide information regarding enrolment projections and complete Table 1*

The numbers below are the anticipated new enrollments / year. Master of Financial Data Analytics is new, but we can examine the enrollment information from traditional masters of finance in other universities for reference. McGill University provides its annual class size online and it is 21 in year 1, 42 in year 2, and 43 in year 3. The projection below is based on McGill data. But since Ontario Tech University is a newer university, we expect to take more years to reach 40 students a year, the steady state.

Table 1: Projected Enrollment by Academic and Program Year

Level of Study	Master’s year 1	Master’s year 2						Total Enrolment
Academic Year 2022 – 2023	15	#	#	#	#	#	#	15
Academic Year 2023 – 2024	20	15						35

Academic Year 2024 – 2025	25	20						45
Academic Year 2025– 2026	30	25						55
Academic Year 2026 – 2027	35	30						65
Academic Year 2027 – 2028	40*	35						75





(* We expect 40 to be a steady state)

e) Societal Need

- Evidence of the need for graduates of the program and in which fields (within academic, public, and/or private sectors)
- Please indicate up to three occupations in which graduates from this proposed program may be employed using the [Ontario Job Futures](#) website
- For professional programs, a description of the program’s congruence with current regulatory requirements
- Mention if any employers in the area support the need for this program and include a letter of support as an additional appendix.

The amount of data being generated every day is staggering, at over 2.5 quintillion bytes of data coming from our activities on the web and from devices embedded everywhere (<https://www.forbes.com/sites/bernardmarr/2018/05/21/how-much-data-do-we-create-every-day-the-mind-blowing-stats-everyone-should-read/#1e818f3d60ba>). If we have to pick one industry which took the most benefit of data analytics then the answer would be financial industry. (<https://www.knowledgenile.com/blogs/data-analytics-financial-services/>)According to IBM report, 71 percent of banking and financial markets firms report that the use of information (including big data) and analytics is creating a competitive advantage for their organizations (<https://www.ibm.com/downloads/cas/E4BWZ1PY>).

As for Ontario, the Ontario Jobs Futures website lists 3 occupations that could be filled by graduates of the MFDA. These are Financial and Investments Analysis (growth rate=7-8%, 7000-8000 openings), Database Analysts and Data Administrators (growth rate= 14-15%, 3000-4000 openings), and Financial Managers (growth rate=4-5%, 5000-6000 openings).

Occupation 	Outlook rating 	Median income 	Skill level 
<input checked="" type="checkbox"/> Database analysts and data administrators Database analysts design, develop and administer data management solutions using database management software. Data administrators develop and impleme ...	Above average	\$83,370	University education
<input checked="" type="checkbox"/> Financial and investment analysts Financial and investment analysts collect and analyze financial information such as economic forecasts, trading volumes and the movement of capital, f...	Above average	\$78,207	University education
<input checked="" type="checkbox"/> Financial managers Financial managers plan, organize, direct, control and evaluate the operation of financial and accounting departments. They develop and implement the ...	Above average	\$93,897	University education

The finance industry is the most regulated industry. Supervisory responsibility for the financial sector in Canada is divided among the federal government, the provincial governments, and a group of agencies within the federal government (<https://research.osc.gov.on.ca/globalreg/cdnreg>). Two designations are the most important in financial data analytics: they are Chartered Financial Analyst (CFA®) and Financial Risk Manager (FRM®). The body of knowledge in this degree covers the topics tested in those professional tests and it is anticipated that a subset of students will pursue credentials in parallel with the Masters, which will be encouraged after they complete the appropriate classes.

f) Duplication

- Describe how the program is distinct from other programs at Ontario Tech. Is it reasonable to anticipate this program might affect enrolment in other related programs? If so, how might this be addressed?
- Identify similar or complementary programs offered elsewhere in Ontario in Table 2. Provide additional comment on the justification for this duplication.

This is new and unique in Ontario Tech University. There will be no impact on the enrollment in other programs. The MFDA program is different from the MBAI as follows. (1) MFDA is a finance program, but MBAI does not have any finance content. (2) MFDA targets business and non-business applicants, but MBAI is for business applicants only. (3) MFDA graduates will work in investment/risk management jobs, but MBAI graduates will work in operational departments/back offices. MFDA is different from potential MSc/PhD programs that FBIT may propose in the future as MFDA is a professional program with high tuition and no required research components, but the others are research programs aiming at publications.

This is the first and only graduate program in Ontario that trains both finance and related data analytics skills. The unique curriculum is that this program combines finance, informatics and data science, especially AI programming and applications.

Our program is different from purely finance programs as it adds data analytics components. It is also different from finance and mathematics programs, as our data analytics components are suitable for business graduates without advanced mathematics background.

Table 2: List of Similar Programs in Ontario

Institution Name	Credential Level and Program Name
University of Toronto	Master of Mathematical Finance
Link to Program Web Page: https://www.mmf.utoronto.ca/	
Brief Program Description: If you have advanced math skills, consider a master's degree in mathematical finance. In the University of Toronto's 12-month Program, your superior math skills are focused on the tools of financial mathematics for an initial 4-month period. You then move immediately into an internship with a firm. Afterwards, you continue your coursework for the remainder of the school year.	
What differentiates the new program from this existing program: The existing program targets students from the mathematics background and closes the door to business students.	
Institution Name	Credential Level and Program Name
University of Waterloo	Master of Quantitative Finance (MQF)
Link to Program Web Page: https://uwaterloo.ca/statistics-and-actuarial-science/programs/graduate-programs/master-quantitative-finance	
Brief Program Description: The Master of Quantitative Finance (MQF) program focuses on the fundamental disciplines of mathematics, statistics, econometrics, computer science and finance. It provides the analytical tools to solve practical problems in the complex and rapidly evolving world of today's financial industry.	
What differentiates the new program from this existing program: The existing program targets students from the mathematics background and closes the door to business students. It also focuses on mathematical skills not data analytics.	
Institution Name	Credential Level and Program Name
York University	Master of Finance
Link to Program Web Page: https://schulich.yorku.ca/programs/mf/	
Brief Program Description: The intensive 12-month MF places a strong emphasis on real-world application and on technical, communication and decision-making skills.	
What differentiates the new program from this existing program: The existing program does not have any data analytics component. Instead our program will have data analytics like machine learning.	

2 Program Requirements

a) Admission Requirements

- *Outline the formal admission requirements; explain how these are appropriate for the program learning outcomes: How will they help to ensure students are successful? How do they align with the learning outcomes of the program?*
- *Explain any additional requirements for admission to the program such as special language, portfolio, etc. (and how the program recognizes prior work or learning experience, if applicable)*
- *Indicate the programs from which students may be drawn*

In addition to the [general admission requirements for graduate studies](#), MFDA applicants must meet the following program-specific requirements.

Hold a bachelor's degree in one of the two streams. Stream A is quantitative stream and the applicants' background includes information technology, computer science, modelling and computer science, engineering, mathematics, statistics, physics, actuarial science, or other quantitative fields. Stream B is business stream and the applicants' background includes business, economics, and finance.

All applicants—except those with a graduate or undergraduate degree from a Canadian or American Universities—must complete the GMAT or GRE.

A statistics course is required. Linear algebra and calculus are highly recommended.

We will work with the School of Graduate and Post-doctoral Studies and the Registrar's office to develop mechanisms to ascertain communication skills during the admissions process.

b) Program Learning Outcomes and Assessment of Student Knowledge

- *In Table 3 below, please describe what the student will know or be able to do (knowledge, methodologies, and skills) by the end of the program and indicate how that knowledge or skill will be demonstrated*
- *An example has been provided in **purple** in the first row and can be removed.*
- **Connect with the Quality Enhancement Analyst in CIQE (cige@ontariotechu.ca) early in the program development to review learning outcomes.**

Degree Level Expectations are set by the Quality Council of Ontario and should not be modified. For the list of and more information on these expectations, including a detailed description, visit their [website](#).

The degree requirements and structure of the curriculum have been designed to be consistent with the institution’s mission and academic vision. This has been accomplished by focusing on the institution’s mission statements when crafting the program learning outcomes that will guide the curriculum at the course level, the learning activities and assessments. The program requirements allow graduates exposure to “technology-enriched” environments and allow them to participate in the “evolving workplace” through in-class experiential learning opportunities and internship option. The program’s integration of finance and data analytics skills with practice in real-world settings, aligns with the institution’s vision for academic programs that will “inspire graduates to make an impact on the world, as it is, and as it will be”. As the institution does not have its own set of degree level expectations, the program utilized the graduate degree level expectations set out by OCAV in order to create appropriate outcomes. Below are these degree level expectations discussed in relation to the developed program learning outcomes.

Table 3: Program Learning Outcomes

<p>Program Learning Outcomes By the end of the program, students graduating will be able to... (normally 6-8 outcomes per program with 12 being the maximum)</p>	<p>Degree Level Expectations (list all that apply; you must align with each expectation at least once)</p>	<p>Relevant courses (provide course code and course title)</p>	<p>Assessment of Learning Outcomes (e.g. test, rubric, self-assessment, etc.)</p>
<p>Appraise economics, financial reports, financial markets and securities</p>	<p>Depth and breadth of knowledge; Research and scholarship; Level of application of knowledge; Professional capacity / autonomy; Level of communications skills; Awareness of limits of knowledge.</p>	<p>MFDA5100 Financial Management; MFDA5200 Investment; MFDA5300 Financial Derivatives Securities; MFDA5400 Financial Econometrics; BUSI 5010 Foundations of Business; BUSI5100 Accounting Systems</p>	<p>Test / Assignment/ Project / Presentation</p>
<p>Evaluate and manage financial risk</p>	<p>Depth and breadth of knowledge; Research and scholarship; Level of application of knowledge; Professional capacity / autonomy; Level of communications skills; Awareness of limits of knowledge.</p>	<p>MFDA5300 Financial Derivatives Securities; MFDA5400 Financial Econometrics; MFDA5500 Financial Risk Management;</p>	<p>Test / Assignment/ Project / Presentation</p>

Apply data analytic skills to financial securities and portfolios	Depth and breadth of knowledge; Research and scholarship; Level of application of knowledge; Professional capacity / autonomy; Level of communications skills; Awareness of limits of knowledge.	MFDA5400 Financial Econometrics; MBAI 5300G Programming and Data Processing	Test / Assignment/ Project / Presentation
Solve business problems utilizing analytics tools, methodologies, and programming skills	Depth and breadth of knowledge; Research and scholarship; Level of application of knowledge; Professional capacity / autonomy; Level of communications skills; Awareness of limits of knowledge.	MFDA5400 Financial Econometrics; MBAI5100 Business Analytics; MBAI 5300G Programming and Data Processing; MBAI 5310 Artificial Intelligence Programming	Test / Assignment/ Project / Presentation
Design and manage databases for business decision making	Depth and breadth of knowledge; Research and scholarship; Level of application of knowledge; Professional capacity / autonomy; Level of communications skills; Awareness of limits of knowledge.	MFDA5400 Financial Econometrics; MBAI 5300G Programming and Data Processing	Test / Assignment/ Project / Presentation

- *Selecting a few examples from above, explain in detail how the program design and requirements support the attainment of the Program Learning Outcomes*
- *With assistance from the Academic Planning Officer in CIQE (ciqe@ontariotechu.ca), please provide further details on the Assessment of the Program Learning Outcomes, as outlined in the Quality Council's Quality Assurance Framework Section 2.1.6 - Assessment of teaching and learning:*
 - *Appropriateness of the proposed methods for the assessment of student achievement of the intended program learning outcomes and Degree Level Expectations (How will students demonstrate they have learned and can do what we expect them to by the end of the program?).*
 - *Completeness of plans for documenting and demonstrating the level of performance of students, consistent with the Degree Level Expectations (How will the effectiveness of the program be assessed?)*

MFDA is designed in a manner that allows students to attain the desired learning outcomes and associated degree-level expectations (DLEs) through-out their program. An example of this consideration would be the program learning outcome, “Appraise economics, financial reports, financial markets and securities”, which is aligned with “Depth and Breath of Knowledge” and other DLEs. To attain this outcome, students will have to participate in courses to develop the foundational learning in introductory courses (e.g. MFDA5100, BUSI5010, BUSI5100), but then will have the opportunity to become more proficient in their demonstration of these understandings in and discipline-specific courses (e.g. MFDA 5200, MFDA5300). By appropriately integrating the PLO into core introductory courses and then senior courses, the intent is to have students be exposed to this PLO gradually with the goal of achieving the PLO by graduation.

In addition, PLOs have been developed to align with multiple DLEs. An example of this is scaffolding of the above PLO, “Appraise economics, financial reports, financial markets and securities” which aligns with the “Level of application of knowledge” DLE. In the design of the PLOs, Faculty considered the usage of Bloom’s taxonomy when building them to ensure that students were moving up the tiers progressively in the hopes of limiting the ‘gaps’ of learning achievement. The intention behind this scaffolding is to build student achievement in the knowledge of the methodologies they need and then the application of these methodologies. This allows students the opportunity to demonstrate that they know “economics, financial reports, financial markets and securities” and then apply these knowledges to problem solving activities in other courses (e.g. MFDA5400).

The intentionality of the program design and scaffolding of the PLOs is also embedded into the proposed methods of assessment for student achievement. Again, taking into consideration Bloom’s taxonomy and the associated verbs that were chosen, assessment methods have been scaled in to allow students to achieve their learning at an introductory phase, then to develop that learning with the aim to become proficient. An example of this would be the PLO, “Apply data analytic skills to financial securities and portfolios” which has multiple learning activities that will assess the application of the principles and skills. This PLO will be assessed through tests, assignments, projects, and presentations; allowing student learning to be assessed through various activities and methods.

The plan for assessing and monitoring program effectiveness, in addition to the cyclical program review process, will be in accordance with the requirements laid out by the institution’s Academic Resource Committee. Currently this requires a report one-year after start-up and if there are areas of concern a subsequent 18-month report will be required. The one-year report will ask the program to review enrolment data, admission averages, and provide an analysis of successes and challenges encountered in the first year. After the first year of the program being implemented, it will be internally assessed by this committee and, if needed, recommendations will be made to enhance program effectiveness and student success. If required, the 18-month report will address key curricular and student data (e.g. student evaluations, GPA, retention data, etc.) as well as

any outstanding recommendations from the one-year report. Pending the committee's review, further documentation may be required of the program for ongoing monitoring.

Experiential learning is the crux of this program. Students are expected to gain sufficient knowledge and experience in the field of financial data analytics required to be hired in the quantitative finance sector upon graduation.

Finance courses (i.e. MFDA 5100, 5200, 5300, 5400, 5500) are designed such that students can understand and apply financial theories in practice. Moreover, students are expected to learn how to design, create and evaluate financial products in these courses. The data analytics courses (i.e. MBAI 5100, 5300, 5310) act as enablers and help students better apply financial theories in practice and evaluate financial products with finance-sector live data.

The first set of these learning outcomes is assessed with a series of tests (short quizzes, midterms, ...). The second set of learning outcomes are assessed with projects and presentations. All classes have practical term projects that explore the applications of the course outcome in the finance industry, using up-to-date financial data that we provide in the finance lab. As an example for the Assessment of Learning Outcomes below we present the assessment approach for MFDA5300 Financial Derivatives Securities, which uses a broad range of methods:

In this class as tabulated in Table 3, the assessment is based on a combination of Test / Assignment/ Project / Self-reflection / Presentation.

1. Test-based assessments and Assignments will be used to evaluate the depth and breadth of knowledge as well as the level of application of knowledge. There will be biweekly in-class quizzes and two midterms to assess how students remember, understand and apply financial theories surrounding derivatives securities. There will be weekly assignments in between these tests to further assess the level of application of knowledge gained in this class.
2. Term Project will be the other method to evaluate the level of application of knowledge for this course. More specifically, students' ability to apply, design and create financial products are assessed with a term project on the valuation of financial derivatives using high frequency data on stock and bond prices.
3. Lastly, the level of communication skills as well as the students' ability to analyze and evaluate is also assessed with self-reflection, in-class discussion and critic of other teams' projects/presentations.

c) Program Structure and Content

- *Describe the requirements and structure of the program. Is it full-time/part-time? Is this an online or partially online program? What are the unique curriculum or program innovations or creative components in this program?*

- *Provide evidence that each graduate student is required to take a minimum of two-thirds of the course requirements from among graduate-level courses*
- *What is the program length? Provide a rationale for the length that ensures the program requirements can be reasonably completed*
- *Address how the programs structure will help students to meet the program learning outcomes and Degree Level Expectations*

It is a 24-month full-time program including eight courses and a choice of internship or projects. The courses cover finance and data analytics skills. The courses on data analytics skills are cross-listed with those from the MBAI program. Students can take other electives approved by the program director.

The program is unique in four aspects:

First, its unique curriculum combines finance, informatics, and data science, especially AI programming and applications. Other universities' programs are either pure finance or mathematics in finance, which ignore the practical skills of programming, AI, and database management.

Second, it is open to students from two different backgrounds: business or quantitative areas. Other programs are open to only one stream.

Third, it is the only program to aim for both CFA and FRM accreditation while other programs aim for one or no accreditation. CFA is the most-demanded accreditation in the finance sector. FRM is the specialized accreditation in the financial risk management area and is becoming more and more important after the 2008 financial crisis and the Pandemic. FRM only accredits master's programs. We are going to apply for both accreditations and already have a letter of support from FRM (Please see Appendix G). FRM allows for programs to be accredited before program launch and are able to add this accreditation into marketing materials. We are currently in talks with CFA.

Fourth, experiential learning is built into all courses and internship/ projects.

Five finance courses are new graduate level courses. Other courses are MBAI courses or other graduate courses approved by the program director. Students can use the finance lab (SIRC 4173) for courses and research projects and Leadership Innovation lab (SIRC 3120) for networking.

The normal length is 24 months. However students can finish in 12-24 months depending on the number of courses per semester they take and the length of the internship/ projects.

Core courses:

MFDA5100 Financial Management

MFDA5200 Investment

MFDA5400 Financial Econometrics

Electives (take five):

- MFDA5300 Financial Derivatives Securities
- MFDA5500 Financial Risk Management
- MBAI 5100 Business Analytics
- MBAI 5300 Programming and Data Processing
- MBAI 5310 Artificial Intelligence Programming

Electives for non-Business Graduates

Students with a non-Business undergraduate degree can select from the courses below to replace the MBAI electives listed above.

BUSI 5010 Foundations of Business

BUSI 5100 Accounting Systems

Students also need a choice of MFDA 5600 Applied Financial Data Analytics Project (6CR) or MFDA 5700 Financial Data Analytics Internship(6CR)

The program length is 24 months for full -time students.

Recommended Program Map

Year	Fall	Winter	Spring/summer start
1	MFDA5100 Financial Management	MFDA5300 Financial Derivatives Securities	
1	MFDA5200 Investment	MFDA5400 Financial Econometrics	
1	MBAI 5300G Programming and Data Processing	MFDA5500 Financial Risk Management	
2	MBAI5100 Business Analytics	MBAI 5310 Artificial Intelligence Programming (pre-req 5300)	
2	Internship/ projects	Internship/ projects	

Early-graduation Program Map

Fall	Winter	Spring/Summer start
MFDA5100 Financial Management	MFDA5300 Financial Derivatives Securities	Internship/ projects
MFDA5200 Investment	MFDA5400 Financial Econometrics	
MBAI5100 Business Analytics	MFDA5500 Financial Risk Management	
MBAI 5300G Programming and Data Processing	MBAI 5310 Artificial Intelligence Programming (pre-req 5300)	

- Describe the ways in which the curriculum addresses the current state of the discipline
- For researched-focused graduate programs, provide a clear indication of the nature and suitability of the major research requirements for degree completion

Master of Financial Data Analytics is completely new in Ontario. We have based our curriculum on best practices in the United States and other provinces of Canada. The finance courses are based on the curriculum of CFA and FRM. The data analytics courses are cross-listed with MBAI, whose learning outcomes meet the Certified Analytics Professional content by INFORMS.

- Is there an experiential learning component (e.g. workplace learning, co-op, internship, field placements, service learning, mandatory professional practice) to the program? If yes, please describe this component in 2500 words or less. Include confirmed partners, duration of the experiential learning component(s), and projected number of placements (where applicable)

The experiential learning components in the program includes:

- (1) Advisory board.
- (2) Student investment fund that the advancement department has been working on.
- (3) Use of the finance labs with the database and tools.
- (4) Internship/projects
- (5) Data analytics in every course.

The advisory board members can include executives of financial institutions, alumni, and donors to the student investment fund. Board members will help us to keep the curriculum up-to-date and relevant, build a network of potential employers and industrial contacts, mentor students, suggest and serve as guest lecturers, and help with job placement.

The enhanced involvement of financial industry practitioners is a key to success. We will involve practicing industry professionals in courses and extracurricular programming.

Computer programming is a key skill that graduates will need to play the proposed roles in their jobs after graduation. Applicants are assumed to have various levels of skills in programming upon arrival. The program includes an orientation bootcamp which covers “getting started with programming in Python”. The orientation bootcamp is offered before the start of the program. It is offered by MBAI and will be open to students in this proposed program.

The courses, for example, MBAI 5300 “Programming and Data Processing”, will help students with no programming background to start programming. All finance courses incorporate data analytics and programming. The courses and bootcamp will feature a high level of hands-on experiential learning supported by TAs and tutorials.

- *Describe how the potential need to provide accessibility accommodations has been considered in the development of this program*

Please see Procedures for Academic Accommodation for Students with Disabilities <https://usgc.ontariotechu.ca/policy/policy-library/policies/legal,-compliance-and-governance/procedures-for-academic-accommodation-for-students-with-disabilities.php>

d) Calendar Copy with Program Map(s)

- *Provide, as Appendix A, a clear and full calendar copy. Please use the template provided in Appendix A to create the Calendar Copy for the new program. This template ensures consistency across all programs in the Academic Calendar*
 - *If the program is to be accredited, include with this Appendix the accreditation tables, if available*
- *Provide, as Appendix B, a full list of the all courses included in the program including course numbers, titles, and descriptions. Please indicate clearly whether they are new/existing. Include full course proposals for new courses, and the most recent course syllabi for existing courses. If you are making changes to existing courses, include instead a course change form.*

Please see Appendix A for proposed calendar copy.

Please see Appendix B for a full list of the course numbers and titles with course proposals and syllabi.

3 Consultation

- *Describe the expected impact of the new program on the nature and quality of other programs delivered by the home and collaborating Faculty(ies) and any expected impact on programs offered by other Faculties*
- *Outline the process of consultation with the Deans of Faculties that will be implicated or affected by the creation of the proposed program*
- *Provide letters of support for the program from Deans at Ontario Tech and/or from other institutions/partners*

The program is provided by FBIT. The data analytics courses are cross-listed with MBAI in FBIT. This program is supported by Dr. Michael Bliemel, the dean of FBIT. GARP has provided a letter of support.

Does this Program/Change contain any Indigenous content? Yes No Unsure
For more information on how Indigenous content is defined at Ontario Tech University and how to consult with the Indigenous Education Advisory Circle (IEAC), please refer to the [Protocol for Consultation with the Indigenous Education Advisory Circle](#).

Has the IEAC been contacted Yes No

If yes, when?

What was the advice you received from the IEAC, and how has it been included in your proposal?

Did the IEAC ask you to return the proposal to them for review? Yes No

If yes, have they completed their review? Yes No N/A

4 Resource Requirements

a) General Resource Considerations

- *Note here if this new program may impact significant enrolment agreements with the Faculty/Provost's office.*
- *Indicate if the new program will affect any existing agreements with other institutions, or will require the creation of a new agreement. Please consult with CIQE (ciqe@uoit.ca) regarding any implications to existing or new agreements.*

This program is fundamentally different from programs in other faculties. So, it will not affect their enrollment.
It will not affect any existing agreements or require new agreement with other institutions.

b) Faculty Members - Current and New Faculty Requirements

- *Brief statement to provide evidence of the participation of a sufficient number and quality of faculty who will actively participate in the delivery of the program*
- *The role of any sessional faculty*
- *The provision of supervision of experiential learning opportunities; how will supervisory loads be distributed?*
- *The plan to provide additional faculty resources to support the program, if needed*
- *Complete Appendix C, detailing the list of faculty committed to the program (template in Appendix) and provide any additional details, if necessary; the information in the Appendix or additional information must include clear evidence that faculty have the recent research or professional/clinical expertise needed to sustain the program, promote innovation, and foster an appropriate intellectual climate.*
- ***If new faculty resources are needed, describe the plan and commitment to provide these resources to support the program and the rationale in section 4g)***

The Faculty of Business and IT has the expertise and capability to deliver the program with existing faculty who would be reassigned to the MFDA from other teaching duties. The budget of MFDA allocates two hires in the context of the overall faculty budget and subject to enrolment targets to facilitate this increase in teaching capacity and project supervision in the Faculty as part of our growth strategy. Sessional hires indicated in the first years of the budget will be utilized to cover undergraduate courses, freeing up FBIT experts to teach in the Graduate Programs.
Normally only tenured and tenure-track professors will teach and supervise MFDA students. Teaching faculty or sessional faculty with Ph.D. or solid financial expertise can be considered. Please see Appendix C for the list of graduate faculty and Section 4g below for more information.

c) Additional academic and non-academic human resources

- *Give details regarding the nature and level of Sessional Instructor and TA support required by the program, the level of administrative and academic advising support, etc.*

- ***If new resources are needed, describe the plan and commitment to provide these resources to support the program and the rationale in section 4g)***

TA hours will be scaled up as needed based on enrollment. Please see Section 4g below. TAs will be recruited from second year MFDA students as well as from our pool of Master and Doctor of Computer Science Students. The Computer Science graduate program is shared with the Faculties of Science, Engineering and Applied Science and Business and IT (FBIT).

d) Existing non-financial student supports

All graduate students have access to an extensive support system that ensures a quality student experience. In addition to the outlined services below, students may also take advantage of the Campus Childcare Centre, Campus Bookstores, Housing and Living Resources, as well as the Student Union. Further information can be found at:

<http://studentlife.uoit.ca/>

Faculty-Specific Support

Academic Advising (if relevant)

Graduate Academic Advisor who will support the program director with administration, student process management, and recruitment initiatives for all the graduate programs in FBIT.

School of Graduate and Post-Doctoral Studies

Quality graduate and postdoctoral education combines teaching, research, professional development, disciplinary community involvement and personal growth. It is by nature a shared responsibility between students, faculty members, the programs and a large number of support units, with overarching administration being provided by the School of Graduate and Postdoctoral Studies.

The School of Graduate and Postdoctoral Studies furthers the scholarly mission of the university by providing academic and administrative support to the university's postgraduate educational, research, innovation and international activities. Our responsibilities include graduate program development, graduate enrolment management, oversight of academic and quality standards, and the implementation of policies and practices that enhance graduate/postdoctoral scholarly success, career readiness and personal growth. SGPS supports prospective, new and current graduate students through many administrative services including, but not limited to, recruitment, admission, registration, funding and scholarships, orientation, professional development workshops and events, and processing of final theses, projects and papers. SGPS is a single-point-of-contact, multifunctional administrative unit tailored to the complete "life-cycle" of graduate students, providing coordinated support to students and all other stakeholders.

Student Life

Student Learning Centre

The Student Learning Centre fosters a high level of academic excellence in the Ontario Tech community by working with all Ontario Tech students, undergraduate and graduate, to achieve educational success. Foundational knowledge and prerequisite skills are essential to all university level courses, and competency with these skills is vital for strong academic performance. The subject specialists offer support services in mathematics, writing, study skills, ESL and physics. With the additional support of peer tutors and workshops, the Centre can further accommodate the needs of a specific course or program.

<http://studentlife.uoit.ca/student-learning/>

Student Accessibility Services

The staff work as a collaborative team to ensure students with disabilities have equal opportunities for academic success. The SAS operates under the Ontario Human Rights Code (OHRC) and the Accessibility for Ontarians with Disabilities Act (AODA). Services are provided for students with documented disabilities. Accommodation supports include but are not limited to:

- Adaptive technology training;
- Alternate format course material;
- Learning skills support;
- Testing support; and
- Transition support for incoming students.

Careers and Internships

The Career Centre offers comprehensive career service assistance and a variety of valuable resources to help students along their career paths:

- Assistance with creating effective job-search documents;
- Career Counselling;
- Interview preparation;
- Job market information; and
- Job search strategies.

A variety of events hosted on campus during the academic year including employer information and networking sessions, job fairs, and interviews conducted by leading employers.

Student Engagement and Equity

The Student Engagement and Equity supports students' successful transition into the university and provides opportunities for them develop your leadership and professional skills throughout their university career.

Services provided through Student Engagement and Equity includes:

- Orientation and events through first year and diploma-to-degree pathways students
- Specialized programming for first generation, graduate, indigenous, international, mature, online, transfer,
 - Equity and inclusivity programming
 - Assistance and advice for living off campus

- Peer mentoring to help students through first year
- Opportunities to grow and develop leadership skills through the Ambassador program.

Student Mental Health Services

Student Mental Health Services helps students learn how to better manage the pressures of student life. Students can:

- Attend a drop-in session;
- Participate in events and activities that promote positive health and well-being;
- Access tools and resources online to learn about mental health and how to maintain good health and wellness;
- Work with a mental health professional to address concerns;
- Contact the Student Lifeline for immediate help and assistance; and
- Get answers to frequently asked questions about mental health.

Student Mental Health Services offers short-term counselling and therapy services to students. Students in distress will also be provided support and counselling as needed. There is no cost and services are confidential. For students who need long-term counselling support or specialized mental health services, UOIT will provide referrals to assist the student in accessing resources in the local community or in the student's home community.

Athletics and Recreation Facilities

UOIT offers a number of recreation facilities and fitness opportunities to meet all lifestyles and needs. On-campus facilities include the state-of-the-art FLEX Fitness Centre which overlooks Oshawa Creek, five gymnasiums, a 200-metre indoor track, two aerobic/dance studios, the Campus Ice Centre, Campus Fieldhouse, a soccer pitch, a fastball diamond, squash courts and an indoor golf-training centre.

Campus Health Centre

The Campus Health Centre provides assistance in numerous confidential health-care options including:

- A medical clinic with daily access to physician and nursing staff;
- Allergy injections, immunizations and influenza injections;
- An on-site laboratory (blood work, STI testing, throat swabs, etc.);
- Treatment of disease, illness and injury;
- Complementary Health Services featuring acupuncture, chiropractic, custom orthotics, massage therapy, nutritional counselling and physical therapy; and
- Gynaecological health-care and prescriptions.

Student Awards and Financial Aid

Student Awards and Financial Aid (SAFA) is dedicated to helping students understand the variety of options available to finance their education. Budgeting and financial planning are essential to their success and Student Awards and Financial Aid is on hand to help create the right financial plan. Financial assistance can be in the form of bursaries, employment (both

oncampus and off), parental resources, scholarships, student lines of credit and the Ontario Student Assistance Program (OSAP).

Information Technology Resources

IT Services strives to provide quality services to students at Ontario Tech. To support these objectives, the following components are included:

- Wireless network
- Wired network
- IT Service Desk
- General workstations
- Printing services

Wireless network

Wireless internet connection is available in public areas and open-air locations around the Ontario Tech campus where students congregate (North Oshawa and Downtown locations).

Wired network

To ensure the success of the technology-enriched learning environment, a comprehensive data network has been installed on campus. This includes a network drops in lecture halls and designated areas as well as network drops for each residence suite.

Ontario Tech students benefit from networked classrooms and learning spaces. Each ergonomically-designed space has data network connection access and electrical connections to ensure battery regeneration. In addition, classrooms include electronic projection equipment and full multimedia support.

Teaching & Learning Centre

The mission of the Teaching and Learning Centre (TLC) at Ontario Tech is to empower faculty to reach their potential as educators and to create a culture where effective teaching is valued. We champion the scholarship of teaching and implementation of pedagogy. We create valuable teaching and learning professional development experiences. We move UOIT towards being a leader in teaching excellence, ultimately leading to greater student success.

The TLC provides faculty with a range of tools and facilities to assist them in providing a rich learning experience for students. Experts at the TLC provide support in various areas including curriculum development, multimedia design, learning technology and in the overall improvement of teaching practice.

In addition, the TLC funds teaching-related projects from the Teaching Innovation Fund (TIF) for proposals by faculty members aimed at developing new methods in teaching and learning. The TLC facilitates teaching awards at the University and supports faculty in their application for external awards and funding opportunities that focus on teaching and learning.

e) Graduate student financial support

- *Provide evidence that financial assistance will be sufficient to ensure quality and numbers of students*
- *Provide the teaching assistant hours and capacity within the Faculty*

We do not intend to provide direct financial support to students initially. We will seek out support from industry partners for scholarship opportunities and work with local financial institutions to secure financing options for students. As the program grows, we can use tuition to provide financing options for selected students.

f) Physical resource requirements

- Please attach a report, as Appendix E, from the Library regarding existing library holdings and support for student learning
- Address any space/infrastructure requirements including information technology, laboratory space, equipment, etc. If new space is required, please complete Table 4; otherwise, please remove this Table
- Ideally, please provide information on the change in the number of faculty, students, administrative staff, etc. as well as information on changes in equipment and activities (additional space; the renovation of existing space; or will the current space allocation accommodate the new program)
- The plan to provide additional resources to support the program, if needed

Please see the attached library report in Appendix E.
No new space is needed.

g) Resource Summary

Provide a brief statement of the funding requirements and the rationale.

We will be applying to the Ministry to have this program eligible for grant funding. Master of Financial Data Analytics (MFDA) is a new market-oriented business graduate program. To deliver the program, we need new faculty members to teach the courses, technical resources to do analytics with financial data, and other resources to market and manage the program.

Human Resource Requirements

Are additional faculty required to be able to offer this program? Yes No

If yes, what year will the faculty hire be required, and are there additional criteria associated with the hiring requirement (e.g. enrolment levels)?

In 2022-2023, sessional instructors will be hired to teach 5 courses.
 In 2023-2024, sessional instructors will be hired to teach 4 courses.
 In 2023-2024, a tenured and tenure track professor will be hired.
 In 2024-2025, a teaching faculty will be hired.

The two hires are in the context of the overall faculty budget and subject to enrolment targets to facilitate increase in teaching capacity and project. Sessional hires indicated in the first years will be utilized to cover undergraduate courses, freeing up FBIT experts to teach in the Graduate Programs.

Are additional staff required to be able to offer this program? Yes No

If yes, please outline what year the staff hire will be required and any additional criteria associated with the hiring requirement:

Space Requirements

Are there additional space requirements specific to being able to successfully launch this program? Yes No

If yes, please provide additional details:

Technology Requirements

Are there additional technology requirements specific to being able to successfully launch this program? Yes No

If yes, please provide additional details:

WRDS with CRSP/Compustat and EIKON is needed.

Additional Resource Requirements

Are there additional resource requirements not specified above that are required to successfully launch this program? If so, please outline them below:

Additional TA hours will be required as enrollment increases.

***The resource requirements outlined above have been reviewed and approved by the Academic Resource Committee (ARC): _____ October 15, 2020 , March 2021
(date of review)***

5 Quality and Other Indicators

- *Please describe the appropriateness of the collective faculty expertise to contribute substantively to the proposed program; areas of faculty strength and expertise, innovation, and scholarly record will contribute to the quality of the program and student experience*
- *Please explain how the program structure and faculty research will ensure the intellectual quality of the student experience*
- *Refer to Appendices C and D, and provide information on how the research experience, current projects, and funding contribute to the quality of the program*

Faculty expertise supporting the proposed program is substantive, with 24 full time faculty who all have PhDs., and 20 of which are tenured / tenure track professors with many peer reviewed publications related to courses in the program. Many faculty also have extensive supervisory experience, and grant funding. Most of the 4 full time teaching faculty participating in the program are also active in research, and can supervise graduate projects. Summaries of the Faculty can be found in Appendix C.

The faculty participating in the program hold expertise in Finance, Math, Statistics, Artificial Intelligence, Programming, Management Information Systems, Legal Aspects of Analytics in Business, Marketing, Operations Research, Ethics, Privacy, Trust and Fairness, Big Data Systems, as well as Data Visualization and Strategic Management. Details can be found in Appendix D.

APPENDICES

Please include at minimum the below. Additional Appendices may be added, as appropriate.

- A: Calendar Copy with Program Maps
- B: List of Program Courses, New Course Proposals, Required Course Changes, Course Syllabi for Existing Courses
- C: Detailed Listing of Faculty Committed to the Program
- D: Library Report
- E: Letter of Support



BOARD REPORT

ACTION REQUESTED:

Recommendation
Decision
Discussion/Direction
Information

DATE: December 9, 2021

FROM: Academic Council

SUBJECT: New Program Proposal – Master of Arts in Social Practice and Innovation

COMMITTEE MANDATE:

In accordance with Article 1.4 of By-law No. 2, Academic Council will make recommendations to the Board on matters including the establishment or termination of degree programs. Academic Council is seeking the Board's approval of the establishment of a Master of Arts in Social Practice and Innovation program.

MOTION FOR CONSIDERATION:

That pursuant to the recommendation of Academic Council, the Board of Governors hereby approves the establishment of a Master of Arts in Social Practice and Innovation program, as presented.

BACKGROUND/CONTEXT & RATIONALE:

The proposed Masters in Social Practice and Innovation (MSPI) is an interdisciplinary program at the intersections of law, communication and digital media, and political science. Each discipline approaches the roles of power and information differently, and when combined provide a holistic perspective on everyday social practice in its many changing forms.

The MSPI program envisages graduates who will have developed their capacity to intelligently and publicly comment on pressing social, legal and political issues, employ newly-adopted, emerging and disruptive technologies, and then communicate the impact of these issues and technologies on individuals and communities. Students may focus on any substantive combination of Communication and Digital Media Studies, Legal Studies, or Political Science (at

least two), and will be expected to identify common themes in all three disciplines through their integrating courses.

The Master's program is committed to a thoroughly interdisciplinary curriculum across the participating fields. The program will focus on reflexive approaches to problem-solving and ethical decision-making, aiming to shape the direction of public policy, particularly related to new technological fields and evolving social, legal and political institutions. As a program that foregrounds innovation and community engagement, its delivery will be flexible, adapting to the evolving needs, capabilities, and affordances of both in-person and technologically mediated learning and interaction. Students may be able to complete the coursework for the degree fully online, although some forms of in-person exchange will remain important features for most students' Major Research Projects, and so in-person consultation and supervision may be required. The program culminates in this outward facing Major Research Project, and students must design and execute their project in a form that is suited to the community that it intends to engage: online projects are possible in some circumstances, but not in others. The Project is aimed at public and community engagement, through which MSPI graduates will be trained to formulate, develop and deploy effective solutions to challenging and often systemic social and political issues in ways that can support social progress.

The overarching goals of the proposed MSPI are to engage students in critical and ethical approaches to social innovation and practices that will prepare graduates who (1) are grounded in core theoretical and applied knowledge of communication, political science, and legal studies; (2) are able to integrate theories and methods from these interdisciplinary fields to address community, social and political problems and needs; and, (3) are able to deploy their interdisciplinary training in their chosen combination of fields (communication, law, public policy, and politics).

RESOURCES REQUIRED:

The primary cost associated with implementing the MSPI program comes from faculty time to teach the courses. The Faculty currently has the faculty resources to be able to offer this program. Should the program grow larger than anticipated the need to hire additional faculty will be examined. Impact on existing programs is moderate. A new MSPI program would require tenured, tenure-track and teaching faculty who are currently teaching undergraduates or teaching in other graduate programs to teach in the new program, and so would require additional sessional instructors to cover those undergraduate courses. No sessional instructors will teach in the MSPI program.

Some courses in the program map are to be cross-listed with existing 4000 level undergraduate courses, although such a cross-listed course would at most comprise one three credit course in the entire 30 credit degree program. These courses would be offered on a multi-year rotating basis, so as to reduce the likelihood of an Ontario Tech bachelor's degree graduate who enrolls in MSPI to have already taken an offered course. The cross-listing will lighten the burden of hiring sessionals for undergraduate courses, since these classes do not take permanent faculty out of their usual undergraduate teaching workload.

The FSSH has a graduate program assistant liaising with the School of Graduate and Postgraduate Studies (SGPS). The Director, Planning and Operations, the Academic Planning Specialist and an office assistant will support graduate students in their various roles. A graduate program director (who is also a faculty member) will be assigned to MSPI. There are two practicum coordinators in FSSH who will provide opportunities for building community connections in developing outward facing projects.

MSPI students will be eligible for the same grant per FTE allocation as other FSSH MA students. MA students in this program will contribute to the TA pool. Allocations on a year by year basis will be determined based on need. This has been accounted for in the overall program budget.

CONSULTATION AND APPROVAL:

Graduate Studies Committee for recommendation: September 2021

Final Faculty Council Approval: June 2021

Academic Resource Committee: March 2021

Academic Council: October 2021

NEXT STEPS:

- Subject to Board approval, the proposal must also proceed through the following approval steps:
 - Ontario Universities Council on Quality Assurance
 - Ministry of Colleges and Universities
- The proposed date of implementation is the fall semester of 2022 if possible

SUPPORTING REFERENCE MATERIALS:

- New Program Proposal with Appendices (Bookmarked PDF File)
- Reports from External Review



New Graduate Program Proposal

Name of proposed program:	Social Practice and Innovation
Degree Designation/Credential:	Master of Arts (MA)
Faculty (where the program will be housed):	Social Science and Humanities
Collaborating Faculty (if applicable):	N/A
Program Delivery Location:	Ontario Tech University, Downtown Oshawa
Collaborating Institution(s) (if applicable):	N/A
Proposed Program Start Date:	September 2022
Proposal Contact:	Andrea Slane
Submission Date:	June 18, 2021 (with revisions); January 11, 2021 (original submission)
Approved by Dean: (signature and date)	 Sept. 15, 2021

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1 Introduction

a. Program Abstract

The Masters in Social Practice and Innovation (MSPI) is an interdisciplinary program at the intersections of law, communication and digital media, and political science. Each discipline approaches the roles of power and information differently, and when combined provide a holistic perspective on everyday social practice in its many changing forms. Social practice entails problem solving and collaborating with diverse communities and developing heightened awareness of societal, cultural and political issues of concern to these communities. Social innovation refers to the creation, development, adoption, and integration of new and renewed concepts, systems, and practices. The MSPI program culminates in a Major Research Project aimed at public and community engagement, through which MSPI graduates will be trained to formulate, develop and deploy effective solutions to challenging and often systemic social and political issues in ways that can support social progress.

b. Background and Rationale

The proposed Master of Arts in Social Practice and Innovation (MSPI) is an interdisciplinary program at the intersections of the disciplines of law, communication and digital media, and political science. Each discipline has different conceptions of the roles of power and information that, in combination, give a holistic perspective of everyday social and political practice in its many changing forms. Social practice involves social problem solving while collaborating with diverse communities and developing a heightened awareness of societal, cultural and political issues of concern to various communities; social innovation refers to the creation, development, adoption, and integration of new and renewed concepts, systems, and practices. Therefore, social practice and innovation can work together as a process of developing and deploying effective solutions to challenging and often systemic social and political issues in ways that can support equity and social progress.

The MSPI program envisages graduates who will have developed their capacity to intelligently and publicly comment on pressing social, legal and political issues, employ newly-adopted, emerging and disruptive technologies, and then communicate the impact of these issues and technologies on individuals and communities. Students may focus on any substantive combination of Communication and Digital Media Studies, Legal Studies, or Political Science (at least two), and will be expected to identify common themes in all three disciplines through their integrating courses. The proposed program will cultivate innovative thinkers with the capacity to identify and link lines of power, persuasion and

principle in local, regional and global challenges and opportunities, and analyze the social and political presuppositions of emerging technologies and their economic contexts. MSPI graduates will be more socially aware and engaged, and will hone their ability to design and implement practices that can be expressive, innovative, or geared toward problem-solving. This interdisciplinary program will combine the research and teaching strengths of faculty members in all three disciplines in a unique and forward-looking way.

The Master's program is committed to a thoroughly interdisciplinary curriculum across the participating fields that:

- trains graduates in advanced social science and humanities research methods,
- sharpens critical capacities to assess social challenges,
- builds planning skills that will allow students to explore ways to ameliorate these social challenges;
- enhances awareness of and ability to employ means to engage with diverse communities in these explorations; and
- develops strategies for adapting knowledge and delivering it to a variety of social and institutional actors and diverse communities.

The program will focus on reflexive approaches to problem-solving and ethical decision-making, aiming to shape the direction of public policy, particularly related to new technological fields and evolving social, legal and political institutions. As a program that foregrounds innovation and community engagement, its delivery will be flexible, adapting to the evolving needs, capabilities, and affordances of both in-person and technologically mediated learning and interaction. Students may be able to complete the coursework for the degree fully online, although some forms of in-person exchange will remain important features for most students' Major Research Projects, and so in-person consultation and supervision may be required. The program culminates in this outward facing Major Research Project, and students must design and execute their project in a form that is suited to the community that it intends to engage: online projects are possible in some circumstances, but not in others.

The overarching goals of the proposed MSPI are to engage students in critical and ethical approaches to social innovation and practices that will prepare graduates who (1) are grounded in core theoretical and applied knowledge of communication, political science, and legal studies; (2) are able to integrate theories and methods from these interdisciplinary fields to address community, social and political problems and needs; and, (3) are able to deploy their interdisciplinary training in their chosen combination of fields (communication, law, public policy, and politics).

The Faculty of Social Science and Humanities at Ontario Tech University is home to successful graduate programs in Criminology and Social Justice, and in Forensic Psychology (Masters and PhD programs in both). The MSPI program will draw its strength from the expertise of the remaining FSSH faculty in the three programs

that anchor this proposal. Increasingly complex societies and social structures require nimble thinkers and creative problem solvers, for which interdisciplinary approaches will be key. Each of the disciplines involved contributes particular strengths to our graduates' capabilities:

- an understanding of law and legal process allows students to both question and design solutions, while remaining cognizant of the limits and subversions of legal systems, the strength of legal advocacy and human rights, and the tensions between law and technological change;
- an understanding of politics allows students to engage with democratic norms, power, and governance through mobilization and interactions with social change, policy, and practice;
- an understanding of communication and technological innovations brings to the fore a range of engagement mechanisms, their various trajectories, and their pertinence to social practice, community collaboration, mobilization and advocacy.

Social practice and innovation are strategies that equip students with a range of conceptual and practical tools to engage with critical challenges in a meaningful and impactful way.

c. Mission, Vision, Strategic Plan, and Strategic Mandate Agreement (QAF 2.1.1a)

The MSPI program aligns with Ontario Tech University's overall vision to advance discovery and application of knowledge in social innovation, and to engage and inspire graduates to make an impact on the world. The MSPI promotes Ontario Tech's mission to cultivate a dynamic learning environment that promotes social engagement, fosters critical thinking and integrates learning and knowledge production with public and community interaction, both inside and outside the classroom. The proposed interdisciplinary MA responds to the need for students to understand the complex interplay of communication, media, law and politics in an ever-changing social and technological landscape. Students will graduate with the capacity to critically and actively engage in interventions in public and professional discourse, skills that are increasingly needed in an environment where the value and veracity of information is continually questioned and manipulated, but where the public is in need of trustworthy information sources that can convey complex ideas and work toward social problem solving.

The interdisciplinary approach of the MSPI builds on the value FSSH places on collaboration across programs. The TeachingCity Hub, for instance, is anchored in the downtown campus near the main FSSH building. A partnership between The City of Oshawa and its education and research partners—Canadian Urban Institute, Ontario Tech University, Durham College, Trent University Durham Greater Toronto Area, and the University of Toronto's Faculty of Applied Science

& Engineering, the Hub shows both interdisciplinarity and practical engagement with social problems and issues, across wide-ranging partnerships. The Hub contains the City Idea Lab which hosts specially designed FSSH courses that have City staff working with students to craft solutions to current policy problems.

FSSH is home to several interdisciplinary research entities, including the Centre on Hate, Bias and Extremism (established in 2018), the Decimal Lab (established 2011), and the Digital Life Institute (established 2020). Interdisciplinary research groups are well-established within FSSH and include the Digital Life Research Group (established 2009-2010) and the Negotiating Justice Research Group (established 2014). FSSH regularly hosts interdisciplinary conferences: for instance, “Technologies of Justice” in conjunction with the Canadian Law and Society Association in January 2018, the International Network of Hate Studies Conference in May 2018, and the “Wear Me: Art / Technology / Body Symposium” in Fall 2015. The MSPI also fits within the overall development of graduate programs within FSSH over the last 10 years, to the point where FSSH now has Masters and PhD programs in both Criminology and Forensic Psychology. The MSPI would be led by faculty from the remaining three FSSH programs (Legal Studies, Communication and Digital Media Studies, and Political Science), and once established, would seek to include any appropriate associated faculty from cognate disciplines.

The MSPI aligns with the vision of Ontario Tech’s current Strategic Mandate Agreement (SMA) with respect to the emphasis on social innovation and the critical capability of graduates to reflect on and influence the pathways of social, institutional and technological development. With an outward looking orientation, this new program considers understanding the implications of innovation and making an impact to be central to its purpose. The MSPI embraces Ontario Tech’s aspiration to provide “... an intellectual space to reflect on the social, cultural, ethical, environmental and other implications of the knowledge economy” (SMA p. 4).

The MSPI further reflects the Mission of the University by: providing superior graduate programs that are technology-enriched and responsive to the needs of students and the evolving workplace; conducting research and training students to conduct research that creates knowledge, solves problems, results in social innovation and engages students; developing academic and research collaborations with industry and community that stimulate and enhance the region and university; and cultivating a dynamic learning environment for students by promoting social engagement, fostering critical thinking, and integrating applied experiences inside and outside the classroom.

d. Student Demand

The social context in which our graduates work, and indeed in which we all live, is increasingly driven by advances in communication technology, media and information processing and management. Legal and political institutions have both been called upon to respond to these changes (especially concerning privacy, human rights, and access to both information and services) and to employ them to engage with the public and create innovative approaches to social problems.

Four prominent trends inform student demand and the correlated societal need for MSPI graduates, who will be uniquely equipped with a critical understanding of the combination of the three main fields (Communication, Legal Studies, and Political Science) and the ways in which they intersect:

- *Enduring Institutional Uncertainty:* Institutions that have long been thought to secure stability and rights have been destabilized in a time of dramatic fluctuations in political ideologies, debates on freedom of speech, the nature of democracy and political participation, and the spectre of assaults on truth. Challenged to engage, the program will empower students to build an alternative to despair or complacency, and to instead create new maps with which to navigate through uncertainty.
- *Changing Workplace and Compulsory Communication:* The changing workplace, precarious labour, immaterial production, a need for flexible skills, emphasis on creation of equitable workplaces, and life-long learning across career pathways are persistent and growing trends that require employees and social entrepreneurs with strong communication skills.
- *Emerging Media, Algorithmic Cultures, and Artificial Intelligence:* Digital information and communication technologies are constantly evolving, and so influence and enable new or modified small and large scale social interactions, including through the development of various forms of artificial intelligence, which will require well-informed oversight and accountability. No existing programs combine the study of new or emerging media with critical Communication Studies, Legal Studies and Political Science.
- *Transdisciplinary Studies:* From simple models of multi-disciplinary cooperation to the complexities of interdisciplinary collaboration across existing boundaries, there is a need at the graduate level to address the creation of new methods of inquiry that transcend existing disciplinary norms. Life-long learning and flexible career paths are becoming the norm, with people from a broad range of educational backgrounds needing to be able to address changing technological, social, legal and political landscapes, wrought from the rapid evolution of communication tools, practices, and social and political change.

By being able to both understand and engage with these trends, MSPI graduates will bring a unique skill set to their evolving career prospects and will be poised to become the new generation of thought leaders, policy makers, ethicists, negotiators, community activists, and overall social change-makers .

e. Enrolment Information

The projected enrolment by year of operation is listed in the table below. However, as a 4-term consecutive program, numbers will fluctuate throughout the academic year as students will be expected to graduate at the end of their second Fall term.

Table 1: Projected Enrollment by Academic and Program Year

	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
Level of Study					
Master's year 1	6-8	6-8	6-8	6-8	6-8
Master's year 2		6-8	6-8	6-8	6-8
Total Enrolment	6-8	12-16*	12-16	12-16	12-16

*Year 2 is only Fall Semester, so total enrollment returns to 6-8 in Winter each year.

f. Societal Need

A Master of Arts in Social Practice and Innovation fills a palpable need for community and policy leaders, and professionals with interdisciplinary skill-sets required to understand shifting political and legal landscapes spurred on by ubiquitous information and communication technologies (ICTs). Most social challenges are multi-faceted and require innovative solutions that draw upon intersections of politics, law, and information and communication technologies (ICTs).

The proposed program trains graduates to make informed decisions regarding the use of ICTs to access community resources and services, foster greater economic and social participation, and improve neighbourhoods. For instance, how could “smart cities” be designed to reduce social inequalities and build trust in city governance?¹ How might community participation in such design be enhanced? Additionally, with the spread of “fake news” subverting, and undermining public trust in democratic institutions, there is a strong social need for graduates of an advanced interdisciplinary program with the skills to identify misinformation and counteract it. Information technology developments, such as artificial intelligence and big data tools and analytics, have also been hailed as helping alleviate social and economic problems and empowering community and industry organizations alike, but require sensitivity to legal and ethical

¹ City of Oshawa, Smart Cities Challenge Application (submitted to Infrastructure Canada April, 2018), <https://www.oshawa.ca/business-and-investment/resources/Smart-Cities-Submission---City-of-Oshawa.pdf>.

concerns. The proposed Masters degree will provide future leaders with critical skills to utilize these new tools while being cognizant of pressing social concerns such as privacy, mass surveillance, transparency in decision-making, and equality.

In this time of flux, it is difficult to predict what careers will be most in demand in the coming years. However, the following are careers that currently show above average projections for Ontario that would benefit from a MSPI degree: legal and policy researchers; college professors; communication, advertising, marketing and public relations managers; human resources professionals; and, information systems analysts and consultants.² Graduates interested in careers in the public service would also benefit from a MSPI degree. Indeed, innovative leadership geared toward positive social change is not only tied to career prospects, but also to citizenship and strengthening democratic participation to bring about positive social change. Our graduates will be poised to become social entrepreneurs and change-makers in their communities, agile and well-trained in a fast changing job market, while maintaining important community values.

g. Duplication

The proposed program is unique in Ontario and Canada. The MA in Social Practice and Innovation combines Ontario Tech University’s program strengths in Communication and Digital Media, Political Science, and Legal Studies, within a fully interdisciplinary social science and humanities faculty.

Table 2: List of Similar Programs in Ontario

Institution Name	Credential Level and Program Name
York University	<ul style="list-style-type: none"> MA and PhD in Socio-Legal Studies; MA and PhD (with Ryerson University) Communication and Culture.
<p>Link to Program Web Page: http://slst.gradstudies.yorku.ca/ and http://cmct.gradstudies.yorku.ca/</p>	
<p>Brief Program Descriptions: <i>MA and PhD in Socio-Legal Studies:</i> Interdisciplinary program in Socio-Legal Studies. The one-year MA program offers students courses in socio-legal theory and methods as well as a required Major Research Paper. <i>MA and PHD (with Ryerson University) Communication and Culture:</i> The joint program allows students to conduct research that addresses problems in theoretical inquiry, empirical studies, and professional practices. The program allows students to report research in the form of a major</p>	

² Government of Ontario, “Ontario’s labour market”, <https://www.ontario.ca/page/labour-market>.

research paper, thesis, or project (for the MA degree), and includes research creation as an option for the PhD dissertation.

What differentiates the new program from this existing program:

There does not appear to be any crossover between these two graduate programs (nor with their political science graduate programs).

Institution Name	Credential Level and Program Name
University of Windsor	<ul style="list-style-type: none"> • MA in Political Science; • MA in Communication and Social Justice; • LLM in Faculty of Law.

Link to Program Web Page: <http://www.uwindsor.ca/graduate-studies/350/graduate-programs>

Brief Program Descriptions:

MA in Political Science: The MA degree in political science can be pursued with specializations in international relations and global politics, or Canadian government and politics. Research supervision is also available in comparative politics, political philosophy, public policy, development and municipal politics.

MA in Communication and Social Justice: The MA program enables students to pursue media studies in an environment conducive to addressing social justice issues, through two main approaches: Political Economy and Critical Cultural Studies.

LLM - Master of Laws: The LLM at Windsor Law emphasizes access to justice, community service and transnational law, providing students with an appreciation of law as a vehicle for legal and social change.

What differentiates the new program from this existing program:

There does not appear to be any crossover between these three graduate programs.

Institution Name	Credential Level and Program Name
University of Ottawa	<ul style="list-style-type: none"> • LLM with Concentration in Law and Technology, Faculty of Law; • MA in Communication; • MA in Political Science; • MA in Social Innovation.

Links to Program Web Pages: <https://techlaw.uottawa.ca/>; <https://issp.uottawa.ca/en/education/master>; <https://catalogue.uottawa.ca/en/graduate/master-arts-political-science/>; <https://ustpaul.ca/program-new/social-innovation-476.htm>.

Brief Program Descriptions:

LLM with Concentration in Law and Technology: The LLM program provides graduate students with an opportunity to take specialized courses, obtain practical experience, and conduct original research on law and technology with a focus on Canadian law, comparative law, or international law.

MA in Communication, specialization in Science, Society and Policy: The MA in Communication focuses on two fields of research: media studies and organizational communication. The MA

program participates in the collaborative MA in Science, Society and Policy, through which students can complete a specialization.

MA in Political Science: The MA participates in the collaborative programs in Feminist and Gender Studies (at the MA level), in Environmental Sustainability (at the MA level) and in Canadian Studies (at the PhD level).

MA in Social Innovation: As noted above, this is the only MA program we have found that uses the term “social innovation” in its label, and it is a degree conferred jointly by Saint Paul University and the University of Ottawa. The program aims to provide students with “a space for research and reflection to understand the dynamics and multiple impacts of social innovations, in order to assess and structure them more efficiently.” It is especially geared toward people already working in community-oriented organizations, or those that wish to do so.

What differentiates the new program from this existing program:

While the technology aspect of the LLM may include digital and communication technologies, these are not in combination with Political Science nor with the broader field of Communication. The MA Communication specialization is expressly interdisciplinary, but mostly with science and engineering disciplines. As a new program it is unclear how much interdisciplinarity will feature in the MA in Social Innovation, but it appears to feature a crossover of social science and management.

Institution Name	Credential Level and Program Name
Queen’s University	<ul style="list-style-type: none"> • MA in Political and Legal Thought; • MA in Cultural Studies.

Link to Program Web Page: <https://www.queensu.ca/politics/graduate/ma-programs>

Brief Program Descriptions:

MA in Political and Legal Thought: The MA is a twelve-month collaborative graduate program that allows students to specialize in social, political, and legal theory by taking designated courses from Political Studies, Philosophy, and the Faculty of Law.

MA in Cultural Studies: The MA is a self-governing, interdisciplinary graduate program geared toward facilitating students’ developing the tools to critically understand the world, and change it, stating that “The complexity of contemporary culture means that more than ever before society needs people trained in multiple disciplines, theories and practices. We work with communities throughout and beyond the university to create new forms and methods of research that could not be done in traditional departments.” Students engage in community-based research, and/or research creation via artistic practices.

What differentiates the new program from this existing program:

The MA in Legal and Political Thought does not include a communication or digital media approach. The MA in Cultural Studies, while broadly interdisciplinary draws on a different scholarly tradition than the proposed program, and has no specific references to law.

In short, the MSPI does not duplicate any other graduate program in Ontario, or the rest of Canada

The proposal uniquely includes Legal Studies as an interdisciplinary contribution to an MA degree outside of a Faculty of Law. While there are offerings of an MA in Socio-Legal

Studies (York University) and an MA in Legal Studies (Carleton University), neither requires integration with Politics, Media or Communication. The MA Sociology and Legal Studies at Waterloo centralizes a sociological disciplinary perspective, rather than the interdisciplinary approach proposed here.

Some new post-undergraduate programs use the term “Social Innovation” but these do not combine all three disciplines that anchor this proposal. Only one of these is a Masters program:

- Saint-Paul University, School of Social Innovation - MA in Social Innovation, combines social science and management;
- Simon Fraser University (BC), Continuing Studies - Social Innovation Certificate;
- Mount Royal University (Calgary), School of Continuing Education - Social Innovation Extension Certificate;
- University of Waterloo, School of Environment, Enterprise and Development, Graduate Diploma in Social Innovation - offered from 2011-2014 as part of a foundation-funded project.

Some graduate degrees use the term “Social Practice”, but more commonly it is a term that appears in various disciplinary contexts as a methodological orientation:

- University of Guelph, College of Social and Applied Human Sciences, PhD in Social Practice and Transformational Change. This program is interdisciplinary and shares some of the aims of MSPI, but does not expressly include the intersection of the three disciplines in this proposal.
- “Social practice art” is a term that is sometimes mentioned in relation to Masters of Fine Arts programs, though we are not aware of any specific degree programs using the term in Canada³;
- Some Masters of Social Work programs require coursework in “Social Practice” but no specific specialization uses this term.

Most MA offerings in Communication focus on communication and culture (York-Ryerson, Wilfrid Laurier, Concordia) and/or new media and professional communication (McMaster, Ottawa). Simon Fraser University offers a communications MA that focuses on social problem-solving, with no particular emphasis on politics/policy and law. Carleton University offers an MA in Communication that includes specializations in “communication, citizenship, and social relations” or “the political economy of communication.”

Other than Queen’s University’s MA in Political and Legal Thought, MAs offered in Political Science in Ontario do not integrate legal studies perspectives, and do not include critical communication studies (York, Toronto). The University of Windsor offers an MA in “Communication and Social Justice” which “bridges two main approaches to

³ Daniel Grant, “Social Practice Degrees Take Art to a Communal Level” New York Times (February 5, 2016), <https://www.nytimes.com/2016/02/07/education/edlife/social-practice-degrees-take-art-to-a-communal-level.html>

the study of communications, media and culture—namely, Political Economy and Critical Cultural Studies.” While both share a few specific aspects with the proposed program, neither includes an interdisciplinary legal studies approach, neither includes an experiential requirement to develop an outward-facing project, and neither are located in the GTA.

There are a variety of graduate programs that cover some part of this interdisciplinary scope (e.g. two of the three fields) at other Ontario universities, but no graduate program that we are aware of currently combines all three of these disciplines.

2 Program Requirements

a. Admission Requirements

Applicants with an undergraduate degree in Communication, Legal Studies, Political Science or related fields and minimum overall academic standing of a B (GPA: 3.0 on a 4.3 scale or 73 to 76 per cent), with a minimum B average in the last 60 credits of a 120 credit undergraduate program are eligible to apply. Prospective applicants will be asked to demonstrate engagement with social innovation in their applications (e.g., through previous academic work, volunteer work, or work experience).

We anticipate drawing students mostly from Social Science and Humanities fields, but remain open to applicants from other fields who are able to demonstrate an impressive level of social engagement (e.g., Health Science). We also consider this program to be suitable for applicants without undergraduate coursework in the Social Sciences and Humanities, but whose professional work experience as managers or policy analysts demonstrates aptitude for social policy-oriented work that would benefit from gaining a deeper understanding of the context in which they work; such applicants would be assessed on a case by case basis by the MSPI Graduate Program Committee, which will be making decisions regarding admissions. Non-traditional students with professional work experience or substantial service to community organizations will be considered for admission, upon submission of additional substantiation of these commitments and in some cases an interview.

The admission criteria proposed here are consistent with those of the other Master’s degree programs at universities across Ontario (see Appendix A).

b. Program Learning Outcomes and Assessment of Student Knowledge (QAF 2.1.1b, 2.1.6)

Table 3: Program Learning Outcomes

Program Learning Outcomes	Degree Level Expectations	Relevant courses	Assessment of Learning Outcomes
Apply interdisciplinary knowledge from political science, legal studies, and communication and digital media studies to an outward facing project	Depth and Breadth of Knowledge; Research and Scholarship; Communication Skills	Major Research Project	Data collection; ethnographic research; outward facing public project; community presentation
Engage with diverse communities and institutions to promote dialogue and collaboration oriented to social innovation and change.	Depth and Breadth of Knowledge; Research and Scholarship; Application of Knowledge Professional Skills Communication Skills Awareness of Limits of Knowledge	Communicating Law and Politics in Everyday Life; Advocacy, Change and Social Practice	Oral presentations; ethnographic research project; policy analysis research paper Legal analysis research paper
Critically examine knowledge about new and emerging trends in social innovation and change, and connect this knowledge to efforts to solve community and social problems	Depth and Breadth of Knowledge Research and Scholarship Application of Knowledge Professional Skills Awareness of Limits of Knowledge	Foundations for Social Practice	Literature Review Research Paper
Identify and employ theories and methods that are appropriate and useful to building an action component into innovative knowledge creation and knowledge mobilization projects	Research and Scholarship Application of Knowledge Communication Skills Awareness of Limits of Knowledge	Major Research Project; Interdisciplinary Theory and Practice	Research presentation; literature review

<p>Demonstrate the capacity to synthesize and apply knowledge in ways that address and engage community and social problems, with the goal of forging innovative solutions</p>	<p>Research and Scholarship Application of Knowledge Professional Skills Communication Skills</p>	<p>Major Research Project</p>	<p>Data collection; research presentation; community engagement exercises; case studies</p>
<p>Demonstrate awareness of the power dynamics and structural limits to disciplinary as well as interdisciplinary knowledge and methods</p>	<p>Depth and Breadth of Knowledge; Research and Scholarship; Awareness of Limits of Knowledge</p>	<p>Information, Power and Democracy: Constraints, Freedom, and Ethics; Major Research Project</p>	<p>Research paper; oral presentation; literature review</p>

The MSPI culminates in each student developing and implementing an outward-facing major research project. The project will be developed over the course to the third (Spring/Summer) and fourth (second Fall) terms, in conjunction with the students' supervisor. The first phase of the process guides students through development of the theoretical and methodological contextualization of the planned project. Each student will describe the design of the project and situate it within the interdisciplinary framework the student wishes to pursue. Proposals will be assessed by the student's MRP Committee with faculty representation from at least two of the three core programs (supervisor plus a second reader). Each approved MRP will have a component of application to a defined challenge, normally located in the community or otherwise outside of the university. This outward-facing component may range from a highly conceptual proposal for change in the form of an academic article to an executed practical collaboration that shows an evident outcome in the form, for example, of a public education campaign, founding a community organization, or an exhibition. Engagement with expertise within the community will be an important component of most MRP projects.

Students will work with their faculty supervisor to implement the project, document it, and critically evaluate its efficacy at achieving its social innovation goals. Students will submit this critical evaluation and project documentation to their MRP Committee for final review, on a pass/fail basis. Students will be required to demonstrate how their project was mobilized and brought to fruition and its results at an annual MRP forum held at the end of the fourth term, with a particular focus on presenting the project to the community it addressed. At this forum, a commenter will be assigned to each MRP (as arranged by the student and their supervisor) to provide students with additional feedback. Commenters may be drawn from the program faculty, external faculty, or community experts.

Additional support for relevant projects would be provided through The Digital Life Institute, which serves as a research hub for faculty research. The Digital Life Institute is rooted in FSSH but encourages collaboration across Ontario Tech and with external academic partners, focused on the study of new and emerging digital technologies and how they affect social, personal, cultural and artistic practices

The combination of all of these elements reflect the program learning outcomes of the MSPI as a whole. The Program Learning Outcome Alignment Map to Degree Level Expectations is attached at Appendix B.

c. Program Structure and Content

The MSPI program is conceived as a full-time 16-month degree program, with each student beginning in a Fall term and running through Spring/Summer to the degree completion at the end of the following Fall. Coursework will be completed in the Fall and Winter terms of the first year, with Spring/Summer and the second Fall dedicated to the Major Research Project.

The proposed MSPI is a strongly interdisciplinary program. The coursework required in the Fall and Winter of the first year is designed to provide training in both interdisciplinary theory and methods, discipline-specific foundations, and cross-disciplinary inquiry. The program culminates in a Major Research Project, which must be operationalized as an outward facing project aimed at public/community engagement. The results of this engagement must be integrated into the student's final project before submission. These outward facing projects could include such endeavours as social media campaigns, organizing a public event, an art project, or designing public awareness materials, campaigns or creative interventions on a topic of current public concern.

The coursework is spread over the first 2 terms, Fall and Winter, with full-time students taking 9 credits each Semester (see Appendix C for Calendar copy and Appendix D for course outlines). The Spring/Summer Semester marks the passage to the Major Research Project phase 1, which is the theory and method developmental writing phase. The final and fourth Semester, Fall of the second year, is the Major Research Project 2 mobilization phase. Once this mobilization has been initiated and integrated into the Major Research Project via an approved form of documentary evidence (for instance, various forms of media), including a self-critical analysis of the results, the complete Major Research Project will be assessed by the student's Major Research Project committee. No oral defense is envisaged, but a public presentation is required, once the committee accepts the project.

A Major Research Project typically has two components: the first is the theoretical and methodological contextualization which provides the foundation for the second

part, the proposed plan for and execution of an outcome. Major Research Project proposals will have identified a faculty supervisor and will be approved by the supervisor and a second reader, who together comprise the student's MRP Committee. Each approved Major Research Project will have a component of application to a defined challenge, normally located in the community or otherwise outside of the university. The outward-facing component may range from a highly conceptual proposal for change in the form of an academic article to an executed practical collaboration that shows an evident outcome (e.g. an event, a public education campaign, founding a community organization). Students at the Major Research Project 2 phase will submit to their MRP Committee evidence from their project, and explain or display how it was mobilized and brought to fruition in an annual MRP forum, where they receive additional feedback from a commenter, which may include a community expert, where appropriate. An element of self-critique is expected in integrating the results into the final project documentation.

The MSPI program is initiating graduate students into collegial and collaborative learning and critical thinking by way of its foundational courses. As such the first semester of the program is intended to be taught in-person (face-to-face), although if the structural and technical classroom resources are available, it would be possible to allow students to choose whether to attend in person or remotely (i.e. classes would be offered face-to-face and synchronously online simultaneously). Students will be expected to move through the program as a group/cohort, regardless of whether they are completing the program face-to-face or online. The additional coursework may be delivered online, hybrid or face-to-face, again with the potential option for student choice if the facilities and technical support are available.

d. How the MSPI Program Aligns With the State of Interdisciplinarity

The MSPI's interdisciplinary curriculum draws from Legal Studies, Communication and Digital Media Studies, and Political Science, programs within the already interdisciplinary Faculty of Social Science and Humanities at Ontario Tech University. The MSPI's curricular embrace of interdisciplinarity reflects the current state of the faculty in which this proposed program is embedded, as well as the interdisciplinary nature of the social science and humanities more generally, in Canada and internationally.

Over the past decade, several social science and humanities faculties, departments, journals, conferences and granting agencies, as well as governmental policy-making institutions and their respective stakeholders, have emphasized the value of *interdisciplinary* research to social innovation and change. While the boundaries of every discipline may always already be somewhat porous, interdisciplinary research is undertaken by scholars who intentionally integrate and blend two or more disciplines into a new or innovative approach to understanding and trying to change

the world. Interdisciplinarity is beneficial to researchers, learners and the wider society of which they are a part for a number of reasons. For one, interdisciplinarity encourages researchers to develop a holistic and pluralistic as opposed to narrow and singular approach to conceptualizing and analyzing social problems that in themselves have multiple social causes and solutions. It also cultivates learners that are flexible and nimble thinkers who can swiftly “transcode” between different disciplinary paradigms when conducting research on social problems and engaging with relevant communities. It furthermore supports the production and distribution of research products (new or innovative knowledge applied to society) that are better positioned to address and engage multiple communities of interest (or audiences) than those stemming from just one discipline.

Recognizing that contemporary research oriented to social innovation and transformation are enhanced by theories, methods and insights from multiple disciplines, social science and humanities scholars are increasingly designing research projects relevant to their core concerns that build from a number of disciplines. For all of these reasons, the MSPI’s curriculum embraces an interdisciplinary approach that enhances and augments the pursuit of high quality research, teaching and learning, and knowledge production and diffusion in society.

e. Experiential Learning

The Major Research Project is designed as experiential learning: the projects that MSPI students will design, implement and critically reflect upon mirrors the process they will encounter in the workplace or as community advocates after the degree is completed. A component of many Major Research Projects will be collaboration with a community organization, in order to best involve the intended beneficiaries of the project in providing feedback throughout the process.

f. Student Accessibility

We have considered the potential need for accessibility accommodations in the development of this program and will coordinate with Student Accessibility Services and the Teaching and Learning Centre to provide any necessary supports inside or outside of the classroom. The program will accommodate any accessibility need through the use of online or in person supports or the provision of alternative assignments for those with accessibility requirements for particular assignments i.e. alternative to oral presentations for those with limited mobility or hearing or visual impairments. We will work with Teaching and Learning and Accessibility Services to make sure course materials are accessible and currently

The Accessibility for Ontarians with Disabilities Act (AODA) standards has been considered in the development of the FSSH model course template and it adheres to the principles outlined in the University's Accessibility Policy. All accessibility requirements will be coordinated through the FSSH graduate program assistant.

g. Calendar Copy With Program Map

Please see Appendix C for proposed calendar copy for each of the new courses that will comprise the MSPI curriculum.

Program Map:

Year 1:

- Fall Semester:
 - Interdisciplinary Theory and Practice I (3 credits)
 - Foundations for Social Practice and Innovation (6 credits)
- Winter Semester:
 - Interdisciplinary Theory and Practice II (3 credits)
 - Two of:
 - Advocacy, Change and Social Practices (3 credits)
 - Communicating Law and Politics in Everyday Life (3 credits)
 - Information, Power, and Democracy: Constraints, Freedoms, and Ethics (3 credits)
 - Special Topics in Interdisciplinary Studies (3 credits)
 - Directed Studies (3 credits)
- Spring/Summer:
 - Major Research Project I and II (6 credits)

Year 2:

- Fall Semester
 - Major Research Project III (6 credits)

3 Consultation

As a unique interdisciplinary program culminating in an outward facing Major Research Project instead of a traditional thesis, the MSPI does not overlap with existing graduate programs in FSSH or any other faculty at Ontario Tech.

Does this Program contain any Indigenous content? Yes No Unsure

Has the IEAC been contacted Yes No

If yes, when?

The program proposal and each new course proposal with any potential indigenous content was reviewed by the IEAC in multiple rounds of consultation. The IEAC met and reviewed these proposals June 1 and 3, July 9, September 24, December 8 and 10, 2020.

What was the advice you received from the IEAC, and how has it been included in your proposal?

As described in each relevant new course proposal in Appendix D, the IEAC provided both general advice as to course design and assessment methods, as well as advice on preferred wording and emphasis on indigenous content and pedagogical methods. All suggestions were incorporated into the course proposals.

Did the IEAC ask you to return the proposal to them for review? Yes No

If yes, have they completed their review? Yes No N/A

4 Resource Requirements (QAF 2.1.7, 2.1.8, 2.1.10)

a. General Resource Considerations

The primary cost associated with implementing the MSPI program comes from faculty time to teach the courses. We currently have the faculty resources to be able to offer this program. Should the program grow larger than anticipated the need to hire additional faculty will be examined.

There are no impacts on other institutions or external partners.

b. Faculty Members - Current and New Faculty Requirements

Impact on existing programs is moderate. A new MSPI program would require tenured, tenure-track and teaching faculty who are currently teaching undergraduates or teaching in other graduate programs to teach in the new

program, and so would require additional sessional instructors to cover those undergraduate courses. No sessional instructors will teach in the MSPI program.

Some courses in the program map are to be cross-listed with existing 4000 level undergraduate courses, although such a cross-listed course would at most comprise one three credit course in the entire 30 credit degree program. A proposed cross-listed course will be reviewed by the MSPI Graduate Program Committee (with one representative from each of the three contributing undergraduate programs). A cross-listed course would be offered on a multi-year rotating basis, so as to reduce the likelihood of an Ontario Tech bachelor's degree graduate who enrolls in MSPI to have already taken an offered course. The cross-listing will lighten the burden of hiring sessionals for undergraduate courses, since these classes do not take permanent faculty out of their usual undergraduate teaching workload. Further, exceptional undergraduate students enrolled in the fourth year of any of the three contributing programs can apply for permission to enroll in the MSPI transdisciplinary courses in the Winter term program map.

"The MSPI program will require additional service work from faculty, including a MSPI Graduate Program Committee and a MSPI Graduate Program Director. This committee must include two representatives from each of the three programs, and the GPD will serve a two-year term, as drawn on a rotating basis from the three programs. The responsibilities of the Graduate Program Committee and GPD are set out as follows:

- **Graduate Program Committee (GPC)**
 - *Responsibilities of the GPC include:*
 - Full committee (6 members): Admissions
 - Core committee (3 members): Course Teaching Assignments; Curriculum (which undergraduate 4000 level courses will be cross-listed for next year, if any; changes to MSPI courses); Establish and maintain MRP criteria and assessment guidelines; Provide input on annual MRP presentation forum (end of Fall II term); Discuss any issues that may arise re the program or its students.
 - *Membership of the GPC:*
 - The Core GPC will consist of one member from each program and will meet monthly during the academic year.
 - Three more (one additional from each program) will make up the Full GPC. Full committee members can also serve as alternate program representatives on the Core committee, as needed.
 - A MSPI graduate student representative will be elected by the students to serve on the GPC for the calendar year (January –December). The graduate student representative

will not take part in the admissions process or any discussion of sensitive student matters.

- The GPC participates in all decisions related to the program. Decisions will be by consensus, but if no consensus can be achieved by the Core members, then the Full members will be called in for a vote. The Dean (or a delegated Associate Dean) will serve as tie-breaker, as needed.
- **Graduate Program Director (GPD)**
 - Serves as general advisor to incoming students.
 - Chairs all meetings of the Graduate Program Committee (GPC)
 - Serves as program liaison to the Dean:
 - Attends leadership team meetings with the Dean;
 - Communicates GPC decisions and recommendations to the Dean;
 - Submits any budget requests to the Dean.
 - Leads/organizes recruitment initiatives.
 - Organizes Fall I MRP supervisor matching and research opportunity event
 - Organizes annual MRP forum (end of Fall II term)
 - Prepares and submits any curriculum changes to FGPS
 - Ensures MSPI Graduate Student Handbook is up-to-date.

Tenured and tenure-track faculty in each of the contributing undergraduate programs (Legal Studies, Political Science, Communication and Digital Media Studies) are eligible to apply for supervisory privileges. Teaching Faculty are eligible to co-supervise. All program faculty are eligible to be second readers on MRP Committees. A full detailed list of faculty to be involved in the MSPI can be found at Appendix E and short research biographies of each can be found in Appendix F.

c. Additional Academic and Non-academic Human Resources

The FSSH has a graduate program assistant liaising with the School of Graduate and Postgraduate Studies (SGPS). The Director, Planning and Operations, the Academic Planning Specialist and an office assistant will support graduate students in their various roles. A graduate program director (who is also a faculty member) will be assigned to MSPI. There are two practicum coordinators in FSSH who will provide opportunities for building community connections in developing outward facing projects.

SGPS provides support services for graduate students, including graduate professional development workshops, experiential learning and networking opportunities. Student Life offers services ranging from academic support,

accessibility, health and wellness, equity and inclusion, career readiness, to other forms of community engagement.

d. Existing Non-financial Student Supports

School of Graduate and Post-Doctoral Studies

Quality graduate and postdoctoral education combines teaching, research, professional development, disciplinary community involvement and personal growth. It is by nature a shared responsibility between students, faculty members, the programs and a large number of support units, with overarching administration being provided by the School of Graduate and Postdoctoral Studies.

The School of Graduate and Postdoctoral Studies (SGPS) furthers the scholarly mission of the university by providing academic and administrative support to the university's postgraduate educational, research, innovation and international activities. Our responsibilities include graduate program development, graduate enrolment management, oversight of academic and quality standards, and the implementation of policies and practices that enhance graduate/postdoctoral scholarly success, career readiness and personal growth. SGPS supports prospective, new and current graduate students through many administrative services including, but not limited to, recruitment, admission, registration, funding and scholarships, orientation, professional development workshops and events, and processing of final theses, projects and papers. SGPS is a single-point-of-contact, multifunctional administrative unit tailored to the complete "life-cycle" of graduate students, providing coordinated support to students and all other stakeholders.

Faculty-Specific Support

Academic Advising

There is no formal Faculty Academic Advising Office for graduate students in FSSH. Graduate students go to the Graduate Program Director, Graduate Program Assistant, or their research supervisor (faculty advisor) for academic advising support.

Student Life

All graduate students have access to an extensive support system that ensures a quality student experience. In addition to the outlined services below, students may also take advantage of the Campus Childcare Centre, Campus Bookstores, Housing and Living Resources, as well as the Student Union. Further information can be found at: <http://studentlife.ontariotechu.ca/>

Student Learning Centre

The Student Learning Centre fosters a high level of academic excellence in the Ontario Tech University community by working with all Ontario Tech University students, undergraduate and graduate, to achieve educational success. Foundational knowledge and prerequisite skills are essential to all university-level courses, and competency with these skills is vital for strong academic performance. Faculty specific academic

resources are available online and include tip sheets and videos. The subject specialists offer in-person support services in mathematics, writing, study skills, ESL and physics.

Student Accessibility Services

Student Accessibility Services (SAS) works collaboratively to ensure that students with disabilities have equal opportunities for academic success. SAS operates under the Ontario Human Rights Code (OHRC) and the Accessibility for Ontarians with Disabilities Act (AODA). Services are provided for undergraduate and graduate students with documented disabilities. Accommodation supports include but are not limited to:

- Adaptive technology training
- Alternate format course material
- Learning skills support
- Testing support
- Transition support for incoming students

SAS also provides inclusive peer spaces, support groups, and skills workshops for students.

Careers and Internships

The Career Centre offers comprehensive career service assistance, co-op and internship support and resources, and a variety of valuable resources to help students along their career paths, including:

- Assistance with creating effective job-search documents
- Career Counselling
- Co-op and internship job search advising
- Interview preparation
- Job market information
- Job search strategies

A variety of events are hosted on campus during the academic year including employer information and networking sessions, job fairs, and interviews conducted by leading employers.

Student Engagement and Equity

Student Engagement and Equity supports students' successful transition into the university and provides opportunities for them to develop leadership and professional skills throughout their university career. Services provided through Student Engagement and Equity include:

- Specialized programming for first-generation, graduate, Indigenous, international, mature, online, transfer, and diploma-to-degree pathways students
- Services and supports for international and exchange students

- Equity and inclusivity programming and support groups
- Assistance and advice for living off-campus

Student Mental Health Services

Student Mental Health Services helps students learn how to better manage the pressures of student life. Students can:

- Attend a drop-in session
- Participate in events and activities or support groups that promote positive health and well-being
- Access tools and resources online to learn about mental health and how to maintain good health and wellness
- Work with a mental health professional to address concerns
- Contact the Student Lifeline for immediate help and assistance
- Get answers to frequently asked questions about mental health

Student Mental Health Services offers short-term counselling and therapy services to students. Students in distress will also be provided with support and counselling as needed. There is no cost to students and services are confidential. For those who need long-term counselling support or specialized mental health services, Ontario Tech University will provide referrals to assist the student in accessing resources in the local community or in the student's home community.

Athletics and Recreation Facilities

Ontario Tech University offers a number of recreation facilities and fitness opportunities to meet all lifestyles and needs. On-campus facilities include the state-of-the-art FLEX Fitness Centre which overlooks Oshawa Creek, five gymnasiums, a 200-metre indoor track, two aerobic/dance studios, the Campus Ice Centre, Campus Fieldhouse, a soccer pitch, a fastball diamond, squash courts and an indoor golf training centre. Students are able to participate in varsity and intramural sports as well as group fitness classes and personal training sessions.

Campus Health Centre

The Campus Health Centre provides assistance in numerous confidential health-care options including:

- A medical clinic with daily access to physician and nursing staff
- Complementary Health Services featuring acupuncture, chiropractic, custom orthotics, massage therapy, nutritional counselling and physical therapy
- Treatment of disease, illness and injury
- Allergy injections, immunizations and influenza injections
- An on-site laboratory (blood work, STI testing, throat swabs, etc.)
- Gynaecological health-care and prescriptions

Student Awards and Financial Aid

Student Awards and Financial Aid (SAFA) is dedicated to helping students understand the variety of options available to finance their education. Budgeting and financial planning are essential to their success and Student Awards and Financial Aid is on hand to help create the right financial plan. Financial assistance can be in the form of bursaries, employment (both on-campus and off), parental resources, scholarships, student lines of credit and the Ontario Student Assistance Program (OSAP).

Information Technology Resources

IT Services strives to provide quality services to students at Ontario Tech. To support these objectives, the following components are included:

Wireless network

Wireless internet connection is available in public areas and open-air locations around the Ontario Tech campus where students congregate (North Oshawa and Downtown locations).

Wired network

To ensure the success of the technology-enriched learning environment, a comprehensive data network has been installed on campus. This includes a network drops in lecture halls and designated areas as well as network drops for each residence suite.

Ontario Tech students benefit from networked classrooms and learning spaces. Each ergonomically-designed space has data network connection access and electrical connections to ensure battery regeneration. In addition, classrooms include electronic projection equipment and full multimedia support.

IT Service Desk

The IT Service Desk is equipped with certified technicians and experienced IT professionals offering technical support services on a drop-in, call-in or email basis.

Software Support

Software Support specialists are available to students on-site and online to assist in downloading/installing University software and support any other software related issues.

Printing services

Printing services are available to students in the following areas: labs, classrooms, study common areas, the Learning Commons and the Library. All Ontario Tech University students receive print credits every year, more Printpacks can be purchased through the Campus Bookstore if students require additional printing services.

Teaching & Learning Centre

The mission of the Teaching and Learning Centre (TLC) at Ontario Tech is to empower faculty to reach their potential as educators and to create a culture where effective

teaching is valued. We champion the scholarship of teaching and implementation of pedagogy. We create valuable teaching and learning professional development experiences. We move Ontario Tech towards being a leader in teaching excellence, ultimately leading to greater student success.

The TLC provides faculty with a range of tools and facilities to assist them in providing a rich learning experience for students. Experts at the TLC provide support in various areas including curriculum development, multimedia design, learning technology and in the overall improvement of teaching practice.

In addition, the TLC funds teaching-related projects from the Teaching Innovation Fund (TIF) for proposals by faculty members aimed at developing new methods in teaching and learning. The TLC facilitates teaching awards at the University and supports faculty in their application for external awards and funding opportunities that focus on teaching and learning.

e. Graduate Student Financial Support

MSPI students would be eligible for Teaching Assistantships. The three undergraduate programs that comprise the root of the MSPI program (Legal Studies, Political Science, Communication and Digital Media Studies) have never had truly qualified graduate students to draw from for TA positions: MSPI graduate students would be a welcome change in these circumstances and would benefit these undergraduate programs.

MSPI students would have the opportunity to work with researchers on existing funded research projects, as Research Assistants, gaining exposure to how advanced interdisciplinary research is conducted.

f. Physical Resource Requirements

The Faculty has the space required to deliver this program. Plans are underway for looking at overall space requirements in the Faculty for 2023 when it is anticipated that this program will launch. The space needs to this program are being factored into those decisions being made to ensure adequate space.

Other physical resources required are the same as any other graduate program in FSSH and have been accounted for to deliver this program. These include:

- Classroom space for in-person classes;
- Information Technology Services provided by Ontario Tech, including Wireless network, Wired network, IT Service Desk, General workstations, Printing services:

- Wireless network connection is available in public areas and open-air locations around the Ontario Tech campus where students congregate (both North Oshawa and Downtown locations);
- Wired network, a comprehensive data network, has been installed on the Ontario Tech campus. This includes network drops in lecture halls and designated areas as well as network drops for each residence suite;
- The IT Service Desk is equipped with certified technicians and experienced IT professionals offering technical support services on a drop-in, call-in or email basis;
- Printing services are available to students in the following areas: labs, classrooms, study common areas, the Learning Commons and the Library. All Ontario Tech students receive print credits every year, and more Printpacks can be purchased through the Campus Bookstore if students require additional printing services.
- Learning technologies:
 - In classrooms and other physical learning spaces: Ontario Tech has networked classrooms and learning spaces, with data network connection access and electrical connections to ensure battery regeneration. In addition, classrooms include electronic projection equipment and full multimedia support.
 - Virtual classroom and learning software: Ontario Tech uses Canvas and Kaltura as its primary online learning platforms.
- Library Resources:
 - All library resources currently available to Ontario Tech students include physical collections, online databases and e-resource access, and library staff supports;
 - The full account of current library resources that would be available to MSPI students is set out in the library report at Appendix G.

g. Resource Summary

MSPI students will be expected to pay the flat-fee tuition that is currently the norm for Ontario Tech Master of Arts Programs. The University sector is undoubtedly experiencing a period of instability, due to the unprecedented and still uncertain impact of the global pandemic. Nonetheless, graduate enrollment at Ontario Tech's FSSH graduate programs has been holding steady, indicating that graduate education continues to be an attractive career building and up-skilling choice for prospective students.

MSPI students will be eligible for the same grant per FTE allocation as other FSSH MA students.

Human Resource Requirements

Are additional faculty required to be able to offer this program? Yes No

If yes, what is the discipline that the faculty is currently missing to offer the program, what year will the Faculty hire be required and are there additional criteria associated with the hiring requirement (i.e. enrolment levels)?

Are additional staff, TAs or other required to be able to offer this program? Yes
 No

If yes, please outline what year the staff hire will be required and any additional criteria associated with the hiring requirement:

MA students in this program will contribute to the TA pool. Allocations on a year by year basis will be determined based on need. This has been accounted for in the overall program budget.

Space Requirements

Are there additional space requirements specific to being able to successfully launch this program? Yes No

If yes, please provide additional details:

Technology Requirements

Are there additional technology requirements specific to being able to successfully launch this program? Yes No

If yes, please provide additional details:

Additional Resource Requirements

Are there additional resource requirements not specified above that are required to successfully launch this program? If so, please outline them below:

The resource requirements outlined above have been reviewed and approved by the Academic Resource Committee (ARC): March 2021
(date of review)

5 Closing Statements Regarding Program Quality (QAF 2.1.10)

The collective faculty expertise mobilized by the MSPI is entirely appropriate to the proposed program, and it will contribute substantively and successfully to the delivery of a high-quality interdisciplinary graduate program (see Appendix E for a breakdown of faculty graduate supervision, publications, and research grants). Each of the MSPI's faculty members are already part of an interdisciplinary program that is embedded within a Faculty that is committed to interdisciplinary research, teaching, and knowledge production and mobilization oriented to social innovation and change. Relative to the size of the Faculty and Ontario Tech University as a whole, the MSPI faculty members' ever-growing track record of interdisciplinary research output within and across Legal Studies, Communication and Digital Media Studies and Political Science disciplines is outstanding. Guided by the Faculty's social justice mandate and the University's "tech with a conscience" vision, many of the faculty members conduct well-funded and widely recognized interdisciplinary research that is at the forefront of identifying and imagining solutions to social problems which are shaped by and shaping of disruptive information and communication technologies (ICTs). In sum, the faculty's interdisciplinary research expertise and accomplishment will support the MSPI's interdisciplinary curriculum and provide graduate students with an opportunity to collaborate with and learn from world class scholars committed to social innovation and change.

6 Appendices

Admissions Criteria at Comparable MA Programs – Appendix A
Program Learning Outcome Alignment Map to DLEs – Appendix B
Calendar Copy – Appendix C
New Courses – Descriptions and Proposals – Appendix D
Detailed Listing of Faculty Committed to the Program – Appendix E
Short Faculty Research Bios – Appendix F
Library Report – Appendix G



BOARD REPORT

ACTION REQUESTED:

- Recommendation
- Decision
- Discussion/Direction
- Information

DATE: December 9, 2021

FROM: Academic Council

SUBJECT: New Program Proposal – Master of Applied Science and Master of Engineering in Software Engineering

COMMITTEE MANDATE:

In accordance with Article 1.4 of By-law No. 2, Academic Council will make recommendations to the Board on matters including the establishment or termination of degree programs. Academic Council is seeking the Board’s approval of the establishment of a Master of Applied Science and Master of Engineering in Software Engineering

MOTION FOR CONSIDERATION:

That pursuant to the recommendation of Academic Council, the Board of Governors hereby approves the Master of Applied Science and Master of Engineering in Software Engineering, as presented.

BACKGROUND/CONTEXT & RATIONALE:

The objective of the proposed Master of Applied Science and Master of Engineering in Software Engineering (MASc and MEng) is to expand students’ knowledge of software engineering through intensive state-of-the-art courses, projects, and/or a research thesis in their chosen area of interest. The MASc is a thesis-based program for students interested in research and may wish to continue their education at the PhD level. The MEng is a course-based or a project-based program for working professionals and other students interested in advanced knowledge and skills in software engineering.

Software Engineering is a well-established field that will continue to grow as software systems and applications continue to enable everything we do from video conferencing platforms for telework from home, to autonomous vehicles. Professional Engineers Ontario (PEO) recognizes

this field and allows graduates of CEAB-accredited Software Engineering programs to be licensed engineers. The Faculty of Engineering and Applied Science (FEAS) offers a rapidly growing CEAB-accredited Software Engineering program at the undergraduate level; and graduate programs (MEng, MASc and PhD) in Electrical & Computer Engineering. Graduate programs in software engineering would be natural expansion of the undergraduate program in Software Engineering and other relevant programs offered by FEAS. The proposed programs also complement related graduate programs (in Computer Science and IT) offered at Ontario Tech University.

The mode of delivery will be in-class on-campus, similar to existing graduate programs offered by the Faculty of Engineering and Applied Science. The nature of the programs and their potential relevancy to industry, and the fact that software teams are international and geographically distributed, may lend itself well to blended learning in the future.

Aligned with Ontario Tech's mission of providing graduate programs that are technology-enriched and responsive to the needs to students and the evolving workplace, the proposed graduate programs in Software Engineering are a response to growth not only in the technology industry but across all industries. The proposed programs are designed to prepare graduates not for a singular job but rather a career path that involves life-long learning and multiple employment opportunities. The program will include a formal co-op option for MEng students.

Software Engineering is aligned with the institutional strength and focus in the areas of Engineering, Computer Science and IT disciplines, as well as the 'Skills and Job outcomes' section of Ontario Tech's 2020-2025 Strategic Mandate Agreement, as the proposed programs will produce graduates with practical skills that can be immediately applied in the workplace. Furthermore, the MEng program in particular is expected to attract a large number of domestic as well as international students (student enrolment).

RESOURCES REQUIRED:

The proposed programs draw on the existing expertise in Software Engineering in the Faculty of Engineering and Applied Science, and no new faculty members are required for this program beyond the on-going recruiting efforts for two new faculty members in Software Engineering. All core courses, software engineering electives, and software systems courses will be taught by core software engineering faculty members. General elective courses will be taught by core faculty members in the Faculty of Engineering and Applied Science.

Administrative support, including co-op, and academic advising will be provided by the existing Faculty offices and there is no requirement for additional space/infrastructure.

CONSULTATION AND APPROVAL:

Graduate Studies Committee for recommendation: October 2021

Final Faculty Council Approval: October 2021

Academic Resource Committee: May 2021, October 2021

Academic Council: November 2021

NEXT STEPS:

- Subject to Board approval, the proposal must proceed through the following approval steps :
 - Ontario Universities Council on Quality Assurance
 - Ministry of Colleges and Universities
- The preferred date of implementation is the fall semester of 2022

SUPPORTING REFERENCE MATERIALS:

- New Program Proposal with Appendices
- Reports from External Review
- Academic Resource Committee Memo Re: Co-Op



New Graduate Program Proposal

Name of proposed program:	Software Engineering
Degree Designation/Credential:	Master of Applied Science (MASc) in Software Engineering Master of Engineering (MEng) in Software Engineering
Faculty (where the program will be housed):	Faculty of Engineering and Applied Science
Collaborating Faculty (if applicable):	N/A
Program Delivery Location:	North Oshawa Campus, 2000 Simcoe St. N.
Collaborating Institution(s) (if applicable):	N/A
Proposed Program Start Date:	Fall 2022
Proposal Contact:	Qusay.mahmoud@ontariotechu.ca
Submission Date:	October 2021
Approved by Dean: (signature and date)	Hossam Kishawy  <small>Digitally signed by Hossam Kishawy DN: cn=Hossam Kishawy, o=OntarioTech, email=hossam.kishawy@ontariotechu.ca, c=CA Date: 2021.10.15 10:29:50 -0400</small>

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1 Introduction

a) Program Abstract

Please provide a brief overview of the proposed program, in 1000 characters or less, including:

- A clear statement of the purpose of the program
- Any program components, such as fields or pathways (note that fields and pathways are not required)
- Any distinctive elements, including alternative modes of delivery (including online)

According to the Software Engineering Body of knowledge (SEBOK), the ISO/IEC/IEEE Systems and SE Vocabulary defines software engineering as “the application of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software; that is, the application of engineering to software”.

Software engineering (SE) is considered the newest branch of engineering, and according to the ACM/IEEE-CS Computing Curricula 2020, SE focuses on the development and use of rigorous methods for designing and constructing software artifacts that will reliably perform specified tasks.

The objective of the proposed graduate programs (MASc and MEng) in software engineering is to expand students’ knowledge of software engineering through intensive state-of-the-art courses, projects, and/or a research thesis in their chosen area of interest. The MASc is a thesis-based program for students interested in research and may wish to continue their education at the PhD level. The MEng is a course-based or a project-based program for working professionals and other students interested in advanced knowledge and skills in software engineering.

b) Background and Rationale

- Identify what is being proposed and provide an academic rationale for the proposed program
- Explain the appropriateness of the program name and degree nomenclature; list any program specializations, pathways, etc. **(QAF 2.1.1c)**
- Describe the mode of delivery (in-class, hybrid, online) and how it will support students in achieving the Degree Level Expectations and learning objectives of the program **(QAF 2.1.5)**
- Describe the ways in which the program fits into the broader array of program offerings within the Faculty and the University

This proposal is for two new graduate programs in Software Engineering: MSc and MEng.

Software Engineering is a well-established field that will continue to grow as software systems and applications continue to enable everything we do from video conferencing platforms for telework from home, to autonomous vehicles.

Due to the importance of Software Engineering as a field:

- Professional Engineers Ontario (PEO) recognizes this field and allows graduates of CEAB-accredited Software Engineering programs to be licensed engineers.
- Software Engineering Body of Knowledge (SWEBOK) has been developed and continually maintained by leaders in the field.
- ACM and IEEE Computer Society developed and released curriculum guidelines for undergraduate degrees in Software Engineering.
- Canada's national system for describing occupations (NOC – National Occupational Classification) uses NOC 2713 to describe the occupation of Software Engineers and Designers.

The Faculty of Engineering and Applied Science (FEAS) offers a rapidly growing CEAB-accredited Software Engineering program at the undergraduate level; and graduate programs (MEng, MASC and PhD) in Electrical & Computer Engineering. Graduate programs in software engineering would be natural expansion of the undergraduate program in Software Engineering and other relevant programs offered by FEAS.

The mode of delivery will be in-class on-campus, similar to existing graduate programs offered by the Faculty of Engineering and Applied Science. The nature of the program and its potential relevancy to industry and the fact that software teams are international and geographically distributed may lend itself well to blended learning in the future.

The proposed program complements related graduate programs (in Computer Science and IT) offered at Ontario Tech University. More details are provided in Section (f).

c) Consistency of Program Objectives with University Mission, Vision, Integrated Academic and Research Plan, and Strategic Mandate Agreement (QAF 2.1.1a)

- *Describe how the program contributes to the University's Mission and Vision*
- *Explain how the program aligns with the goals and priorities outlined in the Faculty's(ies') and University's [Integrated Plan](#)*
- *Identify how the program fits within one or more areas of strength or growth in Ontario Tech University's [Strategic Mandate Agreement](#)*

University Vision

Embracing technology with a conscience to advance knowledge and promote sustainability.

University Mission

We equip future leaders to solve complex problems.

We respond to the needs of students, and the evolving world, by providing superior undergraduate, graduate, and lifelong learning experiences. To this end, 'what we do' to achieve our mission and to 'tell our story' is guided by a community-focused approach on our strategic priorities:

- **Tech with a conscience:** Innovating to improve lives and the planet by incorporating technology-enhanced learning strategies, and promoting the ethical development and use of technology for good through intensive research and inquiry.
- **Learning re-imagined:** Co-creating knowledge by adapting to the ever-changing educational landscape through the provision of flexible and dynamic learning and research opportunities.
- **Creating a sticky campus:** Cultivating student- and community-centric engagement opportunities by encouraging an inclusive culture for our institution through online and on-campus activities.

Partnerships: Uncovering innovative solutions for their most pressing problems through purposeful research and collaboration with industry, community, government and academic partners especially as it relates to all facets of global sustainability and well-being.

The objective of proposed graduate programs in Software Engineering is to expand students' knowledge of software engineering through intensive state-of-the-art courses, projects, and/or a research thesis in their chosen area of interest. The programs will prepare students for careers in research, development, and advanced software engineering systems for empowering humanity, and that address ethical, social, and economic concerns. To this end, the objectives of the proposed graduate programs are consistent with the University Vision to embrace technology with a conscience to advance knowledge and promote sustainability.

Aligned with Ontario Tech's mission of responding to the needs of students, and the evolving world, by providing superior undergraduate, graduate, and lifelong learning experiences, the proposed graduate programs are a response to growth not only in the technology industry but across all industries because as it has been said before 'every company is becoming a software company'. The proposed program is designed to prepare graduates not for a singular job but rather a career path that involves life-long learning and multiple employment opportunities.

The objective and the learning outcomes of the proposed graduate programs are human-centered with integrated EDI (equity, diversity, inclusion) components that fit perfectly with the four academic-research strategic priorities, namely: tech with a conscience; learning re-imagined; creating a sticky campus; and partnerships, as per the 2021- 20223 Strategic Integrated Academic-Research Plan.

The proposed graduate programs in Software Engineering contribute to Ontario Tech's 2020-2025 Strategic Mandate Agreement as they are aligned with the institutional strength and focus in the areas of Engineering, Computer Science and IT disciplines, as well as the 'Skills and Job outcomes' section as the proposed program will produce graduates with practical skills in software engineers that can be immediately applied in the workplace (Economic and community impact section). Furthermore, the MEng program includes a formal experiential learning component (co-operative education) and is expected to attract a large number of domestic and international students (student enrolment).

d) Student Demand

- *Provide evidence of student demand, including number of prospective student inquiries; applications and registrations for similar programs; results from surveys/focus groups of existing students, graduates, or professionals in the field*
- *Include information about domestic vs. international student interest*

Today, students who are interested in graduate studies in Software Engineering at Ontario Tech would find the MASc/MEng in Electrical & Computer Engineering (offered by the Faculty of Engineering and Applied Science), or the MSc in Computer Science (offered jointly by the Faculty of Science, Faculty of Business and IT, and Faculty of Engineering and Applied Science).

There are currently 13 students in the MASc (ECE) and very few students in the MEng (ECE) supervised by FEAS faculty members teaching in the undergraduate Software Engineering program and conducting scholarly activities in relevant areas of software engineering. While this may give the impression that the proposed MASc program results in 0 new students, consider the following:

- Many of our BEng software engineering graduates look elsewhere for graduate programs in Software Engineering, simply because the ECE program suggests it is more electrical or hardware focused.
- International students look specifically for graduate programs in Software Engineering.
- Government-funded international students would have scholarships specifically for Software Engineering.

- MEng will attract working professionals and other students who are interested in graduate studies in software engineering to advance their knowledge in the field, but are not necessarily looking for a thesis-based graduate program.
- The expedited pathway into the Master’s program will be attractive to our undergraduate students.

Enrolment Information

- Please complete Table 1 and provide, in paragraph form, information regarding enrolment projections
- Please determine the academic year when the program enrollment will reach a steady-state and add an asterisk (*) in the corresponding box beside the number

Faculty members in the area of software engineering are currently supervising graduate students in the MASc and PhD (Electrical & Computer Engineering) programs. As of Fall 2020, there are 13 students in the MASc program (12 full-time and 1 part-time) focusing on software systems & engineering. While supervision of MASc (thesis-based) students depends on funding, this number provides a baseline for deriving the expected number of students. The new program is expected to attract new students in both MASc and MEng. Current students supervised by software engineering faculty members will be given the choice to transfer to the new program.

We anticipate an initial cohort of 15 students in the MASc program with a steady state of 20 by the third year of the program; and an initial cohort of 10 students in the MEng program with a steady state of 20 per year by the fourth year of offering. Total enrollment of the programs (MASc and MEng) are shown in Table 1.

Table 1: Projected Enrollment by Academic and Program Year

	Academic Year					
	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
Level of Study						
MASc year 1	15	17	20*	20	20	20
MASc year 2		15	17	20	20	20
MEng year 1	10	12	15	20*	20	20
MEng year 2		10	12	15	20	20
Total Enrolment	25	54	64	75	80	80

e) Societal Need

- *Evidence of the need for graduates of the program and in which fields (within academic, public, and/or private sectors)*
- *Please indicate up to three occupations in which graduates from this proposed program may be employed using the [Ontario Job Futures](#) website*
- *For professional programs, a description of the program's congruence with current regulatory requirements*
- *Mention if any employers in the area support the need for this program and include a letter(s) of support as an additional appendix*

The need for software will continue to grow as long as technologies for smartphones, computers, internet of things, cyber-physical systems, and self-driving driving vehicles, and other domains continue to advance. Hence, the demand for software engineers will continue to rise, and employment in this field is expected to grow 21% by 2028 which is faster than the average projected rate of growth for all occupations (5%). Source:

<https://builtin.com/recruiting/demand-for-software-engineers>

Canada's national system for describing occupations (NOC – National Occupational Classification) uses NOC 2713 to describe the occupation of Software Engineers and Designers. And under the Global Talent Stream, where skilled workers can expect their Canada work permits and Canada visa applications processed within two weeks. To this end, this occupation is marketed as Canada's most in-demand skilled workers.

NOC 2713 defines this occupation as (source: ontario.ca/page/labour-market): "Software engineers and designers research, design, evaluate, integrate and maintain software applications, technical environments, operating systems, embedded software, information warehouses and telecommunications software. They are employed in information technology consulting firms, information technology research and development firms, and information technology units throughout the private and public sectors, or they may be self-employed.

According to the Government of Canada job bank (<https://www.jobbank.gc.ca/marketreport/outlook-occupation/5485/ca>) , "this occupation (Computer Software Engineer) is expected to face labour shortage conditions over the period of 2019-2028 at the national level". The same source estimates that "new job openings (arising from expansion demand and replacement demand) are expected to total 27,500, while 24,000 new job seekers (arising from school leavers, immigration and mobility) are expecting to be available to fill them". More than 1/3 of the jobs will be in Ontario.

Examples of industry positions for which graduates of the MSc and MEng programs in Software Engineering would be qualified for include:

Software Engineer (including Intermediate SE, Full-Stack SE, Senior SE, SE Team Lead, SE Manager)

Amazon, Ciena, Magic Leap, Randstad, Ticketmaster, CoreLogic

DevOps Engineer

HootSuite, RBC, Scotiabank, Randstad, D2L, Maple, Peak Power Inc., Thales Group, Avande, Rogers, Intellex

Software Developer

Thales Group, Revature, Ontario Institute for Cancer Research, Ontario Teachers', Varicent, FDM Group, various Banks
Software Designer

There are many other career paths for graduates of the proposed programs, including:

PhD student
Research assistant
Data scientist
Project manager

f) Duplication

- *Describe how the program is distinct from other programs at Ontario Tech. Is it reasonable to anticipate this program might affect enrolment in other related programs? If so, how might this be addressed?*
- *Identify similar or complementary programs offered elsewhere in Ontario in Table 2. Please be brief but specific in the table. Avoid value-based statements*

The proposed program complements the current graduate program offerings (in Computer Science and IT) and it is not expected that the program will affect enrolment in those programs.

It is not unusual to find graduate programs in Computer Science and Software Engineering offered not only by the same university but the same department. As an example, the Department of Computing and Software at McMaster University offers graduate programs in Computer Science (MSc and PhD) as well as in Software Engineering (MEng, MAsC, PhD).

The aim of the proposed graduate programs in software engineering is to expand students' knowledge of software engineering through intensive state-of-the-art courses, projects, and/or a research thesis in their chosen area of interest. The program is focused on the applications of engineering principles to the software development lifecycle. On the other hand, the aim of the MSc program in Computer Science is to produce graduates that have a broad background in information technology. The proposed program and the existing programs in Computer Science are complementary, but the key differences are:

- The proposed program is specialized and focused on software engineering. The MSc program in CS is broad as it allows students to take 50% of their courses from outside the program.
- While the MSc program in CS has a 'Software Design' field (other fields in the program include: Digital Media, Information Science, Networks and IT Security), students are not allowed to take more than 2 courses from the same field.
- The MSc in CS is thesis-based. Working professionals interested in advancing their skills in the software engineering field may not be interested in a thesis-based option. The proposed programs in software engineering offer more options for students and professionals.
- Graduates of the Software Engineering program will be prepared to meet the PEO (Professional Engineers Ontario) requirements for becoming a licensed engineer.

There are many work opportunities in the field, and hence it is no surprise that graduates of both programs may be competing for the same job.

The Consortium for Graduate Education in Software Engineering – ConGESE, was formed to offer an advanced degree (MASc) in software engineering to part-time students, during working hours at the work site, with courses from six universities who are part of the consortium – this program was financially supported by IBM Canada, Nortel, and the Information Technology Research Centre. The participating universities included:

Carleton University
 Queen's University
 University of Ottawa
 University of Toronto
 University of Waterloo
 University of Western Ontario

While the program was coordinated by ConGESE, the degrees were offered by the above universities. Exact dates of ConGESE operation are not known but believed to have been formed in the 1990s and died out and ConGESE has not offered courses for the past several years. There is no documented literature on what exactly went wrong, but perhaps lack of funding and burden of coordination.

Today, only a couple of universities in Ontario are offering graduate degree programs in Software Engineering, namely McMaster University (PhD, MASc, MEng) and Western University (MEng). Many other Ontario universities offer

graduate programs in Electrical & Computer Engineering (ECE) similar to what we currently have at Ontario Tech University.

Table 2 lists similar or contemporary programs offered elsewhere in Ontario.

Table 2: List of Similar Programs in Ontario

Institution Name	Credential Level and Program Name
McMaster University	PhD, MASc, MEng (Software Engineering)
Link to Program Web Page: https://gs.mcmaster.ca/program/computing-and-software/	
Brief Program Description: MEng: This program is intended for those interested in a career as a practicing professional in Computing and Software related fields MASc: This thesis-based program is focused on advancing knowledge of software lifecycle from design, implementation, and testing to documentation and maintaining, through intensive research in a chosen area of interest.	
What differentiates the new program from this existing program: McMaster's MEng program is structured as 6 courses + project, whereas our program is more flexible offering students the choice between a course-based MEng (10 courses) or a project-based MEng (7 courses + project). While there is one additional course in our project-based program, this is in line with other MEng programs at Ontario Tech. McMaster's programs have 6 specializations (Computer Systems, Health Informatics and Bioinformatics, Scientific Computing and Optimization, Security, Privacy, and Data Analytics, Software Quality, Theory and Methodologies of Computation) but our programs are more general giving the student more freedom but at the same time students can specialize in an area they are interested in through a thesis or a project.	
Institution Name	Credential Level and Program Name
University of Waterloo	Graduate Diploma in Software Engineering
Link to Program Web Page: https://uwaterloo.ca/graduate-studies-academic-calendar/archive-spring-2020/engineering/department-electrical-and-computer-engineering/graduate-diploma-gdip-software-engineering	
Brief Program Description: According to the calendar description, this graduate diploma consists of 4 courses and is earned in conjunction with the MEng in Electrical and Computer Engineering. It looks like this diploma has been discontinued as it is no longer listed in the most recent calendar.	
What differentiates the new program from this existing program:	

The proposed program leads to MASc or MEng in Software Engineering. The program at Waterloo is a graduate diploma. One of the specializations in the MEng-ECE is 'Software' in which students must complete 3 specialized courses to earn that specialization.	
Institution Name	Credential Level and Program Name
Western University	MEng in Software Engineering
Link to Program Web Page: https://www.eng.uwo.ca/electrical/graduate/current_students/meng_programs/	
Brief Program Description: No program description is provided except the requirements: In order to fulfil requirements of the MEng Program in Software Engineering you have to successfully complete either 8 required courses & 2 non-technical courses OR 6 required courses, 2 non-technical courses & a research project. The required courses for this program are listed below (a project is equivalent to two courses).	
What differentiates the new program from this existing program: Other than the structure of the program, the crucial difference between the proposed program and the program at Western University is that the proposed program is truly software engineering program with learning outcomes aligned with the Software Engineering Body of Knowledge (SEBOK) whereas the required courses for the program at Western University are a collection of computing courses that, on the whole, do not align with the SEBOK.	

- *Provide additional overall comment on the justification for this duplication*

Please see information described above.

2 Program Requirements

a) Admission Requirements

- *Outline the formal admission requirements; explain how these are appropriate for the program learning outcomes: How will they help to ensure students are successful? How do they align with the learning outcomes of the program? (QAF 2.1.2a)*
- *Explain any additional requirements for admission to the program such as special language, portfolio, etc. (and how the program recognizes prior work or learning experience, if applicable) (QAF 2.1.1b)*
- *Indicate the programs from which students may be drawn*

Admission requirements for MASc and MEng in Software Engineering.

In addition to general admission requirements for graduate studies
(https://gradstudies.ontariotechu.ca/future_students/application_process_and

[requirement/step%201/index.php](#)), applicants must meet the following program-specific requirements.

- Completion of an undergraduate software engineering, computer science, or other engineering degree in a relevant field from an accredited engineering program at a Canadian university, or its equivalent from a recognized institution.
- Overall academic standing of at least a B (GPA: 3.0 on a 4.3 scale), with a minimum B in the last two full-time years (four semesters) of undergraduate work or equivalent. B+ is preferred for MASc applicants.

Prior to being accepted into the MASc program, applicants must find a professor who specializes in their desired area of research and who is willing to act as a supervisor. Close technical contact with a faculty member is an essential part of thesis-based graduate education in software engineering.

The proposed graduate program in Software Engineering will be of interest to students in Software Engineering, Computer/Electrical Engineering, Computer Science, and related programs. And hence, graduates of undergraduate programs in Computer Engineering, Electrical Engineering, Information Engineering, and related programs may meet the admission requirements depending on the courses they have taken. This will be at the discretion of the graduate program director.

Expedited pathway into the Master's program. 4th Year Software Engineering Students who have an average GPA of 3.3+ over their 2nd & 3rd years may be eligible for the expedited pathway into the Master's Program. The students may take up to 2 graduate courses from the Software Engineering program – these would be extra courses that are not counted as part of the undergraduate degree, meaning that students are not allowed to double-dip (i.e. count these courses as part of their undergraduate degree and graduate degree). If a grade of B+ or higher is obtained in these courses, advanced credit will automatically be granted upon registration in the MEng or MASc program in Software Engineering. Students who meet the admission requirements as described in Section 2 a) would be admitted into the MEng or MASc program following the completion of their undergraduate degree.

Students in the MEng program in Software Engineering who wish to transfer to the MASc program in Software Engineering should find a research supervisor and complete the necessary form for the transfer to be approved by the Graduate Program Director and SGPS.

b) Program Learning Outcomes and Assessment of Student Knowledge (QAF 2.1.1b, 2.1.6)

- **Connect with the Academic Planning Officer in CIQE (cique@ontariotechu.ca) early in the program development to review learning outcomes**
- *In Table 3 below, please describe what the student will know or be able to do (knowledge, methodologies, and skills) by the end of the program and indicate how that knowledge or skill will be demonstrated*
- *An example has been provided in purple in the first row and should be removed.*

Degree Level Expectations are set by the Quality Council of Ontario and should not be modified. For the list of and more information on these expectations, including a detailed description, visit their [website](#).

Table 3 lists the program learning outcomes, which are adapted from the following referenced materials:

- The Software Engineering Body of Knowledge.
- ACM/IEEE-CS Software Engineering 2014 Curriculum Guidelines for Undergraduate Degree Programs in Software Engineering.
- Whitepaper (A Draft Reference Curriculum for a Master’s Degree in Software Engineering: A Joint Industry, Academic, and Government Initiative) of a panel discussion at the 2008 American Society for Engineering Education conference.
- iSSEc (Integrated Software & Systems Engineering Curriculum) project, Graduate Software Engineering 2009 (GSWE2009) Curriculum Guidelines for Graduate Degree Programs in Software Engineering.

Note that while the program learning outcomes are the same for MASc and MEng, the difference is really in the *level of exposure and application* of expectations for each learning outcome.

Table 3: Program Learning Outcomes

Program Learning Outcomes By the end of the program, students graduating will be able to... (normally 6-8 outcomes per program with 12 being the maximum)	Degree Level Expectations (list all that apply; you must align with each expectation at least once)	Relevant courses (provide course code and course title)	Assessment of Learning Outcomes (e.g. test, rubric, self-assessment, etc.)
Show mastery of the software engineering knowledge and skills, and professional issues necessary to practice as a software engineer.	<ul style="list-style-type: none"> • Depth and breadth of knowledge 	ENGR 5510G ENGR 5520G	Courses incorporate formative and summative assessment tools such as assignments, tests, and exams to measure knowledge of software engineering methods and professional issues for practice.

Apply software engineering principles to conceptualize, design and implement research for the generation of new knowledge or product idea in at least one application domain.	<ul style="list-style-type: none"> • Level of application of knowledge • Research and scholarship 	MASc Thesis or MEng Project or ENGR 5590G Software Engineering Studio	Thesis, MEng project, or course projects.
Work effectively as part of a diversified team, including teams that are international and geographically distributed, to develop quality software artifacts, and to lead in one area of project development, such as project management, software analysis and design, system architecture, implementation, or quality assurance.	<ul style="list-style-type: none"> • Communication skills • Level of application of knowledge 	Most of the core and elective courses will have group projects.	Thesis and project reports and presentations, and demonstrations of software applications and tools will assess the student's ability to apply and integrate knowledge in software artifacts.
Reconcile conflicting project objectives, finding acceptable compromises within limitations of cost, time, knowledge, existing systems, and organizations.	<ul style="list-style-type: none"> • Awareness of limits of knowledge • Communication skills 	MASc Thesis or MEng Project or ENGR 5590G Software Engineering Studio, and other core and elective courses.	Courses incorporate formative and summative assessment tools such as assignments, tests, exams, and projects to measure knowledge of software engineering methods.
Design appropriate software engineering solutions that address ethical, social, gendered, legal, security, and economic concerns.	<ul style="list-style-type: none"> • Breadth and depth of knowledge • Level of application of knowledge • Autonomy/professional capacity 	Core and elective courses, plus thesis or project, or ENGR 5590G Software Engineering Studio.	Projects that require students to explore knowledge and tools not covered in previous courses, along with discussions to further assess ethical, social, legal and economics impacts of technology.
Analyze current significant software technology, articulate its strengths and weaknesses, compare it to alternative technologies, and specify and	<ul style="list-style-type: none"> • Awareness of limits of knowledge • Research and scholarship 	Any of the software engineering and software systems	Courses incorporate formative and summative assessment tools such as assignments, tests,

<p>promote improvements or extensions to that technology.</p>		<p>electives, and project presentations or research seminar</p>	<p>exams, and project reports to assess the student’s ability to apply and integrate knowledge in software artifacts, and project presentations to further ensure awareness of the limits of knowledge.</p>
<p>Learn new models, techniques, and technologies as they emerge, and appreciate the necessity of such continuing professional development.</p>	<ul style="list-style-type: none"> • Autonomy/professional capacity 	<p>MASc Thesis or MEng Project or ENGR 5590G Software Engineering Studio</p>	<p>Participating in discussions, along with self-directed projects that require students to explore knowledge and tools not covered in previous courses.</p>

- *Selecting a few examples from above, explain in detail how the program design and requirements support the attainment of the Program Learning Outcomes (QAF 2.1.1b)*
- *With assistance from the Academic Planning Officer in CIQE (ciqe@ontariotechu.ca), please provide further details on the Assessment of the Program Learning Outcomes, as outlined in the Quality Council’s Quality Assurance Framework Section 2.1.6 - Assessment of Teaching and Learning:*
 - *QAF 2.1.6a: Appropriateness of the proposed methods for the assessment of student achievement of the intended program learning outcomes and Degree Level Expectations (How will students demonstrate they have learned and can do what we expect them to by the end of the program?).*
 - *QAF 2.1.6b: Completeness of plans for documenting and demonstrating the level of performance of students, consistent with the Degree Level Expectations (How will the effectiveness of the program be assessed?)*

The learning outcomes of the MASc program are achieved through a combination of course work, supervised research, research seminar, and a research thesis.

The learning outcomes of the MEng program are achieved through either a combination of course work and a project, or solely course work depending on the student’s choice.

In addition, all students (MASc or MEng) will have the opportunity to participate in research & development team projects through course projects included in most of the courses, through which students will be exposed to both quantitative and qualitative research methodologies.

Students in the MEng program will also have the opportunity to participate in teamwork in ENGR 5590G Software Engineering Studio (elective course for MASc) where students will utilize methods and tools they have learned in earlier courses to design and develop a large-scale software-intensive system. The project revolves around decomposing a large complex system into modules and classes that can be implemented, tested, deployed and maintained easily. Topics include information hiding, API design, managing complexity, error handling, testing, deployment and maintenance.

The courses are designed to give students in-depth learning in software engineering, and opportunities for advanced development of skills such as communication, teamwork and leadership, as well as participate in scholarly activities of research, seminars and presentations.

Several of the courses in the proposed program have a team project component, and students will be encouraged to form diversified teams to have diversified perspectives. Courses that cover requirements engineering will also cover topics related to integrating Equity, Diversity, and Inclusion (EDI) into the design and development of software systems and applications.

Ontario Tech University is committed to excellence in accessibility and diversity service provisions for all students, faculty and staff through a dedicated office for EDI (<https://inclusive.ontariotechu.ca>). All of our programs follow guidelines and EDI best practices provided by the University. The proposed programs, similar to all of our existing programs, will recruit a diverse student body from around the world.

The plan for assessing and monitoring the program effectiveness will be through the cyclical program review process, but also be in accordance with the requirements laid out by Ontario Tech's Academic Resource Committee that requires a report one-year after start-up and if there are areas of concerns a subsequent 18-month report will be required. The one-year report will ask the program to review enrollment data, admission averages, and provide an analysis of successes and challenges encountered in the first year. After the first year of the program being implemented, it will be internally assessed by this committee and if needed recommendations will be made to enhance program effectiveness and student success. If required, the 18-month report will address key curricular and student data (e.g. GPA, retention data, etc.) as well as any outstanding recommendations from the one-year report. Pending the committee's review, further documentation may be required of the program for ongoing monitoring. The reports will be developed by the graduate program director in consultation with the Faculty graduate committee.

An alignment of the Program Learning Outcomes to the Degree Level Expectations can be found in Appendix A.

- *Please attach, as an Appendix, the Program Learning Outcome Alignment Map to Degree Level Expectations*
- *If the program is to be accredited, include with the above information about the accreditation requirements and add the accreditation tables, if available, as an Appendix.*

c) Program Structure and Content

- *Describe the requirements and structure of the program. Is it full-time/part-time? Is this an online or partially online/hybrid program? What are the unique curriculum or program innovations or creative components in this program? (QAF 2.1.4b)*
- *Provide evidence that each graduate student is required to take a minimum of two-thirds of the course requirements from among graduate-level courses (QAF 2.1.6d)*
- *What is the program length? Provide a rationale for the length that ensures the program requirements can be reasonably completed*
- *Address how the program's structure will help students to meet the program learning outcomes and Degree Level Expectations (QAF 2.1.3a)*

The requirements and structure of the program are described below for each of the MASc, MEng-Project and MEng-Course options.

Similar to existing graduate programs in Engineering at Ontario Tech University, the students can be full-time or part-time. Hence, the length of the program depends on the student status, but in general it is expected that students can complete the MASc program in 5 to 6 semesters, and the MEng program in 3 – 6 semesters of full-time study.

The program consists of core and elective courses. The program is structured so that students have a choice in course selection, and as you can see from the program learning outcomes, a mapping has been provided to demonstrate how learning outcomes are achieved through a combination of course work, supervised research, research seminar, and research thesis for the MASc program; or a combination of course work and a project, or solely course work depending on the student's choice in the MEng program.

Note that all core and elective courses are graduate level courses – the 'G' in the course number denotes it is a graduate level course.

MASc

The objective of the MASc program in Software Engineering is to prepare students for careers in research, development and advanced software engineering systems in a variety of application domains. Graduates of the program will be able to work as software engineers in research and development or other areas in advanced technology companies or government

agencies, or to continue their education and pursue a PhD degree – graduates of the program would be qualified and eligible for admission to our PhD program in Electrical & Computer Engineering in the field of Software Systems. Graduates of this program would also meet the admission requirements for the PhD program in Computer Science at our University, or any PhD program in CS, SE, or related field in Canada or elsewhere.

The objectives of the MASc program are achieved through a combination of course work, supervised research, a research seminar and a research thesis. For the MASc in Software Engineering, students must complete five courses for a total of 15 credits and a thesis worth 15 credits:

- ENGR 5510G – Foundations of Software Engineering
- ENGR 5520G – Software Development Methods and Tools
- One course from Software Engineering Electives
- One course from Software Systems Electives
- One course from General Electives
- ENGR 5007G – MASc Seminar for ECSE
- ENGR 5001G – MASc Thesis

MEng (project-based)

The objective of the MEng program in Software Engineering is to provide the opportunity for students as well as software engineers in industry to upgrade and expand their skills, including research skills. Graduates of the program will be able to apply what they have learned in a variety of applications in industry, government and academia. Depending on which option the student selects, the objective of the MEng program can be achieved through either a combination of course work and a project or solely course work. MEng students have exposure to research through projects included in most of the graduate courses.

- ENGR 5510G – Foundations of Software Engineering
- ENGR 5520G – Software Development Methods and Tools
- ENGR 5590G – Software Engineering Studio
- One course from Software Engineering Electives
- One course from Software Systems Electives
- One course from General Electives
- One course from any of the Electives categories
- ENGR 5002G – MEng/MEngM Project

MEng (course-based)

For the course-based option, students must complete 10 courses worth a total of 30 credits

- ENGR 5510G – Foundations of Software Engineering
- ENGR 5520G – Software Development Methods and Tools

- ENGR 5590G – Software Engineering Studio
- One course from Software Engineering Electives
- One course from Software Systems Electives
- One course from General Electives
- The remaining four courses can be from any of the Electives categories

Course listing

Graduate courses offered are listed below. Courses related to software engineering are numbered as ENGR 55xxG. Courses related to software and computer systems are numbered as ENGR 57xxG.

The courses are organized as:

- Core courses: required courses for all students in the MAsC and MEng programs
- Software Engineering Electives: specialized courses for Software Engineering
- Systems Electives: courses related to software and computer systems
- General Electives: related courses that may be of interest
- Other: courses related to thesis, project, or research seminar

Core Courses:

- ENGR 5510G - Foundations of Software Engineering
- ENGR 5520G – Software Development Methods and Tools

Software Engineering Electives:

- ENGR 5550G - Software Testing and Quality Assurance
- ENGR 5560G - Software Security and Dependability
- ENGR 5570G - Software Maintenance and Evolution
- ENGR 5590G - Software Engineering Studio
- CSCI 6110G - Software Modelling Techniques and Languages for Industry Applications
- CSCI 6120G - Empirical Software Engineering

Software Systems Electives

- ENGR 5730G - Advanced Algorithms and Data Structures
- ENGR 5750G - Software Quality Management
- ENGR 5740G - User Interface Design
- ENGR 5770G - Service Computing
- ENGR 5775G - Knowledge Discovery and Data Mining
- ENGR 5785G - Real-Time Data Analytics for Internet of Things
- ENGR 5790G - Safety-Critical Software Systems
- CSCI 5100G - Development of Concurrent Software

General Electives

- ENGR 5010G - Advanced Optimization

- ENGR 5140G - Project Management for Engineers
- ENGR 5360G - Automotive Electronics and Software
- ENGR 5427G - Operations Research
- ENGR 5660G - Communication Networks
- ENGR 5650G - Adaptive Systems and Applications
- ENGR 5670G - Cryptography and Secure Communications
- ENGR 5910G - Embedded Real-Time Control Systems
- ENGR 5940G - Intelligent Control Systems
- ENGR 5005G - Special Topics
- ENGR 5710G - Network Computing
- ENGR 5720G - Pervasive and Mobile Computing
- CSCI 5750G - Information Visualization
- CSCI 5120G - Principles of Distributed Computing

Other

- ENGR 5001G - MASc Thesis
- ENGR 5002G - MEng/MEngM Project
- ENGR 5007G - MASc Seminar for ECSE

Note: Courses are offered on the basis of demand with the expectation that most courses will be offered at a minimum of once every two years.

- *Describe the ways in which the curriculum addresses the current state of the discipline (QAF 2.1.4a)*
- *For researched-focused graduate programs, provide a clear indication of the nature and suitability of the major research requirements for degree completion*

The program requirements are structured around core and elective courses. As you can see from the description of core and SE elective courses, these new courses cover the state of the art in software engineering, from agile methodology to the latest tools and cloud-based development.

For MASc and MEng-Project, a research component is an integral part of the program, and in such cases the student work is supervised by a faculty member with expertise in the subject matter.

- *Is there an experiential learning component (e.g. workplace learning, co-op, internship, field placements, service learning, mandatory professional practice) to the program? If yes, please describe this component in 2500 words or less. Include confirmed partners, duration of the experiential learning component(s), and projected number of placements (where applicable)*

While many of the courses in the programs (MAsc and MEng) will provide experiential learning components, formal work-integrated learning is built into the MEng program in the form of a co-op internship for 4-8 months (i.e. one or two co-op work terms). Co-operative education is a form of experiential learning that offers students a journey of self-discovery and transformative learning experiences, and the proposed co-op stream will allow the Faculty of Engineering and Applied Science to align with the Ontario Tech Mission to provide superior lifelong learning experiences.

The co-op stream would also be especially attractive to international students since off-campus employment through a co-op job will be a program requirement.

Applicants to the MEng program have the option of applying directly to the MEng Co-op stream with an additional fee. In addition, students may apply to join the co-op stream during their first or second semester of study through the Engineering Co-op office.

During their first or second semester of study, students in the Co-op stream will be required to take ENGR1000W – Professional Competencies for Engineers [0 credit, pass/fail], unless they have previously taken and passed this course at Ontario Tech University perhaps during their undergraduate education.

Students would be able to take a co-op job after the first, second or third semester of study, and must complete at least one co-op work term in order to qualify for the co-op designation to appear on their degree. At the end of a co-op work term, the student must submit a work term report using the guidelines provided by our Engineering Co-op office.

Co-op work terms will be recorded on the student transcript using a special course number similar to the process followed for undergraduate Engineering students in the Co-op stream.

An industrial co-op work term must be between 12 – 16 weeks of full-time paid work (35 – 40 hours per week) with a minimum of 420 hours. Students will be required to pay a co-op work term fee (this fee is set by the Board of Governors).

The Co-op stream of the MEng program will be supported by our Engineering Co-op office.

- *Describe how the potential need to provide accessibility accommodations has been considered in the development of this program; please provide information beyond the services offered by Student Accessibility Services*

The accessibility accommodations offered by Student Accessibility Services to current graduate students will be sufficient for students in the proposed program.

d) Calendar Copy with Program Map(s)

- *Provide, as an Appendix using the template provided, a clear and full calendar copy. The template ensures consistency across all programs in the Academic Calendar*
- *Provide, as an Appendix, a full list of the all courses included in the program including course numbers, titles, and descriptions. Please indicate clearly whether they are new/existing. Include full course proposals for new courses, and the most recent course syllabi for existing courses. If you are making changes to existing courses, include instead a course change form. In an appendix noted below, you will note which faculty members are expected to teach in the program and who is responsible for developing any new courses.*

Please see Appendix B for proposed calendar copy.

Please see Appendix C for a full list of courses in the program.

3 Consultation

- *Describe the expected impact of the new program on the nature and quality of other programs delivered by the home and collaborating Faculty(ies) and any expected impact on programs offered by other Faculties*
- *Outline the process of consultation with the Deans of Faculties that will be implicated or affected by the creation of the proposed program*
- *Provide letters of support for the program from Deans at Ontario Tech and/or from other institutions/partners*

Following the recommendation of the Academic Resource Committee, the following consultation process was used:

Several meetings were held with core software engineering faculty members in the Department of Computer, Electrical and Software Engineering / Faculty of Engineering and Applied Science. Feedback from this consultation shaped the proposal into its current form. In addition:

- a) There is a consensus that once this program is approved, the 'Software Systems' field may need to be removed from the MASc-ECE program.
- b) Faculty members who have associate graduate faculty status in the CS program may keep that status for the purpose of graduate student advisory committees. The Dean of the Faculty of Engineering and Applied Science discuss CS program committee with the Deans of Science and FBIT and it was suggested that FEAS no longer needs to be part of the CS graduate program committee.

- c) The MITS program is growing and cross-listed (ENGR/CSCI) courses have been recently removed based on MITS program request.

Consultation with non-FEAS graduate faculty in ECE:

- a) An email was sent to eight faculty members (CS and MITS) who are graduate faculty of ECE or serving as GPD for CS or MITS, with a link to the proposal and shared document for collecting feedback. They were also invited to be graduate faculty in the proposed program.
- b) Several faculty members provided comments, overly positive with one faculty member interested in being on the graduate faculty for the program. The GPD for the CS program provided comments, and shared the proposal with internal CS graduate faculty. The comments have been addressed in the proposal.

Does this Program contain any Indigenous content? Yes No Unsure
For more information on how Indigenous content is defined at Ontario Tech University and how to consult with the Indigenous Education Advisory Circle (IEAC), please refer to the [Protocol for Consultation with the Indigenous Education Advisory Circle](#).

Has the IEAC been contacted Yes No

If yes, when?

What was the advice you received from the IEAC, and how has it been included in your proposal?

Did the IEAC ask you to return the proposal to them for review? Yes No

If yes, have they completed their review? Yes No N/A

4 Resource Requirements (QAF 2.1.7, 2.1.8, 2.1.10)

a) General Resource Considerations

- *Note here if this new program may impact enrolment agreements with other institutions/external partners that exist with the Faculty/Provost's office*

- *Indicate if the new program will require changes to any existing agreements with other institutions, or will require the creation of a new agreement. Please consult with CIQE (ciqe@ontariotechu.ca) regarding any implications to existing or new agreements.*

Not aware of relevant enrolment agreements with other institutions/external partners.

b) Faculty Members - Current and New Faculty Requirements

- *Complete as an Appendix, using the Faculty Information templates provided, charts detailing the list of faculty committed to the program and provide any additional details, in paragraph form, if necessary below; the information in the Appendix or additional information must include clear evidence that faculty have the recent research or professional/clinical expertise needed to sustain the program, promote innovation, and foster an appropriate intellectual climate.*
- *Include a brief statement to provide evidence of the participation of a sufficient number and quality of faculty who will actively participate in the delivery of the program*
- *Describe the role of any sessional faculty,*
- *Explain the provision of supervision of experiential learning opportunities; how will supervisory loads be distributed?*
- ***Describe the plan and commitment to provide additional faculty resources to support the program, if needed***
- *Indicate that faculty CVs are included in an Appendix, and please provide CVs for all faculty committed to the program*

The proposed program draws on the existing expertise in Software Engineering in the Faculty of Engineering and Applied Science, with no new faculty members are required for this program beyond the on-going recruiting efforts for two new faculty members in Software Engineering. All core courses, software engineering electives, and software systems courses will be taught by core software engineering faculty members. General elective courses will be taught by core faculty members in the Faculty of Engineering and Applied Science.

All faculty members listed in Appendix D are tenured, tenure-track, or teaching faculty with continuing contracts. As mentioned earlier, recruiting efforts are in-progress to bring two tenured/tenure-track faculty members in software engineering.

c) Additional academic and non-academic human resources

- *Give details regarding the nature and level of Sessional Instructor and TA support required by the program, the level of administrative and academic advising support, etc.*
- ***Please describe the plan and commitment to provide additional resources to support the program, if needed***

All courses will be taught by core software engineering faculty or other faculty members in the Faculty of Engineering and Applied Science.

No TA support is provided for graduate-level courses.

Administrative and academic advising will be provided by the existing Faculty graduate programs assistant office.

d) Existing non-financial student supports

School of Graduate and Post-Doctoral Studies

Quality graduate and postdoctoral education combines teaching, research, professional development, disciplinary community involvement and personal growth. It is by nature a shared responsibility between students, faculty members, the programs and a large number of support units, with overarching administration being provided by the School of Graduate and Postdoctoral Studies.

The School of Graduate and Postdoctoral Studies (SGPS) furthers the scholarly mission of the university by providing academic and administrative support to the university's postgraduate educational, research, innovation and international activities. Our responsibilities include graduate program development, graduate enrolment management, oversight of academic and quality standards, and the implementation of policies and practices that enhance graduate/postdoctoral scholarly success, career readiness and personal growth. SGPS supports prospective, new and current graduate students through many administrative services including, but not limited to, recruitment, admission, registration, funding and scholarships, orientation, professional development workshops and events, and processing of final theses, projects and papers. SGPS is a single-point-of-contact, multifunctional administrative unit tailored to the complete "life-cycle" of graduate students, providing coordinated support to students and all other stakeholders.

Faculty-Specific Support

Academic Advising

Academic advising for students in the proposed MSc and MEng programs will be provided by a graduate program director (GDP), and administrative support for academic advising is provided by the Graduate Programs Assistant in the Faculty of Engineering and Applied Science.

Student Life

All graduate students have access to an extensive support system that ensures a quality student experience. In addition to the outlined services below, students may also take advantage of the Campus Childcare Centre, Campus Bookstores, Housing

and Living Resources, as well as the Student Union. Further information can be found at: <http://studentlife.ontariotechu.ca/>

Student Learning Centre

The Student Learning Centre fosters a high level of academic excellence in the Ontario Tech University community by working with all Ontario Tech University students, undergraduate and graduate, to achieve educational success. Foundational knowledge and prerequisite skills are essential to all university-level courses, and competency with these skills is vital for strong academic performance. Faculty specific academic resources are available online and include tip sheets and videos. The subject specialists offer in-person support services in mathematics, writing, study skills, ESL and physics. With the additional support of peer tutors and workshops, the Centre can further accommodate the needs of a specific course or program.

Student Accessibility Services

Student Accessibility Services (SAS) works collaboratively to ensure that students with disabilities have equal opportunities for academic success. SAS operates under the Ontario Human Rights Code (OHRC) and the Accessibility for Ontarians with Disabilities Act (AODA). Services are provided for students with documented disabilities. Accommodation supports include but are not limited to:

- Adaptive technology training
- Alternate format course material
- Learning skills support
- Testing support
- Transition support for incoming students

SAS also provides inclusive peer spaces, support groups, and skills workshops for students.

Careers and Internships

The Career Centre offers comprehensive career service assistance, co-op and internship support and resources, and a variety of valuable resources to help students along their career paths, including:

- Assistance with creating effective job-search documents
- Career Counselling
- Co-op and internship job search advising
- Interview preparation
- Job market information
- Job search strategies

A variety of events are hosted on campus during the academic year including employer information and networking sessions, job fairs, and interviews conducted by leading employers.

Student Engagement and Equity

Student Engagement and Equity supports students' successful transition into the university and provides opportunities for them to develop leadership and professional skills throughout their university career. Services provided through Student Engagement and Equity include:

- Orientation and events through first year
- Specialized programming for first-generation, graduate, Indigenous, international, mature, online, transfer, and diploma-to-degree pathways students
- Services and supports for international and exchange students
- Equity and inclusivity programming and support groups
- Assistance and advice for living off-campus
- Peer mentoring to help students through first year
- Opportunities to grow and develop leadership skills through the Ambassador and Peer Mentorship program

Student Mental Health Services

Student Mental Health Services helps students learn how to better manage the pressures of student life. Students can:

- Attend a drop-in session
- Participate in events and activities or support groups that promote positive health and well-being
- Access tools and resources online to learn about mental health and how to maintain good health and wellness
- Work with a mental health professional to address concerns
- Contact the Student Lifeline for immediate help and assistance
- Get answers to frequently asked questions about mental health

Student Mental Health Services offers short-term counselling and therapy services to students. Students in distress will also be provided with support and counselling as needed. There is no cost to students and services are confidential. For those who need long-term counselling support or specialized mental health services, Ontario Tech University will provide referrals to assist the student in accessing resources in the local community or in the student's home community.

Athletics and Recreation Facilities

Ontario Tech University offers a number of recreation facilities and fitness opportunities to meet all lifestyles and needs. On-campus facilities include the state-of-the-art FLEX Fitness Centre which overlooks Oshawa Creek, five gymnasiums, a 200-metre indoor track, two aerobic/dance studios, the Campus Ice Centre, Campus Fieldhouse, a soccer pitch, a fastball diamond, squash courts and an indoor golf training centre. Students are able to participate in varsity and intramural sports as well as group fitness classes and personal training sessions.

Campus Health Centre

The Campus Health Centre provides assistance in numerous confidential health-care options including:

- A medical clinic with daily access to physician and nursing staff
- Complementary Health Services featuring acupuncture, chiropractic, custom orthotics, massage therapy, nutritional counselling and physical therapy
- Treatment of disease, illness and injury
- Allergy injections, immunizations and influenza injections
- An on-site laboratory (blood work, STI testing, throat swabs, etc.)
- Gynaecological health-care and prescriptions

Student Awards and Financial Aid

Student Awards and Financial Aid (SAFA) is dedicated to helping students understand the variety of options available to finance their education. Budgeting and financial planning are essential to their success and Student Awards and Financial Aid is on hand to help create the right financial plan. Financial assistance can be in the form of bursaries, employment (both on-campus and off), parental resources, scholarships, student lines of credit and the Ontario Student Assistance Program (OSAP).

Information Technology Resources

IT Services strives to provide quality services to students at Ontario Tech. To support these objectives, the following components are included:

Wireless network

Wireless internet connection is available in public areas and open-air locations around the Ontario Tech campus where students congregate (North Oshawa and Downtown locations).

Wired network

To ensure the success of the technology-enriched learning environment, a comprehensive data network has been installed on campus. This includes a network drops in lecture halls and designated areas as well as network drops for each residence suite.

Ontario Tech students benefit from networked classrooms and learning spaces. Each ergonomically-designed space has data network connection access and electrical connections to ensure battery regeneration. In addition, classrooms include electronic projection equipment and full multimedia support.

IT Service Desk

The IT Service Desk is equipped with certified technicians and experienced IT professionals offering technical support services on a drop-in, call-in or email basis.

Software Support

Software Support specialists are available to students on-site and online to assist in downloading/installing University software and support any other software related issues.

Printing services

Printing services are available to students in the following areas: labs, classrooms, study common areas, the Learning Commons and the Library. All Ontario Tech University students receive print credits every year, more Printpacks can be purchased through the Campus Bookstore if students require additional printing services.

Teaching & Learning Centre

The mission of the Teaching and Learning Centre (TLC) at Ontario Tech is to empower faculty to reach their potential as educators and to create a culture where effective teaching is valued. We champion the scholarship of teaching and implementation of pedagogy. We create valuable teaching and learning professional development experiences. We move Ontario Tech towards being a leader in teaching excellence, ultimately leading to greater student success.

The TLC provides faculty with a range of tools and facilities to assist them in providing a rich learning experience for students. Experts at the TLC provide support in various areas including curriculum development, multimedia design, learning technology and in the overall improvement of teaching practice.

In addition, the TLC funds teaching-related projects from the Teaching Innovation Fund (TIF) for proposals by faculty members aimed at developing new methods in teaching and learning. The TLC facilitates teaching awards at the University and supports faculty in their application for external awards and funding opportunities that focus on teaching and learning.

e) Graduate student financial support

- *Provide evidence that financial assistance will be sufficient to ensure quality and numbers of students*
- *Provide the teaching assistant hours and capacity within the Faculty*
- *Refer to the Business Plan (Section 4g) where appropriate*

The primary sources of funding for the MASc program (thesis-based) will be teaching assistantships, research assistantships, and/or graduate research assistantships. These are available to both Canadian and international students. The minimum level of funding is currently \$16,000/year.

Funding is not provided to part-time students and/or students in the MEng professional program.

A limited number of graduate scholarships to high-achieving full-time entering a research-based master's or doctoral program is awarded by the School of Graduate and Postdoctoral Studies. Students will be assessed for eligibility at the time of admission, and application isn't required.

f) Physical resource requirements

- *Please attach a report, as an Appendix, from the Library regarding existing library holdings and support for student learning; please contact your Subject Librarian as you begin your proposal to request a 'Library statement for new program proposal'*
- *Address any space/infrastructure requirements including information technology, laboratory space, equipment, etc.*
- *Ideally, please provide information on the change in the number of faculty, students, administrative staff, etc. as well as information on changes in equipment and activities (additional space; the renovation of existing space; or will the current space allocation accommodate the new program)*
- ***The plan and commitment to provide additional resources to support the program, if needed***

Library report is in Appendix E.

No new requirement for additional space/infrastructure.

g) Business Plan

- *Provide a brief statement of the funding requirements Please submit a copy of the full Excel document to CIQE, as an attachment.*
- *Complete the highlighted sections of the New Program Funding and Tuition form and submit the form to CIQE as soon as possible*

There are no new funding requirements for the proposed programs. The Academic Resource Committee has reviewed the budget sheets for each program and a budget summary provided to the external reviewers.

5 Closing Statements Regarding Program Quality (QAF 2.1.10)

- *Please describe the appropriateness of the collective faculty expertise to contribute substantively to the proposed program; areas of faculty strength and expertise, innovation, and scholarly record will contribute to the quality of the program and student experience*
- *Please explain how the program structure and faculty research will ensure the intellectual quality of the student experience*
- *Refer to the Faculty Appendices, and provide information on how the research experience, current projects, and funding contribute to the quality of the program*

The proposed program draws on the existing expertise in Software Engineering in the Faculty of Engineering and Applied Science, with no new faculty members are

required for this program beyond the on-going recruiting efforts for two new faculty members in Software Engineering.

The current software engineering faculty expertise is the core faculty for supporting the CEAB-accredited undergraduate program in Software Engineering in the Faculty of Engineering and Applied Science, and in addition they are offering graduate courses and supervising graduate students, 13 in the MASc-ECE program.

The core faculty in software engineering has a track record of offering successful courses at the undergraduate and graduate levels, with research expertise in many areas of software engineering such as intelligent systems, embedded systems, Internet of Things, machine learning & artificial intelligence, and software engineering education. Appendix D shows information about faculty members expertise, research areas, and funding; CVs for graduate faculty are also included.

APPENDICES

Please include at minimum the below. Additional Appendices may be added, as appropriate. Appendices should ultimately be listed, attached, and labelled (A, B, C, etc.) in the order in which they first are mentioned in the document.

Appendix A – Program Learning Outcome Alignment Map to Degree Level Expectations

Appendix B – Calendar Copy

Appendix C – List of Courses in the Program, New Course Proposals, Required Course Changes

Appendix D – Faculty Information

Appendix E – Library Report

**Financial Update
Report to the Audit and Finance Committee
For 6 months ending September 30, 2021**

November 24, 2021

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Ontario Tech University - Operating Forecast Summary

For the year ending March 31, 2022 (in \$000 s)

The table below shows the variance of the projected year-end forecast vs the approved 2021-22 budget

April 1, 2021 - March 31, 2022				
	Approved Budget	Y/E Forecast	Fav. (Unfav.) Forecast vs Budget \$ / %	
Revenue				
Grants	81,677	89,034	7,357	9%
Tuition	82,951	88,922	5,972	7%
Student Ancillary	12,305	12,575	270	2%
Other	14,969	13,483	(1,486)	-10%
Total Revenue	191,902	204,014	\$ 12,112	6%
Expenditures				
Academic	80,273	82,167	(1,894)	-2%
Academic Support	37,497	40,877	(3,380)	-9%
Administrative	30,551	30,790	(240)	-1%
Sub-total	148,321	153,834	(5,514)	-4%
Purchased Services	12,749	12,434	314	2%
Total Commercial	8,546	7,662	885	10%
Debenture Interest Expense	9,312	9,312	(0)	0%
Total Operating Expenses	178,927	183,242	\$ (4,315)	-2%
Net Contribution from Operations	\$ 12,975	\$ 20,772	\$ 7,797	60%
Capital Expenses	4,897	9,162	(4,265)	-87%
Principal Repayments - debenture/leases	8,078	8,078	0	0%
Total Net Surplus	\$ 0	\$ 3,532	\$ 3,532	N/A
Other Disclosures - funded from external financing or prior year reserves				
Utilization of prior year reserves	\$ 483	\$ 483	\$ -	0%
New Building - loan	\$ 22,300	\$ 20,650	\$ 1,650	7%

2021/22 Operating Forecast

Summary

Based on Oct 1, 2021 enrolment data, and expense forecasts from budget holders, the net operating surplus for the year is projected to be approximately \$3.5M against an original balanced budget.

Total revenue is favourable \$12.1M (or 6% against original budget), and includes \$6.0M tuition fees due to higher than expected enrolment, \$7.4M unexpected grants in support of virtual learning, student support and facilities renewal. These increases are offset by \$1.5M unfavourable variance in other revenues attributable to the ongoing impact of COVID-19 on ancillary and commercial activities such as parking, athletics, and food services.

Total operating and capital expenses increased \$8.6M (or 5% against original budget), of which \$7.4M is funded by the unexpected grants received and/or recognized in the current year, with remaining increase reflecting additional investment in academic initiatives and faculty lab equipment and renovations.

Below are the variances of the year-end forecast to the approved budget:

Enrolment

FTE's	2020/21 actual	2021/22 approved budget *	2021/22 Oct update *	Oct 1 update vs approved budget
Undergraduate				
Domestic	8,291	7,802	8,396	594
International	521	559	644	85
Graduate				
Domestic	443	415	438	23
International	193	239	297	58
Total FTE's	9,448	9,015	9,775	760

** Oct 1 update reflects Sep Day 10 enrolment count.

Current eligible undergraduate and graduate enrolment projection is within the + / - 3% of the University's corridor midpoint.

2021/22 Operating Forecast (continued)

Enrolment

Increases were recognized across all faculties, except for a decrease of 7% (19 FTE) in the Faculty of Energy Systems and Nuclear Science. The increases are attributable to a higher than expected number of returning students, offset by a decrease of 10% in first-year domestic undergraduate intake which will have a flow-through impact in the outer years' enrolment.

Core Operating Grant remains flat as under the new funding formula implemented by the Ministry in 2017-18, the funding for domestic students for the current year remains at the 2016 – 17 level.

Revenues

Total revenues are favourable \$12.1M to budget:

- 1) Grants are \$7.4M favourable to budget and includes additional specific grants received and recognized in the current year, and for which there are corresponding offsetting expenses. Significant grants include \$2.4M of e-campus Ontario grant to support the evolution of virtual teaching and learning, \$2.3M COVID support grant deferred from the prior year, \$1.2M for student work placement and graduate awards, and \$0.9M additional funding for campus facilities renewal.
- 2) Tuition is showing an upside of \$6.0M against budget due to the higher than budgeted enrolment for both domestic and international students (see Enrolment table above).
- 3) Other revenues are unfavourable \$1.5M due to the loss in our commercial revenues for ACE, food services, parking, and the athletic facilities, mostly attributable to the ongoing impact of COVID-19 and lower than expected number of faculty, staff and students on campus.

Expenses

Total operating expenses are unfavourable \$4.3M to budget:

- 1) Academic units are unfavourable \$1.9M against budget and reflects additional support allocated to instruction based on enrolment growth. These expenses are funded by the e-campus and COVID support grants received and/or recognized in the current year (see “Grants” under “Revenues” above)
- 2) Academic Support units are unfavourable \$3.4M and includes \$1.2M of expenses funded by the e-campus grant (see “Grants” under “Revenues” above), \$1.0M in entrance scholarships as a higher than expected number of students met the eligibility criteria, \$0.8M additional investment in academic initiatives, \$0.5M increase in recruitment costs, and other immaterial variances.
- 3) Commercial Expenses are showing a positive variance of \$0.9M and is attributable to cost savings to offset decreased revenues in ACE, food services, parking and athletic facilities (see “Other” in “Revenues” above).

2021/22 Operating Forecast (continued)

Capital

Capital Expenses are unfavourable \$4.3M, and includes \$2.8M capital investment in IT and Facilities infrastructure that are fully funded by the provincial COVID support grant and additional facilities renewal grant (see “Grants” under “Revenues” above), \$1.5M in faculty lab equipment and renovations, including Nursing equipment in the new Shawenjigewining building

Conclusion

The current forecast is showing a net surplus of \$3.5M based on current spending plans and the current COVID situation in the Region and the Province. Management is reviewing plans on where to strategically invest actual surplus at year-end, with the focus being on future capital renewal after two years of a strategic pause on capital reserves.

ONTARIO TECH UNIVERSITY
Consolidated Statement of Financial Position
As at September 30, 2021

	<u>September 30, 2021</u>	<u>September 30, 2020</u>	<u>YOY Variance</u>	<u>March 31, 2021</u>
ASSETS				
CURRENT				
Cash and short-term investments	\$ 85,809,218	\$ 60,999,225	\$ 24,809,993	\$ 53,127,071
Grant receivable	8,385,350	9,818,128	(1,432,778)	12,658,992
Other accounts receivable	11,422,836	43,875,791	(32,452,955)	5,343,153
Prepaid expenses and deposits	2,454,947	2,252,047	202,900	2,176,575
Inventories	5,131	39,416	(34,286)	5,131
	<u>108,077,482</u>	<u>116,984,608</u>	<u>(8,907,126)</u>	<u>73,310,922</u>
INVESTMENTS	34,024,083	29,607,087	4,416,996	31,947,275
Other Investments	(467,074)	-	(467,074)	(189,539)
Other Assets	2,202,998	-	2,202,998	2,000,007
CAPITAL ASSETS	406,816,111	395,798,780	11,017,331	405,978,815
TOTAL ASSETS	\$ 550,653,600	\$ 542,390,474	\$ 8,263,126	\$ 513,047,480
LIABILITIES				
CURRENT AND LONG-TERM LIABILITIES				
Accounts payable and accrued liabilities	34,882,349	34,888,478	(6,129)	32,995,232
Deferred revenue	51,661,492	79,110,008	(27,448,516)	28,244,367
	<u>86,543,841</u>	<u>113,998,487</u>	<u>(27,454,646)</u>	<u>61,239,598</u>
LONG TERM DEBT	25,125,446	303,027	24,822,419	301,525
OBLIGATIONS UNDER CAPITAL LEASE	35,726,847	36,593,387	(866,540)	36,173,825
DEBENTURE DEBT	148,105,249	154,875,907	(6,770,658)	151,543,488
DEFERRED CAPITAL CONTRIBUTIONS	157,557,396	157,381,631	175,765	161,007,867
	<u>453,058,779</u>	<u>463,152,439</u>	<u>(10,093,660)</u>	<u>410,266,304</u>
Net Assets				
UNRESTRICTED				
NET ASSETS, excluding current year surplus	78,430,875	61,266,522	17,164,353	63,286,186
ENDOWMENTS	24,714,163	23,660,499	1,053,664	24,350,300
CURRENT YEAR (DEFICIT) / SURPLUS	(5,550,216)	(5,688,985)	138,769	15,144,690
	<u>97,594,821</u>	<u>79,238,035</u>	<u>18,356,786</u>	<u>102,781,177</u>
TOTAL LIABILITIES AND NET ASSETS	\$ 550,653,600	\$ 542,390,474	\$ 8,263,126	\$ 513,047,480

ONTARIO TECH UNIVERSITY
Consolidated Statement of Operations
For the 6-months ending September 30, 2021

	<u>September 30, 2021</u>	<u>September 30, 2020</u>	<u>YOY Variance</u>
REVENUE			
Grants - operating & research	\$ 43,984,811	\$ 40,253,061	3,731,751
Grant - debenture	6,750,000	6,750,000	-
Donations - operating & research	148,545	157,541	(8,997)
Student tuition fees	28,588,832	25,483,401	3,105,431
Student ancillary fees	6,183,101	5,449,851	733,249
Revenue from purchased services	78,559	252,468	(173,909)
Other income	3,106,712	1,725,181	1,381,531
Amortization of deferred capital contributions	4,950,471	4,975,059	(24,589)
Interest revenue	121,753	206,666	(84,913)
Unrealized gain on investments	1,641,339	3,327,385	(1,686,046)
	<u>95,554,123</u>	<u>88,580,614</u>	<u>6,973,509</u>
EXPENSES			
Salaries and benefits	57,950,602	54,041,355	3,909,247
Student aid, financial assistance and awards	7,325,874	6,246,543	1,079,331
Supplies and expenses	11,772,360	9,922,369	1,849,991
Purchased Services	5,149,410	5,461,706	(312,296)
Professional fees	466,370	444,563	21,807
Interest expense - Current Obligations	89,254	100,794	(11,540)
Interest expense - Long Term Debt	6,240,404	6,482,793	(242,389)
Amortization of capital assets	11,819,394	11,457,035	362,359
Loss on other investments	277,534	-	277,534
Loss on disposal of assets	13,138	112,441	(99,303)
	<u>101,104,339</u>	<u>94,269,599</u>	<u>6,834,740</u>
Excess of expenses over revenues	\$ (5,550,216)	\$ (5,688,985)	\$ 138,769

-

UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY
Consolidated Statement of Cash Flows
As at September 30, 2021

	<u>September 30, 2021</u>	September 30, 2020
NET INFLOW (OUTFLOW) OF CASH RELATED TO THE FOLLOWING ACTIVITIES		
OPERATING		
Excess of expenses over revenue	(5,550,216)	(5,688,985)
Items not affecting cash:		
Amortization of capital assets	11,819,394	11,457,035
Amortization of deferred capital contributions	(4,950,471)	(4,975,059)
Loss on other investments	277,534	-
Loss on disposal of assets	13,138	112,441
Unrealized gain on investments	(1,641,339)	(3,327,385)
	<u>(31,961)</u>	<u>(2,421,954)</u>
Working Capital		
Grant and other accounts receivable	(1,806,041)	(35,967,184)
Prepaid expenses and deposits	(278,372)	18,248
Inventories	-	18,319
Accounts payable and accrued liabilities	1,887,117	7,382,157
Deferred revenue	23,417,125	56,903,801
	<u>23,187,868</u>	<u>25,933,387</u>
INVESTING		
Purchase of capital assets	(12,669,827)	(10,755,378)
Investments	(435,468)	(142,248)
Other Assets	(202,991)	-
Endowment contributions	363,863	124,384
	<u>(12,944,425)</u>	<u>(10,773,242)</u>
FINANCING		
Repayment of long term debt	21,385,681	(3,352,751)
Repayment of obligations under capital leases	(446,978)	(360,623)
Deferred capital contributions	1,500,000	160,366
	<u>22,438,703</u>	<u>(3,553,009)</u>
NET CASH INFLOW	32,682,147	11,607,137
CASH BALANCE, BEGINNING OF YEAR	53,127,071	42,339,591
CASH BALANCE, END OF PERIOD	\$ 85,809,218	\$ 53,946,728

CONSOLIDATED FINANCIAL STATEMENTS

Summary

In addition to normal operating activities, these statements reflect a new external loan of \$25.0M for the long-term financing of the new Shawenjigewing Hall, the timing of registration for the winter semester (registration opened in November 2021 for the 2021/22 academic year vs July 2020 for 2020/21) and the ramp-up of activities attributable to the gradual re-opening of the campus facilities in the current year.

The Statement of Financial Position remains stable at the end of the reporting quarter with improved cash and short-term investments primarily due to underspending in the prior year and increase in current year operating and research funds coupled with timing of spend. Balance of cash and short-term investments include \$26.0M of restricted cash attributable to research, donation, and commercial activities such as ACE and the Childcare Center.

Our debt position shows a slight deterioration with the additional long-term financing of \$25.0M, offset by \$7.6M repayment of debenture debt and capital lease obligations in the last 12 months.

Detailed Analysis of Consolidated Financial Statements

Assets

Cash and short-term investments increased \$24.8M and is comprised of \$8.4M of operating underspending in the prior fiscal year, \$10.0M increase in operating funds and \$5.0M increase in research to reflect increased grant funding and tuition, coupled with timing of spend, and other immaterial variances.

Grant receivable balance of \$8.4M consists of \$7.0M of operating grant receivable, of which \$6.6M relates to the Collaborative Nursing grant which is funded on a slip-year basis, and \$1.4M of research grant, all of which is current.

Grant receivable decreased \$1.4M as the prior year included \$1.0M in research grants that have since been received.

Other accounts receivable balance of \$11.4M consists of net \$8.0M of fall tuition fees receivable, \$1.5M of trade, research and ACE receivable and \$0.8M of sales tax receivable and other variances.

CONSOLIDATED FINANCIAL STATEMENTS (continued)

Other accounts receivable decreased \$32.5M as the prior year balance included \$32.8M of tuition receivable for winter semester 2021 as students were able to register for both the fall and winter semesters for the 2020/21 academic year. Due to the uncertainty around COVID-19 and the public health guidelines, registration for winter 2022 was delayed and started after the end of the reporting quarter on November 9, 2021.

Investment balance of \$34.0M relate to our endowed funds held at PH&N. The year-over-year increase of \$4.4M is comprised of mark-to-market unrealized gains of \$3.3M, new endowed donations of \$0.9M, net investment income of \$0.9M, offset by \$0.7M bursary disbursements to students.

Other investments of \$0.5M represent the University's accumulated investment in Ontario Tech Talent which is accounted for on an equity basis.

Other assets of \$2.2M include \$1.6M of a life insurance policy for which the University is the named beneficiary and \$0.6M of related party loan to fund the start-up costs of Ontario Tech Talent.

Capital assets increase of \$11.0M include net asset additions of \$33.8M, offset by accumulated amortization of \$22.8M.

Net additions in the last 12 months comprise of \$25.7M investment in the new Shawenjigewining Hall, \$3.1M donated land and building, \$2.7M of major equipment of which \$1.0M is funded by external research grants, \$1.2M of building renovations funded by the facilities renewal grant, and \$1.1M of IT equipment and laptops.

Liabilities

Deferred revenue relate to revenues deferred to subsequent periods as these have not yet been earned at the end of the fiscal year or will be recognized as revenue in the period in which related expenses are incurred.

Balance of \$51.7M comprises \$31.5M deferred tuition representing three months of fall term fees not earned at the end of the reporting quarter, and \$20.2M of revenues billed or received and not yet spent at the end of the period (\$11.7M externally funded research grants, \$4.3M expendable donations, \$1.7M student ancillary fees, and \$2.5M miscellaneous deferred revenues).

Decrease of \$27.4M in deferred revenue is primarily attributable to decrease in deferred tuition due to the timing of registration for the winter semester in the current academic year 2021/22.

CONSOLIDATED FINANCIAL STATEMENTS (continued)

Long Term Debt of \$25.1M includes \$25.0M of long-term financing for the construction of the new Shawenjigewining Hall.

Current and long-term obligations under capital lease decrease represents the principal lease repayments for 61 Charles and 55 Bond in the current year.

Current and long-term debenture debt decrease of \$6.8M relates to the principal repayment and resulting drawdown of the debt over the last 12 months. This debt is fully payable in October 2034.

Deferred capital contributions increase of \$0.2M includes grants and donations of \$9.8M received for capital projects in the last 12 months, offset by \$9.6M accumulated amortization into revenues of capital grants and donations.

New grants and donations of \$9.8M include \$3.0M contribution from the University Student Union for the construction, use and occupation of the licensed areas in the new Shawenjigewining Hall, \$2.1M donations for building capital projects, \$2.0M facilities renewal grant, \$1.7M for research capital projects, and \$1.0M donated Stone House building.

The Statement of Operations shows a net increase of \$7.0M (7.9%) in revenues, offset by a net increase of \$6.8M (7.3%) in expenses.

Revenues

Grants increase of \$3.7M includes \$2.3M COVID support grant and \$1.3M of e-campus grant received and/or recognized in the current year.

Student tuition fee increase of \$3.1M is attributable to the increase in year-over-enrolment (net 325 FTE).

Other income increase of \$1.4M relates to increases in commercial revenues such as ACE and athletic facilities as activities on campus ramp up after the physical closure of most of the campus facilities in the prior year.

Unrealized gains on investment relate to the mark-to-market gains on our endowed portfolio held at PH&N. The market is less favourable than the prior year with concerns around US fiscal and monetary policy, inflation fears and concerns about the Chinese property market which all contributed to knock equities from their upward trajectory.

CONSOLIDATED FINANCIAL STATEMENTS (continued)**Expenses**

Salaries and benefits increased \$3.9M and includes \$2.4M in annual salary increases, \$1.5M in annualized net new hires and restoration of prior year staff salary reductions in the current year, \$1.4M increase in work study placements which are funded by “tuition set-aside” funds and grants, \$0.9M in part-time labour to backfill vacant full-time positions, offset by \$1.5M savings from vacant positions and \$0.8M decrease in vacation accrual.

Student aid, financial assistance and awards increased \$1.1M and is mainly due to increase in entrance scholarships as more students met the eligibility criteria in the current year.

Supplies and expenses increase of \$1.9M includes increases in maintenance, janitorial expense cleaning services and other general expenses resulting from the gradual re-opening of the campus facilities in the current year.



BOARD REPORT

SESSION:

Public
 Non-Public

ACTION REQUESTED:

Decision
 Discussion/Direction
 Information

TO: Board of Governors

DATE: December 9, 2021

PRESENTED BY: Brad Maclsaac, Vice-President, Administration
 Lori Livingston, Provost and Vice-President, Academic

SUBJECT: Budget 2022 Assumptions and Priorities

MANDATE:

In accordance with section 9 of the university’s Act, the Board of Governors is responsible for approving the annual budget of the university and for monitoring its implementation. As part of that process, the Board’s Audit and Finance Committee is responsible for ensuring fiscal responsibility with respect to the financial resources of the university, including reviewing and recommending approval of the annual operating budgets.

Today we are providing an update on an important step in the 2022-2023 budget planning process to help the Board fulfill its mandate and to obtain strategic feedback.

BACKGROUND/CONTEXT & RATIONALE:

At this point in time, the 2021 - 2022 Ontario Tech budget news is more positive than initially anticipated as the overall projected total enrolment is above our annual target. However, for the second year in a row the new student intake was below target. This will lead to potential budget issues in the coming two years unless we find ways to mitigate this impact. Second quarter forecast is a \$3.5M surplus. As indicated at the February 2021 A&F meeting we want to reserve at least \$1M at end of the year and implement an upward sliding scale model as we plan for more maintenance and future purchase. Since 2012 we have been budgeting \$3.5M a year for the reserve; but, this stopped in 2020 due to COVID impacts on the university budget.

As we start to plan for 2022 – 2023 we have increased our three-year rolling enrolment target based on this year’s results. The intent of the attached budget paper is to provide the Board, and the university community, with a general understanding of the revenues we expect and the expenses that are already accounted for. In the past the senior management team has spent time at the November and February meetings updating the Audit & Finance Committee on where it was

at in the budget planning process and outlining some of the recommendations being considered. In April 2021 the Committee's discussion was limited as they felt they had already commented on most of the presentation previously. To avoid similar duplication going forward, we will limit this November meeting to a review of the assumptions and the priorities being considered.

The main questions for the Board's discussion are:

Do you feel comfortable with the current revenue and expense assumptions?

The preparation of the operating budget involves the use of projections and estimates that increase the level of overall risk of not achieving the desired results. For example, a 1% deviation in enrolment will lead to ~\$1M variance (positive or negative) from tuition fee revenues. In non-COVID times, we have a goal of being within 3% of targets. The university has projected enrolments based on three-year averages and added some conservative inflationary projections to counteract the inherent enrolment risk.

Do you believe the priorities for funding are in line with the school's strategic priorities?

The first draw on the ~\$203M budget is a reallocation to invest \$6M more in personnel costs compared to 2020-2021. We are currently anticipating \$3.5M to invest in our key priorities that are outlined on page three and four of the paper.

ALIGNMENT WITH MISSION, VISION, VALUES:

The suggested directions are made with an eye on the mission of the university and an investment in the priorities laid out in the Integrated Academic Research Plan. They will allow Ontario Tech to continue to provide high quality undergraduate and graduate services and experiences to its students.

COMPLIANCE WITH POLICY/LEGISLATION:

The assumptions are to be compliant with provincial tuition fee policy and Ontario Tech's ancillary fee protocol.

NEXT STEPS:

Budget holders are to complete and submit their budget by December 17th. The leadership team will review the formal winter count data and finalize the budget submission. This will be presented to the Audit & Finance Committee in April 2022.

SUPPORTING REFERENCE MATERIALS:

Fiscal Blueprint 2022-2023, November 2021

ONTARIO TECH'S FISCAL BLUEPRINT 2022-2023



Budget Working Group, November 2021

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Executive Summary

This paper outlines the initial phase of the budget-setting process to enhance the clarity of Ontario Tech's approach to financial planning. This document provides a budget overview (i.e. revenues and expenses) while outlining some of the tensions we face due to multiple competing demands. The community is asked for their feedback on the specific questions listed below by emailing budget@ontariotechu.ca.

The budget process begins with stating our assumptions, yet we are still dealing with times of considerable uncertainty. Looking forward into 2022-2023, our total revenues are trending up in large part due to international student growth and the provision of increased commercial services (e.g.. food services and parking) in comparison to the previous fiscal year. However, there is a level of risk associated with the revenue assumptions as there is no indication of a new tuition framework from the government, whether we will need to continually respond to subsequent waves of the pandemic (if any), and the impact on our international recruitment targets as the international student market competition intensifies.

We are at the initial stages of setting the budget, yet based on current assumptions we are planning for revenues in excess of \$203M. The plan is being developed to allow for flexibility to adapt to potential revenue swings. For example, while we feel secure in planning for \$203M, we will prioritize an actionable items list for \$210M in order to mobilize additional strategic activities, if and, when funds become available. At \$203M, the current plan forecasts about \$12M in additional revenue over last year. The first draw on the budget is an investment in our employees, including limited hiring of new full-time positions and the provision of mandated salary increases. The starting budget already includes \$6M more in salaries and benefits compared to 2021-2022, allocating half of our estimated revenue increase. Excluding the \$13.5M debenture grant, 70 per cent of our budget covers employee compensation.

After reviewing the total base expenses (i.e., items we have committed to such as salaries, facilities, financial aid, etc.) we may have \$3.5 to \$6.5M remaining for allocation. This range is set based on achieving enrolment targets with the low end being a target for budget and the high end being aspirational. There are limited funds available and this requires a strategic and focused approach to spending, which aligns with the Integrated Academic-Research Plan (IARP).

Figure 1 – Ontario Tech Forecasted Operating Budget

Revenue Summary	2018-19 Actual	2019-20 Actual	2020-21 Actual	2021-22 Budget	2021-22 Forecast	2022-23 Budget*
<i>FTEs</i>	8905	8975	9438	9016	9774	9450
Tuition	\$82,247	78,590	81,440	82,511	90,008	93,055
Grant	\$82,375	81,065	82,371	80,972	81,849	82,102
Ancillary	\$12,541	14,453	11,155	12,305	13,087	12,697
Other Revenue	\$9,031	8,087	3,237	4,861	5,134	4,699
Donations	\$1,332	2,030	1,103	960	960	1,460
Commercial	\$7,350	8,342	5,751	9,394	9,394	9,394
Total Revenue	\$194,876	\$192,568	\$185,058	\$191,003	\$200,432	\$203,407
Expense Summary						
FT Labour	\$88,555	95,468	97,429	105,747	105,241	111,286
PT Labour	\$20,522	21,153	16,855	16,603	18,078	14,859
OPEX	\$67,977	67,513	55,887	64,943	68,527	69,704
Capital	\$9,307	4,223	6,571	4,609	4,609	3,844
Total Expenses	\$186,360	\$188,357	\$176,743	\$191,903	\$196,455	\$199,693

The IARP identifies four priority areas of focus. As we start to emerge out of a number of years of budget austerity created by a combination of provincial tuition cuts followed by freezes, lower than planned new domestic enrolment, and pandemic uncertainty, we must identify and prioritize a few key investment areas.

As you read the paper, we want your feedback on the following:

- With limited net revenues and numerous possible expenditures, what priorities from the IARP do you feel that we should seek to invest in, or protect?
- Projected operating costs are increasing at a faster rate than government support, creating a budget gap. To narrow the difference, we need to increase revenues (through increased enrolment, fees, and alternative sources, where possible) and adjust expenditures. What are our net new revenue generating opportunities? How might expenditures be reduced?
- Increasing international tuition is one key lever to address rising costs but we realize challenges are created for students by tuition increases. We have invested significantly in bursary support for students in need. In addition to current supports, are there better ways we can support students for whom increased tuition represents a financial hardship?

Planning and Budgetary Context

This paper provides an overview of our main revenue streams and expenses, and forms the basis for a discussion on the challenges the current budget context poses, as well as the investments we need to prioritize. This budget paper marks the initial phase of the 2022-2023 budget process that is intended to enhance the community's understanding of the challenges and opportunities the budget context presents. Coupled with this is the opportunity to invest limited funds into shared priorities. The focus is on the operating budget, revenues and expenses, which represents 94 per cent of our total budget with the other six per cent being largely related to sponsored research.

As we strive to reach our [vision and mission](#) through working on our strategic priorities (as outlined in the [Integrated Academic and Research Plan \(IARP\)](#) and the [Strategic Research Plan](#)), our path will help to solidify our university as a remarkable and recognized place of work and study. With numerous competing demands, the Senior Leadership Team has developed short-term priorities. This does not eliminate the need for growth and investment in many areas, but rather focuses on tangible gains in the year ahead.

The current financial context requires ongoing fiscal discipline to address budget pressures and release resources to invest in our plans. We remain committed to finding efficiencies and identifying net new resources available to fund priority areas. The Senior Leadership Team has had an initial review of resources, and is pleased to see that the budget austerity measures that were put in place over the past few years as well as the enrolment performance for the current year, have provided for some one-time only revenues to investment in strategic priorities for fiscal 2022-2023. The spring release of the 2021-2023 IARP marked enduring continued commitment to our four priority areas: Learning Re-imagined, Creating a Sticky Campus, Tech with a Conscience; and Partnerships. When acted upon, these priorities will move us towards realizing our university's vision. The following areas of focus were discussed at the Board of Governors' Strategy and Planning meeting as strategies to move forward over the next fiscal year:

➤ **Sticky Campus**

- Commitment to mental health and equity, inclusion and diversity:
 - Provide supplemental supports by increased resources for faculty, staff and students.
 - Strong acknowledgement of stressors experienced by community members contributed by global pandemic.
 - Concentration on the potential changes to work settings with greater focus on employee choice, conditions to ensure positive engagement and an environment that promotes inclusion, collaboration and equity in learning, teaching, and research.

➤ **Sticky Campus/Learning Re-imagined:**

- Student-centric university:
 - Strategic Enrolment Management Framework—Long-term enrolment plan aligned with institutional vision and priorities, and retention programming.
 - Concentration on student success and the entire student lifecycle with greater focus on digital recruiting, and analytics to help student success and enhanced connections with alumni for lifelong learning.
 - Increased research opportunities for undergraduate and graduate students.

- **Learning Re-imagined/Tech with a Conscience:**
 - Innovative programming:
 - Re-invent learning by defining and constructing high-quality pedagogical practices specifically designed for use with technological solutions and experiential components.
 - Differentiated technology and physical space:
 - Invest in, and utilize, an expanded array of technological platforms and assets while simultaneously exploring and identifying new opportunities in relation to the technology pedagogy interface.
 - Repurpose and re-imagine space to support learning, research and community engagement.
- **Learning Re-imagined/Partnerships:**
 - Incentivize scholarship of teaching and enhancing teaching practices:
 - Focus on leading in pedagogy and technology scholarship and research that is learner focused.

Remaining focused on strategic priorities in a financially constrained environment requires campus community to work together. This includes following our budget guiding principles, as established in 2019, to develop a balanced annual Operating Budget and working to ensure decisions are financially sustainable in the long term. The principles to guide the budget setting process note that we are committed to:

Students:	Providing an excellent learning environment and student experience.
Faculty and Staff:	Minimizing the impact on people by finding efficiencies.
Access:	Enhancing a diverse and inclusive campus community.
Communication:	Communicating regularly about the budget process as it progresses.

Looking Ahead—Building Assumptions

Ensuring that students have access to high-quality post-secondary education has never been more critical than it is right now. For many, the learning gained through the pandemic presents opportunities in addition to challenges. Our campus community will continue to come together to consider our future, and identify how we can achieve our vision through thoughtful, sustainable decisions that will strengthen our University.

Most of our revenue is driven by the number of students registered in our programs. Enrolments drive our revenue from grants, tuition and ancillary fees—all, with the exception of international student tuition, are governed by the Province of Ontario. The era of Ontario universities receiving funding based primarily on enrolments has changed. Institutional supports from government are capped and an increasing proportion of the existing enrolment funding will be performance based. We now find ourselves needing to stabilize our revenue base to cover inflationary expenses, while prioritizing resources to invest in our IARP. Alternative sources of revenue, enrolment growth, and meeting our performance targets with the provincial government are all required to ensure ongoing financial stability.

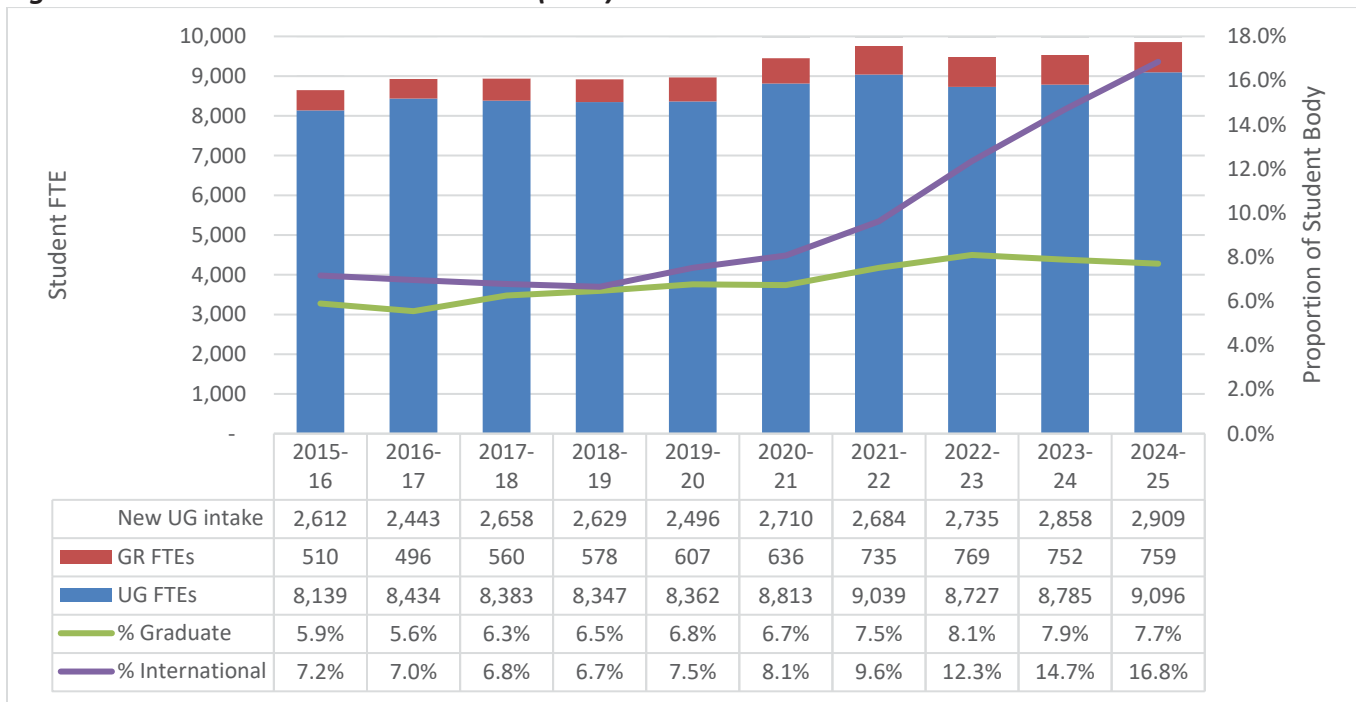
We have long-term plans to grow to 20,000 students, with near term enrolment commitments set out in our current Strategic Mandate Agreement—2020 -2021 to 2024-2025 (SMA3) with the provincial government. Our eligible domestic student enrolment goal was to maintain enrolments at 2020 levels, while growing international student enrolment 250 per cent overall for the same time period (e.g. 750 to 2,000) to achieve an overall international student population representing 15 to 20 per cent of our total enrolment. We have increased our overall proportion of international students in 2020 and 2021 from 7.5 to 9.3 per cent despite the global pandemic. Domestically we have challenges, having missed our intake targets in 2020 and 2021. This is due to a number of factors including increased competition from Ontario universities for domestic

students during the pandemic, timing of the university's rebrand and its impact on the applicant pool, and capacity limits in high-demand programs where clinical placements and space needs create significant barriers. The good news is that our strategic enrolment management (SEM) strategies are working. With the Ontario population on the cusp of a demographic upturn in the greater Toronto area (GTA), and the implementation of SEM strategies, the university is moving to stabilize and strengthen its domestic student population and continue its international growth.

These assumptions are set with the information we have at this point in time and will be revised as new information becomes available. Any shift in the assumptions, positive or negative, will impact budget projections. For example, our assumptions may change if we enrol more international students than anticipated, if we get access to provincial or federal monies to fund building construction, if government allows a permutation in grant and/or tuition increases, and so on. As we look to the next three years, our assumptions include:

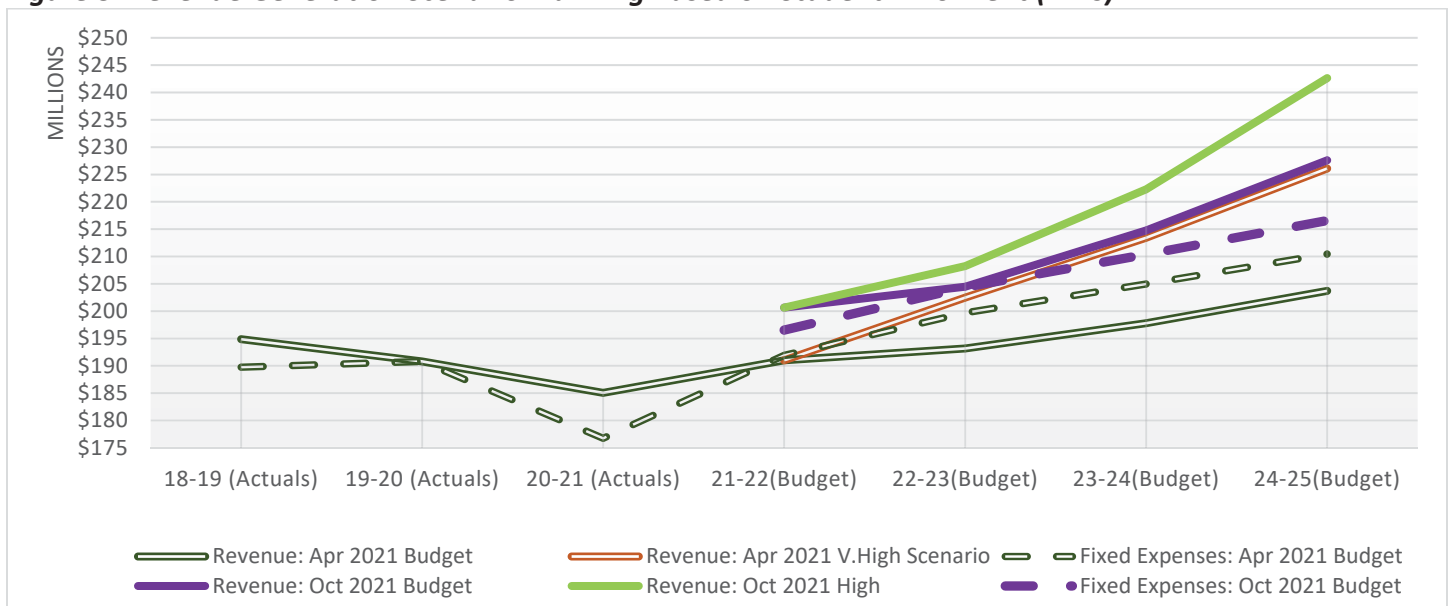
- **Enrolment** (Figure 2): Overall enrolments will decrease as our missed domestic intake targets in 2020 and 2021 flow through the next four to five years. Decreased in-person recruitment events (e.g. cancellation of the Ontario Universities Fair and high school recruiting visits) negatively impact our ability to attract our incoming class. Provincially, university-aged population demographics are holding steady, with an increase in the GTA and decreases in other parts of Ontario, yet overall there is an increase in competition for students amongst Ontario post-secondary institutions. New university and college programs are being created to address student demand and interest, and satellite campuses in the GTA to service students are increasing, thus requiring us to diversify our recruitment efforts to include new and enhanced pathways and non-traditional learner populations locally and globally.
- **Grants:** These are expected to remain flat until 2024, the end of the SMA3 period, as the province has implemented a model that provides institutions with the same level of support that was received in 2016-2017 and 2019-2020 for universities that experienced graduate growth. The implementation of performance-based funding has been delayed until at least 2023.
- **Tuition:** Domestic tuition fee rates were decreased 10 per cent in 2019-2020 and then frozen. At present, we do not have any information on the domestic tuition framework for future years. The assumption is that the tuition freeze will continue.
- **Ancillary Fees:** These fees are governed by a provincially imposed fee protocol that allows for an annual inflationary increase. The 2022 rate is 2.6 per cent.
- **Commercial Revenues** (e.g. parking, food sales, facility rentals): We anticipate that these will begin to increase above pandemic levels going forward.
- **Expenses:** Operating expenses have increased at a rate greater than inflation. For example, the Ontario university system has seen increases of about four per cent annually over the past three years. With known increases in cleaning supply costs, required lab kits, and food costs, we anticipate limiting operational expense increases at the rate of inflation will be difficult.

Figure 2: Forecasted Student Enrolment (FTEs)



Based on the assumptions above, we expect our 2022-2023 budget scenario to track to last years very high revenue scenario of just over \$200M in 2022-23 (Figure 3). We also see that with the budget scenario our fixed expenses and inflation are consuming almost all of our revenues with the potential for increased allocations if we hit our high target.

Figure 3: Revenue Generation Scenario Planning Based on Student Enrolment (FTEs)

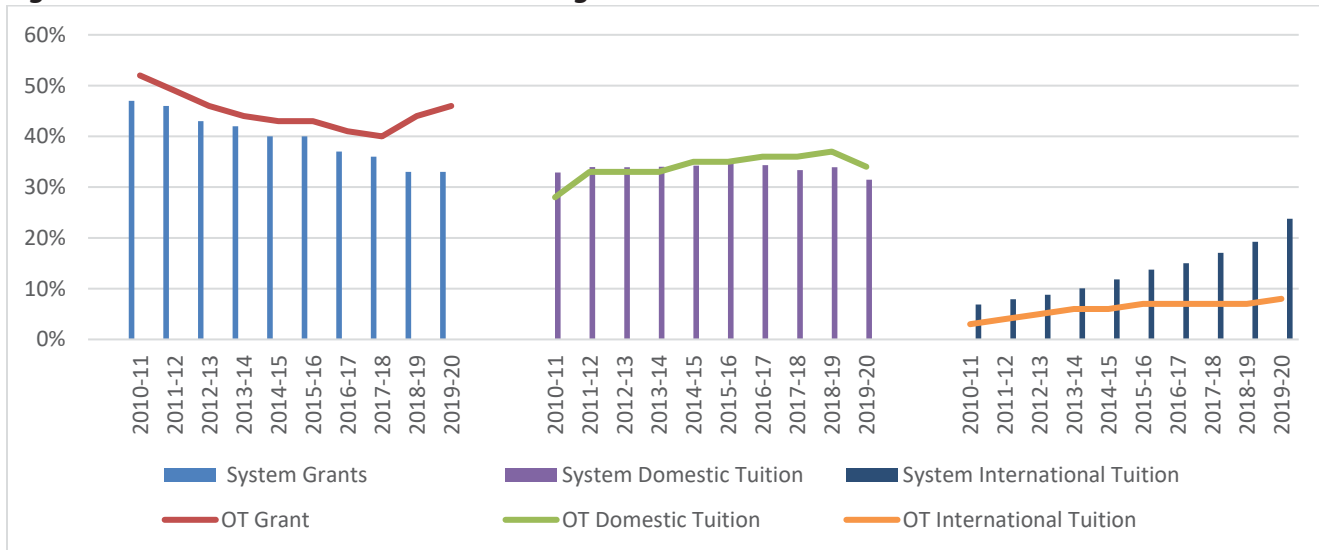


Revenue Sources

A university’s revenue is primarily a function of the number of students who register and the policies put in place by the provincial government that enhance or constrain revenue growth. In Ontario, government grant funding for universities has consistently decreased, while income from international students has grown (Figure 4). In summarizing the current revenue conditions, it is important to note that the university’s two main revenue streams, domestic tuition and government grants, are currently frozen. The university sector is

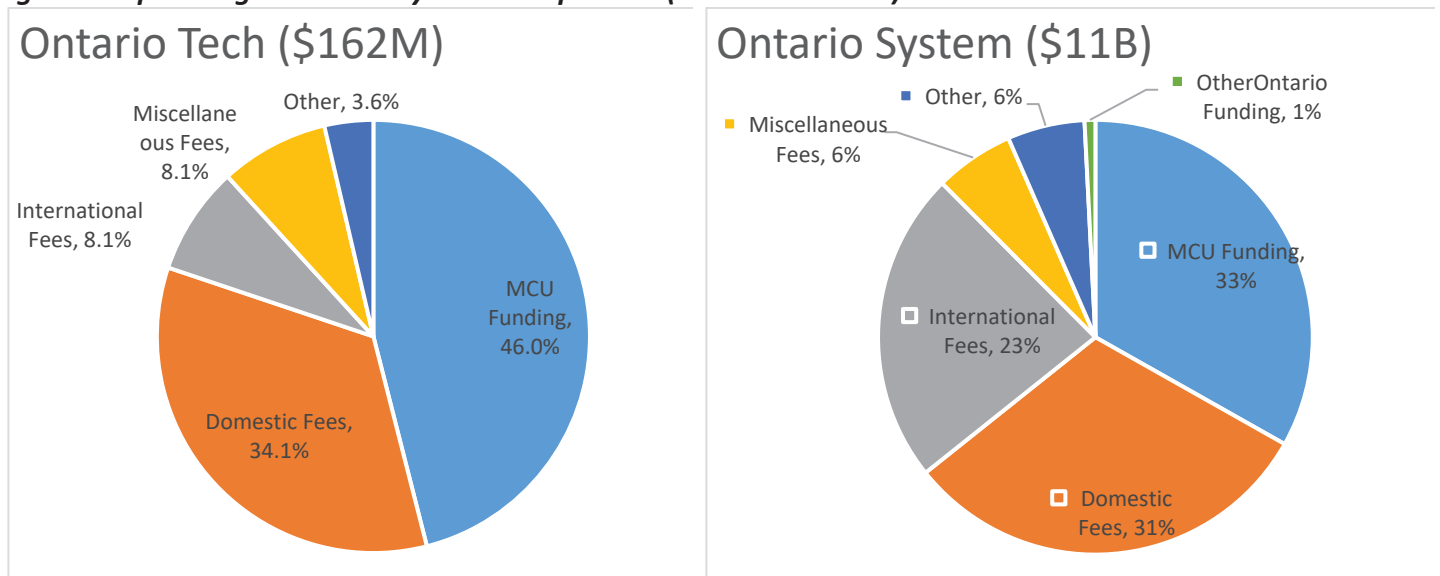
advocating to the government for recognition of the impact fiscal constraints put on the quality of programs and student experience. To help address this, universities are collectively lobbying for flexibility within the tuition fee policy and operating grants frameworks. Until responses to lobbying efforts are known, it is prudent to assume the university system will not see net new revenue from grant or increased domestic tuition fees in 2022-2023. Any additional revenues will come from increases in enrolment, more specifically international.

Figure 4: Ontario Revenue Source Percentages



When adding in other fees such as student ancillary fees, in 2019-2020 our operating revenues from tuition and student fees represented 43 per cent of our total revenues versus the provincial system average of 55 per cent (Figure 5). Depending upon the university in question, the proportion of revenues funded by students, ranges from a low of about 40 per cent to a high of 70 per cent of total revenues.

Figure 5: Operating Revenue - System Comparator (2020 COFO data)



Tuition Fees

Tuition is comprised of both domestic and international amounts and represents what undergraduate and graduate students pay for educational instruction. Currently, tuition fee levels for our undergraduate domestic

students nears the median for Ontario universities (Appendix A). In February 2019, the government announced a 10 per cent cut to domestic student tuition fees for the 2019-2020 academic year and a subsequent tuition freeze for domestic students for the 2020-2021 academic year. For Ontario Tech, this meant a revenue reduction of \$9.4M (2019-2020) and \$12M (2020-2021) relative to what we had expected. As a result of the cuts to domestic tuition fees, all institutions across Ontario including Ontario Tech have implemented and/or enhanced their international recruitment strategies to grow their revenue streams. As a result, competition for international students continues to rise in Canada, as well as globally. For 2021-2022, we proposed an increased international undergraduate tuition fees by 10 and five percent for new and continuing students, respectively. Even with these increases, our international tuition fees remain among the lowest in the system and below the system median (Appendix B).

Ancillary Fees

The remaining student fees are classified as ancillary fees. Ancillary fees are restricted for the activities for which they were approved (e.g. recreation services, health services, student success centre, and a variety of other student-centred services). These represent about 12 per cent of total student fees. Over the past five years we have focused on keeping these fees relatively flat as we have the highest ancillary fees in Ontario (Appendix C). This number is due to a number of factors including, but not limited to:

- The small size of the institution.
- Two capital projects supported by students (i.e. Campus Recreation and Wellness Centre and Shawenjigewining Hall).
- The cost of UPASS program (unlimited use of Durham Transit system at a greatly reduced price).
- Direct access to degree program-related software packages.

Government Grants

In 2016, the provincial government announced an enrolment-based funding formula where institutions receive a fixed operating grant as long as their five-year moving enrolment average stays within three per cent of an established target (or corridor mid-point). The new funding model was designed to provide equitable, predictable and stable funding for all institutions and greater certainty for planning. The total grant amount was set based on 2016-2017 undergraduate and graduate enrolment numbers with an opportunity for adjustment for SMA3 based on approved graduate performance. In 2019, as part of the third round of Strategic Mandate Agreements, the funding allocation moved to being heavily tied to performance and outcomes measures. Due to the COVID-19 pandemic, the provincial government has paused linking our funding to these new performance and outcome measures for the first two years of SMA3. Performance funding budget implications are slipped one year, thus any impact on the institutional budget would be in fiscal 2023.

Expenses

Operating expenditures are influenced by a number of factors including, but not limited to:

- Inflation.
- The cost to recruit and retain high-quality faculty, staff, and students.
- The escalating costs of key services (e.g. software licenses, library subscriptions).
- The cost of maintaining and servicing aging facilities.

After two years of strategic budget cuts prompted by reduced government support as well as escalating costs as described above, our current budget assumptions forecast that we will have funds in 2022 for strategic investments. There are a number of services that are mandated for increases, which are automatically added to the base budgets. This may be required by government, external agreements or existing university policies. For example, we have 'restricted funds' that are collected from students, donated, or provided to us via

designated granting programs. The university monitors the collection of these funds and automatically provides the money to the associated service departments (e.g. Campus Health Services fee collected from students applies directly to the operational expenses of this service and cannot be used for any other purpose). Some monies received through government grants are also restricted (e.g. the debenture grant, which is valued at \$13.5 M annually and covers a portion of the \$16.5 M expense).

Opportunities for Investments

As we look at the 2021-2022 budget compared to the forecasted 2022–2023, there is a projected \$12M increase in net new revenues. The initial draw on this incremental revenue includes, but is not limited to, \$3M to cover salary increases, \$1.5M in full-time hires that were approved or delayed from the previous year (offset by dropping the one-time only part-time support), \$2M in student financial support/awards, \$2.5M for capital reserve, and \$1M in loan interest.

As a result, the university has approximately \$3.5M to invest in priorities for 2022-2023. The plan is being developed to allow for flexibility to adapt to potential revenue swings. For example, while we may feel secure in planning for \$3.5M, a prioritized list of actionable items as if we had \$6.5M will be developed through the budget process so we can mobilize additional strategic activities if, and when, funds become available. This methodology includes a contingency fund to mitigate unplanned expenditures or reduced revenue from missed enrolment targets. Budget projections and assumptions will be updated as we respond to feedback and incorporate updated enrolment projections into the budget process.

The next sections outline some areas of opportunity to invest in priority areas that align with the IARP. Anticipating that asks will exceed the funds available, we are asking for community input to inform our decision-making processes as well as feedback on how to maximize our impact in the goals we have set for ourselves. As we work towards a sustainable future, the goal is to invest the resources we have strategically to improve student experience through our programs, facilities and services. The following are examples of potential areas of investment for consideration through the budget consultation process.

Personnel Costs

Just under 70 per cent of our annual budget supports personnel costs, including salaries and benefits. Year-over-year increases are a factor, as are new faculty and staff hires, and annual salary raises for existing employees. The base budget already includes \$6M more for full-time employees compared to 2021-2022 budget. This is approximately half of the total revenue increase. Our salary increases have annually grown by \$3 to 3.5M over the past few years. To provide some context, given that grant and tuition revenues remain flat for the foreseeable future, we would need to enrol about 350 more students per year to cover existing year-over-year inflationary salary costs.

In 2011, our Senior Academic Team set a goal to improve the student-to-faculty ratio from 36:1 to 31:1 in an effort to enhance the educational experience of our students and move closer to the provincial average. Based on the current budget and high enrolment scenarios, our current faculty complement would keep us in this target ratio range. We must consider investing in the faculty and staff complement to bolster program capacity (new and existing), to enhance our ability to move toward quality hybrid learning, enhanced co-operative education offerings, and to strengthen supports for teaching and learning, technology, and our student recruitment efforts.

Figure 8: Staff Complements (FTEs)

FTE's	2018-19 Budget	2018-19 Actual	2019-20 Budget	2019-20 Actual	2020-21 Budget	2020-21 Actual	2021-22 Budget	2021-22 Actual
Filled		1-Oct		1-Oct		1-Oct		1-Oct
Tenure/Tenure Track	221	204	208	214	217	217	215	221
Teaching Faculty	83	74	80	79	84	81	80	83
Support Staff - Durham College	68	68	67	67	64	64	60	63
Support Staff - OPSEU		-	254	277	279	277	276	276
Non-Union - Admin/Support	431	413	172	147	152	145	152	152
Total FT	803	759	781	784	796	784	782	795

Facilities Costs

Ten per cent of our budgetary expenses include the costs associated with the annual upkeep of our physical infrastructure. There are 31 buildings (24 owned, including portables and storage facilities, and seven leased) totaling more than 115,000 gross square metres of space. Embedded in this number is more than \$5Ma year in building leases and \$3Mfor the unfunded portion of the debenture. While more than 60 per cent of our buildings are in great condition, as we plan for the future, funds need to be set aside for renovations and to move from leases to university-owned buildings. Since 2012 we have set aside \$3.5M for future capital needs but to balance the budget we paused this for the last two years. We now estimate a need for more than\$5M for the next decade to deliver on planned activities such as normal repairs (e.g. roof replacements) and future buildings (e.g, 61 Charles Street Building and library expansions).

Financial Aid Costs

Six per cent of our budget is allocated for scholarships, bursaries and fellowships to help students attend our university and to support our institutional access agenda. With increasing entrance scholarships, graduate assistance and a new international program, we anticipate that we will distribute more than \$10M to support students. In 2019, we proposed a plan to grow our annual intake from 125 to 400 new international students by 2024, thereby growing our international student numbers to be closer to that of the Ontario university average. Due to continued travel restrictions, in 2021 we revised our international student intake targets to 180 for 2021 and 225 for 2022. However, with our current international recruitment focus, we are on track to surpass 250 this year. These students will need supports both in service areas (e.g. Student Life services, which will be covered through ancillary fees) and financial aid as the students are coming from different economic backgrounds. A one per cent international tuition rebate and investment in student supports would cost more than \$250,000 annually.

Information Technology Costs

Four percent of our budget is dedicated to IT operating costs and capital purchases. The majority of this is used to keep the basic functions and existing licenses in place. As we look towards the future, we need to consider what funds are required to support learning re-imagined. This includes the purchasing of hardware/software platforms to enhance in-class learning opportunities, moving our information systems to cloud-based services, strategically using artificial intelligence to help with transactional tasks, and launching a customer-relationship management initiative in support of recruitment, advancement, research, continuous learning and other functions. We must consider our investment in a digital strategy to support teaching, research and administration that will lead to transformative advancements at the intersection of pedagogy and technology. Initial planning requires investments of \$3M per year over the next three years to accomplish this.

Key Budget Risks

The following outlines key operational and strategic risks for the university as it relates to our budget-setting process.

- **Uncertainty in achieving enrolment targets**, as we look at steady new domestic and growing new international student enrolment numbers. In a normal year, a three per cent variance for total full-time equivalents (FTEs) is reasonable. With increasing competition for students and the lingering effects of the pandemic, we must stay focused on this area.
- The province's **shift to a performance-based funding model** with SMA3 has a growing percentage of funding tied to achieving key performance indicator (KPI) targets. Due to the global pandemic, funding has been decoupled from performance until 2022-2023. As we look to the third year of the agreement, we anticipate that a number of our performance/outcome indicators will be negatively impacted.
- **Stakeholder relations/campus experience/culture**: For all of our stakeholders (e.g. students, staff, faculty, alumni and the community at large) these areas may all be impacted based on the "learn/work from anywhere" atmosphere that has emerged as a result of the pandemic. Finding the balance between working virtually and being on campus requires our full attention.
- **Campus well-being**: Our staff and faculty share one thing in common: a dedication to student success. Our student and administrative services are backed by an impressive array of knowledgeable and caring professionals. By increasing virtual supports for all members and creating a new step-care model for student mental health, we are working to continue to deliver, and improve these vital online services.
- **Physical/virtual infrastructure**: One of the first budget areas to be reduced over the last few years was the repair and replacement of equipment. The chances of equipment failure only increase as the equipment ages. We will increase in year spending to look after capital renewal and return to increasing our planned reserves for future needs.

Summary

Ontario Tech strives to advance its strategic priorities while ensuring that we engage in financially responsible budgeting practices. This paper aims to provide a better understanding of our main revenue streams and expenses as we focus on the upcoming 2022-2023 budget and provide the basis for discussion on investing in institutional priorities.

It is important to note that our two main revenue streams (domestic tuition and provincial government grants) are currently frozen, while expenses continue to rise due to yearly salary increases and the costs of inflation. We have no choice but to focus on enrolment growth (especially international) and generating alternative revenue streams, as well as finding cost efficiencies, during this time of financial constraint.

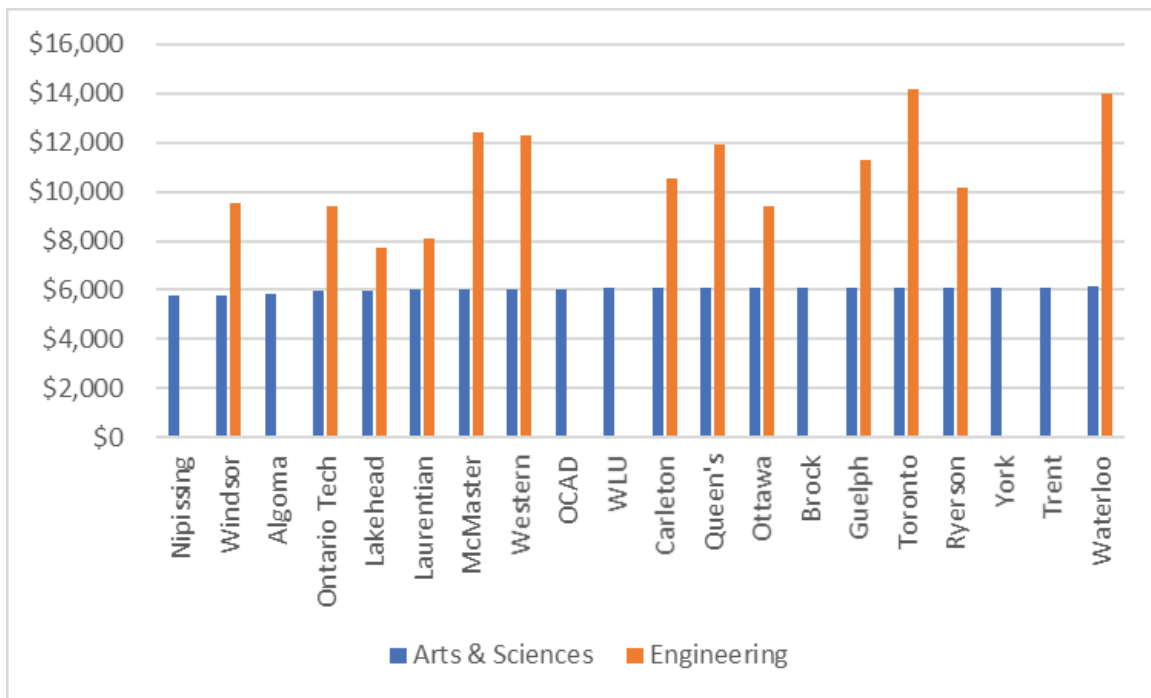
The budget assumptions provide \$3.5 to \$6.5M for strategic allocations depending on the enrolment levels and program mix met. Resource allocation is important to everyone who is part of the institution. We will continue to provide information so that our campus community better understands the issues and factors that must be considered when we make necessary, but also difficult, decisions in our current fiscally constrained environment.

We your feedback through open sessions or by emailing budget@ontariotechu.ca on the following questions:

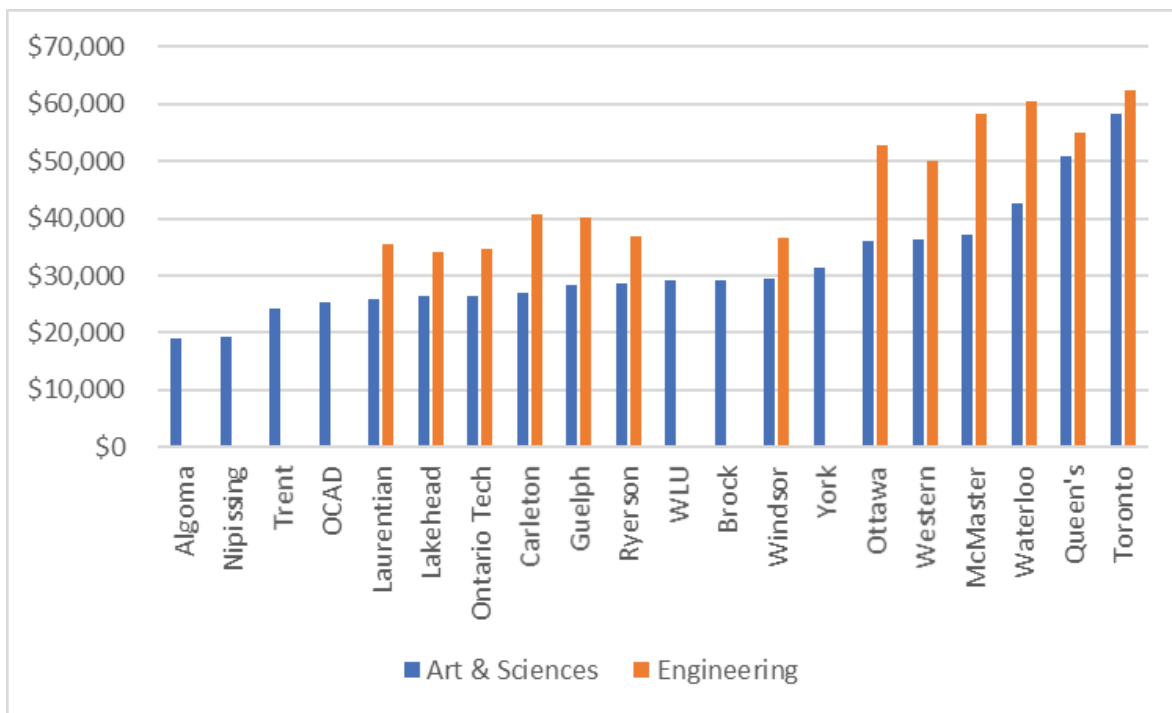
- With limited net revenues and numerous possible expenditures, what priorities from the IARP do you feel that we should seek to invest in, or protect?
- Projected operating costs are increasing at a faster rate than government support, creating a budget gap. To narrow the difference, we need to increase revenues (through increased enrolment, fees, and alternative sources, where possible) and adjust expenditures. What are our net new revenue generating opportunities? How might expenditures be reduced?
- Increasing international tuition is one key lever to address rising costs but we realize challenges are created for students by tuition increases. We have invested significantly in bursary support for students in need. In addition to current supports, are there better ways we can support students for whom increased tuition represents a financial hardship?

Appendices

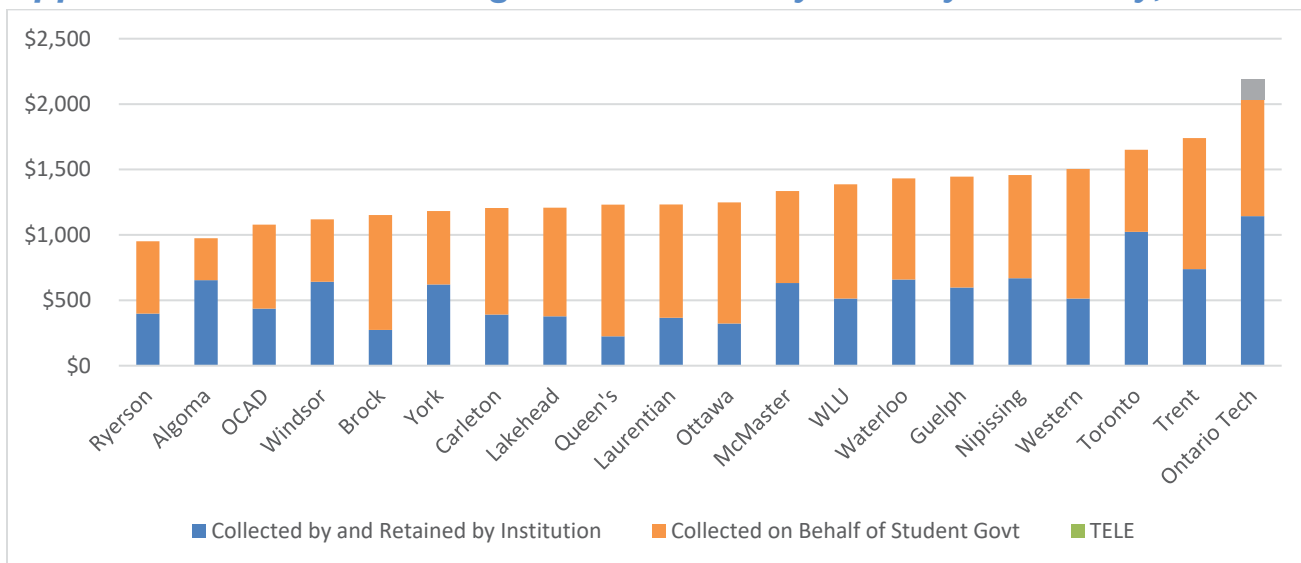
Appendix A: Ontario Undergraduate Domestic Tuition, 2020-2021



Appendix B: Ontario Undergraduate International Tuition, 2020-2021



Appendix C: Ontario Undergraduate Ancillary Fees by University, 2020-2021



The Ontario Tech fees include:

- \$283.50 for UPASS so all students have free access to transit in Durham Region. Upon last review, six other schools had a similar program (Carleton, Ottawa, McMaster, WLU, Waterloo, Western).
- \$277.10 for referendum approved capital projects (e.g. OTSU space and Campus Recreation Centre).



BOARD REPORT

SESSION:

Public

ACTION REQUESTED:

Decision
 Discussion/Direction

TO: Board of Governors

DATE: December 9, 2021

FROM: Governance, Nominations and Human Resources Committee (GNHR)

SLT LEAD: Cheryl Foy, University Secretary and General Counsel

SUBJECT: Draft Board of Governors Statement on Equity, Diversity, and Inclusion (EDI Statement)

COMMITTEE MANDATE:

- In accordance with its Terms of Reference, one of GNHR's responsibilities includes periodically reviewing the policies of the Board and its committees and making recommendations to the governing body or administrative department for development and revision when appropriate.
- GNHR has developed a draft Board EDI Statement and is presenting it to the Board for feedback.

BACKGROUND:

- Concurrent with the COVID-19 crisis, we have also been witnessing a crisis of racism, hatred and violence across North America. Equity, diversity, and inclusivity are fundamental values that define our institution.
- In order to demonstrate the Board's commitment to systemic change to organizational structures that continue to marginalize communities, one of the Board's priorities is to develop a governance EDI strategy for the Board. This is in addition to the Board's oversight of EDI initiatives at the university.
- The Board commenced its work on developing a Board Governance EDI Strategy last year. GNHR is the committee responsible for overseeing this initiative and advising the Board accordingly.
- As part of the Board's initial work on this, the Board of Governors had a professional development session dedicated to EDI before its meeting in February 2021 and GNHR had discussions focused on EDI during each of its meetings last year.

- As it started this process, the Board acknowledged the important work that has already begun at the university, including the President's Equity Task Force Report.

Summary of key takeaways from GNHR EDI discussions:

- The institution should be a leader in this area for the broader community;
- Board recruitment process should be reviewed and updated in order to bolster EDI considerations;
- The Board should work to ensure its composition reflects the community it serves;
- Requires Board to commit to ongoing professional development with respect to EDI;
- Important for the Board to be thoughtful in its work and avoid making merely symbolic statements;
- Consider updating the Board's annual practices assessment to incorporate EDI-focused questions; and
- EDI should be incorporated into the Board's decision-making processes.

Working Group:

- In order to assist GNHR with this work, a working group consisting of several members of GNHR and other external governors met in July to prepare a draft Board EDI statement for the committee's review.
- The working group members are:
 - Maria Saros, Chair of GNHR
 - Kevin Chan
 - Stephanie Chow
 - Francis Garwe
 - Kori Kingsbury
 - Roger Thompson
- The working group was guided by the key takeaways from the discussions of GNHR and the Board.
- The draft Board EDI statement was reviewed by GNHR at their October meeting and is being presented for the Board's review and feedback.

QUESTIONS FOR DISCUSSION BY THE BOARD:

- Does the statement appropriately reflect the university's mission, vision and values?
- Is there anything missing from the statement?
- Will the statement provide a sufficient framework to guide the Board's EDI governance strategy?

NEXT STEPS:

- The Board's feedback will be incorporated and the statement will return to GNHR on January 27, 2022 for recommendation and to the Board for approval on March 10, 2022.

SUPPORTING REFERENCE MATERIALS:

- draft Board EDI Statement

Commitment to EDI:

The Ontario Tech University Board of Governors acknowledges and is grateful for the friendship of the people of the Mississaugas of Scugog Island First Nation on whose traditional lands the university's campus is located. The Board is committed to equity, diversity, and inclusion (EDI) and to removing barriers for the groups most likely to experience them, including: Indigenous persons; persons with a disability; Lesbian, Gay, Bisexual, Trans, Queer, 2-spirit, Non-Binary (LGBTQ2+) persons; racialized persons; and women.

The Board's Role:

The Board will support and foster the advancement of EDI programs and initiatives at the University and is committed to incorporating EDI in its decision-making and recruitment practices.

University Culture:

The Board commits to fostering an inclusive culture at Ontario Tech University. The Board believes EDI is at the heart of the university's mission of *technology with a conscience*, and engages regularly with university leadership on the progress against Ontario Tech's EDI strategy.

Board Decision-Making:

The Board commits to incorporating EDI in the performance of its duties and its decision-making processes to ensure the Board is reviewing matters through an EDI lens.

Board Recruitment:

The Board will pursue recruitment strategies that enable it to broaden the EDI of the Board when recruiting governors.

Board Composition:

The Board is committed to incorporating EDI in its governor appointments and to ensuring that Board members reflect the communities the university serves.

Board Education:

The Board approaches its role in advancing EDI as a journey that requires regular engagement with the university community and an open mindedness to continually seek out new knowledge and perspectives. The Board is committed to providing continuous learning for governors to ensure its policies reflect best practices for diverse recruitment. The Board will incorporate EDI learning in its professional development programming for governors.



BOARD REPORT

SESSION:

Public

ACTION REQUESTED:

Decision
 Discussion/Direction

TO: Board of Governors

DATE: December 9, 2021

FROM: Governance, Nominations and Human Resources Committee (GNHR)

SUBJECT: Updated Governance Plan 2021-2024

MANDATE:

- The Board is responsible for the effective governance of the university. In accordance with its Terms of Reference, one of GNHR’s responsibilities includes providing advice to the Board on its governance structure and processes.
- As the Board’s 3-year governance plan was set to end in 2020, we are providing an overview of the governance objectives that have been completed, those that are ongoing, and proposed governance priorities for 2021-2024.
- We are seeking the Board’s feedback on the proposed priorities in order to help guide the development of an updated plan for 2021-2024.

BACKGROUND:

- As part of GNHR’s focus on continuous governance improvement, a 3-year governance plan was developed in 2017-2018 to help guide the work of the committee and the Board over the next 3 years. The key governance priorities identified by GNHR at the time were: leadership, engagement, and education. A copy of the 2018-2020 plan is attached for reference.
- A tremendous amount of work has been accomplished since then to help advance the university’s governance priorities. These accomplishments have strengthened the university’s governance processes and improved Board and Academic Council effectiveness.
- There are several ongoing priorities that continue to be a focus for GNHR and the Secretariat, which are:
 - Continued implementation of By-law No. 2 for Academic Council;
 - Continued strengthening of bicameral governance;

- Board orientation & professional development;
 - Board engagement & effectiveness
 - Board recruitment with a focus on diversity
 - Board succession & leadership
 - Policy Framework
 - Board & stakeholder relationships
- Much progress has been made and we now turn our attention to where we need to go next. In order to assist with the development of an updated and more detailed 3-year governance plan, we are seeking the Board’s feedback on the following proposed governance priorities for 2021-2024:
 - Continued enhancement of bicameral governance through formal and informal joint events;
 - Board recruitment with a focus on EDI considerations;
 - Review of Board committee structure in context of university’s strategic priorities;
 - Continued strengthening of Academic Council’s effectiveness as a governing body;
 - Adapting governance during a time of change;
 - Improve professional development offerings for governors to enhance skills and competencies, with a particular focus on EDI learning;
 - Review and update Board’s skills matrix; and
 - Continued incorporation of technology to enhance Board engagement and effectiveness

Questions for Discussion by the Board:

- How do the proposed governance priorities align with the university’s strategic priorities?
- How do the proposed governance priorities help advance the university’s ability to be a leader during a time of significant change?
- How do these governance priorities support the effectiveness of the board, academic council and the senior leadership team?
- What other priorities might we consider?

NEXT STEPS:

- The proposed priorities will be used to guide the development of a more detailed 3-year governance plan and presented to GNHR for review and feedback at their meeting on January 27.
- The updated plan will then be presented to the Board for approval.

SUPPORTING REFERENCE MATERIALS:

- 2018-2020 Governance Plan & Accomplishments

Governance Plan 2018-2020

2017-2018 BOARD PRIORITIES		
BOARD QUALITY	SUGGESTED LEAD	STATUS
1. Leadership Succession Planning – develop & implement a Board & Committee leadership succession plan taking into consideration opportunities & challenges facing the university	GNHR Chair	COMPLETE & ONGOING
2. Governor Recruitment – implementation of a targeted recruitment process in order to strengthen Board diversity <ul style="list-style-type: none"> • Targeted Board recruitment process conducted in 2018, with a focus on diversity 	GNHR Chair	COMPLETE
BOARD GOVERNANCE		
1. Presidential Transition – oversight of presidential transition	Board Chair	COMPLETE
2. Implementation of Updated By-laws – develop a By-law implementation plan to guide the implementation of the updated By-laws <ul style="list-style-type: none"> • By-law Implementation Plan developed & incorporated into GNHR and Academic Council work plans • Implementation of By-law No. 1 is complete 	University Secretary	COMPLETE



Governance Plan 2018-2020

2018-2019 BOARD PRIORITIES		
BOARD QUALITY	SUGGESTED LEAD	STATUS
<p>1. Board Education – assess & determine governors’ governance education needs, as well as educational needs depending on specific institutional & general post-secondary sector issues</p> <ul style="list-style-type: none"> • Development & implementation of an annual Board Orientation/PD Work Plan • Implementation of optional Board PD sessions throughout the Board year 	University Secretary	COMPLETE & ONGOING
<p>2. Board Engagement – continue to monitor governor attendance in light of Board attendance requirements</p>	University Secretary	COMPLETE & ONGOING
<p>3. Governor Succession Planning - build & maintain a pool of eligible governor candidates; implement succession planning for governors</p> <ul style="list-style-type: none"> • Pool of candidates was developed from 2018 recruitment process & resulted in appointment of two governors in 2020 	GNHR Chair	COMPLETE & ONGOING



Governance Plan 2018-2020

2018-2019 PRIORITIES		
BOARD GOVERNANCE		
<p>1. By-law Orientation – conduct governor orientation session on the updated By-laws</p> <ul style="list-style-type: none"> • Conduct annual joint orientation session for Board of Governors & Academic Council 	University Secretary	COMPLETE & ONGOING
<p>2. Strengthen Bicameral Governance – develop initiatives designed to increase engagement with Academic Council & strengthen bicameral governance</p> <ul style="list-style-type: none"> • Annual joint orientation session conducted following September AC meeting • Conducted joint educational session on Microcredentials & Badges in October 2019 • Appointment of governor member of Academic Council • Appointment of Board Liaison from Academic Council 	University Secretary	EXCELLENT PROGRESS ONGOING



Governance Plan 2018-2020

2019-2020 BOARD PRIORITIES		
BOARD QUALITY	SUGGESTED LEAD	STATUS
1. Governor Recruitment – update & maintain skills matrix of governors & Board requirements to help identify skills/industry/diversity gaps on the Board	University Secretary	ONGOING
2. Implement Committee Evaluation – include evaluation of understanding & advancement of committee mandate, discussion level, member engagement, committee materials, efficiency of meetings <ul style="list-style-type: none"> • Board Committee Practices Assessment developed and implemented in 2020 	University Secretary	COMPLETE
Board Governance		
1. Governor Orientation – update & implement standardized governor orientation session & material for new governors <ul style="list-style-type: none"> • Annual joint orientation session conducted following September AC meeting 	University Secretary	COMPLETE



Governance Plan 2018-2020

2017-2018 ACADEMIC COUNCIL GOVERNANCE PRIORITIES	SUGGESTED LEAD	STATUS
<p>1. Implementation of Updated By-laws – develop By-law No. 2 implementation plan for Academic Council's review</p> <ul style="list-style-type: none"> • Developed By-law No. 2 Implementation Plan • Established Academic Council's Governance & Nominations Committee (GNC) to strengthen Academic Council's governance processes & is responsible for implementing By-law No. 2 	University Secretary	EXCELLENT PROGRESS AND ONGOING
<p>2. Review Committees' Terms of Reference – in context of By-law No. 2, Academic Council & By-law Review Working group discussions</p> <ul style="list-style-type: none"> • AC has completed the review and update of the Terms of Reference for the following standing committees: Steering Committee (formerly Executive Committee), Undergraduate Studies Committee, Graduate Studies Committee & Governance & Nominations Committee 	University Secretary	GOOD PROGRESS AND ONGOING
<p>3. By-law Orientation – conduct Academic Council orientation session on the updated By-laws</p> <ul style="list-style-type: none"> • Annual joint orientation session conducted following September AC meeting 	University Secretary	COMPLETE & ONGOING





BOARD OF GOVERNORS' 120th REGULAR MEETING

**Minutes of the Public Session of the Meeting of Thursday, June 24, 2021
9:00 a.m. to 10:25 a.m., Video Conference**

GOVERNORS IN ATTENDANCE:

Dietmar Reiner, Board Chair
Laura Elliott, Vice-Chair and Chair of Audit & Finance Committee
Stephanie Chow, Chair of Investment Committee
Maria Saros, Vice-Chair and Chair of Governance, Nominations & Human Resources Committee
Thorsten Koseck, Chair of Strategy & Planning Committee
Steven Murphy, President
Mitch Frazer, Chancellor
Azzam Abu-Rayash
Liqun Cao
Kevin Chan
Doug Ellis
Francis Garwe
Kathy Hao
Ferdinand Jones
Kori Kingsbury
Dale MacMillan
Mark Neville
Kim Slade
Trevin Stratton
Roger Thompson
Jim Wilson
Lynne Zucker

REGRETS:

Lisa Edgar

BOARD SECRETARY:

Becky Dinwoodie, *Associate University Secretary & Judicial Officer*

STAFF:

Jamie Bruno, *Chief Work Transformation and Organization Culture Officer*
Stephanie Callahan, *Assistant to the Provost & VP Academic*
Barb Hamilton, *Assistant to the University Secretary & General Counsel*
Krista Hester, *Assistant to the Provost & VP Academic*

Les Jacobs, *VP, Research and Innovation*
Lori Livingston, *Provost & VP Academic*
Brad MacIsaac, *Vice-President, Administration*
Susan McGovern, *VP External Relations & Advancement*
Pamela Onsiong, *Director, Planning & Reporting, Finance*

GUESTS:

Shay Babb
Chelsea Bauer, *Faculty Association*
Brian Campbell
Pierre Cote
Mike Eklund, *President of Faculty Association*
Melissa Gerrits
Robin Kay
Ramiro Liscano
Kimberley McCarthy
Niall O'Halloran
Andrew Sunstrum
Peter Stoett

1. Call to Order

The Chair called the public session to order at 9:00 a.m.

2. Agenda

Upon a motion duly made by M. Saros and seconded by L. Elliott, the Agenda was approved as presented.

3. Conflict of Interest Declaration

None.

4. Chair's Remarks

The Chair welcomed everyone to the last scheduled Board meeting of the academic year. He also welcomed the guests and invited them to introduce themselves. The Chair thanked the governors, senior leadership team, and secretariat for all of their work this year.

5. President's Report

The President thanked the senior leadership team for rising to the challenge of the past year. He reflected on where we were at this point last year - it was a bleak outlook and immediate action had to be taken. Many other institutions are struggling as a result of delaying action. It is difficult to anticipate the continued evolution of the pandemic. The President discussed the planning for the fall term, which will look different. He also discussed the financial planning for the university.

The President commended the university's faculty, staff, and students, who have done a phenomenal job this year. He discussed the strategic discussions that Academic Council had this year focused on blended learning. He emphasized that the development of a blended learning strategy will not be a top-down process. The President noted the difference between where we were twelve months ago versus where we are today. We have come a long way and have a long way to go. He emphasized the need for continuous improvement. We must get into the mindset of continuous learning and develop new sharing mechanisms across Faculties and within Faculties. The university also needs to continue to invest in robust digital platforms. The President commented that everyone is up to the task. He reported on the university's recent success with eCampus Ontario submissions, which resulted in \$2.5m in funding. This is an unbelievable accomplishment and speaks to the fact that so many of our faculty members were already innovating before COVID.

The President discussed the forward-thinking aspects of the new building. He also discussed the plans for the return to work and the flexibility being provided to staff. The new normal is upon us and now is the time to make the transition. He thanked J. Bruno and B. Maclsaac for their work on this. The President noted that we won't necessarily get things right the first time around. We are going to learn as we go along. He encouraged everyone to stick with it as it will take time to get right. This also applies to blended learning.

The President also discussed the plan for the fall term. The university will be managing the return to campus in a conservative and slow approach. The focus is on the level of vaccination, but we must also acknowledge the healing that must take place as a result of the pandemic. It is important for people's mental health to gradually return to campus, which will also help people feel safe.

The President responded to questions, which included:

- Is there any sense of vaccine hesitancy in the community?
 - The President advised that he is actually hearing quite the opposite, but the university is taking a proactive approach to encourage everyone to get vaccinated. He shared the story of speaking with a 21-year old athlete who is fully vaccinated – so many students understand the importance of vaccination. There is also a vaccination clinic on campus and the university has coordinated with public health to ensure there is an opportunity for international students to get vaccinated when they arrive.
- A governor commented that we must be prepared to address the emotional and mental toll the pandemic has had on people. We will likely feel the effects long

after the pandemic is done. She also stressed the importance of being flexible for the return to campus.

- How much work is being done with public health to prepare for the return to campus?
 - The President shared that the new Ontario Medical Officer of Health (OMOH) met with COU earlier that week and offered to work with universities one on one and collectively. In terms of residences, they are shared and owned by Durham College (DC). DC made the decision to make residences mandatory vaccine areas and the university supports that decision given the close quarters of the students.
- Any consideration being given to rapid testing?
 - The President noted that that the OMOH advised not to invest money in rapid testing and to instead focus energy on getting people fully vaccinated
 - The focus will be on a robust campaign to encourage everyone to get vaccinated.

6. Academic Council

F. Jones reported that Academic Council (AC) members have been very committed to ensuring the academic governance of the university continues uninterrupted. AC's annual report, summarizing the accomplishments of Council this year, is included in the meeting material for information.

He noted that in accordance with Article 1.4 of By-law No. 2, AC will make recommendations to the Board on matters including the establishment or termination of degree programs. F. Jones presented the following new program proposals for approval by the Board.

6.1 Master of Business Analytics and AI Program Proposal

F. Jones presented the proposal for approval and noted that the Provost is available to respond to any questions. Board members had the following questions:

- What is the strategy for new programs? Do we have infinite capacity to implement new programs or do some need to be closed first? How do we decide that we can accommodate new programs? What is the tuition for this program? How do we set tuition for professional degree programs?
 - L. Livingston advised that right now in Ontario there is incredible competition for domestic and international students.
 - She noted that the university has not added much in the way of new programs over its first 20 years compared to other Ontario institutions.
 - New programs are being developed to attract more students.

- Part of the analysis of a new program is to ensure it aligns with the university's mission, vision and values and a market study is also conducted.
- AI is one of the areas we should be focusing on.
- The development of new programs is also important to remain competitive with other institutions.

Upon a motion duly made by F. Jones and seconded by T. Koseck, pursuant to the recommendation of Academic Council, the Board of Governors unanimously approved the Master of Business Analytics and AI program, as presented.

6.2 Bachelor of Health Administration Program Proposal

F. Jones presented the proposal for approval.

Upon a motion duly made by F. Jones and seconded by F. Garwe, pursuant to the recommendation of Academic Council, the Board of Governors unanimously approved the establishment of a Bachelor of Health Administration (Honours) program, as presented.

6.3 Doctor of Education Program Proposal

F. Jones presented the program for approval. He advised that Dr. Robin Kay, Dean of the Faculty of Education, and Dr. Brian Campbell were available to respond to questions.

Upon a motion duly made by F. Jones and seconded by T. Koseck, pursuant to the recommendation of Academic Council, the Board of Governors unanimously approved the establishment of a Doctor of Education program.

6.4 Graduate Diploma in Police Leadership Program Proposal

F. Jones reported that this proposal was recommended by Academic Council at their meeting on Tuesday. He noted that Dr. Peter Stoett, Dean of the Faculty of Social Science and Humanities, was available to respond to questions.

Upon a motion duly made by F. Jones and seconded by T. Koseck, pursuant to the recommendation of Academic Council, the Board of Governors unanimously approved the establishment of a Graduate Diploma in Police Leadership, as presented.

6.5 Establishment of Institute for Disability and Rehabilitation Research

F. Jones presented the proposal for consideration. F. Garwe commented that this is a progressive direction for the university and that given the current environment and the possibility for partnerships in the region, this will be a valuable program. He noted that having this expertise available at the university will position the university as a good partner in the region.

A member asked whether the uncertainty related with COVID has been factored into the development of these new programs and institutes?

- o L. Jacobs advised that a year ago, the university launched the 5-year Strategic Research Plan and establishing several research institutes is part of the plan. Each of the institutes have established Centres already (e.g. Dr. Pierre Cote leads a Centre focused on disability and rehabilitation and the Institute will broaden the scope and complement the Centre). Rather than following research activities within Faculties, our strength is our nimbleness and ability to collaborate across Faculties. L. Jacobs discussed the planning process and the impact of COVID on the planning process.

Upon a motion duly made by F. Jones and seconded by D. Ellis, pursuant to the recommendation of Academic Council, the Board of Governors unanimously approved the establishment of the Institute for Disability and Rehabilitation Research (IDRR), as presented.

The Chair acknowledged the great work that AC has done this year, which is evident in the proposals presented today. Their work demonstrates that things are not standing still although at times it felt as though they were. The Chair thanked F. Jones for serving as the AC liaison and for strengthening the communication between the governing bodies.

7. Co-Populous Report

J. Wilson delivered the co-populous report. He reported that DC approved several new degree programs: Honours Bachelor of Community Mental Health starting in September 2023, and Bachelor of Paralegal and Honours Bachelor of Paralegal. He also reported on DC's convocation. There will be 3800 graduates this year and they will be invited to attend an in person ceremony when it is safe to do so. In the meantime, they created a dedicated convocation recognition website. J. Wilson also reported that effective July 1, the new Chair of the DC Board will be Kristi Honey and Gary Rose will be the new Vice-Chair.

The Chair thanked J. Wilson for the report and noted that this is another sign that things have not stood still.

Committee Reports

8. Audit & Finance Committee (A&F):

Finance

L. Elliott delivered the A&F report. She reported that the committee engaged in robust discussions at their meeting the week before. She referred to a number of reports that

have been included in the meeting material for information, which are representative of a lot of work done by staff. She encouraged governors to ensure that they review them.

8.1 2020-2021 Audited Financial Statements

L. Elliott provided an overview of the university's audited financial statements. She noted that the university's financial position remains stable. She reviewed the Statement of Operations, which shows a significant loss of commercial revenue due to COVID closures.

Upon a motion duly made by L. Elliott and seconded by A. Abu-Rayash, the Board of Governors unanimously approved the 2020-2021 audited financial statements, as presented.

8.2 Internally Restricted Funds

L. Elliott presented the internally restricted funds recommendation for approval. She noted that \$1.2m will be set aside for contractual obligations and the remainder will be allocated to strategic priorities. She reported that the committee had a discussion about the anticipated timeframe for spending the funds.

Upon a motion duly made by J. Wilson and seconded by T. Koseck, pursuant to the recommendation of the Audit & Finance Committee, the Board of Governors unanimously approved the 2020-21 internally restricted reserves, as presented.

8.3 Fourth Quarter Financial Reports

L. Elliott provided an overview of the fourth quarter financial reports. She noted that A&F had a robust discussion of the reason for the surplus. She reported that \$21m was invested in the new building from the reserves. The President advised that a surplus would be viewed positively by the Ministry in this current economic environment. There was a discussion regarding whether there is any risk of a clawback of the COVID relief funding. The President advised that there has been no indication that the funding would be reversed and that this would be an unprecedented move.

8.4 Amendments to Statement of Investment Policies (SIP)

L. Elliott provided an overview of the proposed amendments to the SIP.

Upon a motion duly made by L. Elliott and seconded by J. Wilson, pursuant to the recommendations of the Investment Committee and the Audit & Finance Committee, the Board of Governors unanimously approved the proposed amendments to the Statement of Investment Policies, as presented.

Risk, Compliance & Policy

8.5 Signing Authority Policy

L. Elliott provided the history of the policy development. She emphasized that the intent is to ensure there is sound stewardship of university resources through a robust framework. The Chair added that this was an area of concern to the Board and is an example of doing the right thing. The Chair also noted the extensive consultation process and thanked the staff for all of their work.

Upon a motion duly made by L. Elliott and seconded by M. Saros, pursuant to the recommendation of the Audit and Finance Committee, the Board of Governors unanimously approved the Signing Authority Policy, as presented.

8.6 Annual University Risk Management Report

L. Elliott noted that a strong risk foundation has been developed at the university and the Board should be supportive of that culture. She referred the Board to page 7 of the report, which highlights the risks for the Board. The next step will be the development of a risk dashboard, which will be important to the committee in their oversight of risk going forward.

L. Elliott thanked B. Maclsaac, P. Onsiang, and B. Dinwoodie for their support during her first year as Chair of A&F. The Chair echoed her comments.

9. Governance Nominations & Human Resources Committee (GNHR):

9.1 Review of Committee Structure

M. Saros advised that GNHR is focused on making the most of governors' time while ensuring the Board fulfills its fiduciary obligations. She provided an overview of the recommendations coming out of the GNHR's review of the Board's committee structure, which was set out in more detail in the accompanying report.

Upon a motion duly made by M. Saros and seconded by K. Kingsbury, pursuant to the recommendation of the Governance, Nominations and Human Resources Committee, the Board of Governors unanimously approved the proposed committee structure and the changes to the committees' Terms of Reference, as presented.

9.2 Annual Board Practices & Committee Assessments Overview

M. Saros thanked the Board for participating and completing the assessment. She was pleased to advise that they achieved a 100% response rate this year, which is reflective of an engaged board. She noted that the ratings were consistent with those of the previous year. M. Saros summarized the key takeaways and opportunities:

- positive response to the change in meeting structure to allow for increased strategic discussion;
- discussions are focused and respectful and meetings are structured to make the most of the Board's time;
- there is an opportunity to strengthen engagement with AC – she noted that there is greater information sharing through F. Jones, the President, and L. Elliott – she welcomed suggestions for additional opportunities to have a joint event;
- some governors are unsure about how to best support government relations/advancement activities – she encouraged members to reach out to S. McGovern; and
- the addition of questions related to EDI was new this year, as GNHR is tasked with the development of a governance EDI strategy.

M. Saros commented that overall, these are great results and the Board should feel very proud. She thanked the USGC, President, Board Chair and committee chairs for all of their efforts and shared that she hopes to continue this momentum going forward.

The Chair added that it is great to see a 100% participation rate, as it is important to hear from all governors. He was pleased to see that year over year, we appear to be moving in the right direction. The committee structure changes approved during this meeting also align well with some of the feedback received. S. Chow commended the Board and expressed appreciation for the shift towards more strategic discussion as it allows governors to add value to the university's strategies. Further, the continued efforts to include more discussion during the public session helps promote transparency. R. Thompson added that he feels the Board's virtual meetings have been very effective with the tools they've been using and that he is looking forward to seeing everyone in person when possible. He also made the suggestion of identifying motions on the agenda.

9.3 First Annual Human Rights Report

C. Foy thanked A. Sunstrum, Director of the Human Rights Office, for all of his work. As we work towards developing a culture that manages conflict well, there are two key aspects of his role: 1. risk management and 2. cultural change. This report is evidence of the progress being made in the area of human rights. This is one aspect of EDI, as the Human Rights Office works to support EDI through the compliance aspect of it.

L. Elliott commended them for publicizing this information as many institutions are reluctant for this information to come to light. She assured C. Foy that the committee will continue to support the university in this work going forward. There was a discussion regarding whether the 43 consultations completed by the Human Rights Office that were of a general human rights nature in which no specific protected ground was cited was

typical in terms of distribution. C. Foy noted that it is too early to determine whether this is typical for our institution, as they are just starting to track this information. The Chair added that it is helpful to have the report to help set baselines for tracking progress going forward.

10. Investment Committee:

10.1 Quarterly Report

S. Chow reported that the university's investment portfolio is currently valued at approximately \$32m with a cash balance of \$354,000. The portfolio's 3-year return is slightly behind benchmark and the 5-year return is slightly ahead of benchmark. She noted that the committee engaged in a robust discussion of the proposed amendments to the SIP. S. Chow thanked the committee and staff for all of the work accomplished this year. The committee has worked hard to ensure the investment governance documents reflect what the committee is trying to achieve.

11. Strategy & Planning Committee (S&P)

11.1 Strategic Retreat Debrief

T. Koseck reported on the Board retreat, which was held virtually on the morning of May 13. He reviewed the objectives of the retreat, which were:

(a) to lay the foundation for strategic change by having Board members develop a better understanding of:

- how universities are changing their approach to learning and to changing their "reach";
- the expectations and assumptions around learning of the next generation of students, and;
- current Academic Council approach to changes in learning and technology in learning.

(b) to have the board engage in strategic discussions to identify:

- the values that should guide a student centred approach;
- what might differentiate Ontario Tech's approach;
- the cultural foundations for change; and
- the socio-economic implications of pedagogical change for students.

The retreat session included:

- hearing from a guest speaker who provided the Board with insights into university innovation, the effect of COVID-19, and how universities are extending themselves;
- a student panel focused on the future of learning from the student perspective;

- an overview of the current state of technology in teaching and on the ground at Ontario Tech; and
- breakout rooms, with the governors in each room engaging in a strategic discussion focused on one of the questions.

Following the retreat, governors were asked to complete an evaluation of the retreat and he was pleased to report that based on the results of the evaluation, governors were in agreement that:

- the retreat format was effective;
- the information provided was relevant and useful;
- the presenters provided adequate time for questions and answered them effectively;
- the written materials were helpful and will be useful references in the future; and
- the retreat objectives were met.

This feedback will assist with planning next year's retreat. T. Koseck thanked everyone who participated in this year's retreat. He remarked that it was a wonderful year and that he has had a great experience being Chair of S&P. He ended by thanking the committee for all their work this year.

The Chair acknowledged T. Koseck's leadership on S&P over the past 3 years and commented that one of the standouts was the vision, mission, and values exercise, which T. Koseck was passionate about.

12. Consent Agenda:

The Chair noted that item 12.11 would be considered separately.

Upon a motion duly made by L. Zucker and seconded by M. Saros, the Consent Agenda was approved as presented.

12.1 Amendments to By-law No. 1

12.2 Board of Governors Recruitment, Appointment and Leadership Policy

12.3 2021-2022 Board Schedule

12.4 Appointment of Board Secretary 2021-2022

12.5 Minutes of Public Session of Board Meeting of April 22, 2021

12.6 Minutes of Public Session of Audit & Finance Committee Meeting of April 14, 2021

12.7 Minutes of Public Session of Governance, Nominations & Human Resources Committee Meeting of March 30, 2021

12.8 Minutes of Public Session of Strategy & Planning Committee Meeting of March 18, 2021

12.9 Minutes of Public Session of Investment Committee Meeting of February 17, 2021

12.10 2021-2022 Endowment Disbursement

The Chair commented on agenda item 12.4 and thanked B. Dinwoodie for her support during his first year as Chair. He also thanked her for taking on the role of Board Secretary again.

12.11 2021-2022 Board & Committee Leadership

Upon a motion duly made by R. Thompson and seconded by A. Abu-Rayash, pursuant to the recommendation of the Governance, Nominations and Human Resources Committee, the Board of Governors unanimously approved the following appointments:

1. *Reappointment of Dietmar Reiner as Chair of the Board for 2021-2022;*
2. *Reappointment of Laura Elliott and Maria Saros as Vice-Chairs of the Board for 2021-2022;*
3. *Appointment of the following Board members to the positions of Chair of the specified Committee for 2021-2022:*

<i>Laura Elliott</i>	<i>Audit & Finance</i>
<i>Maria Saros</i>	<i>Governance, Nominations & Human Resources</i>
<i>Lynne Zucker</i>	<i>Strategy & Planning</i>

D. Reiner, L. Elliott, M. Saros, and L. Zucker abstained.

13. Information Items:

- 13.1 Academic Council Annual Report**
- 13.2 Project Updates**
- 13.3 A&F Annual Report**
- 13.4 Annual Insurance Report**
- 13.5 Annual Compliance Report**
- 13.6 Annual Policy Report**
- 13.7 Annual Privacy Report**
- 13.8 Investment Annual Report**
- 13.9 GNHR Annual Report**
- 13.10 Annual Report on Student Sexual Violence Policy Implementation**
- 13.11 Annual S&P Report**
- 13.12 Annual Board Chair Report**
- 14. Other Business**

15. Adjournment

There being no other business, upon a motion duly made by F. Jones, the public session adjourned at 11:10 a.m.

Becky Dinwoodie, Secretary

DRAFT



BOARD OF GOVERNORS
Audit & Finance Committee

Minutes of the Public Session of the Meeting of Wednesday, June 16, 2021
1:00 p.m. to 2:25 p.m., Videoconference

Members: Laura Elliott (Chair), Stephanie Chow, Douglas Ellis, Mitch Frazer, Dale MacMillan, Steven Murphy, Dietmar Reiner, Roger Thompson

Staff: Jamie Bruno, Becky Dinwoodie, Cheryl Foy, Barb Hamilton, Les Jacobs, Lori Livingston, Brad MacIsaac, Susan McGovern, Pamela Onsiang

Guests: Shay Babb, Chelsea Bauer, Jackie Dupuis, Mike Eklund, Namdar Saniei, Niall O'Halloran, Bobbi-Jean White

1. Call to Order

The Chair called the meeting to order at 1:01 p.m.

2. Agenda

Upon a motion duly made by D. Reiner and seconded by D. Ellis, the Agenda was approved as presented.

3. Conflict of Interest Declaration

None.

4. Chair's Remarks

The Chair thanked everyone for participating in today's meeting. She welcomed D. Ellis to his first committee meeting and shared that she is looking forward to his contributions. The Chair noted that it is difficult to believe that it is the final committee meeting of the Board year. She thanked everyone for all of their work this year, particularly because it has been a challenging year for everyone.

The Chair updated the committee on a proposal coming forward from the Governance, Nominations and Human Resources Committee (GNHR). GNHR conducted a review of the Board's committee structure and at their last meeting, GNHR recommended merging the Investment and Audit & Finance Committees. The restructuring will be coming forward to the Board for approval at next week's AGM. The Investment Committee is a subcommittee of the Audit & Finance Committee and must bring recommendations to the Audit & Finance Committee for approval. This often leads to a duplication of discussions and efforts with respect to the university's endowment investment and disbursement of endowment funds, which may result in committee members becoming mired in details instead of playing a more strategic oversight role. The merger of the committees will help

streamline the Board's committee and meeting structure. The restructuring will also assist with more timely decision-making with respect to the university's investment portfolio, as the investment manager's recommendations would be presented directly to the Audit & Finance Committee for approval.

5. President's Remarks

The President thanked the Chair for her leadership of the committee throughout the most challenging year financially in the history of the institution. He also thanked B. Maclsaac, P. Onsiong, and the finance team. The President reminded the committee that a year ago, the university was faced with a bleak picture of student choices coming out of the situation of the pandemic. He thanked the senior leadership team, who took swift action to ensure the university was sustainable during the pandemic.

The President emphasized the importance of having reserve funds to count on during difficult times. He noted that the university has had to rely on those reserve funds over the past year and must now focus on rebuilding the reserves. The President emphasized the importance of continuing to save for investment in IT, student recruitment, and other strategic priorities. Across the sector, reserves are one of the least understood part of the budgeting process. It is important to set aside funds for deferred maintenance and this will be a focus for the upcoming year. The President responded to questions from the committee.

The Chair agreed that it has been a challenging couple of years. As things open up, the environment is changing and the financial health of the university is extremely important. D. Reiner commended the President and senior leadership team for maintaining a focus on the fiscal sustainability of the university.

6. Finance

6.1 Fourth Quarter Financial Reports

P. Onsiong provided an overview of the fourth quarter financial reports. She walked through a one-page summary with the committee. P. Onsiong discussed the reasons for the unanticipated surplus of \$8.4m, which included COVID relief funding and additional tuition revenue.

P. Onsiong explained the downside of \$2m of bad debt expense recognized during the year. She noted that the university invested \$21m in the new building (funded out of reserves and a contribution from the Student Union). P. Onsiong also reviewed the reconciliation to the year end GAAP financial statements.

P. Onsiong responded to questions and comments from committee members, which included:

- COVID relief grants – are there any conditions attached to the grants (e.g. funds need to be spent on student support over a certain time frame)?
 - P. Onsiong confirmed that the funding was unexpected and is intended to cover COVID-related expenses between June 2020 and June 2021; \$2.5m of the \$4.8m was recognized to cover expenses and the remaining amount is being deferred.

- Is it fair to assume that moving forward we should not be factoring in COVID support grants?
 - P. Onsiong confirmed that this funding has not been included in the budget as we cannot rely on those funds.
- Is there such a thing as too much of a surplus in a fiscal year?
 - P. Onsiong discussed the robust forecasting process conducted throughout the year; the units do a good job of forecasting; we had a projected surplus of \$4m and then the additional funds from government came through just before fiscal year end.
 - P. Onsiong explained the reason for the additional tuition fees.
 - In a normal year, if there is significant surplus, it could be indicative of a problem (e.g. under spending).
 - B. Maclsaac added that rule of thumb is that management would look closely at a surplus if it was above an unplanned 3% of the budget.
- Would a surplus have any negative effect on provincial funding or donations?
 - S. Murphy clarified that as the Ministry is analyzing the finances of each institution given recent events, it would be perceived as a positive that the university has a surplus; we have not achieved a steady-state point and he expects that it will still take a year or two to stabilize.
 - S. Murphy clarified that when the Ministry examines the financials of a university, one of the key indicators would be the size of an institution's endowment – the university's endowment is at \$32m and other institutions would be in the range of hundreds of millions – the Ministry looks at the big picture.
- Given we landed in a surplus situation for this fiscal year and did not use the entire amount of COVID relief funds, is there any risk of a claw-back of those funds?
 - P. Onsiong confirmed that there is no risk of a claw-back.

(D. MacMillan left at 1:32 p.m.)

7. Investment Committee Oversight

7.1 Quarterly Report

S. Chow delivered the Investment Committee report. She reported that the committee met on June 2 to review the fourth quarter results. The investment portfolio is at approximately \$32m and the cash account is sitting at just over \$354,000. Over the past 3 years, the portfolio performed 0.5 behind the benchmark and over the past 5 years, performed 0.5 ahead of the benchmark. S. Chow informed the committee that the Investment Manager explained that the indicators show that the U.S. has transitioned firmly into the “early cycle” of the business cycle and the portfolio is structured for this stage of the business cycle.

7.2 Amendments to Statement of Investment Policies (SIP)

S. Chow provided an overview of the discussions of the Investment Committee that led to the proposed amendments to the SIP. She reviewed the key changes to the SIP for the consideration by the committee. She noted that the changes will provide the Investment Manager with greater flexibility.

S. Chow suggested moving the global equities proportion from section 6.4 to section 6.1. She noted that this is not intended to be a mandated range but is meant to be more of a comment. She clarified that global equities have historically ranged from 55-65%. S. Chow explained that if investments fall outside of the range, the Investment Manager would bring that to the committee's attention.

Upon a motion duly made by S. Chow and seconded by D. Reiner, pursuant to the recommendation of the Investment Committee, the Audit & Finance Committee recommended the proposed amendments to the Statement of Investment Policies, as amended, for approval by the Board of Governors.

8. Project Updates – questions only

B. Maclsaac responded to questions from the committee. There was a discussion regarding the commercial revenue impact that the ACE Enhancement Project has had on the facility and whether any consideration has been given to compressing the timeline to finish earlier. B. Maclsaac confirmed that the project timeline has been optimized and was extended in order to complete functional testing. He also advised that he is confident that the project will be completed on budget as all subcontracts have been awarded.

9. Risk, Compliance & Policy

9.1 Financial Control Policies:

(a) Signing Authority Policy

(b) Expenditure Signing Authority Procedure

(c) Legal Commitments Signing Authority Procedure

C. Foy thanked N. O'Halloran for leading this project, which has been years of work. The process was started when the Board asked us to clarify our signing policy in 2017. Work has been done to include all types of contracts, even those without dollar values, and to categorize those documents in a signing framework. She emphasized that this is a good news story. C. Foy noted that it is a simple Signing Authority Policy, which sits atop the procedures. She discussed the extensive consultation process. The last consultation was with Academic Council and their comments have been included in the accompanying report.

B. Maclsaac provided an overview of the Expenditure Signing Authority Procedure, which now distinguishes between money coming in and money being paid out. He advised that anything over \$50,000 must be presented to a VP for sign off. Further, with a growing research portfolio, Deans now have signing authority up to \$250,000.

The committee had a robust discussion of the policy documents, which included the following questions and comments:

- Is the process managed through software or is it paper based?
 - B. Maclsaac advised that on the expense side, it is managed through software.
 - On the contracts side, C. Foy advised that that it is a mix (e.g. Minutes of Settlement are manually managed).

- B. MacIsaac added that they are examining different packages that can be managed through Adobe or DocuSign (banking documents still require wet signatures).
- D. Reiner commented that he likes the simple tables included in the policy instruments.
- Would an annual audit look at compliance with the policy and procedures?
 - C. Foy confirmed that it would.
- Are universities subject to audits by the Ontario Auditor General?
 - C. Foy will confirm and report back.

C. Foy added that there are complementary legal review policy documents that sit alongside these policy documents.

(D. MacMillan joined at 1:58 p.m.)

Upon a motion duly made by D. Ellis and seconded by R. Thompson, the Audit and Finance Committee approved the Expenses Signing Authority Procedure and Legal Commitment Signing Authority Procedure and recommended the approval of the Signing Authority Policy by the Board of Governors as presented.

9.2 Annual Risk Management Report

C. Foy remarked that this report is also a good news item. At the outset of the risk management framework development seven years ago, she attended a conference where a presenter stated that the establishment of a risk management culture is a 15-20-year process. The Risk Management Report is focused on the key indicia of a risk management culture and this year, they observed evidence of a risk management culture at the university. A committee member commented that as a Board, they are observing risk being considered at the strategic level.

C. Foy reported that on the operational side, they have built a strong risk management foundation and continued attention to that is important. On the strategic side, the university has made good progress. C. Foy advised that next year, the focus will be on developing a dashboard for operational risks and the committee will be consulted as part of the process. A dashboard will help demonstrate to the Board that the university is continuing to manage operational risks and will help move committee and Board discussions onto strategic and foundational risks. C. Foy advised that the pandemic has allowed us to see our risk culture in action and to build upon it. She thanked the President for setting the tone at the top. She also thanked Jackie Dupuis for all of her work.

The Chair thanked C. Foy and the senior leadership team for all of their work in this area. The Chair commented that the report is very helpful to her work as a Board member. She congratulated the Risk Management Team for the great progress that has been made. D. Reiner also congratulated the team for the great work being done to drive the risk culture forward. He also remarked that eventually developing a dashboard that includes operational and key strategic risks would be a great tool for the Board to use to keep an eye on the university's risk profile.

R. Thompson echoed the other members' comments and added that his organization focuses on: cultural risk, cybersecurity, and reputation. C. Foy confirmed that cultural risk is included among the university's strategic risks and reputation inherent in a number of risks. There was a discussion regarding whether there are external reporting requirements on risk. S. Murphy confirmed that the auditors have good discussions with him about risk during the annual audit process. Further, there may be external risk reporting requirements on specific projects, but not an overall reporting requirement.

10. Consent Agenda:

Upon a motion duly made by D. MacMillan and seconded by D. Reiner, the Consent Agenda was approved as presented.

10.1 Minutes of Public Session of Meeting of April 14, 2021

10.2 Annual Board Report

The Chair congratulated the committee on the work accomplished this year, as set out in the annual board report.

11. For Information:

11.1 Annual Reports:

- Insurance
- Compliance
- Policy
- Privacy

12. Other Business

13. Adjournment

There being no other business, upon a motion duly made by D. Reiner, the public session adjourned at 2:16 p.m.

Becky Dinwoodie, Secretary



BOARD OF GOVERNORS

Governance, Nominations & Human Resources Committee (GNHR)

Minutes of the Public Session of the Meeting of May 27, 2021

2:00 p.m. – 3:20 p.m., Videoconference

Members: Maria Saros (Chair), Laura Elliott, Francis Garwe, Mitch Frazer, Kori Kingsbury, Steven Murphy, Dietmar Reiner

Regrets: Lisa Edgar, Trevin Stratton

Staff: Jamie Bruno, Barb Hamilton, Lori Livingston, Andrew Sunstrum, Sarah Rasile

Guests: Chelsea Bauer, Mike Eklund, Christine McLaughlin

1. Call to Order

The Chair called the meeting to order at 2:01 p.m.

2. Agenda

Upon a motion duly made by L. Elliott and seconded by D. Reiner, the Agenda was approved as presented.

3. Conflict of Interest Declaration

None.

4. Chair's Remarks

The Chair welcomed everyone to the last committee meeting of the 2020-2021 Board year. She thanked the committee for their contributions over the past year. She noted a growing sense of optimism with the continued vaccination roll out and she hopes everyone can return to campus soon. The Chair also noted that the committee has a full agenda and she looks forward to the discussions to be had during the meeting.

5. President's Remarks

The President commented that it is a great situation when the President and Board Chair are aligned. He noted it is nice to see the proposed committee restructuring coming forward. The proposed restructuring reflects the continued efforts to promote Board member engagement and ensuring that governors' time is used as effectively as possible. We are continuously thinking about processes and structures to improve governance at the institution, which includes spending less time "talking at" governors and more time focused on discussion.

The President reported that the Provost is doing an excellent job planning for the fall. The approach is planning to be back on campus in a measured and safe way, which is consistent with the approach the senior leadership team has taken throughout the pandemic. They are working through numerous combinations of scenarios and providing students with flexibility to be on campus or online. As we look forward to the 2022-2023 academic year, the President hopes it will look much more like what we want our learning to be.

The President also provided an update on Ontario Tech Talent (OTT). The Executive Director has built a small but mighty team and has done an incredible amount of heavy lifting. The Executive Director has been communicating with various constituencies across the university, as well as meeting with employers to discuss their skills gaps. OTT is currently focusing on healthcare, manufacturing and energy. The work being done by the OTT team is really starting to take root and partnerships are being established. Earlier that week, they received an indication from the Ministry regarding potential funding and possibly allowing OTT to compete in a microcredentials pool.

The President also discussed the Brilliant Energy Institute, which is a research institute and involves a group of approximately 30-40 faculty. He reported on several recent developments, including a substantial donation and that they are in the final stages of hiring an executive director.

The President responded to questions from the committee. There was a discussion regarding the status of microcredentials in the province.

6. Governance

6.1 Governance EDI Strategy

The Chair reminded the committee that the takeaway was to develop an EDI statement for the Board. She thanked GNHR for the robust discussions they have had over the past few meetings. She shared the key points from the committee's EDI discussions, particularly the importance of being thoughtful in their work and not rushing to symbolism

and ensuring the statement is not created in a vacuum. She confirmed that an EDI question was incorporated into the annual Board assessment and the results will be reviewed once all assessments have been completed. The Chair suggested that a small working group be assembled from across the Board to review the results of the assessment, in addition to the learnings from the committee's past discussions, with a view to develop a statement for presentation at the first GNHR meeting in the fall. The Chair invited the committee's feedback on the proposed process and the committee supported the approach.

6.2 Review of Committee Structure

D. Reiner reviewed the mandate of GNHR. He discussed the considerations that went into the review of committee structure, which included:

- increased governor engagement;
- increased focus on strategy;
- balancing of the workload across committees;
- making the best and most efficient use of governors' experience and capabilities; and
- ensuring governors can fulfill their fiduciary obligations.

D. Reiner provided an overview of the recommended changes and the rationale underlying the recommendations. F. Garwe expressed support for the merger of the Investment and Audit & Finance committees and the recommended change to the membership of the Audit & Finance Committee.

There was a question regarding the increased workload of the Audit & Finance Committee and whether there is a risk tolerance dashboard to help guide the committee. D. Reiner advised that the university is still maturing when it comes to risk management and risk management reporting to the Board. The President added that there is a strategic risk register and a general risk register. As the university continues to refine who is doing what, the risk management process will also need to be refined. The President explained the detailed process used to identify the categories of risk (green, yellow, red), which helps identify for the Board the areas that require focus. He also noted that it takes time to build a risk culture, which will include an examination of where these registers most logically fit in terms of Board committees. Further, risk management is not a standalone activity. As the university reaches maturity, anything that comes to a committee for consideration should include a component of the risk involved and mitigation factors.

Upon a motion duly made by D. Reiner and seconded by F. Garwe, the Governance, Nominations and Human Resources Committee unanimously recommended the proposed committee structure and the changes to the committees' Terms of Reference, as set out in the report, and directed the Office of the University Secretary & General Counsel to implement the recommended changes for approval by the Board of Governors.

6.3 Board Engagement:

(a) Annual Board & Committee Practices Assessment Results

B. Dinwoodie provided the committee with an update on the completion of the annual Board and Committee practices assessments. She noted that the committee set a goal of a 100% response rate and the deadline to complete assessments was extended until the day before in an effort to meet the goal. As of the meeting, the response rate was 81% for the Board assessment and 89% for the committee assessment. B. Dinwoodie identified the next steps as being:

- continuing to work on obtaining the remaining assessment results;
- reviewing the results with the GNHR Chair to determine the key results she would like to highlight for the Board at the AGM.

7. Policy Updates:

7.1 Annual Report on Student Sexual Violence Policy Implementation

L. Livingston reminded the committee that the university is required to report to the Board on an annual basis regarding the anti-student sexual violence initiatives on campus. S. Rasile provided an overview of the report that was included in the meeting material. She reported that the numbers in the report are consistent with those of previous years. She noted that the majority of complaints related to historical incidents of sexual trauma, only one of which happened on campus. There was a concern about the potential increase in virtual incidents of sexual violence. Due to a number of students returning to live at home due to the pandemic, they are observing survivors of interfamilial sexual violence now living with the perpetrator and requiring counselling. They are also seeing a significant increase in students seeking assistance for mental health due to the pandemic.

S. Rasile reported that they recently received approval to hire a gender based support worker. Further, they are working to develop additional educational sessions and training. The province provides up to four hours of free legal advice to survivors of sexual violence and they are working to help students access this assistance.

S. Rasile provided an overview of the types of virtual programming being offered. Next year, with the addition of a new position, they will be able to streamline the support for students. A subject expert has been hired to support the development and delivery of the training. She also discussed policy and procedural effectiveness. The Director of Human Rights joined the Advisory Committee on Student Sexual Violence Prevention and Support last spring and has been reviewing the related policies and procedures to identify priority areas for updating.

S. Rasile responded to the following questions from the committee:

- Is the pattern of disclosures being historical in nature consistent with previous years?
 - S. Rasile confirmed that this is consistent.
- It would be helpful to understand the qualifications and role of different positions and the type of support they receive.
 - S. Rasile discussed the roles of: support worker, equity advocate, and ambassador.
- What happens in the cases where the university learns that a student is living with a perpetrator?
 - Depends on what is shared with the counsellor and the counsellor would advise appropriately.

D. Reiner commented that they are going above and beyond compliance with the legislation.

7.2 Annual Review of Workplace Violence Policy

J. Bruno advised that now that the university has a standalone harassment policy, the Workplace Violence Policy remains. They will be working through the steps on the consultation process, will gather feedback over the next two months, and will report on the results of the review at the first GNHR meeting in the fall.

7.3 First Annual Human Rights Report

A. Sunstrum presented the draft of the first annual Human Rights Report, which was included in the meeting material. He invited feedback from the committee and noted that the final version of the report would be presented at the AGM. He shared that he and Cheryl Foy are proud of the work that has been accomplished with the support of the broader community. There remains work to be done, but this initial report will allow them to identify where we started. A. Sunstrum explained he began with a systems review of the processes at the university and identified areas for improvement. Over the past year, the Human Rights Office was established. This was the first year that the university has tracked human rights-related data. This information provides a baseline for future trend analysis and will allow the university to assess progress. The committee had the following feedback and questions:

- The bulk of issues is categorized as “general/human rights” – is this the protected grounds category or just general human rights?

- A. Sunstrum clarified that they are usually general human rights issues and tend to be requests for information on human rights more broadly (e.g. policy consultation).
- Has anything surprised you over the past year? Are the cases that go to the Human Rights Tribunal tracked?
 - A. Sunstrum confirmed that the types of complaints coming forward are not surprising and that he was pleasantly surprised by the number of cases that were resolved before proceeding to the investigation stage.
 - He noted that he has not been monitoring the cases that go to the Human Rights Tribunal. Our legal office would have access to that information and he can start tracking those statistics.
- How should the Board receive this baseline? Is there anything to be concerned about at this stage?
 - A. Sunstrum advised that in the context of his experience, there is nothing to be concerned about at this stage. It is positive news that the majority of matters were resolved early.
 - As people become more aware of the Human Rights Office, he anticipates that numbers will continue to rise and having more complete data will allow trends to be identified.
 - He clarified that for student sexual violence cases, there is a distinction between disclosures and reports. The Human Rights Office handles formal reports made by students.
- As the university has been remote over the past year, what types of accommodation cases are being brought forward?
 - A. Sunstrum directed the committee to the protected grounds section, which all relate to accommodation. The majority of issues related to the duty to accommodate on the grounds of disability, which is also consistent with his experience.
- With respect to the category of “unspecified” protected grounds, are there any emerging themes?
 - A. Sunstrum advised that much of the advice and information sought is of a general human rights nature (e.g. reviewing a policy from the lens of human rights obligations; roles and responsibilities in the institution; review of training material), which do not neatly fall into a specific Code ground.
- It was suggested to consider adding clarifying language in the report to explain that the “unspecified” matters are more administrative in nature.

The Chair thanked A. Sunstrum for the progress being made.

8. Consent Agenda:

In relation to the committee's Annual Board Report, D. Reiner commented that GNHR has accomplished a lot of work this year and he commended the committee for their work.

Upon a motion duly made by L. Elliott and seconded by D. Reiner, the Consent Agenda was approved.

8.1 Amendments to By-law No. 1

8.2 Policy Documents:

- (a) Board of Governors Recruitment, Appointment and Leadership Policy
- (b) Board of Governors Procedures for the Election of Administrative Staff, Student, and Teaching Staff Governors

8.3 Annual Board Report

8.4 Board Schedule 2021-2022

8.5 Minutes of the Meeting of March 30, 2021

9. Other Business

10. Adjournment

There being no other business, upon a motion duly made by D. Reiner, the public session adjourned at 3:10 p.m.

Becky Dinwoodie, Secretary



BOARD OF GOVERNORS
Strategy & Planning Committee (S&P)

Minutes of the Public Session of the Meeting of Thursday, May 13, 2021
2:00 p.m. to 3:15 p.m., Videoconference Only

Attendees: Thorsten Koseck (Chair), Liqun Cao, Kevin Chan, Mitch Frazer, Steven Murphy, Dietmar Reiner, Jim Wilson, Lynne Zucker

Regrets: Azzam Abu-Rayash

Staff: Jamie Bruno, Becky Dinwoodie, Cheryl Foy, Barb Hamilton, Lori Livingston, Sue McGovern

Guests: Chelsea Bauer (FA), Mike Eklund (FA)

1. Call to Order

The Chair called the meeting to order at 2:02 p.m.

2. Agenda

Upon a motion duly made by D. Reiner and seconded by J. Wilson, the Agenda was approved as presented.

3. Conflict of Interest Declaration

There was none.

4. Chair's Remarks

The Chair thanked everyone for attending the meeting. He noted it is the last committee meeting of the Board year. He thanked C. Foy, B. Dinwoodie, L. Livingston, and S. Murphy for all of the work that happens behind the scenes to plan and conduct the meetings.

5. President's Remarks

The President noted that things will continue to change and it is important to build a model of learning that can adapt to these changes. He noted the on-campus experience is a rich and important one and should be built upon whenever possible. The President stated that when we can be back together safely, we will do so as the guidelines allow. He

commended the Provost for all of her work and for encouraging nimbleness in the university's planning and response.

The President discussed the effects of the province's tuition reduction, followed by a tuition freeze. Institutional autonomy has never been under greater threat in his lifetime than it is right now. Maintaining autonomy relies upon strong governance and transparency. The President noted that this is happening not only in Ontario, but in other provinces, as well. We are witnessing changes to the sector and attempts to defund the sector. As we come out of COVID and government budgets are stretched, it will be important to emphasize that the investment in education is investing in the government's people.

The President also discussed the importance of learning from what we have gone through. The pandemic has created circumstances from which we can learn by failure. We learned from the emergency transition online and improved upon that experience this year. Faculty are accomplishing innovative things during the lock down. If we continue to learn through the stages of the pandemic, we will come out stronger. It is integral to focus on the student experience and on using technology to enhance learning.

The Chair thanked the President and his team for a successful transition to online learning. The Chair noted there has been a marked contrast in the experience of his children who attend different universities. The online experience might present a challenge for alumni engagement and advancement, which will make the "sticky campus" all the more important. The President added that they are aware that when return to campus, whether a high school student or returning students, there is a desire to build a community as quickly as possible. Must also consider how we become embedded in a lifelong learning process through graduate degrees or microcredentials, which will also help continue to build a sense of community.

6. Strategy

6.1 Strategic Discussion: Academic Programming

The Provost delivered a presentation on academic programming, which was also included in the meeting material. The committee had the following comments and questions based on the presentation:

- important to focus on the marketing strategy for student recruitment;
- also emphasize that we have programs that will get graduates a job;
- focus on quality of programs being offered – will help build reputation, which will help attract students;
- concern about loss of market share for some of our STEM programs – might not be able to be addressed by creative marketing;
- decline in nuclear and radiation programs - need to see a stronger political voice highlighting nuclear as a clean energy and as a measure to help combat climate change;

- What prevents us from growing course-based Masters programs?
 - political pressures;
 - we do not have much room to support rapid growth of professoriat in those areas;
 - must be strategic in areas of growth;
 - enrolment viability is important but not struggling at the moment – we are paying attention to those programs with stagnant or declining enrolment and monitoring the costs of running those programs;
 - committed to stay on top of monitoring the numbers – tracking them year over year; and
 - Registrar is aware of the trends over 5 years and projections for hot areas of study – related to market viability – we pay close attention to enrolment and application trends.
- nuclear/manufacturing engineering – might be too specific for high school students – consider giving them more generic names to help get students into the program;
- consider implementing industry advisory committees to help repackage programs;
- How do we stay ahead of the game (e.g. autonomous and electric vehicles – is university also monitoring these trends)?
 - the Provost advised that we closely monitor the market viability of programs for our students – new programming is based on an analysis of the market to begin with – part of new program proposals;
 - all about marketing – important to elevate our reputation – challenge of being a young university – marketing in a conscious way that we offer programming that is aligned with our founding mission; and
 - important to diversify our offerings – Registrar and his team are doing an incredible amount of work with respect to market analysis and marketing for student recruitment.

6.2 International Recruitment Strategy

L. Livingston provided an overview of the report included in the meeting material and responded to questions from the committee. She thanked the Registrar and his team, as well as S. McGovern's team, for coordinating the virtual Open Houses. A member asked whether the university is actively planning for contingencies based on continuing travel restrictions for international students. L. Livingston noted the challenges related to investing too heavily in any single country because of geopolitical considerations. A member expressed support for having a target to be achieved. The university's number of international students is among the best in the province right now, likely because of the strength of our remote platform and our ability to offer remote learning until international students are able to travel to Ontario.

6.3 Strategic Planning Metrics

L. Livingston reported that they are working on identifying the most important KPIs and will return to the committee in the fall with recommendations on updated metrics. She responded to questions from the committee. L. Livingston advised that they are conducting a thorough analysis of the university's key documents (Integrated Plan, SMA, etc.) in order to establish the proposed metrics.

7. Planning

7.1 Annual Board Report

B. Dinwoodie presented the draft annual Board report (included in the meeting material) for review and approval.

Upon a motion duly made by D. Reiner and seconded by K. Chan, the Strategy and Planning Committee approved the Annual Board Report, as presented.

8. Consent Agenda

Upon a motion duly made by L. Zucker and seconded by J. Wilson, the Consent Agenda was approved as presented.

8.1 Endowment Disbursement

8.2 Minutes of Public Session of Meeting of March 18, 2021

9. Other Business

10. Adjournment

Upon a motion duly made by L. Zucker, the public session adjourned at 3:15 p.m.

Becky Dinwoodie, Secretary



BOARD OF GOVERNORS
Investment Committee

Minutes of the Public Session of the Meeting of June 2, 2021
12:20 p.m. – 1:30 p.m., Videoconference

Members: Stephanie Chow (Chair), Mitch Frazer, Kathy Hao, Ferdinand Jones, Thorsten Koseck, Mark Neville, Dietmar Reiner, Maria Saros, Kim Slade, Steven Murphy

Staff: Becky Dinwoodie, Cheryl Foy, Barb Hamilton, Brad Maclsaac

Guests: Leila Fiouzi & Jacinta O'Connor (PH&N)

9. Call to Order

The Chair called the public session to order at 12:21 p.m.

10. Conflict of Interest Declaration

None.

11. Chair's Remarks

The Chair shared that she hopes everyone is keeping safe. It is encouraging to see the number of COVID cases dropping and the vaccine continuing to be rolled out. The Chair encouraged everyone to remain vigilant and to continue to follow the public health protocols.

12. President's Remarks

The President thanked the committee for their ongoing commitment to good governance. As we think about the sustainability of institutions, having robust endowments is key. The cash account is used to disburse scholarships to our students. Scholarships have never been more needed, as students struggle to find meaningful summer employment during the pandemic. Having learned many lessons during the pandemic, the President has observed that those students who step up on campus are also going above and beyond to contribute to the community during the pandemic. The President shared the story of Hamayal Choudhry, who created a bionic arm powered by AI and is being made available for less than \$1000. H. Choudhry was hampered when looking for people to back the venture. The President noted that it is important to think about using funds to incentivize tech with a conscience and sticky campus initiatives. It is one thing to award students who are joining the university, but it is also important to reward students who excel in academics and those who are contributing to society through innovations exemplifying

tech with a conscience. The Chair remarked that it is always helpful to the Board to hear about the university's entrepreneurial students and to consider how the Board can help support them.

13. Investment Review

13.1 Fourth Quarter Investment Review

L. Fiouzi reviewed the fourth quarter investment results with the committee. She highlighted the following:

- One year return of 18% - the equity markets have done very well over the past year;
- Performance of 3.7% over the last 3 month period;
- 5-year return is above the absolute return hurdle of 6% by reaching 8.9%;
- Fees are 44 basis points – no embedded fees – even after fees, the portfolio has performed ahead of market;
- The benchmark is an exact replica of the portfolio that reflects the broad market;
- Reviewed where we are in the business cycle per economist's estimates – in early cycle environment – knowing we are in this stage, expect rates to remain low for up to 1-2 years and tends to be conducive to good performance from growth companies;
- Small cap Canadian equity exposure added a few months ago – discussed the differences between now and end of 2019; and
- Small allocation to short term bonds – temporary – underweight mortgages and while waiting in queue, added to short term bonds.

L. Fiouzi responded to questions from the committee, which included:

- What are they seeing in the bond market? Is there any innovation happening that the committee should know about in the fixed asset market?
 - L. Fiouzi advised that the innovation in the bond market is the Core Plus Bonds; until about 5 years ago, the majority of large institutional investors only focused on domestic investment grade bonds; in a low yield environment, that is a difficult value proposition; they need to be tactical in bond markets because when there is a ripple, it can flow through quickly and it is more difficult to offload a high yield bond; accordingly, Core Plus Bonds have been a big innovation for investors.
- In the context of a rising rate environment, how does the asset mix position us?
 - L. Fiouzi commented that at this point, they think we are in a better place with bonds than compared to January as they are already seeing yields pick up; she discussed the historic performance of bonds in a rising rate environment; the best bonds have been corporate and high yield bonds; the

benefit of having a Core Plus strategy is that it has good exposure to corporate and high yield bonds; L. Fiouzi advised that the portfolio is well-positioned at this stage of the business cycle.

L. Fiouzi also discussed inflation. Over the longer term, structural forces will drive down inflation. Historically, at this stage in the market cycle, capital markets have generally had some volatility. Although earnings are coming in strong, any piece of bad news can impact the response in the markets, as it is a function of investor behaviour.

13.2 Strategic Discussion: Future Investments Strategy

The Chair provided an overview of the report included in the material. The committee reviewed the proposed changes to the Statement of Investment Policies (SIP), which would incorporate the Asset Class Management Strategy (ACMS) into the SIP. By removing the specific names of assets, PH&N will have increased flexibility.

The committee had an engaged discussion of the proposed changes, which included the following questions and comments:

- Request for clarification in the table – the range for alternatives is 0-20% and s. 6.5 provides that illiquid assets shall be limited to no more than 15%;
 - B. Maclsaac clarified that the initial range was 0-15%, which was then increased to 20% and the corresponding change needs to be made to s. 6.5 – this will be corrected.
- Is the strategic target for US equities sufficient given the US equity market is so large?
 - L. Fiouzi advised that global equity strategies reflect the proportion of US equities to global – she explained that they could be agnostic with respect to global equities and give the investment manager freedom with respect to global equities; if they want to increase exposure to US equities, would then force Canadian investors to have less than 3% investment in Canadian equities; if the committee wants to increase exposure to US equities, then they would consider reducing Canadian equities.
 - B. Maclsaac noted that it is a guideline – “normally” allows management to monitor the proportion of US equities.
- Suggestion was made to allow for greater US exposure in the SIP so that the Board would not have to revise the SIP in future.
 - L. Fiouzi advised that the best practice is to look globally – if the committee feels strongly about it, it can be done, but PH&N would not recommend it.

- There was a discussion regarding the range for alternatives and the type of education that would be provided to the committee when considering an alternative investment.
 - L. Fiouzi advised that not all alternative investments are inherently risky – the direct real estate investment is not considered to be a particularly risky strategy – the risk is associated with the illiquidity of the asset.
- There was a discussion regarding the risk level of the real estate class of investments.
- L. Fiouzi advised that the Canadian real estate market is one of the more stable as many of the holders are institutions (e.g. pension plan), which is not the case in other markets; there are assets that are not going to maintain the same level of valuation; with offices, there is the tug and pull of flexible arrangements (while less offices will be required, more space will be required due to distancing protocols – it is not as cut and dry as people think); the message being delivered is that the office is not going away (e.g. RBC communicating must live within commuting distance of the office)
- Is there anything in terms of risk exposure that the committee should be thinking about?
 - L. Fiouzi responded that given where the equity market valuations are and the stage of cycle we are in, the returns from equity markets are anticipated to be less than usual. With the university’s return hurdle, it would be difficult to reduce the amount of equities.
- The references to Investment Committee must be removed from sections 8.3 and 10.0.

Upon a motion duly made by D. Reiner and seconded by K. Slade, the Investment Committee recommended the proposed amendments to the Statement of Investment Policies, as amended, for approval by the Board of Governors.

13.3 Annual Board Report

B. Dinwoodie presented the annual Board report for review by the committee. The Chair thanked all the members for their work done throughout the year.

Upon a motion duly made by D. Reiner and seconded by M. Saros, the Investment Committee approved the Annual Board Report, as presented.

14. Consent Agenda:

14.1 Endowment Disbursement

14.2 Minutes of Public Session of Meeting of February 17, 2021

Upon a motion duly made by F. Jones and seconded by K. Hao, the Consent Agenda was approved as presented.

15. Other Business

None.

16. *In Camera* Session

The meeting went *in camera* at 12:30 p.m. and came out of *in camera* at 12:40 p.m.

17. Termination

Upon a motion duly made by M. Saros, the meeting terminated at 12:40 p.m.

Becky Dinwoodie, Secretary

DRAFT



BOARD REPORT

SESSION:

Public
 Non-Public

ACTION REQUESTED:

Decision
 Discussion/Direction
 Information

TO: Board of Governors

DATE: December 9, 2021

FROM: Audit and Finance Committee (A&F)

SUBJECT: Review and Update of Statement of Investment Policies

COMMITTEE/BOARD MANDATE:

The board is responsible for governing and managing the financial affairs of the university.

A&F is responsible for overseeing the management of the university's investments (Funds) in accordance with the university's Statement of Investment Policies (SIP). This includes, but not limited to: reviewing on an annual basis the SIP and making appropriate recommendations to the Board.

A&F is recommending revisions to the SIP for Board approval as editorial clean up.

BACKGROUND/CONTEXT & RATIONALE:

The overall investment objective is to obtain the best possible total return on investments that is commensurate with the degree of risk that Ontario Tech is willing to assume in obtaining such return. In summer 2021 the investment committee recommended a number of changes to the SIP to ensure more flexibility to respond to market changes without a reduction in accountability. These were approved by the Board at the June 2021 meeting.

Section 7.1: Management worked to merge the SIP and Asset Class Management Procedure (ACMP) to ensure maximum flexibility with minimal changes. When we deleted the ACMP we deleted all references excepted for one in section 7.1. We are looking to delete that reference now.

Section 6.1: In early November 2021 PH&N wrote to inform the university of changes to Mortgage Pension Trust (MPT), which has a 15% allocation in the Ontario Tech University portfolio. In summary, the MPT's liquidity is changing from daily to quarterly. This is an important change, but one that PH&N believes will have minimal impact on the Ontario Tech portfolio in the context of its historical disbursement profile, PH&N's understanding of future disbursement needs, and MPT's role in reducing overall portfolio interest rate sensitivity without sacrificing yield. As such, PH&N does not recommend any portfolio changes.

In light of the changes to MPT's redemption schedule from daily to quarterly liquidity, PH&N have decided to reclassify the Fund from fixed income to Alternatives, effective April 1, 2022. In general, Alternative

investments are a broad category of investment solutions that are typically more complex and less frequently traded than public bonds or stocks. Reclassification of the Fund ensures its alignment with other private market instruments with a similar quarterly redemption provision. It is important to note that this does not reflect a change in strategy for the portfolio or of the Fund itself, but simply a change in classification. Based on this reclassification we will revise section 6.1 with a direct move of our target and ranges.

IMPLICATIONS:

These changes are intended to clean up the SIP document and do not have any implications.

NEXT STEPS:

- Subject to Board approval, the updated SIP will be posted in the university's Policy Library.

MOTION for CONSIDERATION:

That pursuant to the recommendation of the Audit and Finance Committee, the Board of Governors hereby approves the proposed amendments to the Statement of Investment Policies, as presented.

SUPPORTING REFERENCE MATERIALS:

Appendix A – blacklined SIP

1.0 Purpose

The purpose of this Statement of Investment Policies (“SIP”) is to define the management structure governing the investment of non-expendable (endowed) university funds, and to outline the principal objectives and rules by which assets will be managed. The assets will be managed in accordance with this Statement and all applicable legal requirements. Any investment manager (“Manager”) or any other agents or advisor providing services in connection with assets shall accept and adhere to this Statement.

2.0 RESPONSIBILITIES

2.1 Board of Governors

The Board of Governors (“the Board”) of the university has responsibility and decision-making authority for these assets.

As part of its fiduciary responsibilities, the Board will:

- appoint members to sit on Audit and Finance Committee;
- receive the Audit and Finance Committee’s recommendations with respect to the SIP and approve or amend the SIP as appropriate;
- review all other recommendations and reports of the Audit and Finance Committee with respect to the Fund and the selection, engagement or dismissal of professional investment managers, custodians and advisors, and take appropriate action.

2.2 Audit & Finance Committee

The Committee may delegate some of its responsibilities to agents or advisors. In particular, the services of a custodian (the “Custodian”) and of one or more investment managers (the “Manager”) may be retained. As part of its fiduciary responsibilities, the Audit and Finance Committee will:

- maintain an understanding of legal and regulatory requirements and constraints applicable to these assets;
- review the SIP on an annual basis, and make appropriate recommendations to the Board of Governors;
- formulate recommendations to the Board of Governors regarding the selection, engagement or dismissal of professional investment managers, custodians and advisors.

- oversee the Fund and the activities of the Manager, including the Manager’s compliance with their mandate and the investment performance of assets
- ensure that the Manager is apprised of any amendments to their mandate; and
- inform the Manager of any significant cash flows.

2.3 Investment Manager(s)

The Manager is responsible for:

- Selecting securities within the asset classes assigned to them, subject to applicable legislation and the constraints set out in this Statement;
- Providing the Committee with quarterly reports of portfolio holdings, a review of investment performance, facilitating future strategy discussions and recommending appropriate changes to the investment portfolio; (see Section 8 on “Reporting and Monitoring”);
- Attending meetings of the Committee at least once per year to review performance and to discuss proposed investment strategies;
- Informing the Committee promptly of any investments which fall outside the investment constraints contained in this Statement and what actions will be taken to remedy this situation; and
- Advising the Committee of any elements of this Statement that could prevent attainment of the objectives.

3.0 PORTFOLIO OBJECTIVES

3.1 Investment Policy

The Investment Policy outlines the university’s investment objectives and risk guidelines. Investment objectives are defined in the context of Total Return which is defined as the sum of income and capital gains from investments.

3.2 Investment Objectives

The overall investment objective is to obtain the best possible total return on investments that is commensurate with the degree of risk that the university is willing to assume in obtaining such return. In general, the university’s investment decisions balance the following objectives:

- generate stable annual income for the funds’ designated purpose;
- preserve the value of the capital;
- protect the value of the funds against inflation; and

- maintain liquidity and ease of access to funds when needed

Stable annual incomes are an essential part of the disbursement process, and facilitate the forecast of spendable income each year. The investment object for non-expendable (endowment) funds is to generate a total return that is sufficient to meet obligations for specific purposes by balancing present spending needs with expected future requirements. The total return objective must take into consideration the preservation of endowment capital, and the specific purpose obligations according to donor wishes.

All endowment funds are to be accumulated and invested in a diversified segregated or pooled fund of Canadian and foreign equities and fixed income securities. These funds must be structured to optimize return efficiency such that the return potential is maximized within the organization's risk tolerance guidelines. The Manager is expected to advise the Committee in the event that the pooled fund exhibits, or may exhibit, any significant departure from this Statement.

4.0 GENERAL GUIDELINES

The university uses the investment pool method, except that in those instances where funds are precluded under agreement or contract from being pooled for investment purposes. The acquisition of specific investment instruments outside of authorized investment pools, requires the approval of the Chief Financial Officer and one of either President or VP External Relations.

All securities shall be registered in the University Of Ontario Institute of Technology's name; or in the name of a financial institution that is eligible to receive investments under the University Of Ontario Institute Of Technology's Investment Policy.

The university may or may not directly or internally manage any portion of its endowed funds.

External investment managers and/or advisors shall be selected from well-established and financially sound organizations which have a proven record in managing funds with characteristics similar to those of the university.

The university shall maintain separate funds in the general ledger for endowment fund donations. Within these funds, the university shall maintain accurate and separate accounts for all restricted funds.

Investment income, capital gains and losses on the sale of equities and securities, and the amortization of premiums and discounts on fixed term securities earned on endowment funds accrue to the benefit of the endowment accounts and are distributed to capital preservation, stabilization and distribution accounts annually.

5.1 AUTHORIZED INVESTMENTS

5.2 Investment Criteria

Outlined below are the general investment criteria as understood by the Committee. The list of permitted investments includes:

(a) Short-term instruments:

- Cash;
- Demand or term deposits;
- Short-term notes;
- Treasury bills;
- Bankers acceptances;
- Commercial paper; and
- Investment certificates issues by banks, insurance companies and trust companies.

(b) Fixed income instruments:

- Bonds;
- Debentures (convertible and non-convertible); and
- Mortgages and other asset-backed securities.

(c) Canadian equities:

- Common and preferred stocks;
- Income trusts; and
- Rights and warrants.

(d) Foreign equities:

- Common and preferred stocks;
- Rights and warrants; and
- American Depository Receipts and Global Depository Receipts.

(e) Alternative investments:

- Direct Real Estate Equity: commercial investment grade income-producing real estate

(f) Pool funds, closed-end investments companies and other structured vehicles in any or all of the above permitted investment categories are allowed.

5.3 Derivatives

The Fund may use derivatives, such as options, futures and forward contracts, for hedging purposes, to protect against losses from changes in interest rates and market indices; and for non-hedging purposes, as a substitute for direct investment.

5.4 Pooled Funds

With the approval of the Committee, the Manager may hold any part of the portfolio in one or more pooled or co-mingled funds managed by the Manager, provided that such pooled funds are expected to be operated within constraints reasonably similar to those described in this mandate. It is recognized by the Committee that complete adherence to this Statement may not be entirely possible; however, the Manager is expected to advise the Committee in the event that the pooled fund exhibits, or may exhibit, any significant departure from this Statement.

5.5 **Responsible Investing**

The Board has a fiduciary obligation to invest the Fund in the best interests and for the benefit of the university.

The Board recognizes that environment, social, and governance (ESG) factors may have an impact on corporate performance over the long term, although the impact can vary by industry. Best practices suggest that incorporating ESG factors in the investment process is prudent and aligned with the university's social commitment.

Given the fact that the university uses the investment pool method, it is not practical for the Committee to directly engage individual companies on ESG related issues, either through dialogue or by filing shareholder resolutions. Subject to its primary fiduciary responsibility of acting in the best interests of the university and its stakeholders, and within the limits faced by an investor in externally managed pooled funds, the Committee will incorporate ESG factors into its investment process through the following methods:

(a) **Manager Selection and Reporting**

The integration of ESG factors in the investment process will be a criterion in the selection, management and assessment of the Manager.

The Committee will require the Manager to provide regular and annual reporting on the incorporation of formal ESG factors in the management of their portfolios.

(b) **Engagement**

Since the university does not directly invest in companies, proxy voting is delegated to the Manager. The Committee will encourage the Manager to incorporate into their proxy voting guidelines policies that encourage issuers to increase transparency of their ESG policies, procedures and other activities, and also to bring to the Committee's attention any significant exposure through the Fund to a particular company, industry or nation that is facing a material ESG issue.

6.0 **RISK GUIDELINES**

All investment of assets must be made within the risk guidelines established in this Statement. Prior to recommending changes in investments, the Manager must certify to

the Committee that such changes are within the risk guidelines. For the purposes of interpreting these guidelines, it is noted that all allocations are based on market values and all references to ratings reflect a rating at the time of purchase, reviewed at regular intervals thereafter. In the event that the portfolio is, at any time, not in compliance with either the ranges or ratings profile established in this Statement, such non-compliance will be addressed within a reasonable time after the Manager or Committee has identified such non-compliance.

6.1 Asset Mix and Ranges

Investment of assets must be within the asset classes and ranges established in Table 6.1.

Table 6.1

Asset Class	Strategic Target	Range	Benchmark (Total Return)
Cash & short-term	0%	0% – 10%	FTSE 30-Day T-Bill Index
Fixed Income	2035%	1525% – 345%	
Core Plus Bonds	20%	15% - 35%	FTSE Canada Universe Bond Index
<u>Mortgages</u>	<u>15%</u>	<u>0% – 25%</u>	<u>FTSE Canada Short Term Overall Bond Index</u>
Equities	55%	45% - 65%	
Canadian	20%	10% - 30%	S&P/TSX Capped Composite Index
Global	30%	20% - 45%	MSCI World Net Index (\$C)
Emerging Market Equities	5%	0% - 10%	MSCI Emerging Markets Net Index (\$C)
Alternatives	2510%	100% - 3520%	
Direct Real Estate	10%	0% - 15%	Canada CPI (seasonally adjusted) + 4.0%
<u>Mortgages</u>	<u>15%</u>	<u>0% - 25%</u>	<u>FTSE Canada Short Term Overall Bond Index</u>

6.2 Cash and Cash Equivalents

Cash and cash equivalents must have a rating of at least R1, using the rating of the Dominion Bond Rating Service (“DBRS”) or equivalent.

6.3 Fixed Income

(a) Maximum holdings of the fixed income portfolio by credit rating are:

Credit Quality	Maximum in Bond ¹	Minimum in Bond ¹	Maximum Position in a Single Issuer
Government of Canada ²	100%	n/a	no limit

Provincial Governments ²	60%	0%	40 %
Municipals	25%	0%	10%
Corporates	75 %	0%	10%
AAA ³	100%	0%	10%
AA ³	80%	0%	5%
A ³	50%	0%	5%
BBB	15%	0%	5 %
BB and less	20 %	0%	2 %

¹ Percentage of portfolio at market value; ² Includes government-guaranteed issues; ³ Does not apply to Government of Canada or Provincial issues

- (b) Maximum holdings of the fixed income portfolio, other than Canadian denominated bonds as illustrated in 6.3 (a), by asset type:
- 20% for asset-backed securities;
 - 60% for mortgages or mortgage funds;
 - 20% for bonds denominated for payment in non-Canadian currency; and
 - 10% for real return bonds.
- (c) All debt ratings refer to the ratings of Dominion Bond Rating Service (DBRS), Standard & Poor's or Moody's.
- (d) No less than 80% of non-Canadian dollar denominated bonds should be hedged back to the Canadian dollar.

6.4 Equities

- (a) No one equity holding shall represent more than 15% of the market value of the assets of a single pooled fund.
- (b) There will be a minimum of 30 stocks in each equity (pooled fund) portfolio.
- (c) No more than 5% of the market value of an equity portfolio (pooled fund) may be invested in companies with a market capitalization of less than \$1 billion at the time of purchase
- (d) Illiquid assets are restricted to 10% of the net assets of the Fund.
- (e) Foreign equity holdings can be currency hedged to a maximum of 50%
- (f) It is expected that Global Equities will be well-diversified to represent a proportional share of U.S. equities as part of the broader global markets. This has historically ranged from 55% to 65%.

6.5 Alternative Assets

- (a) Illiquid assets shall not constitute more than ~~35.20~~35.20% of the total portfolio.
- (b) Alternative investment solutions have the potential to enhance fixed income returns, reduce equity risk, reduce portfolio volatility and improve portfolio efficiency. They typically require a longer investment horizon, are less liquid, and when considered in isolation may be deemed more risky than other securities. The associated risks, fees and expenses are detailed in a document called an Offering Memorandum which the manager is responsible for providing to the appropriate Committee prior to any such new investment being made in the portfolio.

7.0 PERFORMANCE EXPECTATIONS

7.1 Portfolio Returns

The portfolio is expected to earn a pre-fee rate of return in excess of the benchmark return over the most recent four-year rolling period. Return objectives include realized and unrealized capital gains or losses plus income from all sources. Returns will be measured quarterly, and calculated as time-weighted rates of return. ~~The composition of the benchmark is developed from the asset mix outlined in this Statement and more specifically described in the Asset Class Management Procedures, Appendix A.~~

In order to meet the university’s disbursement requirements, investments need to earn a minimum level of income, measured over a four year rolling market cycle. The minimum recommended level is defined as the sum of the following items:

Minimum disbursement requirement	3.5%
Investment management fees	0.5%
Capital preservation amount	<u>2.0%</u>
Minimum Rate of Return	<u>6.0%</u>

Note: The disbursement requirement and capital preservation amounts will be reviewed, and updated as required.

8.0 REPORTING & MONITORING

8.1 Investment Reports

Each quarter, the Manager will provide a written investment report containing the following information:

- portfolio holdings at the end of the quarter;
- portfolio transactions during the quarter;
- rates of return for the portfolio with comparisons with relevant indexes or benchmarks; Compliance report;

8.2 Monitoring and Recommendations

At the discretion of the Committee as required, the Manager will meet with the Committee regarding:

- the rate of return achieved by the Manager;
- the Manager's recommendations for changes in the portfolio;
- future strategies and other issues as requested.

The agreement with the Manager or any Custodian will be reviewed by the committee on a four year cycle. This review could include a Request for Proposal for these services.

8.3 Annual Review

It is the intention of the university to ensure that this policy is continually appropriate to the university's needs and responsive to changing economic and investment conditions. Therefore, the Committee shall present the SIP to the Board, along with any recommendations for changes, at least annually.

9.0 STANDARD OF CARE

The Manager is expected to comply, at all times and in all respects, with the code of Ethics and Standards of Professional Conduct as promulgated by the CFA Institute.

The Manager will manage the assets with the care, diligence and skill that an investment Manager of ordinary prudence would use in dealing with all clients. The Manager will also use all relevant knowledge and skill that it possesses or ought to possess as a prudent Investment Manager.

The Manager will manage the assets in accordance with this Statement and will verify compliance with this Statement when making any recommendations with respect to changes in investment strategy or investment of assets.

The Manager will, at least once annually, provide a letter to the Committee confirming the Manager's familiarity with this Statement. The Manager will, from time to time, recommend changes to the SIP to ensure that the SIP remains relevant and reflective of the university's investment objectives over time.

10.0 CONFLICT OF INTEREST

All fiduciaries shall, in accordance with the university's Act and By-laws and policies on conflict of interest, disclose the particulars of any actual or potential conflicts of interest with respect to the Fund. This shall be done promptly in writing to the Chair of the Audit & Finance Committee. The Chair will, in turn, table the matter at the next Board meeting. It is expected that no fiduciary shall incur any personal gain because of their fiduciary position. This excludes normal fees and expenses incurred in fulfilling their responsibilities if documented and approved by the

Board.

11.0 PROXY VOTING RIGHTS

Proxy voting rights on portfolio securities are delegated to the Manager. The Manager is expected to maintain, and produce upon request, a record of how voting rights of securities in the portfolio were exercised. The Manager will exercise acquired voting rights in the best interests of the unit holders of the pooled fund.



BOARD REPORT

SESSION:

Public
 Non-Public

ACTION REQUESTED:

Decision
 Discussion/Direction
 Information

TO: Board of Governors

DATE: December 9, 2021

FROM: Governance, Nominations and Human Resources Committee (GNHR)

SUBJECT: Policy Against Violence in the Workplace

COMMITTEE MANDATE:

- Under the University’s Act, section 9(1), the Board of Governors has the power: “to establish academic, research, service and institutional policies and plans and to control the manner in which they are implemented”. The university’s Policy Framework is a key institutional policy that delegates the Board’s power, establishing categories of policy instruments with distinct approval pathways.
- In accordance with its Terms of Reference, one of GNHR’s mandate includes the establishment of human resources policy instruments.

Request: GNHR is seeking the Board’s approval of the Policy Against Violence in the Workplace.

BACKGROUND/CONTEXT & RATIONALE:

- The *Policy Against Violence, Harassment and Discrimination in the Workplace* was approved in December 2016 and last reviewed in May 2020.
- Since 2020, the University has continued in its efforts to focus and enhance its policy framework in a manner that both consolidates student, staff and faculty communities as it relates to the prevention of harassment and discrimination, as well as to isolate necessarily the policy and procedures governing workplace violence prevention.
- In spring 2020, the new policy framework recommending a stand-alone harassment and discrimination prevention policy was endorsed by senior leadership. Following policy consultation that commenced last fall, the University received approval for its *Respectful Campus Policy and Procedures* on April 22, 2021.
- The alignment between the *Respectful Campus Policy and Procedures* and the University’s organizational structure is now more clear and unambiguous; the creation of

- a dedicated, institution-wide human rights office attends to complaints of harassment and discrimination originating from all university members. Further, the existence of a single anti-harassment/discrimination policy instrument replaces the dual and separate pathways previously in place for students and staff/faculty.
- In May 2021, the university prepared an interim [Policy Against Violence in the Workplace](#) that removed all references and criteria involving harassment and discrimination. The provisions governing workplace violence prevention remained unchanged.
 - As part of our policy framework, the University proceeded with community consultation on the *Policy Against Violence in the Workplace* as follows:
 - November 25, 2020: Policy Advisory Committee
 - December 2020: Notification to the Faculty Association
 - February 11: North Campus Joint Health and Safety Committee
 - June 7, 2021: Downtown Joint Health and Safety Committee
 - June 8, 2021: Administrative Leadership Team
 - June 22, 2021: Academic Council
 - July 5-16, 2021: Online consultation
 - October 21, 2021: GNHR approved the Procedures Against Violence in the Workplace and recommended the Policy Against Violence in the Workplace.

Feedback

- The University received a question at Academic Council related to the reason for the stand-alone policy. The response was aligned with the explanation provided within this document.
- The remaining feedback was offered by the Faculty Association and is summarized in Appendix A.
- We appreciate the time and consideration offered by our university community to contribute to sound and comprehensive policy to improve overall governance at Ontario Tech.

IMPLICATIONS:

- The commitment to comply with the terms of our policy framework supports the transparent and timely exchange of information and ideas from across the University community, and serves to strengthen the final version of the applicable policy and procedures in a manner that best supports staff, faculty and students.

MOTION:

That pursuant to the recommendation of the Governance, Nominations and Human Resources Committee, the Board of Governors hereby approves the Policy Against Violence in the Workplace, as presented.

NEXT STEPS:

- Upon approval the university will proceed to formalize the *Policy Against Violence in the Workplace*, which includes posting to our policy library.

APPENDIX A: Feedback from the UOIT Faculty Association

Section of Policy	Feedback	Recommendation	Action
1. Definitions	References to “employee” and “worker” could cause confusion	None specified.	The term “worker” is used only within the definitions section for defining acts that constitute workplace violence under the OHSA. “Worker” is used when defining workplace violence and workplace sexual violence. The use of the term “worker” allows us to import definitions directly from the legislation.
	Definition of “faculty” diverges from that in our collective agreement	This term is not found in the policy or procedure; is it necessary to define these separately?	No change. The definition is required to further support definition of “Member”.
	Include definition for “interim measures” and a statement that these will comply with collective agreement provisions.	Same as feedback.	No change. Interim measures could include a range of options, over different periods of time and affecting single or multiple parties.
2. Paragraph 5	Reference to promotion and evaluation is not necessary.	Should be replaced with “all aspects of the employment relationship should be free of workplace violence”.	No change. Paragraph refers to all aspects of employment relationship, and extends to make clear aspects include areas not linked to direct work assignments.
3. Paragraph 15	Ontario Health and Safety Act requires that policy should be reviewed every year.	Revision to require policy review annually.	Accepted. Duplicative content preceded this paragraph under 13.3 where annual review is noted.



Classification	LCG 1137
Framework Category	Legal, Compliance, and Governance
Approving Authority	Board of Governors
Policy Owner	Vice President responsible for Human Resources
Approval Date	December 7, 2016
Review Date	May, 2018
Last Updated	Editorial Amendments, February 18, 2020; May 3, 2017
Supersedes	See end notes

Policy Against Violence in the Workplace

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Any person who finds themselves or others to be at risk of imminent danger should summon immediate assistance by contacting:

On Campus: Office of Campus Safety
 Extension: 2400
 Direct line: 905.721.3211
 Code Blue Stations

Off Campus: Durham Regional Police Service
 911 (emergency)
 905.579.1520 (non-emergency)

POLICY PURPOSE

1. The purpose of this Policy is to prevent Workplace Violence through proactive measures, and to ensure that the University effectively addresses and responds to Reports of Workplace Violence in accordance with the *Occupational Health and Safety Act* and the *Human Rights Code*.

DEFINITIONS

2. For the purpose of this policy, and underlying procedures, the following definitions apply:

"**Complainant**" refers to an Employee who is alleged to have experienced Workplace Violence.

"**Employee**" means any individual employed by the University, including but not limited to Employees who are members of a bargaining unit, and Employees who are not. Students who are employed at the University during the course of their studies, are "Employees" for the purposes of this Policy when they are engaged in employment activities, but not otherwise.

"**Faculty**" includes a Faculty Member, or previous Faculty Member, at the University, and includes those with both limited term and indefinite term appointments, as well as those with paid, unpaid and honorific appointments. For greater certainty, "Faculty" also includes visiting scholars and emeritus professors.

"**FIPPA**" means the *Freedom of Information and Protection of Privacy Act*, RSO 1990, c. F.31.

"**Human Resources**" means the department of Human Resources at the University, or its delegate.

"**JHSC**" means the Joint Health & Safety Committee(s) at the University.

"**Personal Information**" means information about an identifiable individual, as defined in s. 2 of FIPPA, as amended from time to time.

"**Person(s) of Authority**" includes any person who has charge of a workplace or authority over another Employee. Anyone who supervises an Employee at the University is a Person of Authority.

"**Policy**" refers to this Policy.

"**Report**" refers to information about Workplace Violence in the workplace that is reported under the associated procedures.

"**Reporting Process**" refers to the process for reporting information about Violence in the workplace under the associated procedures.

"**Reprisal**" includes retaliation, coercion, dismissal, threats or intimidation of anyone who in good faith: raises complaints or concerns, exercises their rights or participates in a remedial process under this Policy instrument.

"**Respondent**" refers to anyone who is alleged to have engaged in behaviours of Violence in a Report or investigation.

"**Staff**" means a Staff Member, or former Staff Member, at the University.

"**Student**" includes any student who is registered, or was previously registered, at the University.

"**University**" means Ontario Tech University.

"**University Member**" includes a Student, Faculty or Staff Member.

"**Worker**" means any individual employed by Ontario Tech, including but not limited to workers who are members of a bargaining unit, and workers who are not. Students who are employed at Ontario Tech during the course of their studies, are workers for the purposes of the policy when they are engaged in employment activities, but not otherwise. Persons who perform work or supply services for monetary compensation are considered to be workers.

"**workplace**" means any place where Employees of the University engage in employment activity, including employment activities online, outside the normal place of work, and employment activities that occur outside of normal working hours.

"**Workplace Sexual Violence**" means, any sexual or other physical act targeting a person's sexuality, gender identity or gender expression, , that is committed, threatened or attempted against a worker in the workplace without the person's consent, in the workplace.

"**Workplace Violence**" means,

- the exercise of physical force by a person against an worker, in a workplace, that causes or could cause physical injury to the worker,
- an attempt to exercise physical force against an worker, in a workplace, that could cause physical injury to the worker,
- a statement or behaviour that is reasonable for an worker to interpret as a threat to exercise physical force against the worker , in a workplace, that could cause physical injury to the worker or
- Workplace Sexual Violence (defined above).

Workplace Violence includes, for example, verbally threatening to attack a worker, shaking a fist in a worker's face, wielding a weapon at work, hitting or trying to hit an worker, or throwing an object at an worker.

SCOPE AND AUTHORITY

3. This Policy applies to all Employees in the course of their employment, and is intended to address Violence against Employees from all sources, including colleagues, coworkers, supervisors, managers, administrators, students and other members of the University community, and the public.
4. The Assistant Vice President of Human Resources is the Policy Owner. The Policy Owner is responsible for overseeing the implementation, administration, interpretation and application of this Policy.
5. This Policy applies to all aspects of the employment relationship, including recruitment, training, evaluation, development and promotion of Employees.
6. This Policy is not geographically limited, and applies to any employment activity, including employment activities that occur outside the normal place of work, and employment activities that occur outside of normal working hours.
7. This Policy does not override or diminish the rights provided to Employees under applicable collective agreements, and will be applied with appropriate regard to the rights established under those agreements.
8. This Policy does not preclude Employees from pursuing resolution through external resources and processes, including those offered by the Ministry of Labour, local law enforcement and, the Ontario Labour Relations Board.

POLICY

9. The University is committed to providing a work environment in which all Employees are safe and secure from acts of violence, and to fostering a climate of understanding and mutual respect for the value of each Employee. To this end:
 - a. The University will not tolerate Workplace Violence.
 - b. The University will comply with Section 32.0.3(1) of the Occupational Health and Safety Act by assessing the risk of workplace violence that may arise from the nature of the workplace, type of work or conditions of work.
 - c. The University will ensure that procedures are in place for the prevention of, and response to, Workplace Violence.
 - d. The University will provide information, instruction and assistance to Employees with respect to Workplace Violence.
 - e. The University will ensure Persons of Authority are provided with information and instruction that will enable them to recognize, assess and address Workplace Violence, and to understand how to respond appropriately when such incidents are alleged.
 - f. The University will not penalize an Employee for submitting a Report in good faith, or for participating in a related investigation. This protection does not apply to an Employee who submits a Report that is determined to be frivolous or vexatious, or who exhibits bad faith in the course of an investigation. An Employee who believes they have been penalized for submitting a Report in good faith, or for participating in a related investigation, may pursue the allegation of Reprisal by submitting a Report under the associated procedures, and/or may pursue a reprisal complaint through external processes.
 - g. The University will respect the privacy of individuals involved in Reports and investigations, ensuring information about a Report is not disclosed, except to the extent necessary to investigate, take corrective action, implement measures to protect the health and safety of Employees, or as otherwise required by law.
 - h. Personal Information collected under this Policy will be used only for the purposes of administering this Policy, and will be disclosed only on a need-to-know basis, to the extent disclosure is required to fulfill the University's legal obligations under the *Occupational Health & Safety Act*, and any other applicable law and/or legal

obligations, including any applicable collective agreement. Subject to applicable law, Personal Information collected, used and disclosed under this Policy will otherwise be kept confidential, and will be stored and disposed of in accordance with FIPPA and the University's *Records Management Policy*.

- i. The University will administer the processes set out in the associated procedures, responding to Reports fairly and promptly, with adequate regard to the unique circumstances of each particular case and in a manner that prioritizes the privacy of individuals involved.
- j. The University will inform and update individuals who are involved in investigations about the status of those investigations as they progress.

10. Employees who engage in Workplace Violence will be held accountable and may be subject to disciplinary measures, up to and including termination of employment. In any event, the University will act in accordance with the rights and obligations established by applicable collective agreements.

11. Students who engage in Workplace Violence will be held accountable and may be subject to disciplinary penalties, up to and including expulsion.

12. Employees may refuse to work, or do particular work, where they have reason to believe that Workplace Violence is likely to endanger the Employee.

ROLES AND RESPONSIBILITIES

13. Roles and Responsibilities

13.1 Employees

- a. Employees must not engage in Workplace Violence.
- b. Employees are, along with the University, responsible for creating and maintaining an environment that is free from Workplace Violence.
- c. Employees are encouraged to report incidents of Workplace Violence, by communicating such incidents to the Office of Campus Safety, their supervisor and/or Human Resources. If the Employee's supervisor is involved in the incidents at issue, the information should be reported directly to the administrator who the Employee's supervisor reports to, or directly to the [Director, Human Resources](#). If the Employee's supervisor is involved in the

incidents at issue, and that supervisor is a member of Human Resources, then the information should be reported to The Office of the University Secretary and General Counsel.

- d. Employees are required to participate in the Reporting Process, and/or any related investigation.
- e. Employees who are found to have engaged in Workplace Violence and/or Reprisal under this Policy will comply with the corrective measures imposed by the University, subject to relevant collective agreements, including grievance and arbitration processes.

13.2 Persons of Authority

- a. Persons of Authority are responsible for supporting the University in its duty to create and maintain an environment that is free from Workplace Violence.
- b. Persons of Authority will lead by example, acting respectfully in dealings with all Employees, and in particular, those Employees under their supervision.
- c. Persons of Authority are responsible for familiarizing themselves with this Policy and related procedures, and for directing Employees under their supervision who have information about Workplace Violence, to follow the appropriate procedures.
- d. Persons of Authority are responsible for supporting the University in its duty to recognize, assess and address Workplace Violence. For example, Persons of Authority should intervene promptly when they become aware of Workplace Violence and should seek assistance from the [Director, Human Resources](#), and/or the Office of Campus Safety
- e. When a Person of Authority becomes aware of information about Workplace Violence, that Person of Authority must ensure the information is reported.

13.3 Human Resources

- a. Human Resources will take primary responsibility for updating this Policy and procedure, ensuring that this Policy, and procedure is reviewed as often as is necessary, and in any event, at least annually, in consultation with all appropriate departments and the JHSC(s), and in accordance with the University's Policy Framework and relevant collective agreements.

- b. Human Resources will, as often as is necessary:
- assign a Human Resources Employee to implement and oversee the activities outlined below, and in related procedures,
 - assign a Human Resources Employee to act as a contact for those who wish to make Reports;
 - assess the risk of Workplace Violence that may arise from the nature of the workplace, type of work or conditions of work, taking into account the circumstances of the workplace and circumstances common to similar workplaces, as well as any other elements prescribed in regulation; and
 - develop measures and procedures to control identified risks that are likely to expose an Employee to Workplace Violence.
- c. Human Resources shall share the results of risk assessments conducted under b iii above with the JHSC(s).
- d. Human Resources is primarily responsible for overseeing compliance with the *Occupational Health & Safety Act*, including:
- providing Employees with appropriate information and instruction with respect to Workplace Violence, including notifying them of this Policy and its related procedures;
 - ensuring all Persons of Authority are provided with information and instruction that will enable them to recognize, assess and address Workplace Violence in their respective workplaces, and will ensure Persons of Authority are aware of this Policy and related procedures;
 - ensuring that copy of this Policy instrument is posted on the established health and safety bulletin boards where it is likely to come to the attention of Employees; and
 - notifying the Ministry of Labour and JHSC, when required, under the OHS Act.

- e. Human Resources is also responsible for:
- receiving and responding to Reports regarding threats of violence;
 - ensuring Reports are investigated, internally or externally, and responded to in a timely and equitable manner, as outlined in this Policy and procedure;
 - ensuring the appropriate departments and/or individuals are advised of a Report, where appropriate;
 - ensuring employees receive information related to a risk of Workplace Violence from a person with a history of violent behavior if the employee can be expected to encounter the violent person in the course of his or her work, and the risk of Workplace Violence is likely to expose the employee to physical injury;
 - ensuring the outcome of an investigation under this Policy, and the corrective actions taken (if any), are communicated in writing to Complainant(s) and Respondent(s) who are Employees;
 - ensuring that copies of this Policy instrument is posted on a University website; and
 - Where a member of Human Resources is directly involved in the incidents at issue, the above responsibilities will be assumed by the Office of Campus Safety.

14. Office of Campus Safety (OCS)

14.1 OCS will take primary responsibility for responding to actual or attempted acts of Workplace Violence on campus.

14.2 OCS will, as often as is necessary:

- a. assign an OCS Employee to secure the scene of an actual or attempted incident of Workplace Violence, taking care to preserving evidence and gather witness statements from the scene;
- b. Liaise with local law enforcement as necessary and appropriate in the response to acts of actual or attempted incidents of Workplace Violence;
- c. complete an incident report regarding incidents of actual or attempted

acts of Workplace Violence and submit the incident report to Human Resources;

- d. assist Human Resources in the development of measures and procedures to control identified risks that are likely to expose an Employee to Workplace Violence.; and
- e. assist Human Resources in the implementation of interim measures during the course of an investigation into a Report of alleged Workplace Violence.

MONITORING AND REVIEW

- 15. This Policy will be reviewed annually. The Assistant Vice- President, Human Resources, or successor thereof, is responsible to monitor and review this Policy.

RELEVANT LEGISLATION

- 16. Occupational Health and Safety Act, R.S.O. 1990, c O.1, as amended
Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c F. 31

RELATED POLICIES, PROCEDURES AND DOCUMENTS

- 17. Academic Staff Employment Policies
Access to Information and Protection of Privacy Policy
Emergency Management Plan and Procedures
Fair Processes Policy
Non-Academic Staff Policies
Policy to Prevent and Respond to Sexual Violence for Students
Procedures for Responding to Incidents of Sexual Violence
Records Management Policy
Joint Health and Safety Committee Terms of Reference
Occupational Health and Safety Management System
Student Conduct Policy
University-Durham College Threat Assessment Procedures

Work Refusal Procedures

Workplace Violence Incident Report

Workplace Violence Procedure

END NOTES

This Policy supersedes the Workplace Violence Policy (LCG 1112), January 2014

Minor amendments to s. 35 h), s. 43, Approved by Board of Governors, May 3, 2017

Editorial Amendments, February 18, 2020

REPORT

TO: Higher Education Quality Council of Ontario (HEQCO)

FROM: Lori Livingston, Provost and Vice President, Academic

DATE: August 26, 2021

SUBJECT: Ontario Tech University Freedom of Expression Policy Annual Report 2021

History

All publicly-assisted colleges and universities are required to develop an annual report on Campus Free Speech Policy implementation, post it online and submit it to the Higher Education Quality Council of Ontario (HEQCO) by September 1 each year. This report has been written in response to this annual reporting requirement.

Please find the University's responses below related to questions found on the Freedom of Speech Annual Report Template:

Section A: Institutional Policy

- Has your institution amended its free speech policy (or policy framework) since the time of your 2020 report? If so, please explain the reason for the change and provide the link to its location on your institutional website.

The [Freedom of Expression Policy](#) was last approved in November, 2018 and has not been updated or amended since.

- Where are members of the institutional community (or guests) directed when there is a free speech related question or complaint about an event on campus? Please provide contact information.

As outlined in the [Freedom of Expression Policy](#), the following direction is provided:

- **General complaints related to Freedom of Expression in University Space or the Online University Environment under this policy can be submitted to the Office of the Provost for resolution.**
- **Complaints related to decisions made by the University under this Policy are covered by the University's Safe Disclosure Policy. In other words, a complaint that the Freedom of Expression Policy has been improperly administered would be processed under the University's Safe Disclosure Policy and would be considered by the University's General Counsel.**

- **Complaints related to the activities of recognized student organizations are covered by the University’s Policy on Recognition of Student Organizations.**
- **Complaints regarding conduct by Employees in contravention of the Freedom of Expression Policy are covered under the following applicable policy instruments:**
 - **Harassment, violence or discrimination complaints are investigated under the Policy Against Harassment, Violence and Discrimination in the Workplace, and in accordance with any applicable collective agreements.**
 - **Other violations can be addressed by the procedures for receiving and resolving complaints in section 9.1, in accordance with any applicable collective agreements.**
- What is your institution’s policy on holding events where there are security concerns? To your knowledge, were there any instances where a non-curricular event did not proceed due to security concerns or their related costs?

All events on campus are approved through a risk management framework, which includes discussions with the Office of Security and Emergency Management as necessary. To our knowledge, there were no instances where a non-curricular event did not proceed due to these concerns.

Section B: Complaints

- Between **August 1, 2020** and **July 31, 2021**, did any member of the institutional community (or guests) make an official complaint about free speech? If yes, please provide a general description that protects the privacy of complainants.
No
- If there has been an official complaint (or more than one):
 - What were the issues under consideration? Please identify any points of contention (e.g., security costs, safety, student unions and/or groups, operational requirements, etc.).
NA
 - How did the institution manage the free speech complaint(s)? Was the complaint addressed using the procedures set out in the policy? How were issues resolved?
NA

Section C: Summary Data

Please include the following summary data for any free speech-related official complaints received by the institution:

- Number of official complaints received under the free speech policy relating to curricular and non-curricular events.
0
- Number of official complaints reviewed that did not proceed.
0
- Number of official complaints where the institution determined that the free speech policy was not followed appropriately.
0
- Number of official complaints under the free speech policy that resulted in the institution applying disciplinary or other institutional measures.
0
- To your knowledge, were there any free speech complaints forwarded to Ontario Ombudsman?
Not to our knowledge.
- To the best of your ability, please provide an estimate of the number of **non-curricular events** held at the institution between **August 1, 2020 and July 31, 2021**. Non-curricular events include, for example, invited speakers, sporting events, rallies, student life/student affairs events, conferences, etc., as opposed to regular events held as part of an academic program or course.

Between August 1, 2020 and July 31, 2021, there were approximately 20 non-curricular events held on campus.

Should there be additional questions, please feel free to contact the Provost's office via email at provost@ontariotechu.ca.

Sincerely,



Lori A. Livingston, PhD
Provost and Vice-President, Academic

ONTARIO TECH'S Discussion Paper Internal Reserves/ Surplus



Vice President Administration, November 2021

Preamble: Need for Surpluses and Reserves

Ontario Tech is a not for profit entity and therefore only needs to make a surplus in order to generate funds for re-investment in the organisation that cannot be met from our annual sources of revenue and for meeting unforeseen adverse circumstances. The future investment is planned to support delivery on the university priorities including: new academic developments, improving the quality of buildings, and enhancing our information technology. Without surpluses we will not have the funds to make that investment. Universities must reflect reserves in the budgets and annual financial statements. These reserves are often mistaken as money that can be leveraged towards investing in any particular services; but, for the most part they are restricted in terms of what kinds of expenses they can cover. It is very important to note that we are not talking about externally restricted funds such as research grants here. A general overview has been provided within this paper with a greater focus on physical capital.

1. Providing short-term flexibility/ Responding to unexpected operational costs.

Where possible, universities keep prudent reserves to ensure that there is a level of stability and to mitigate the costs resulting from external factors. Changes to government grants, tuition fee frameworks, other legislated obligations, the domestic and global economy, and foreign policy are all factors that have significant impacts on the financial health of Ontario's universities. As a few examples:

The 2018 deterioration in Canada-Saudi Arabia relations led to the Kingdom recalling its scholarship-funded students from Canadian universities. This led to a \$3M loss in expected tuition fee revenue for Ontario Tech. With the majority of the university budget being based on how many courses students take (e.g. tuition, ancillary fees and government grant), there can be fluctuations in any one-year budget. This is especially true for a smaller institution. Assuming grants are relatively stable in a corridor model a good practice is to plan contingencies based on an annual three per cent enrolment fluctuation (this equates to \$3M of tuition and ancillary fees in 2021). The university works hard to be balanced but will err on the side of surplus over deficit.

Universities frequently face unanticipated operational expenses at the institutional, faculty or departmental level. Reserves are intended to ensure that these costs can be met as they arise. Whereas more established institutions may have reserves set at the unit level, Ontario Tech maintains a central contingency. One of the key risks identified by many faculties in the risk register is the aging of equipment. As we approach our 20th year, equipment maintenance costs are increasing and the need for replacement is approaching.

Unexpected costs may also come from external policy changes. For example, the Student Choice Initiative required universities to develop new ancillary fee protocols that allowed students to opt-in/out of non-mandatory fees. Operationalizing this policy required significant financial and human resources to consult affected fee-collecting groups and developing a software platform before the 2019-2020 academic year. This expense was in addition to the lost revenue that covered events already planned. Therefore, reserves were used to smooth over more than one budget year.

2. Responding to unexpected revenues.

While the university has made great strides in reviewing in-year expenses by implementing quarterly forecast reporting, the fact is with 35 units estimating 176 submissions there is bound to be in-year fluctuations. This has been compounded in some years by last-minute grants/awards. For example, the 2017-2018 financial statement is often brought up as it had a \$15.4-million

surplus. To start, this includes investments (e.g. gains on endowed funds) that are basically paper transactions as we could only use the funds if we cashed out. If we only look at operating, the number is \$13 million. Of this, there was the \$3.5 million planned capital reserve, an unexpected final quarter one-time enrolment grant of \$1.8 million and a \$4.9-million legal settlement. While above the normal three per cent variance, it should not be referred to as an example of poor fiscal management as the majority could not be anticipated and came in too late to distribute.

3. Funding future capital commitments.

Ontario's universities also use reserves for the purpose of investing in campus infrastructure to meet the changing needs of their students and keep current with advances in technology. Reserves are often earmarked for long-term capital commitments, such as the construction of new buildings, or for the upgrading and maintenance of existing infrastructure, such as outfitting existing labs with the newest tools, equipment and technologies. The deferred maintenance of current university infrastructure is a significant and ongoing cost to institutions. Since 2012 Ontario Tech has had a planned set aside of \$3.5M for capital improvements. With the building of Software and Informatics Research Centre and Shawenjigewining Hall, these funds are depleted.

Where we are today

As we plan today for the future we are estimating a need for almost \$20 million in deferred maintenance by 2040 (Information Technology and Building infrastructure) and \$85M of new buildings we plan to have constructed in the next 10 to 15 years.

Where we had a high of \$15M in capital reserves in 2019 we depleted that when we invested in our last two new building projects and now sit just under \$4M (see figure 1). To highlight the "restriction" on these accounts the research funds are set aside internally for specific faculty members start-up resources that have detailed eligibility requirements and student assistance funds that have items outlined in an ancillary fee or bursary agreement that they can be used for.

Figure 1 – Internal Restrictions Summary

Internally Restricted Assets (\$'000)	Actual year-end balance			
	2021	2020	2019	2018
Research funds	5,107	4,700	5,206	4,987
Capital projects/ Digital and physical infrastructure	3,871	2,940	15,019	12,693
Student assistance and related funds	2,488	2,398	2,951	2,971
Working capital	6,000	6,000	6,000	6,000
Learning re-imagined	2,411	1,154	1,154	1,708
One-time only budget allocations	250	397	1,456	1,453
Total Restricted	\$20,127	\$17,589	\$31,786	\$29,812

Future Investments - Physical Infrastructure

Moving on to the items that Ontario Tech is looking to save in order to invest in. Fifteen per cent of the university budget (about \$30 million) goes to maintaining of campus infrastructure through operating and capital spends. This is the second highest investment next to our people (70% of budget). This includes:

- Capital assets managed by Information Technology Services, which have an estimated replacement cost of approximately \$12M (considering both wholly owned assets and the university's portion of infrastructure shared with Durham College). Assets that are already beyond their expected maximum life cycle total \$5.5M, nearly half of that total asset base. In a steady state, this infrastructure requires investment of approximately \$1.5M per year to refresh assets within their expected maximum life cycle; whereas we are spending about \$700,000.
- Capital assets managed by Facilities, include the costs associated with operating and the annual upkeep of 31 buildings (24 owned, portables and storage facilities and 7 leased) totaling over 1.25 million gross square feet of space. Embedded in this expense is more than \$5 million a year in building leases and \$3 million for the unfunded portion of the debenture. The replacement costs and annual investment is described further in the paper

As we plan for the future, funds need to be set aside for renovations, move from leases to university-owned buildings and new infrastructure to support growth plans.

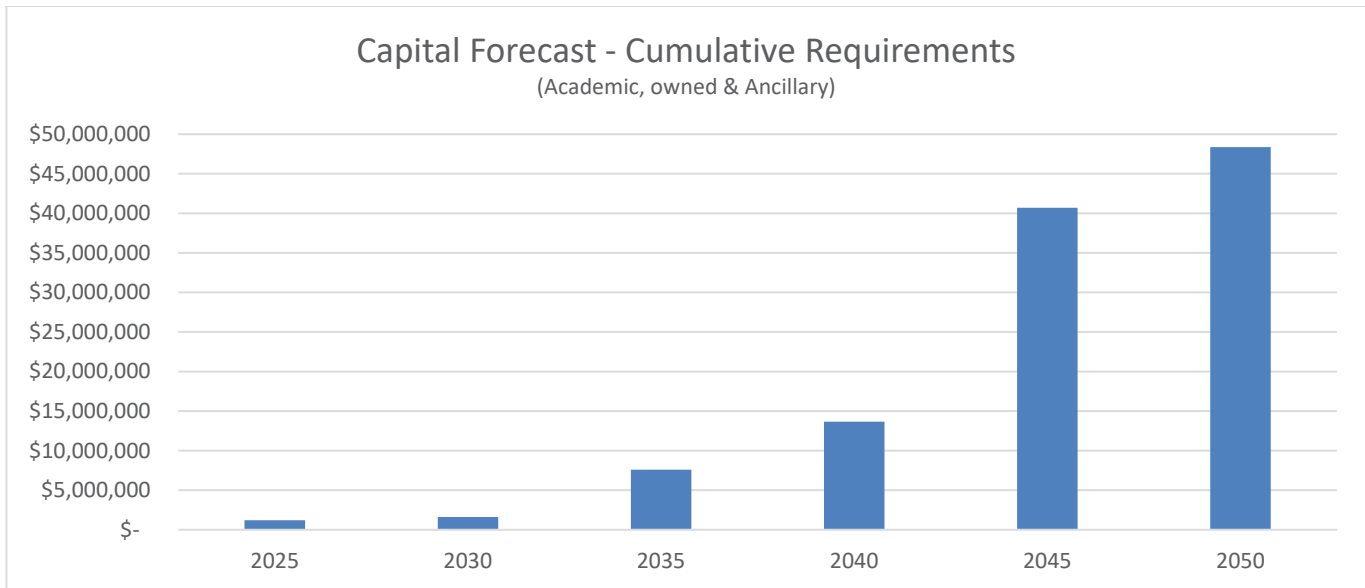
Deferred Maintenance

Deferred maintenance has been a top priority for facilities leaders for decades. As institutions face aging buildings and growing maintenance backlogs, tackling deferred maintenance has increasingly become a primary concern for boards, academic leaders, and students. Unaddressed capital needs have a direct impact on the ability to recruit students or attract star faculty critical to research and teaching excellence.

In *Committing to the Cost of Ownership: Maintenance and Repair of Public Buildings*, the Building Research Board concluded that an appropriate total annual budget allocation for routine maintenance and capital renewal is in the range of 2 to 4 percent of the current replacement value (CRV) of those facilities. Of this 4% it is proposed that 0.5 to 1.5 percent of CRV should be spent on annual operations and maintenance. When a backlog of deferred maintenance has been allowed to accumulate, spending must exceed this minimum level until the backlog has been eliminated.

At Ontario Tech, when focusing on owned facilities, the CRV is \$305 million. This means we should allocate \$6 to \$12 million annually for capital renewal (\$4 – 8M savings). Until 2019 Ontario Tech was spending about \$1.5M annually on facilities renewal and had a planned reserve of \$3.5M putting us under the minimum suggested range. This is not a high risk at this time as the majority of our buildings are in excellent condition based on the Facility Condition Index, which is the ratio of the cost of deferred maintenance to the cost of the current replacement value of the physical infrastructure.

As we look towards the future we must plan for greater investment. In 2020 the provincial government doubled our facility renewal grant to \$2M; therefore, we are planning for capital improvements of about \$2.2 million annually. Ontario Tech could allocate fewer dollars to these capital projects but this would just defer critical maintenance activities into the future when finances may still be as tight. As we look out to 2040 the accumulated deferred maintenance will be over \$14M and growing faster after that time.



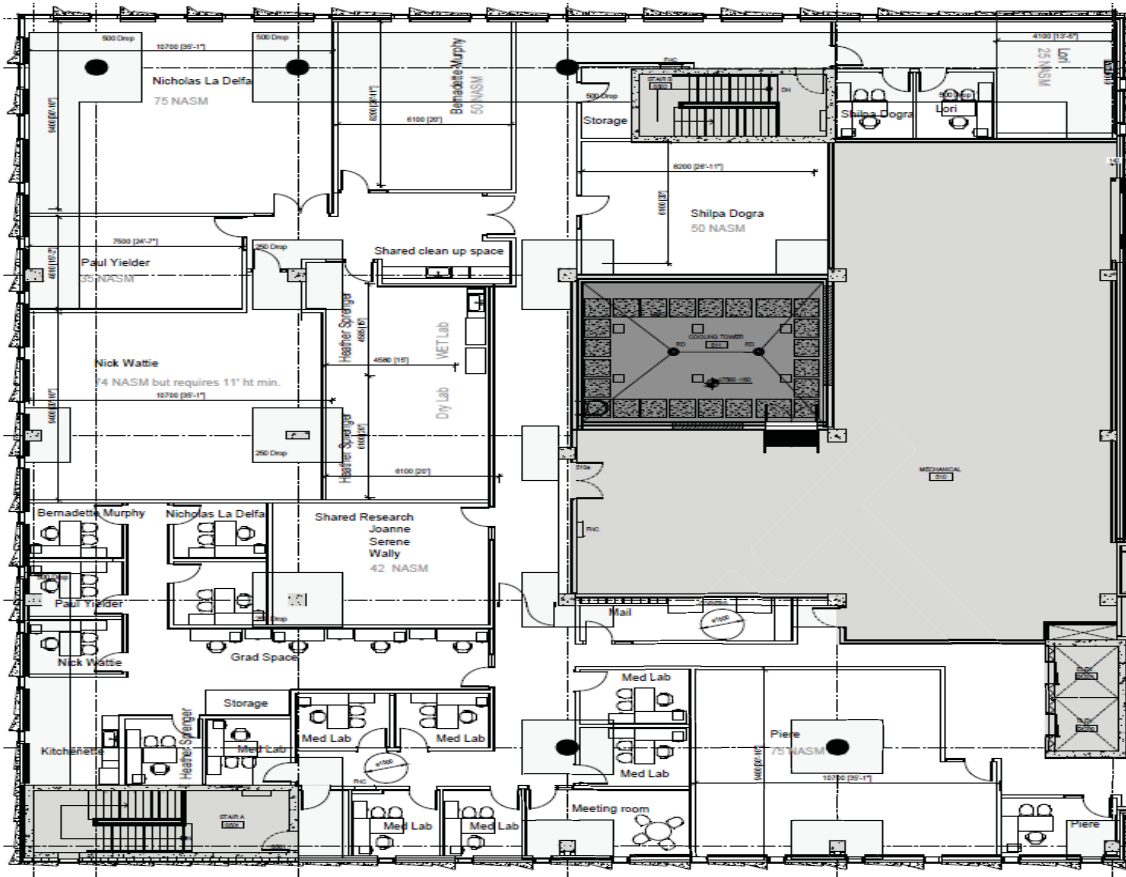
New Construction

While the space utilization and standards have changed, there remains a need for high quality space to support the University’s core mission of teaching and research as we look to grow from 10,000 to 18,000 students and further engage our local community. Additionally, and maybe more fundamental, almost 30% of current space is either temporary (i.e. portables) or leased, compared to the system average of under 2%. Ontario Tech has set out an ambitious vision through the Integrated Academic- Research Plan (IARP) to re-imagine physical and virtual space. Ontario Tech is exploring ways to drive enrollment with the promise of a budding campus life and the allure of a state-of-the-art campus infrastructure that connects with our size and commuter campus stature. But, with the constant need for change and the ebb-and-flow of enrollment, we must deeply examine how we can keep up with multiple different, and sometimes conflicting stakeholder demands.

Construction of instruction and research space has been a significant issue since the inception of the University, and in today’s funding regime there is no indication that the savior is going to come from outside the institution. In the absence of further investment in new facilities, it will be increasingly difficult to fulfill our mission of providing students with inspiring learning environments that prepare them for their future career and hiring high quality faculty and staff. The university has a number of planning documents in preparation for building opportunities. We will outline a few of these.

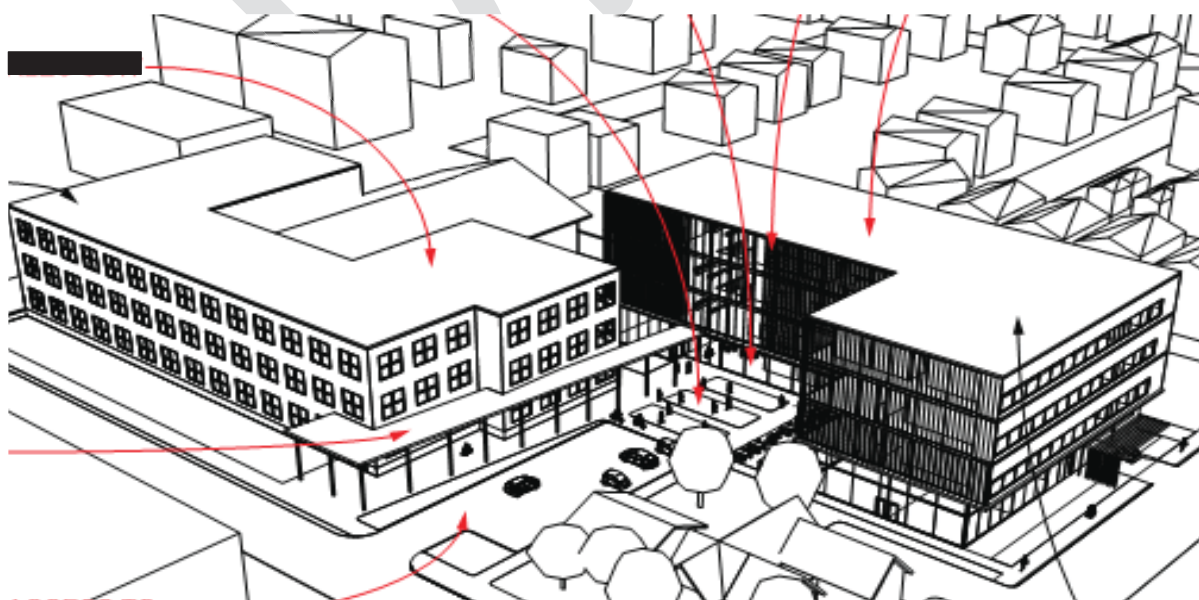
Shawenjigewining Hall

In the construction of our most recent building we planned for future expansion by constructing a shelled fifth floor that could be completed at a later date. This space has been designed for the goal of pulling together the remainder of Health Sciences that is spread across campus. This will give an additional 12,000 square feet and we estimate a need for \$4 million to complete the project.



Downtown Expansion

The purpose of the project is to examine opportunities for space in Downtown Oshawa that respects the 2015 Campus Master Plan, and the 2011 Framework report. These plans address the need for high quality space to provide enhanced student success, quality learning, and innovative research within the University’s financial plans. A key component of this design is to look at our current 65,000 square feet of leased space to see if it can be combined within five minutes of 61 Charles to create a core educational hub. With a parking structure at the bottom we estimate \$35M. Interestingly by replacing leased space and using parking revenue this could have less than an eight-year payback period.



North Expansion:

As we plan for enrolment and research growth we must also plan for building growth. The new buildings design will incorporate a forward-thinking approach that puts a renewed emphasis on the quality of experience with the intent to build an academic community. A key desired outcome of the reimagining of space use at Ontario Tech includes the deliberate intent to erode artificial subject based boundaries to stimulate cross-disciplinary discussion. The way we assign our spaces must respond to this blurring; encouraging and supporting its evolution. The current design shows 75,000 sq feet at a cost of \$48M. As noted earlier, gone are the days of government funding the full building so we must be prepared to put up at least half of the funds should an opportunity arise.



Recommendation

With an assumed university contribution of fifty percent to new construction **we would have to set aside over \$4M per year** to be prepared for the proposed buildings and required future maintenance.



BOARD REPORT

SESSION:

Public
 Non-Public

ACTION REQUESTED:

Decision
 Discussion/Direction
 Information

TO: Board of Governors

DATE: December 9, 2021

FROM: Brad Maclsaac, VP Administration

SUBJECT: Shawenjigewining Hall Project – Update

COMMITTEE/BOARD MANDATE:

The Strategy and Planning Committee is responsible for overseeing the strategic planning for all aspects of the university and assessment of the plans in the context of the university’s vision, mission and values. More specifically, the committee oversees any major renovation or construction projects.

BACKGROUND/CONTEXT & RATIONALE:

In June 2018 the Board of Governors approved issuing a Request for Proposal for a feature building to complete the Polonsky Commons quad. The intent for this building was not so much about more space but rather higher quality space as we planned to move Student Life and Student Union out of temporary structures and into their new home. Additionally, the space would allow the Faculty of Health Sciences to start to consolidate in one location rather than being spread across numerous buildings.

Beginning July 2018, the university engaged in an inclusive and comprehensive consultation process. The visioning sessions were instrumental in establishing key building planning principles that included notions of the Sticky Campus, Expanding on the notion of Pedagogy and Technology, as well as Wellness. Though all three

elements informed the design process, Wellness emerged as a critical springboard in the



Design Team Member discussing aspects of the design with students. ERC atrium, September 27

overall building organization. Influenced through discussions with indigenous stakeholders who appealed to the team to introduce non-linear and curved spaces, the concept of flow has led to an overall building arrangement that promotes unfettered movement and engagement. This is accomplished through a series of continuous

circulation corridors and curved openings on lower

floors to promote penetration of light into the building as well as visual connections. Also critical in influencing these planning decisions were conversations with accessibility champions who expanded on the concept of flow, leading to operable doors on all classrooms, which significantly goes above and beyond current building code requirements.

In addition to direct stakeholder consultations, there were ‘pop-up’ sessions where the design team created temporary presentation centres. Here the design team displayed project graphics aimed at engaging and informing the university community. The team was available to answer questions and solicit feedback both through conversation and by encouraging people to write comments on sticky notes. Interestingly, comments tended to focus on campus experience fundamentals such as need for more varied study spaces. Many of these elements are touchstones in the building design as details evolved.



Design graphics for review, along food service line up. UA, October 18

In November 2018, after reviewing the goals and options, the Board approved a business case for the construction of a six-story, \$48M building connected to the Energy Research Centre. This included a shelled floor that provides the university the opportunity to quickly respond to any future matching grant opportunities as we have a design for the remaining health sciences faculty and research labs. This structure will

increase the quantity of purpose-built, permanent space on campus as well as significantly enhance the learning environment of our university.

Construction began in June of 2019 with a rocky start as we discovered higher ground water levels than anticipated. As we had an existing portable on the site we measured levels around the site but were not able to access to exact area. Additionally, we created a manmade water feature when we hit a watermain. With a softer ground we had to add in extra foundation, which took time we did not have in the schedule. As we got back on the project track entering into 2020, the unexpected pandemic lockdowns shutdown parts of the site for five weeks. However, COVID actually presented some opportunities. We were able to work with our construction team to explore ways to speed up the schedule. As the campus had minimal stakeholders coming in we were able to use a parking lot for laydown and storage. Further, although supply shortages affected us, we prioritized building elements such that certain elements could be pushed until towards the end of the project. For example, about two floors worth of wooden doors were delayed until mid-September.

In September 2021 the university gained occupancy of Shawenjigewining Hall. The components pertaining to the three key planning principles can be seen throughout the building. We have allocated areas for students to study, collaborate and network in desirable areas facing out the windows; we have created classrooms being generic shells (able to be easily modified) without podiums to be prepared for the learning of tomorrow; and we focused on wellness/ sustainability as the new building will draw from an existing geothermal grid and be filled with natural light.

While we are still working through a deficiency list the project was delivered on time and we are fully expecting it to be completed on budget.

NEXT STEPS:

Close out deficiency list

SUPPORTING REFERENCE MATERIALS:

Shawenjigewining Hall update – September 2021

Shawenjigewining Hall

(New Building Project)



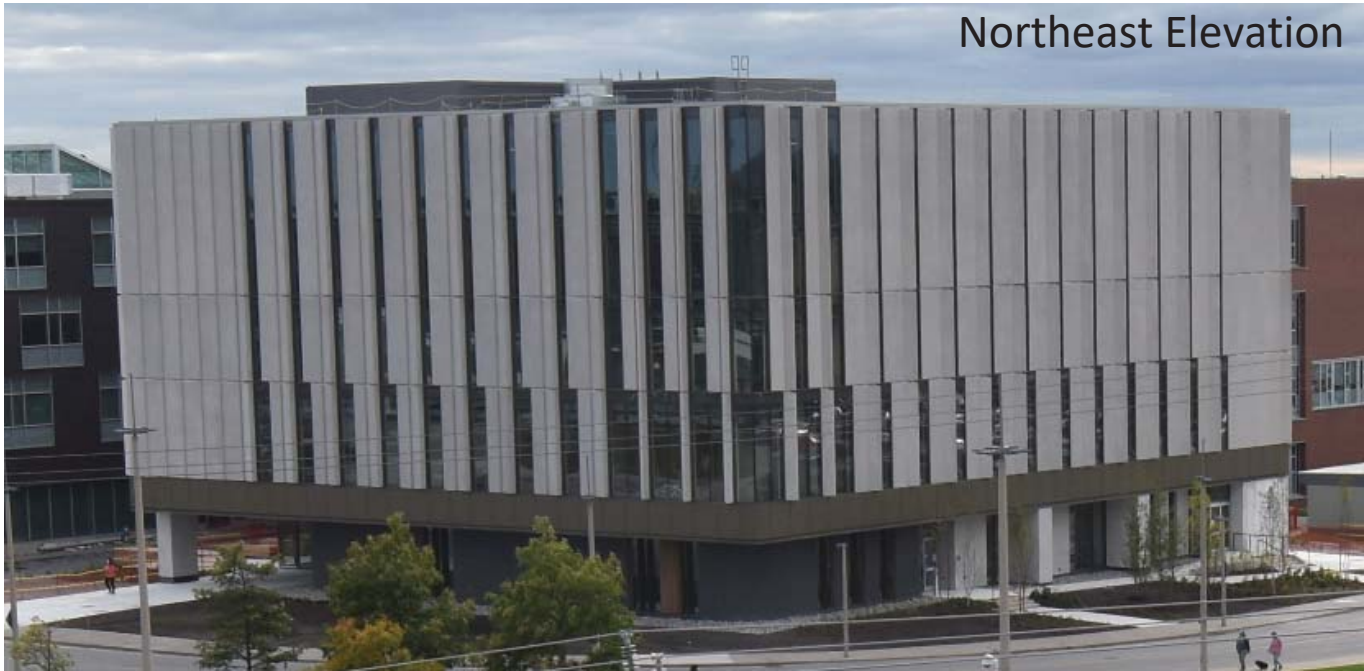
August Project Update
1 October 2021

New Building Update

Construction Achievements (30 September 2021)

- Washroom accessories completed
- Internal door and hardware installation completed
- IT Network installation completed
- Security Surveillance system completed
- Landscape work on going
- Testing and Commissioning on-going
- Electro-mechanical devices installation yet to complete
- Audio-visual system on-going
- Millwork installation yet to complete
- Wayfinding signage and graphics installation on-going
- Building Occupancy obtained 3rd September
- FHS, OSL, USU and CL moved to the building

Northeast Elevation



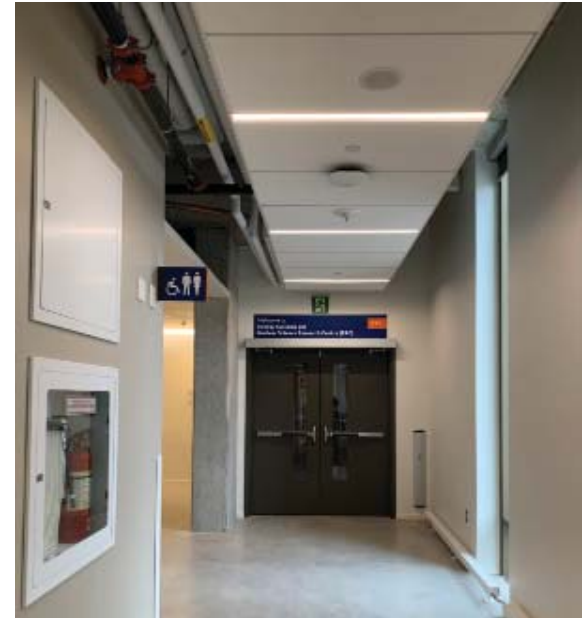
Southeast
Elevation





← 3rd Floor
Elevator
Lobby

2nd Floor
Link to ERC



← Enhanced
Classroom

1st & LL view
from 2nd floor



Forecast Schedule

Next Period Plan

- Electro-mechanical fixtures & devices installation completion
- Audio-visual system completion
- Millwork completion
- Door and hardware installation completion
- Landscape completion
- Replacement of exterior temporary doors
- Mechanical system testing and commissioning completion
- Wayfinding signages and graphics installation completion
- Deficiencies inspection and rectification
- Occupancy pending documents submission
- Project As-built documentation commenced
- Facilities Training and handover

Risk Reporting

- 1 medium risk events closed – Project Schedule Delay
- 19 low risk events closed
- 4 remaining low risks to monitor

Risk Description			Risk Response	Risk Monitoring
Risk ID	Risk Event	Event Effect/ Impact	Completion Date	Status/ Comments
PR04	FFE completion delays not meeting move in date	Owner's move delayed	2021 Oct 31	FFE Design coordination completed 2021.01.08 Furniture tender completed AV tender completed Millwork tender completed Surveillance system completed Internal signage tender completed
PR20	Budget Cost overrun	Project run out of budget	2021 Oct 31	
PR30	Contractual Contention	Cost and schedule dispute	2021 Oct 31	
PR31	Pandemic COVID-19 Impact to Schedule	Project Completion delay	2021 Oct 31	2020.03.26 No manpower decrease but slow production on 2020 April 04 to May 03 Construction site closed Government protocol strictly implemented Delay shipments for 3F&4F doors revise install date to end Sept AV equipment delay, equivalent being installed and replace once original parts arrive

Change Control:

- CO 14 – Credit for omission of ceiling at Dry Lab \$2,200
- CO 15 – Insurance Claim for UL Cable damage \$125,529

Procurement Summary:

- Small purchases on-going to furnish the building

Financial Summary:

- Total committed amount to date \$46.3M
- Total project cash outflow to date \$39.5M
- Breakdown of Sources and Uses of funds next slide

A&F Roll up Financial Summary as of 30 September 2021

Sources of Funds - Cash flow						
	Total Funding	Committed Todate	Actual YTD Sep 2021	Sep 2021	Required Funding till Completion	See Notes
Ontario Tech	\$ 48,000,000	\$ 47,501,820	\$ 39,006,480	\$ 2,608,079	\$ 46,991,956	5
Business Enterprises		\$ 250,000	\$ 217,500	\$ -	\$ 250,000	
Foundations		\$ 195,000	\$ 195,000	\$ -	\$ 195,000	
Individuals		\$ 53,180	\$ 51,800	\$ 40	\$ 53,180	
		\$ -	\$ -		\$ -	
Totals	\$ 48,000,000	\$ 48,000,000	\$ 39,470,780	\$ 2,608,119	\$ 47,490,136	5
Uses of Funds - Cash flow						
Description	Total Budget	Committed Todate	Actual YTD Sep 2021	Sep 2021	Estimate at Completion	See Notes
GMP Contract	\$ 39,996,403	\$ 40,340,283	\$ 34,365,063	\$ 1,280,206	\$ 40,340,283	1
FF&E	\$ 3,246,505	\$ 2,272,323	\$ 1,650,735	\$ 1,297,043	\$ 3,246,504	
Soft Cost	\$ 1,940,732	\$ 1,656,387	\$ 1,417,109	\$ 30,870	\$ 1,865,476	2
Portable Relocation	\$ 1,738,512	\$ 1,721,058	\$ 1,721,058	\$ -	\$ 1,721,058	3
New Parking (50% sharing)	\$ 327,848	\$ 316,815	\$ 316,815	\$ -	\$ 316,815	
Contingencies	\$ 750,000	\$ 240,136	\$ 242,411		\$ 509,864	4
Totals	\$ 48,000,000	\$ 46,306,866	\$ 39,470,780	\$ 2,608,119	\$ 48,000,000	
Notes:	1. GMP contract decrease per credit received \$2200					
	2. Current soft cost savings re-allocated to Contingency					
	3. U5 to remain beyond 2022, thus, removal cost (210K\$) re-allocated to Contingency					
	4. Available contingency amount to date					
	5. Funding required by OrtechU (Project cost less remaining contingency)					



BOARD REPORT

SESSION:

Public
 Non-Public

ACTION REQUESTED:

Decision
 Discussion/Direction
 Information

TO: Board of Governors

DATE: December 9, 2021

FROM: Brad Maclsaac, VP Administration

SUBJECT: ACE Enhancement Project – Update

COMMITTEE/BOARD MANDATE:

The Strategy and Planning Committee is responsible for overseeing the strategic planning for all aspects of the university and assessment of the plans in the context of the university’s vision, mission and values. More specifically, the committee oversees any major renovation or construction projects.

BACKGROUND/CONTEXT & RATIONALE:

The Ontario Tech Automotive Centre of Excellence (ACE) is a research and testing facility offering chambers and technology for climatic, structural durability and life-cycle testing. Facilities include one of the largest and most sophisticated climatic wind tunnels (CWT) on the planet. In the CWT, wind speeds can reach 300 kilometers per hour with temperatures that range from -40 to +60°C. With solar arrays and storm generators ACE can create any weather conditions imaginable, from sweltering jungle downpours to the paralyzing cold of an arctic storm. ACE uses these chambers for research and testing in automotive engineering, mechatronics engineering, advanced manufacturing, aerospace, software and high-performance computing, clean energy, and human performance.

A moving ground plane, or rolling road, was envisaged as part of the original operational parameters of the wind tunnel, but never acquired. The moving ground plane allows for extremely precise (peer reviewed publication level) aeroacoustics measurements significant to the high value auto sector and of importance to researchers from a number of universities across Ontario and other provinces.

- In 2014, while working with an auto industry client, the operating team at ACE learned about a moving ground plane acquired by Old Dominion University (Old Dominion) in Virginia, which was never used because of shifting research priorities.
- June 2016, the **BoG approved** the purchase of the MGP. Management worked swiftly to work with the Provincial Government to secure \$2.5M of the \$2.6M cost as the university was notified the MGP was going to go to auction.
- July 2017, the University spearheaded an industry-university proposal to the Federal Economic Development Agency for Southern Ontario (FedDev) with the installation budget estimated at \$12.465M. This included a request to obtain \$9.465M in funding to install the rolling road noting secured commitments of \$3M (a further \$1.5M from the province, \$1M from Magna, \$500K from the university and Multimatic in-kind to obtain the equipment and support installation).
- August 2018, the FedDev agreement was signed
- November 2018, in advance of RFPs being issued the **BoG approved** a total budget of \$14.5M (estimated multiple contracts up to \$4.1M for the Building Modification and \$10.4M for Integration) with a goal of completing the entire project by March 31, 2020. The increase from the original 2017 estimates are due to inflation and updating obsolete control systems.
- February 2019, management provided an update to A&F on RFP process noting that certain items were coming in over estimates. Even with value engineering (i.e. eliminating storage building) the costs are trending towards \$14.86M.
- June 2019, management provided an update to A&F noting further engineering design would be required due to complex turntable/MGP Nest integration. Additionally, the final contract signing for integration took longer than anticipated. The estimated completion moved to September 2020.
- November 2019, with \$5.5M already spent on the project and the majority of contracts signed the **BoG approved** an increase to \$15.075M. This additional \$575K was comprised of \$360K for updated equipment and \$215K for a two percent contingency. The goal end date remained at September 2020.
- March 2020, the provincial government ordered non-essential business to close. Due to COVID restrictions technical expertise required for integration was not able to cross the border for the planned September 2020 Phase I integration. This date was delayed until December 2020 and then further delayed to March 2021 as the university chose not to assume the risk of bring in American workers during the second wave of COVID. At the October 2020 meeting of A&F, management noted the delays would impact the budget and requested time to understand when integration could occur before submitting a revised budget. To mitigate any further delays, the ACE team worked with MTS to review and initiate the preparations that could be done virtually.

- April 2021, the Board approved an increased budget to \$16.525M. With offsetting “other revenue” this is an increase operating ask of \$1.045M from original November 2018 and 470K from November 2019. This includes a 10% contingency on the remaining MTS work. The university has successfully completed the assembly of the machine thanks to a virtual walk through with technical leaders, the hiring of a local mechanical company and the staff at ACE facility. June/ July will focus on the controls, wiring and integration. Commissioning is planned for September 2021, assuming that the MTS technical team can travel from the US.
- September 2021, the team was not able to complete commissioning as planned due to the requirement to replace a fan rectifier. As we enter the final stages of the project we will wait until facility shutdowns in November, to complete the final controls debugging, and February, to complete final testing. We have decided to use the shutdown period based on staff availability and the desire to run the other sections of ACE commercial activities.

IMPLICATIONS:

The COVID shutdown and delays have added over a year of labour costs to the project. While management explored a number of options in October 2020, including project suspension, the decision was made to look at virtual alternatives instead to mitigate future costs.

As we enter the final integration phase we are able to close out costs and delay contracts in order to work within the Board approved \$16.525M.

NEXT STEPS:

Phase II: Controls/integration & Debug – Nov/ Dec
Phase III: Commissioning and Acceptance – Jan/ Feb

SUPPORTING REFERENCE MATERIALS:

ACE MGP update – September 2021

ACE Enhancement Project



August Project Update

1st October 2021

Progress Update (30 September 2021) :

This period accomplishments

- MGP hardware integration works completed
- Control integration and commissioning on going



Concern & Issue:

- Tunnel main fan rectifier repaired however impacted the schedule by 20 days

BoG – Schedule Approval Tracking

Milestones	Nov-18	Nov-19	Apr-21	Actual	Variance Explanation
Building Modification	Jul-19	Aug-19	Aug-19	Aug-19	
Integration Phase I	Dec-19	Mar-20	Mar-21	Mar-21	increased turntable upgrades and fan repair
Integration Phase II	Mar-20	Sep-20	Sep-21		increased engineering requirements

Upcoming Activities

	Description	Begin Date	End Date	Act Begin	Act End	Comments
Phase I	Assembly & functional operation	3-Feb-21	14-Mar-21	15-Feb-21	18-Mar-21	Moved to virtual installation. Late start has no delay on end date
Phase II A	Systems check & validation	3-May-21	21-May-21	10-May-21	14-Aug-21	Assembly completed and base/support system functioning
Phase II B	Controls integration & debug	21-Jun-21	31-Jul-21	14-Jun-21		Fine tuning o going, target completion next shutdown Nov/Dec
Phase III	Commissioning/Acceptance	1-Aug-21	7-Aug-21			Target next shutdown Jan/Feb

Health & Safety:

- COVID protocol in place, nothing to report this period

Change Control:

- Nothing to report this period

Procurement Summary:

- Nothing to report this period

Financial Summary:

- Total Actual Cash Flow to date \$15.7M
- Project estimated cost at completion \$16.525M
- Cash flow Breakdown of Sources and Uses of funds next slide.

A&F Roll up Financial Report as of 30 September 2021

ACE ENHANCEMENT PROJECT		SEPTEMBER 2021				
Sources of Funds - Cash Flow						
Description	2019 Nov Funding	Actual Total Todate	Sep 2021	Funding at Completion	Balance Funding To date	Comments
FEDDEV	\$ 9,465,000	\$ 9,228,383	\$ -	\$ 9,465,000	\$ 236,617	2.5% yet to received on project completion
PROVINCIAL	\$ 1,500,000	\$ 1,350,000	\$ -	\$ 1,500,000	\$ 150,000	10% to be released upon project completion
MAGNA	\$ 1,000,000	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	commitment fulfilled
ONTARIO TECH (Announce Contribution)	\$ 500,000	\$ 500,000	\$ -	\$ 500,000	\$ -	commitment fulfilled
ONTARIO TECH (Loan to ACE)	\$ 2,510,000	\$ 2,510,000	\$ -	\$ 2,510,000	\$ -	commitment fulfilled
THE GREENBRIAR FOUNDATION	\$ 100,000	\$ 100,000	\$ -	\$ 100,000	\$ -	commitment fulfilled
GA HAYBALL FOUNDATION		\$ 225,000	\$ -	\$ 225,000	\$ -	commitment fulfilled
ACE INTERNAL (ERF/ Research Fund)		\$ 165,000	\$ -	\$ 165,000	\$ -	commitment fulfilled
ONTARIO TECH (Additional Loan to ACE)		\$ 636,433	\$ 114,424	\$ 1,060,595	\$ 424,162	
Totals	\$ 15,075,000	\$ 15,714,816	\$ 114,424	\$ 16,525,595	\$ 810,779	
Uses of Funds - Cash Flow						
Description	Original Budget	Actual Total Todate	Sep 2021	Estimate at Completion**	Variance / Cost Increase	Variance Explanation
Moving Ground Plane Integration into CWT	\$ 3,350,000	\$ 5,701,452	\$ 73,631	\$ 6,331,276	\$ 2,981,276	Obsolete controls, more complex turntable integration design and build. Repair to MGP & Turntable modifications.
Aerodynamic Enhancements Required for MGP	\$ 2,540,000	\$ 2,346,273	\$ 4,612	\$ 2,341,661	\$ (198,339)	Value engineered design - ride height simplification
Acoustics	\$ 845,000	\$ 712,871	\$ -	\$ 782,225	\$ (62,775)	Competitive market & covid impact from Germany
Precision Measurement Capability	\$ 1,850,000	\$ 1,088,363	\$ 1,775	\$ 1,086,588	\$ (763,412)	In-house design and build
Chamber Modifications	\$ 630,000	\$ 707,412	\$ 757	\$ 706,655	\$ 76,655	System requires more process air and vacuum
Base Building Modifications	\$ 3,645,000	\$ 3,422,391	\$ 2,915	\$ 3,419,476	\$ (225,524)	Competitive market and deletion of Storage Building
Engineering and Project Management	\$ 2,000,000	\$ 1,736,055	\$ 30,733	\$ 1,857,715	\$ (142,285)	Re-engineering contingency amount move to MGP Integration, 12 mos extension of Project team
				\$ -		
Totals	\$ 14,860,000	\$ 15,714,816	\$ 114,424	\$ 16,525,595	\$ 1,665,595	



Board of Governors

December 9, 2021

Les Jacobs, PhD, FRSC
Vice-President, Research and Innovation

AVIN RECAP

- On Budget
- Wrapping up March 2022
- Over a dozen spin-off research projects spanning multiple faculties and Brilliant Energy Institute
- Launching Ontario Vehicle Innovation Network April 2022 (AVIN 2.0)



Making Communities Safe for Vulnerable Road Users

Partnering with Smart Cone Technologies to Leverage AV Tech for Community Safety

Intelligent Intersection:

- Collect Data to understand movement of people and vehicles

Intelligent Crosswalks with CNIB*:

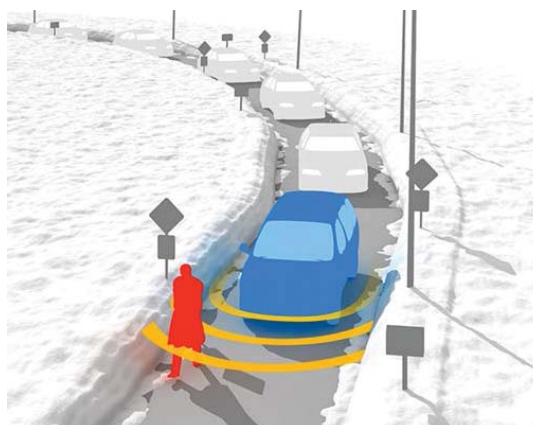
- AI powered monitoring, communication and alerts for both Vulnerable Road Users and connected vehicles at crosswalks

Intelligent Bike Lanes:

- Driver right turn alerts for oncoming cyclists in bike lanes

Crowd Control (Events/School Zones/EMS):

- Drop and Go Perimeter Zones
- Temporary Crossings
- Trusted Vehicle Zones (schools)



*Canadian National Institute for the Blind

Sample of other AVIN Projects

Partnering on AV Research across the Province.

- Autonomous Vehicle Charging
- Whitby Autonomous Shuttle Demo
- AV Software Testing Platform with Toronto based QA Consultants
- High Power Charging for Autonomous Transit
- Runways to Roadways for Municipalities



Community Partner in the Pilot Demonstration of Energy Related Technologies

Initiative	Partners
Develop electric vehicle charging test bed (AVIN RTDS)	Ontario Tech University, e-Camion, OPUC
Develop an autonomous robotic arm capable of charging autonomous vehicles	Ontario Tech University, e-Camion, OPUC, Durham Region Transit
Deploy energy storage and overhead charging technology for transit vehicles	Ontario Tech University, Durham Region Transit, e-Camion, OPUC
Install level 3 chargers in Oshawa to close gaps in EV charging infrastructure	Ontario Tech University, e-Camion, OPUC
AI-Enabled Demand Side Management for Energy Sustainability (AIDEMS)-Eureka AI Program	Ontario Tech University, eCAMION, OPUC, +European Consortium (Sweden, Germany, Turkey)
Ontario-Specific Open Source Advanced Bus Controls Project	Ontario Tech University, Oshawa PUC, City of Oshawa

7 Projects ranging from EV Charging, Energy Use Reduction and AI based methods for integration of renewables and energy storage into energy distribution grid within communities



Rendering of eCamion “Joule” Charging Stations

Project Arrow

“At the intersection of advanced mobility and climate change lies the challenge of our times. Future generations will ask if we ran faster or stretched out our arms farther. The Arrow will be remembered as the gauntlet we dropped in response to this call to action.”—Flavio Volpe, President APMA

A project that will allow Ontario Tech University to Demonstrate Research Excellence In

- Canada's Energy and Environmental Future
- Autonomous Vehicles and Systems
- Intelligent Manufacturing and Materials Innovation
- Data Science, Artificial Intelligence and New Technologies



 **APMA**

 **PROJECT
ARROW**



BOARD REPORT

SESSION:

Public
 Non-Public

ACTION REQUESTED:

Decision
 Discussion
 Information

TO: Board of Governors

DATE: December 9, 2021

FROM: Governance, Nominations & Human Resources Committee (GNHR)

SUBJECT: Board Orientation/Education Work Plan 2021-2022

COMMITTEE MANDATE:

GNHR is responsible for overseeing the development of programs for the orientation and ongoing education of governors on university operations, matters affecting the post-secondary education sector, and good governance practices. In accordance with the committee’s mandate, they developed the attached 2021-2022 Board Orientation/Education Work Plan (“Education Plan”) and are providing it to the Board for information.

BACKGROUND/CONTEXT:

In anticipation of the larger than usual number of new governors in 2018-2019, a more detailed Education Plan was developed. We found it was a good exercise and have continued with this practice. Rather than focusing on orientation, this year’s plan focuses on educational sessions that align with the Board’s work for the year and the university’s strategic priorities.

CONSULTATION:

The Education Plan was developed in consultation with President and the Board Chair.

NEXT STEPS:

The work plan will be used as a guide to develop the Board educational sessions for 2021-2022.

SUPPORTING REFERENCE MATERIALS:

- Draft Board Orientation/Education Work Plan 2021-2022

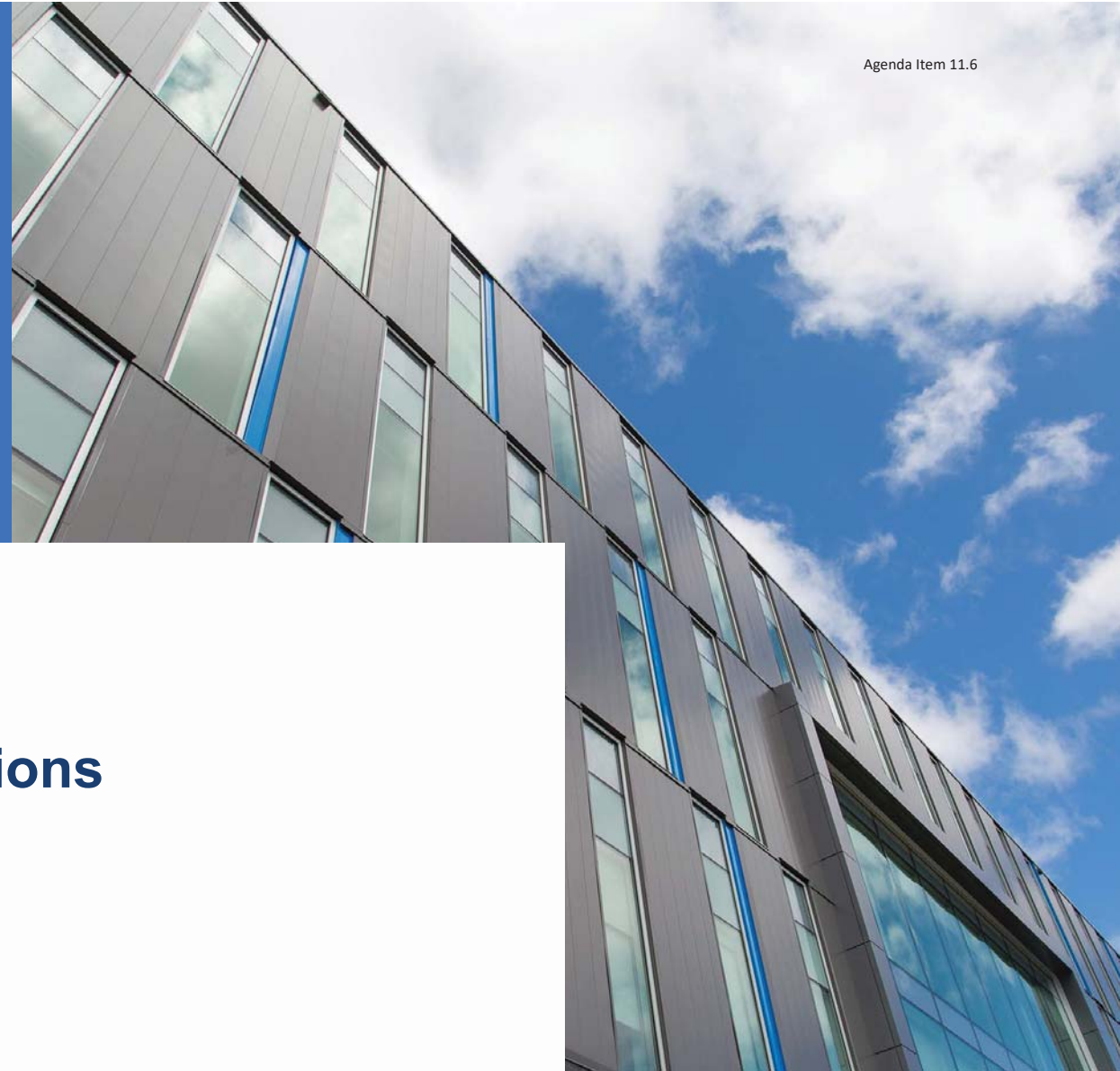
BOARD ORIENTATION/EDUCATION WORK PLAN 2021-2022

Date	Suggested Topic	Lead
September 17	<ul style="list-style-type: none"> • Optional OnBoard Training Session for new governors 	Becky Dinwoodie
September 28	<ul style="list-style-type: none"> • Joint Orientation Session for Academic Council & new governors 	Cheryl Foy & Becky Dinwoodie
tbd	<ul style="list-style-type: none"> • Board Committees - New Member Orientation <ul style="list-style-type: none"> ○ Orientation session prior to first committee meeting for new members ○ Committee mandate & work plan ○ Key issues facing the committee 	Committee Chair, Steven Murphy & Cheryl Foy
November 5	<ul style="list-style-type: none"> • Optional ½ hour PD session – SLT member 	Susan McGovern
January 7	<ul style="list-style-type: none"> • Optional ½ hour PD session – SLT member 	Les Jacobs
February 4	<ul style="list-style-type: none"> • Optional ½ hour PD session - SLT member 	TBD
March 10 (immediately before Board meeting)	<ul style="list-style-type: none"> • Truth & Reconciliation & Postsecondary Institutes 	TBD
April 1	<ul style="list-style-type: none"> • Optional ½ hour PD session - SLT member 	Jamie Bruno
April 28 (immediately before Board meeting)	<ul style="list-style-type: none"> • Campus Tour (if possible) or 5-Minute Research Presentations 	Invite Faculty Researchers
May 6	<ul style="list-style-type: none"> • Optional ½ hour PD session - SLT member 	TBD
June 29	<ul style="list-style-type: none"> • AGM – alumni & SU presentations 	Susan McGovern

Proposed Optional PD sessions:

- Susan McGovern (did not conduct a session last year)
- Les Jacobs (did not conduct a session last year)
- Jamie Bruno (did not conduct a session last year)
- Government Policy Overview (federal & provincial)
- Microcredentials/OTT (Rachel Sumner)
- Cybersecurity
- History of Shared Campus
- Deeper Dive into Asking Good Questions

DRAFT



Board of Governors Elections 2022

Board of Governors Open Elected Positions 2021

Position	Number of Vacancies
Student Governor	1



Proposed Election Timeline*

Process	Proposed Dates
Nomination & Election Process Announcements	Monday, January 31
Nominations Open	Monday, February 7
Nominations Close	Monday, February 21
Review of Candidate Eligibility	Tuesday, February 22 to Friday, February 25
Student Candidate Information Meetings (mandatory)	Monday, February 28 & Tuesday, March 1
Campaign Period (if required)	Monday, March 7 – Wednesday, March 16
Voting Period (if required)	Wednesday, March 16 until Friday, March 18
Voting Results Presented to GNHR for Recommendation	Thursday, March 31 (pending any outstanding investigations per Election Procedures)
GNHR's Recommendation Reported to Candidates	By Friday, April 1
GNHR's Recommendations presented to Board of Governors for Approval	Thursday, April 28

*scheduled to run concurrently with Academic Council election

