BOARD OF GOVERNORS' 135th REGULAR MEETING

AGENDA
November 28, 2024
12:00 p.m. to 3:30 p.m.
DTB 524 – 5th Floor Boardroom and via Teams Video Link

PUBLIC SESSION					
No.		**Topic**	**Lead**	**Allocated Time**	**Suggested Start Time**
Luncheon – 10 minutes					12:00 p.m.
1		**Call to Order**	Chair	5	12:10 p.m.
2		**Agenda (M)**			
3		**Conflict of Interest Declaration**			
4		**Chair's Remarks and Introductions**	Chair	10	12:15 p.m.
5		**President's Report**	Steven Murphy	10	12:25 p.m.
6		**Academic Council Report***	Tega Ubor	5	12:35 p.m.
	6.1	New Program Proposal – Faculty of Social Science and Humanities; BA – Sociology, Technology and Innovation* (M)	Chair	5	12:40 p.m.
	6.2	New Program Proposal – Faculty of Business and IT – PhD in Cybersecurity*(M)	Chair	5	12:45 p.m.
Committee Reports					
7		**Audit and Finance Committee (A&F) Report**	Carla Carmichael	5	12:50 p.m.
	7.1	2025-2026 Budget Assumptions* (U)		10	12:55 p.m.
	7.2	Second Quarter Financial Reports* (U)		5	1:05 p.m.
	7.3	Interim Risk Management Update* (U)		5	1:10 p.m.
	7.4	Risk Management Policy* (M)		5	1:15 p.m.

8		**Governance, Nominations and Human Resources (GNHR) Report - None**	-	**-**	-
9		**Strategy and Planning (S&P) Report**	Eric Agius	5	1:20 p.m.
	9.1	Integrated Academic-Research Plan – Timelines, and Milestones* (U)	Eric Agius	5	1:25 p.m.
10		**Consent Agenda: (M)**	Chair	5	1:30 p.m.
	10.1	Minutes of Public Session of Board Meeting of September 26, 2024* (M)			
	10.2	Minutes of Public Session of A&F Meeting of June 13, 2024* (I)			
	10.3	Minutes of Public Session of GNHR Meeting of May 30, 2024* (I)			
	10.4	Minutes of Public Session of S&P Meeting of June 20, 2024* (I)			
11		**Adjournment (M)**	Chair		1:35 p.m.
BREAK – 5 Minutes					
NON-PUBLIC SESSION (material not publicly available)					
12		**Call to Order**	Chair	5	1:40 p.m.
13		**Conflict of Interest Declaration**			
14		**Chair's Remarks**	Chair	5	1:45 p.m.
15		**President's Report**	Steven Murphy	10	1:50 p.m.
	15.1	Senior Academic Appointments* (M)	Steven Murphy	5	2:00 p.m.
16		**Professional Development/Strategic Conversation Session:** Fireside Chat – Universities' Fiscal Climate	Steven Murphy Brad MacIsaac Lori Livingston Sarah Thrush	30	2:05 p.m.
17		**Audit and Finance (A&F) Report**	Carla Carmichael	5	2:35 p.m.
	17.1	Non-Public Risk Questions	Carla Carmichael	5	2:40 p.m.
	17.2	Campus Master Plan – Residence Term Sheets* (M)	Carla Carmichael	5	2:45 p.m.
18		**Governance, Nominations and Human Resources (GNHR) Report**	Gaurav Singh	5	2:50 p.m.
19		**Strategy and Planning (S&P) Report**	Eric Agius	5	2:55 p.m.
	19.1	Advancement & Alumni Update* (U)	Eric Agius	5	3:00 p.m.

	19.2	Campus Master Plan* (U)	Eric Agius	5	3:05 p.m.
20		**Consent Agenda (M):**	Chair	5	3:10 p.m.
	20.1	Minutes of Non-Public Session of Board Meeting of September 26, 2024* (M)			
	20.2	Minutes of Non-Public Session of A&F Meeting of June 13, 2024* (I)			
	20.3	Minutes of Non-Public Session of GNHR Meeting of May 30, 2024* (I)			
	20.4	Minutes of Non-Public Session of S&P Meeting of June 20, 2024 (I)			
	20.5	24-25 Executive Committee Workplan* (M)			
	20.6	Committee Appointment* (M)			
	20.7	Report Out on Executive Committee: September – November 2024* (I)			
21		***In Camera* Session**	Chair	15	3:15 p.m.
22		**Termination (M)**	Chair		3:30 p.m.

Nicola Crow, University Secretary

BOARD REPORT

SESSION:		**ACTION REQUESTED:**	
Public	☒	**Decision**	☐
Non-Public	☐	**Discussion/Direction**	☐
		Information	☒

TO: **Board of Governors**

DATE: **November 28, 2024**

FROM: **Oghenetega (Tega) Ubor, Academic Council Liaison**

SUBJECT: **Academic Council Report – November 2024**

Academic Council (AC) is the academic governing body for Ontario Tech University ("the university") and it plays a significant role in the university's governance. It is the role of AC to oversee the academic work of the university, and to advise and make recommendations to the Board on important matters. As the AC liaison for the academic year 2024-2025, I'm pleased to deliver the following report of AC activities from June 2024, September 2024 and October 2024.

Academic Council Meeting Materials
June 25, 2024
September 24, 2024
October 22, 2024

Recommendations to Board of Governors
AC recommended the following proposals for approval by the Board of Governors:

- New Program Proposal – Faculty of Social Science and Humanities; Bachelor of Arts-Sociology, Technology and Innovation

Conferral of Degrees
AC recommended the following conferral of degrees for approval by the Board of Governors:

- Spring/Summer 2024
- Summer 2024

Governance Initiatives

- On a recommendation by the Governance and Nominations Committee (GNC), AC approved expressions of interest received to AC Standing Committees for the 2024-2025 academic year who were elected or acclaimed during the call for nominations as well as the second call for expressions of interest, noting all vacancies for AC Standing Committees are complete.
- AC approved the renewal of membership on the Research Committee.
- Upon a recommendation by the GNC, AC approved the nomination for the 2024-2025 AC Vice-Chair.
- Upon recommendation by the GNC, AC approved the Faculty Council Membership Lists and the Faculty Council Vice-Chair nominations.

Curriculum & Program Changes

AC approved the following Major Program Modifications:

- Pre-Engineering Pathway
- Master of Health Science

Institutional Quality Assurance Reports

The university's Institutional Quality Assurance Process requires that the Executive Summary and Implementation Plan resulting from a Cyclical Program Review (CPR) be provided to AC and the Board of Governors for information. As such, these materials are being presented to the Board with the AC report.

AC received the following CPR report from the Graduate Studies Committee:

- 18-Month Follow-Up – MSc and PhD in Computer Science

Policy

AC received the following policy instruments for approval:

- English Language Proficiency – Oxford ELLT
- English Language Proficiency – Oxford ELP Partnership
- Acceptance of Duolingo for non-thesis Graduate Programs – Trial period of 2024-2025 admissions cycle

AC received the following policy instruments for consultation:

- Risk Management Policy

Reports Received

- COU Academic Colleague Report (May 2024) (Aug. 2024)
- Institutional and SMA 3 Metrics Report

BOARD REPORT

ACTION REQUESTED:

Recommendation	☐
Decision	☒
Discussion/Direction	☐
Information	☐

DATE: **28 November 2024**

FROM: **Academic Council**

SUBJECT: **New Program Proposal – Bachelor of Arts in Sociology, Technology and Innovation**

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 for the establishment of a Bachelor of Arts in Sociology, Technology and Innovation.

MOTION FOR CONSIDERATION:

That, pursuant to the recommendation of Academic Council, the Board of Governors hereby approves the establishment of a Bachelor of Arts in Sociology, Technology and Innovation, as presented.

BACKGROUND/CONTEXT & RATIONALE:

Ontario Tech University can leverage its focus on the implications of technology for society with a new and innovative BA in Sociology, Technology and Innovation which is substantively focused on cutting-edge issues and approaches in both theory and method in a manner not offered at other Ontario universities. In addition to the foundational skills of a liberal arts degree, the Sociology, Technology and Innovation program will promote interdisciplinary collaboration, broader intercultural awareness, encourage creativity, and cultivate future leaders.

The proposed program contributes to the advancement of Ontario Tech's strategic goals; to produce leaders with skill sets applicable to the real world, create opportunities, skill sets and partnerships to improve society, and build relationships within the university community and beyond. The proposed program builds on current faculty capacities in criminology, and strengths in cognate disciplines within the Faculty of Social Science and Humanities.

Students in this program will gain solid foundations in analysis, critical thinking, quantitative and qualitative research methods and communication. Ontario Tech's partnerships with local organizations will be reinforced through these programs, offering students valuable real-world

experience, and enhancing employment opportunities.

Innovation plays a crucial role in sociological thinking about our world, offering tools by which we can understand social change, progress, and the complex interactions between technology, society, and culture. It encompasses not only technological advancements but also new ideas, practices, and social structures that reshape how societies function. Sociologists view innovation as a deeply social process, influenced by cultural norms, institutional frameworks, and public policies, while simultaneously shaping these very elements. By studying innovation, sociologists gain insights into how societies adapt to challenges, create solutions to pressing problems, and evolve over time. This perspective is particularly valuable in addressing global issues such as climate change, social inequality, and sustainable development, as it highlights the importance of social factors in driving and adopting innovative solutions. Understanding innovation through a sociological lens helps illuminate the pathways to creating more resilient, equitable, and sustainable societies.

Students will receive a core set of first year social science courses and grounding in sociological theories and methods in the second year. In the third- and fourth- years students can focus their studies in one of the two specializations or complete a four-year BA in Sociology, Technology and Innovation. Courses will be delivered via a combination of in-person lectures and seminars, online and hybrid modes. To provide hands-on learning opportunities, students will also be given experiential learning opportunities through volunteer, practicum, and community research options.

The *Society, Values and Technology specialization* is unique for its emphasis on combining sociological inquiry with the study of technological advancements and their implications for human society and values. It emphasizes substantive exploration of contemporary problems of inequality, justice, ethics and harm in technologically mediated society and appeals to students pursuing diverse career paths in areas such as business, law, social work, social work, teaching, and journalism. This interdisciplinary approach allows students to explore the complex relationships between technology and societal norms, ethics, and cultural values. Unlike traditional sociology programs, which may primarily focus on social structures and interactions, this specialization delves into the profound impact of technology on contemporary social dynamics. Through critical examination and analysis, students gain insights into how technological innovations shape human behavior, identity, and relationships, as well as their broader implications for social justice, privacy, and equality. Moreover, this program emphasizes the ethical considerations inherent in technological development and adoption, encouraging students to reflect on the ethical dilemmas and moral responsibilities associated with technological advancements. By integrating sociological perspectives with the study of technology and human values, this program equips students with the analytical tools and critical thinking skills needed to navigate the complex challenges of our rapidly evolving technological society.

The *Applied Sociology* specialization directly addresses societal challenges and issues through practical application of sociological theories, methods, and research findings. This practical orientation distinguishes applied sociology from other branches of sociology, as it actively seeks to translate sociological knowledge into action, making a tangible impact on individuals, communities, and institutions. Applied sociologists engage in a range of activities, including program evaluation, policy analysis, community development, advocacy, and social research, thereby bridging the gap between academia and the broader society. Applied sociologists engage with real-world problems, such as poverty, inequality, crime, and environmental degradation. By collaborating with community organizations, government agencies, and businesses, applied sociologists develop and implement strategies to effect positive social change. Their work extends beyond academia, actively contributing to policy development, program evaluation, advocacy, and community development initiatives. Applied sociology not only enhances our understanding of social phenomena but also empowers individuals and communities to address systemic issues and improve quality of life. It equips students with valuable skills in research, critical thinking, communication, and problem-solving, making them well-prepared for a wide range of careers in areas such as social services,

public policy, advocacy, consulting, and community development.

RESOURCES REQUIRED:

There are no new faculty requirements currently. Declining enrollment in a few other areas within the Faculty of Social Science and Humanities will enable us to make more effective use of faculty resources for this program. Many of the current FSSH professors have PhDs in Sociology and/or have taught sociology courses during their careers. At least sixteen professors from all career states (Assistant, Associate and Full professors, and teaching faculty) have expressed interest in teaching in the program.

Several courses may be taught by sessional instructors; there is an adequate labour market from which qualified professors are available. Most graduate students in FSSH will be well-equipped to support the Sociology program as TAs since there is a robust Criminology graduate program in addition to the new Master's in Social Practice and Innovation. Only the large 1st year course will require TA support, which is already budgeted for in FSSH.

CONSULTATION AND APPROVAL:

- ✓ Academic Resource Committee: 15 April 2024
- ✓ FSSH Faculty Council: 25 September 2024
- ✓ Undergraduate Studies Committee (Recommendation): 15 October 2024
- ✓ Academic Council (Approval and Recommendation): 22 October 2024
- Board of Governors (Approval): 28 November 2024

NEXT STEPS:

- The proposal must also proceed through the following external approval steps:
  - ✓ Ontario Universities Council on Quality Assurance (Quality Council)
    - After Academic Council approval, programs are submitted to the Quality Council (QC) for external academic approval concurrently with submission to the next Board of Governors meeting. Due to meeting schedules and an unexpectedly fast decision from the QC, external academic approval from the QC has been received
  - Ontario Ministry of Colleges and Universities

The preferred date of implementation is in the Fall of 2025 (soft/internal launch date)

SUPPORTING REFERENCE MATERIALS:

- New Program Proposal with Appendices
- Reports from External Review

New Undergraduate Program Proposal

Name of proposed program (as it will appear on the student's transcript):	Bachelor of Arts Sociology, Technology and Innovation Bachelor of Arts Sociology, Technology and Innovation - Advanced Entry
Degree Designation/Credential (e.g. BA, BSc, BEng, etc.):	BA - Bachelor of Arts
Cost Recovery Program?	☐ Yes X No
Professional Program?	☐ Yes X No
Faculty (where the program will be housed):	Faculty of Social Science and Humanities
Program Delivery Location:	In-person with online and hybrid course options (Downtown campus)
Proposed Program Start Date:	Fall 2025
Proposal Contact:	Dr. Shahid Alvi
Submission Date:	March 12, 2024
Approved by Dean: (signature and date)	 Dr. Peter Stoett, Dean, FSSH, March 12, 2024

For CIQE Use Only:

Date of Academic Council Approval:	22 October 2024
✓ External reviewers' report ✓ Program's and Dean's response ✓ Summary of changes	✓ Final, revised proposal ✓ CVs, course outlines, and other supporting material (as appendices)

Table of Contents

1 Introduction

a) Program Abstract

Please provide a brief overview of the proposed program, to be shared with the public, in 1000 characters or less (including spaces), including:

- *A clear statement of the purpose of the program*
- *Any program components, such as specializations, pathways, micro-credentials, or other offerings in addition to the major*
- *Any distinctive elements, including alternative modes of delivery (including online)*
- *Note that this statement is for external purposes; what do you want potential students/advisors to know about this program?*

Sociology is the study of society, relationships between groups, and institutions with the goal of understanding how social and cultural structures are shaped by human actions, beliefs, consciousness, and relationships. The Major in Sociology, Technology and Innovation affords students the opportunity to explore a wide range of issues, such as the nature of gender identity, racism and class, conflict, shared beliefs, the social implications of the internet and technology, forms of governance and social control, and their impacts on societies and communities. Studying Sociology, Technology and Innovation will help students to think critically and analytically about social life, looking beyond views that are often taken for granted in day-to-day interactions. The Major program comprises two specializations: (1) Society, Values, and Technology and (2) Applied Sociology. The specialization in Society, Values, and Technology allows students to explore the intricate interplay between society, technology, and human values, acknowledging humans as both creators and consumers of technology. The specialization in Applied Sociology equips students to mobilize sociological theories and practical research methods to directly address complex social issues through individual, institutional, and collective action.

There will also be a college to university pathway in the creation of the Sociology, Technology and Innovation - Advanced Entry major. This program will provide college graduates with the opportunity to apply their two-year college diploma towards a Bachelor of Arts (Honours) in Sociology, Technology and Innovation. Sociology, Technology and Innovation - Advanced Entry students will take the same mandatory courses as other SCTI students in their third and fourth years, but the order that these courses are taken will differ to facilitate completion of all course requirements within a two-year period. The Sociology, Technology and Innovation-Advanced Entry program will begin in the fall of 2027 to align when the SOTI major students will begin year 3.

b) Background and Rationale

- *Identify what is being proposed, what are the program objectives, and provide an academic rationale for the proposed program*

- *Explain the appropriateness of the program name and degree nomenclature as they relate to the program objectives; list any program specializations, pathways, etc.* ***(QAF 2.1.2.1a/b)***
- *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 2.1.2.2c)***
- *Describe the ways in which the program fits into the broader array of program offerings within the Faculty and the University*
- *Describe any unique curriculum or program innovations, creative components, or significant high impact practice*

Ontario Tech University can leverage its focus on the implications of technology for society with a new and innovative BA in Sociology, Technology and Innovation which is substantively focused on cutting-edge issues and approaches in both theory and method in a manner not offered at other Ontario universities. In addition to the foundational skills of a liberal arts degree, the Sociology, Technology and Innovation program will promote interdisciplinary collaboration, broader intercultural awareness, encourage creativity, and cultivate future leaders. The proposed program contributes to the advancement of Ontario Tech's strategic goals; to produce leaders with skill sets applicable to the real world, create opportunities, skill sets and partnerships to improve society, and build relationships within the university community and beyond. The proposed program builds on current faculty capacities in criminology, and strengths in cognate disciplines within the Faculty of Social Science and Humanities. Students in this program will gain solid foundations in analysis, critical thinking, quantitative and qualitative research methods and communication. Ontario Tech's partnerships with local organizations will be reinforced through these programs, offering students valuable real-world experience, and enhancing employment opportunities.

Innovation plays a crucial role in sociological thinking about our world, offering tools by which we can understand social change, progress, and the complex interactions between technology, society, and culture. It encompasses not only technological advancements but also new ideas, practices, and social structures that reshape how societies function. Sociologists view innovation as a deeply social process, influenced by cultural norms, institutional frameworks, and public policies, while simultaneously shaping these very elements. By studying innovation, sociologists gain insights into how societies adapt to challenges, create solutions to pressing problems, and evolve over time. This perspective is particularly valuable in addressing global issues such as climate change, social inequality, and sustainable development, as it highlights the importance of social factors in driving and adopting innovative solutions. Understanding innovation through a sociological lens helps illuminate the pathways to creating more resilient, equitable, and sustainable societies.

The *Applied Sociology* specialization directly addresses societal challenges and issues through practical application of sociological theories, methods, and research findings. This practical orientation distinguishes applied sociology from other branches of sociology, as it actively seeks to translate sociological knowledge into action, making a tangible impact on individuals, communities, and institutions.

Applied sociologists engage in a range of activities, including program evaluation, policy analysis, community development, advocacy, and social research, thereby bridging the gap between academia and the broader society.
Applied sociologists engage with real-world problems, such as poverty, inequality, crime, and environmental degradation. By collaborating with community organizations, government agencies, and businesses, applied sociologists develop and implement strategies to effect positive social change. Their work extends beyond academia, actively contributing to policy development, program evaluation, advocacy, and community development initiatives. Applied sociology not only enhances our understanding of social phenomena but also empowers individuals and communities to address systemic issues and improve quality of life. It equips students with valuable skills in research, critical thinking, communication, and problem-solving, making them well-prepared for a wide range of careers in areas such as social services, public policy, advocacy, consulting, and community development.

New sociological methods for gathering and analyzing data are crucial for advancing our understanding of complex social phenomena in an increasingly digital and interconnected world. These innovative approaches allow researchers to capture more nuanced and comprehensive insights into human behavior, social interactions, and societal trends. Students will gain competencies in digital ethnography, Big data analytics and computational social science techniques allowing researchers to process vast amounts of information from digital sources, revealing patterns and correlations that were previously difficult to detect.

Students will receive a core set of first year social science courses and grounding in sociological theories and methods in the second year. In the third- and fourth- years students can focus their studies in one of the two specializations or complete a four-year BA in Sociology, Technology and Innovation. Courses will be delivered via a combination of in-person lectures and seminars, online and hybrid modes. To provide hands-on learning opportunities, students will also be given experiential learning opportunities through volunteer, practicum, and community research options.

The Faculty of Social Science and Humanities already has a complement of twelve faculty members with earned doctorates in Sociology. Beyond Criminology, FSSH programs in Communication, Political Science and Legal Studies also have courses that dovetail with the proposed curriculum. The proposed program offers a liberal arts education focused on the core questions and units of analysis of Sociology, drawing on sociological theories and methods to provide the analytical lens to approach social problems. Sociology's uniqueness stems from its focus on elements of society such as groups, group interaction and intercultural understanding, social structures, identity, conflict, culture, freedom, and constraint. Students learn how to use sociology's unique methodological and theoretical attributes to properly identify, research, interpret and solve social problems. The cognate disciplines in FSSH are considered complementary to sociology but not the same. For example, Psychologists, Political Scientists and Sociologists share common interests but approach those interests with different questions, theories, and methods. Psychologists are primarily interested in individuals and their experiences, Political Scientists would focus on political processes, institutions, and governance, while

sociologists would be interested in the role of group dynamics in conditioning and shaping people's experiences. Thus, Sociology offers a unique focus on the combined influence of social context, patterns of group behaviour and social change.

c) Consistency of Program Objectives with University Mission, Vision, Integrated Plan, and Strategic Mandate Agreement (QAF 2.1.2.1c)

- *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*

Ontario Tech's 2020-2025 Strategic Mandate Agreement and Integrated Academic Research Plan are built around four key goals. The Sociology program is designed to support efforts in meeting the goals of the SMA and IARP.

a) Tech with a conscience (i.e., developing technological breakthroughs to improve the lives of humans and the planet through the ethical application of technology). The Sociology, Technology and Innovation program is designed to include a specialization on Society, Values and Technology because the ethical development and use of all technologies, but especially those that are new and draw on limited natural resources, must be understood within the context of their impact on future sustainability, social and economic growth, and social disparities. For instance, what happens if artificial intelligence technology develops in a manner that leads to reduced availability of jobs for humans? How will Ontario and Canadian society deal with any negative impacts? With a workforce that can ethically develop and nurture such AI technologies, efforts can be made to ensure that such technologies will benefit society.

b) Learning re-imagined (i.e., adapting to the changing educational landscape through the delivery of flexible and experiential learning opportunities). The Sociology, Technology and Innovation program is designed to take advantage of the multiple forms of delivery (e.g., in-person, virtual, and hybrid) and types of hands-on learning (e.g., use of podcast or video presentations, work-integrated learning, and City Idea Lab courses) that allow students to develop a diversity of skills that are key to future success in the workplace.

c) Partnerships (i.e., helping government, industry, and community and academic researchers to identify innovative solutions for our partners' most pressing problems). The Sociology, Technology and Innovation program is designed to leverage existing partnerships within the community as well as local and provincial governments. The university is already part of the Oshawa's Teaching City and City Idea Lab and Durham Region's CityStudio. Different courses will be integrated with these programs. In addition, the Applied Sociology specialization will develop students' capacity to undertake research on local needs within Oshawa, Durham region and beyond.

d) Creating a sticky campus (i.e., promoting positive social change in the midst of an accessible, equitable, diverse, and inclusive campus community culture) Students who choose to take Sociology are likely to be people who choose to participate in campus community activities and culture. Students in this area are often concerned with working in anti-hate and anti-racism programs and activities, as well as supporting student mental health initiatives. Students will have the opportunity to take part in student government initiatives at both the Faculty level and university-wide.

The Sociology, Technology and Innovation Program at Ontario Tech University will provide students with the knowledge, analytical skills, and practical tools required to confront challenging and increasingly globalized social issues and problems. In addition, this new program will consider social issues as they relate to the intersection of various ascribed identities such as race, gender, class, and sexuality. Students will be exposed to both quantitative and qualitative research methods, classical and contemporary sociological theories, and a wide range of topics such as social inequalities, Indigeneity, cultural sociology, migration/citizenship, youth studies, and environmental sociology, with special focus on technology as a source of social transformation throughout the curriculum. Further, since the program emphasizes subject matter geared to understanding the ethical application of technology to the well-being of individuals, communities, and the planet, it is directly in line with the university's tech with a conscience ethos.

Students will have unique opportunities to experience sociology first-hand by collaborating with local and international partners on development and social innovation projects through community-engaged scholarship.

This program would further build upon the success of FSSH's other undergraduate and graduate programs (e.g., criminology, political science, psychology, liberal studies, and communications and digital media studies) and help to expand the Faculty by appealing to a larger pool of applicants interested in areas of study outside of those other programs.

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*

Ontario Tech will uniquely offer an undergraduate program that explicitly explores the dynamic interplay between Sociology, Technology, and Innovation. Trent is the only university that offers a similar program in Durham Region. Ontario Tech's Sociology, Technology and Innovation program will differ substantially from Trent's focus (e.g. fields of aging, law, medicine, popular culture, and sexuality). Ontario Tech's program will focus on current and emerging ethical questions, social change, sustainable economies, environment, de-colonization, and technology, and will train

learners in advanced, multi-method research skills – none of which are core elements in Trent's program. Sociology is a multi-disciplinary, liberal arts degree, and graduates are sought after in public, private and non- profits sectors. According to a 2016 study by the Business Council of Canada, employers value "soft skills" over technical knowledge, particularly in the areas of relationship building, logic, creativity, communication, problem solving, data analysis, and leadership. A 2024 survey of US employers conducted by the National Association of Colleges and Employers found that about 90 percent of employers seek evidence of students' ability to solve problems, work collaboratively and communicate effectively, while over two-thirds also valued analytical, quantitative, and qualitative skills. The proposed program meets these skill requirements.

A sociology program of this nature would further build upon the success of FSSH's other undergraduate and graduate programs (e.g., criminology, political science, psychology, liberal studies, and communications and digital media studies) and help to expand the Faculty by appealing to a larger pool of applicants interested in areas of study outside of those other programs.

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*

Sociology is one of the most popular majors in the social sciences across Canada and is a popular course in the grade 12 Ontario curriculum, yet Ontario Tech is one of the few universities that does not offer it as a program. Furthermore, SOCI 1000U Introduction to Sociology is already one of the most popular courses at Ontario Tech, taken by over 1500 students in the 2022/2023 academic year.
100-200 students are expected to enroll over the next 5 years (estimate provided by the Registrar's office of Ontario Tech University); with the possibility of approximately 500 students in the program after 5-6 years of operation. This would include advanced entry beginning in Year 3.

Given the popularity of the SOCI 1000U Introduction to Sociology course across programs and faculties at Ontario Tech, we expect that other courses within the proposed programs will be popular electives, particularly given sociology's strong interdisciplinary nature (sociology of health, sociology of knowledge, sociology of technology, institutional sociology, etc.).

Table 1: Projected Enrollment by Academic and Program Year

Academic Year	Academic Year					
	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Level of Study						
1st year	25	30	35	40	40	45
2nd year		24	28	32	32	36
3rd year			22	26	26	29
4th year				23	23	26
5th year					22	25
Total Enrolment	25	54	85	121	143*	160

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; you may also wish to review the Durham Workforce Authority website and provide any relevant sector portfolio or local/community impact information*
- *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 emergence of complex social issues (climate change, mass displacement, technological disruption, aging) and the complexity of marketing and commerce are increasing the demand for graduates with strong creative, communication, and analytic skills that can understand diverse perspectives and emerging trends.

Sociology, Technology and Innovation is well-suited to developing those skills among students, particularly with our programs' focus on emergent social issues, societal and technological transformations, and community-involved scholarship and research. Further, the professions extending from a BA in Sociology, Technology and Innovation are relatively protected from the risks of automation given their strong interpersonal, community-based, creative, and caregiving orientation (law, policy development, research).

Students graduating from this program will have strong written and oral knowledge in growing areas of social concern such as technology, inequality, and the environment, and a knowledge of policy development.

BA degrees in sociology also provide the foundation for many professional and advanced degrees such as social work, law, policy development, urban planning, and

college and university education.

Therefore, the range of employment possibilities is very wide, including government, marketing research/communications, corrections/law/courts, community affairs/health, research, education administration, and teaching.

Career outlook information from the Canadian Job Bank gives careers in social policy research and probation/corrections the highest rating for prospects, with other related professions such as lawyer, social and community worker, police officer, human resources professional, and marketing professional getting the next highest rating.

FSSH collaborates with over 200 local organizations on student practicum/internship placements, many of which are in need of social policy analysis and cultural understanding/expertise. The 2023 Durham Workforce report indicates that over a third of job postings in the Region required "Problem- solving, communication, writing and reading, while another 16% required collaboration skills, adaptability, confidence, and motivation. These are all skills that will be developed within the Sociology program.

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?*

The Sociology, Technology and Innovation program will be distinct from other programs at Ontario Tech because of its focus. Since the program draws on faculty expertise from cognate disciplines in FSSH, there are opportunities for students to take courses where different disciplinary perspectives and approaches are highlighted. We do not anticipate that this program will affect enrollment in other FSSH or university programs. In fact, since sociology is an attractive option for incoming students, exposure to perspectives from other related disciplines while studying sociology may pique student interest in enrolling in those related programs.

- *Identify similar or complementary programs offered elsewhere in Ontario in Table 2. Please be brief but specific in the table. Avoid value-based statements*

Table 2: List of Similar Programs in Ontario

Institution Name	Credential Level and Program Name
Brock University	BA Sociology

Link to Program Web Page: https://brocku.ca/social-sciences/sociology/

Brief Program Description: Our department focuses on significant social issues such as critical political economy, capitalist relations of production, educational equity, environmental activism, gang violence, gender inequalities, globalization, hate crimes, sexuality, racism and animal studies. The program at Brock offers concentrations in Critical Animal Studies, Critical Criminology, and Applied Social Research and Data Analysis.

What differentiates the new program from this existing program:

With the exception of Critical Animal Studies, the proposed program will cover the same topics and issues. The Criminology program at Ontario Tech already covers critical criminology and other criminological frameworks. The proposed applied sociology specialization offers courses in a broader range of methodological approaches, and will engage learners with new digital methods employing big data, netnography and Artificial Intelligence. Brock's concentration in Applied Social Research and Data Analysis requires a standard introduction to methods course, two courses in quantitative methods and one course in qualitative methods, and offers the opportunity to take further courses in applied methods. The proposed Ontario Tech specialization requires the same foundational courses, but requires four additional methods courses, all focused on applied scenarios as well as a mandatory fourth year course dedicated to application in real-world settings. The proposed concentration on Society, Values and Technology also focuses on the standard sociological topics but is an interdisciplinary program (with sociology as the core discipline) oriented towards the analysis of ethical, social, economic and political risks and challenges in technology mediated societies.

Institution Name	Credential Level and Program Name
Trent University	BA Sociology

Link to Program Web Page: https://www.trentu.ca/durham/academics/degrees-and-programs/sociology-ba

Brief Program Description: The program at Trent describes itself as follows:
In Sociology at Trent, you will find yourself questioning and critically exploring the relationships between individuals, groups, institutions, and societies, and the organization, processes, and consequences of social life with a focus on topics such as class, gender, race, work, health, culture, and migration. Learn and work with a multidisciplinary mix of experts in the fields of aging, criminal justice, healthcare, popular culture, and sexuality in supportive research environments. By the time you graduate, you will have an excellent foundation for professional pathways into law, education, public administration, or graduate studies.

What differentiates the new program from this existing program:

Trent offers a BA in Sociology with four specializations (Health Studies, Criminology, Social Justice & Equity, Socio-legal studies). Ontario Tech already has an internationally recognized undergraduate and graduate criminology program with a focus on social justice and equity. The proposed BA in Sociology offers learners opportunities for deep immersion in the study of contemporary social problems by grounding them in contemporary theories, tools and methods and an orientation towards creating sustainable, feasible solutions to such problems. The applied program requires eight methods-focused courses. The Society, Values and Technology concentration requires engagement in all four years with courses on ethics, moral order and values and their status in today's technology mediated societies all within an interdisciplinary framework (with sociology as the core discipline). Trent offers no such concentrations and does not require this level of in-depth engagement.

Institution Name	Credential Level and Program Name
University of Guelph	BA Sociology

Link to Program Web Page: : https://www.uoguelph.ca/programs/sociology/

Brief Program Description: The Department of Sociology and Anthropology offers three types of courses: sociology courses with the prefix SOC*; anthropology courses with the prefix ANTH*; and departmental courses with the prefix SOAN*. The departmental category of courses recognizes the fact that the disciplines of sociology and sociocultural anthropology have developed in tandem and it is possible to identify large areas of overlap and convergence in the work of practitioners both historically and in the present. Departmental courses include most of the core theory and methods courses as well as many elective courses. They contribute equally to the subject matter of sociology as well as the subject matter of sociocultural anthropology for purposes of the undergraduate programs of study in both disciplines. Please see the listings for all courses required for the Sociology program.

What differentiates the new program from this existing program:

The Sociology BA program at Guelph is a standard general liberal arts degree requiring several core theory and methods sociology courses and numerous electives. No specializations are offered.

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

The proposed program does not duplicate other sociology programs in comparative institutions in Ontario. The first and second year includes foundational courses common to undergraduate sociology programs in Canada, but the degree is differentiated by specialization and focus. Drawing on sociological explanations and emerging methods, the program offers an interdisciplinary, practically focused engagement with contemporary technological, social, and ethical problems, oriented to solving problems in real world settings.

The program integrates experiential learning with knowledge from cognate disciplines such as political science, communications, criminology, and legal studies. To our knowledge, no other program in Ontario has this kind of focus on the practice of sociology.

2 Program Requirements

a) Admission Requirements (QAF 2.1.2.5)

- *Outline the formal admission requirements; explain how these are appropriate for the program objectives and 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 minimum grade point average, special language, portfolio, etc. (and how the program recognizes prior work or learning experience, if applicable)*
- *If this is not a direct-entry from high-school program, please explain*

Current Ontario secondary school students must complete the Ontario Secondary School Diploma (OSSD) with six 4U or 4M courses, including English (ENG4U). Expected average of 70%

Note: Admission is competitive. The specific average or standing required for admission varies from year to year. Students are selected by taking into consideration a wide range of criteria including school marks, distribution of subjects taken and performance in subjects relevant to the academic program. Possession of the minimum requirements does not guarantee acceptance.
Preference will be given to applicants with the best qualifications.

English will provide students with the necessary communication and analytical skills needed for the first year of university studies. The Sociology program will require students to read, analyze and communicate their understanding of social and technological advances and challenges, especially with attention to the application of sociological ideas to the future sustainability of Canadian society and technological innovations.

These are the standard requirements for admission to any Bachelor of Arts program at Ontario Tech.

b) Program Structure, Learning Outcomes, and Assessment of Student Knowledge (QAF 2.1.2.2 a/b/d, 2.1.2.4)

- ***Connect with CIQE (ciqe@ontariotechu.ca) early in the program development to participate in learning outcome development sessions or arrange for assistance and review prior to the scheduling of the external site visit***

- *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.*

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: Program Learning Outcomes

Program Learning Outcomes By the end of the program, students graduating will be able to:	Degree Level Expectations	Relevant courses	Assessment of Learning Outcomes
explain sociological concepts and apply them to everyday issues and across diverse contexts.	Depth and breadth of knowledge Awareness of limits of knowledge Knowledge of methodologies	SOCI 1000U – Introductory Sociology CRMN 1000U - Introduction to Criminology and Justice CRMN 2030U - Social Control CRMN 3010U - Social Justice/Criminal Justice CRMN 3023U - Family Violence LGLS 1000U - Foundations of Legal Studies LGLS 3200U - Sociology of Law POSC 1000U - Introduction to Political Science SOCI 2000U - Classical Sociological Theory SOCI 2020U - Issues in Diversity (formerly SSCI 2020U) SOCI 2025U - Youth Cultures (formerly SSCI 2025U) SOCI 3230U - Families in Contemporary Society SOCI 3000U - Contemporary Sociological Theory SOCI 3100U - Applied Sociology SSCI 2900U - Research Methods SSCI 2910U – Data Analysis SSCI 2920U – Qualitative Research Methods SSCI 3910U - Advanced Data Analysis SSCI 3920U - Advanced Qualitative Methods SOCI 3110U - Community- Based Participatory Action Research SOCI 3120U - Evaluation Research COMM 2530U - Advertising as Social Communication	Written assignments Group projects Presentations Debates Reflective journals
critically analyze and evaluate	Depth and breadth of	COMM 1100U - Introduction to Communication and Digital Media Studies	Critical essays Case study

social and technological change	knowledge Knowledge of methodologies Application of knowledge Awareness of limits of knowledge	SOCI 3210U - Social Life and Moral Order: Exploring Norms, Values, and Social Change COMM 3250U - Pop Culture and Entertainment COMM 4420U - Political Communication, Digital Media and Democracy LGLS 3520U - Law and Technology SOCI 4220U - Technology and Environmental Sustainability SOCI 4999U - Special Topics in Sociology SOCI 4210U - Privacy, data, and surveillance COMM 4120U - AI, Ethics and Communication SOCI 3220U - Emerging Technologies and Society SOCI 4100U - Social Innovation and Change SSCI 4005U – Independent Study	Group projects / presentations Discussions and debates Research papers or projects
evaluate ethical and socially responsible practice	Knowledge of methodologies Application of knowledge Awareness of limits of knowledge Autonomy and professional capacity	SOCI 3200U - Ethics in the Modern World: Challenges and Perspectives COMM 4510U - Public Relations, Social Power, Social Media Platforms and Social Responsibility LGLS 3700U - Law and Power SOCI 2300U - Social Problems (formerly SSCI 1300U) SSCI 3000U - Disability, Rehabilitation and Society	Critical essays Case study Group projects / presentations Discussions and debates Research papers or projects
develop and apply practical skills for social analysis and intervention	Knowledge of methodologies Application of knowledge Awareness of limits of knowledge	CRMN 3045U – Terrorism CRMN 3056U - Race-ing Justice CRMN 4037U - Youth Justice Policy CRMN 4052U - Policing Diverse Communities INDG 3310U - Indigenous Peoples, Sustainability and Development: A Global Perspective LGLS 4200U - Law and Social Change POSC 3101U - Inequality, Environment and Development POSC 3102U - Race and Racism in Political Culture POSC 3501U - Politics and Poverty PSYC 1000U - Introductory Psychology PSYC 3500U - Stereotypes and Prejudice SOCI 2010U - Deviance and Social Control SOCI 3001U - Economy and Society SOCI 4110U - Sociology of Organizations SOCI 4100U - Social Innovation and Change SSCI 4098U – Practicum	Written assignments Group projects Presentations Debates Reflective journals

		SSCI 4103U – Internship [co-op when available]	
be introduced to and develop an understanding of sociological concepts to apply informed decision-Making	Application of knowledge Awareness of limits of knowledge Autonomy and professional capacity Communication skills	COMM 2410U - Social History of Communication and Media Technologies COMM 3710U - Media, Identity and Intercultural Communication COMM 4530U - Media Activism and Protest Cultures CRMN 3301U - Green Criminology and Eco-Justice CRMN 3401U - Indigenous Peoples and Justice INDG 4310U - The Politics of Indigenous Rights POSC 2100U - Global Politics POSC 2800U - Introduction to Business, Economy and Society POSC 3602U - Labour in the Global Economy POSC 3800U - Capitalism and Socialism SOCI 2700U - Human Sexuality (formerly SSCI 2700U) SOCI 2720U - Sports and Society (formerly SSCI 2720U) SOCI 4110U - Sociology of Organizations SSCI 4010 - Policy Development SOCI 3130U - Advanced Studies in Social Inequality SOCI 3210U - Social Life and Moral Order: Exploring Norms, Values, and Social Change	Written assignments Group projects Presentations Debates Reflective journals
implement effective and interdisciplinary communication, collaboration, and advocacy	Depth and breadth of knowledge Application of knowledge Communication skills Autonomy and professional capacity	SSCI 1910U - Writing for the Social Sciences SSCI 2101U - Introduction to Social Entrepreneurship COMM 3510U - Work in the Creative and Tech Industries SOCI 4030U - Doing Sociology SSCI 3300U - Community Connections SSCI 4010U - Policy Development SSCI 4020U - Leadership and Administration SOCI 3220U - Emerging technologies and society SOCI 3110U - Community- Based Participatory Action Research SOCI 4020U - Social Movements SOCI 4100U - Social Innovation and Change SOCI 4210U - Privacy, data, and surveillance SOCI 4200U - Health, Aging and Society	Written assignments Group projects Presentations Debates

Selecting a few examples from above and with assistance from CIQE (ciqe@ontariotechu.ca), please provide further details on:

- *Appropriateness of the program's structure and the requirements to meet both its objectives and program learning outcomes; Guidance on program objectives and program-level learning outcomes, including examples, is available here*
- *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?); and*
- *Completeness and appropriateness of plans for monitoring and assessing;*
    - *The overall quality of the program*
    - *Whether the program is achieving in practice its proposed objectives;*
    - *Whether the students are achieving the program learning outcomes; and*
    - *How the resulting information will be documented and subsequently used to inform continuous program improvement*

Please see Guidance on Assessment of Teaching and Learning for advice on how to satisfy these criteria.

Appropriateness of the program's structure and the requirements to meet both its objectives and program learning outcomes.

The program is structured as a 4-years Honour's BA, with two unique specializations. A 4-year program will allow students the opportunity to progressively build their knowledge base starting in first and second years (e.g., SOCI 1000U – Introductory Sociology and SOCI 2000U Classical Sociological Theory), learn to apply their knowledge of sociological theories using appropriate methodologies (e.g., SSCI 2920U – Qualitative Research Methods; SSCI 3910 U Advanced Data Analysis; SSCI 3920U Advanced Qualitative Methods; SOCI 3100U Applied Sociology; SOCI 3110U Community-Based Participatory Action Research), and to understand the different applications for sociological concepts in "real- world" scenarios and situations (e.g., SOCI 4110U Sociology of Organizations; SSCI 4010U Policy Development; SOCI 3130U Advanced Studies in Social Inequality; SOCI 3210U Social Life and Moral Order: Exploring Norms, Values, and Social Change).

Appropriateness of the proposed methods for the assessment of student achievement of the intended program learning outcomes and Degree Level Expectations

Methods of assessments will build on recent research about teaching and learning (with advice from the university's Teaching and Learning Centre). Research demonstrates the importance of having a variety of assessment methods that range from hands-on learning (e.g., via debates and discussions, practicum, and internship placements), recall of theories and concepts (short answer tests, oral tests), application of theories and concepts (e.g., case studies, research essays, reflective activities), and development of effective communication skills (e.g., presentations, debates, video and social media outreach, written communications). These types of assessments build the capacity of students to use their learning and development of skills in different types of settings and under a variety of

expectations (e.g., development of transferable skills and confidence in their abilities). If students choose to engage in the experiential learning program, they will have the opportunity to apply their knowledge and skills in the workplace (e.g., during a practicum, internship, or co-op).

Evaluating achievement of learning outcomes and degree-level expectations achievement

The plans for documenting and demonstrating the level of student performance have been designed specifically to be consistent with the degree level expectations (DLE). The program-level learning outcomes are based on the DLEs and onto these were mapped appropriate courses and methods of assessment. The program will be externally reviewed during cyclical reviews and assessed on an ongoing basis through indicators such as enrolment levels, student grades, retention, and yearly course evaluations. Classes and assessment practices as outlined in the proposal will be closely monitored on an ongoing basis through the internal curriculum committee.

The BA Sociology, Technology and Innovation will be a full-time program; partially in person, online and hybrid (approximately 50% of FSSH courses are now offered online); the specializations are unique to Ontario Tech University; creative components include group presentations; practicum, internship, and (eventually) co-op programs will all be available to SCTI Majors.

- *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?*
- *Address how the program's structure, requirements, and program-level learning outcomes are appropriate in meeting the Degree Level Expectations.*

Students will require 120 credit hours, which will include the following:

- Core first year courses: Students in the BA Sociology, Technology and Innovation will receive a broad- based education with introductory courses in Sociology and Writing. The students will also have a choice of additional introductory courses in Communication Studies, Criminology and Justice, Legal Studies, Political Science, Psychology, and Indigenous Studies.

- Year Two: Year two will incorporate core Sociological courses to provide students with a strong foundation. Students will also be required to take courses in research methods including quantitative and qualitative research methods.

- Upper year courses: In the students' third and fourth years, they will have an opportunity to complete the major or the major with a

specialization. The two subject areas for the proposed specializations are Applied Sociology and Society, Values and Technology. Students will be required to complete 5 courses from those designated as counting towards the specialization.

- Sociology electives: Room has been provided in years 3 and 4 for the students to choose from Sociology electives. They will be required to select at least 5 senior level Sociology courses from the available electives.

- General electives: Room has been provided for general electives throughout the 4-year degree. Students can choose from any general elective offered at Ontario Tech. This will provide the student flexibility when planning their curriculum to suit their individual needs.

- Experiential Learning opportunities: Experiential Learning will be an important component of both the major and major with specializations. There will be space for students to participate in a practicum, internship or co-op program (when becomes available). The specialization in Applied Sociology in particular, will include the development of skills for work in community development, public policy and organizational management.

- *Describe the ways in which the curriculum addresses the current state of the discipline*

Introductory/survey courses will include coverage of the state of the discipline; methods courses will cover the most widely cited contemporary approaches to the study of sociology. Sociology today is a vibrant and evolving discipline. It continues to analyze and interpret social phenomena, such as inequality, globalization, technology's impact on society, and cultural shifts. In recent years, there has been a growing emphasis on interdisciplinary approaches within sociology, as scholars recognize the interconnectedness of social issues with other fields such as psychology, economics, and political science. Additionally, sociologists increasingly engage with quantitative and qualitative research methods, including the use of big data and computational social science, to better understand complex social dynamics. Moreover, there is a heightened focus on addressing pressing contemporary issues, such as climate change, racial justice, and health disparities, through sociological inquiry and advocacy. Overall, sociology remains relevant and influential in shaping our understanding of society and informing policies and interventions aimed at creating a more just and equitable world.

The proposed curriculum provides learners with core foundational skills and knowledge in sociology and technology, and opportunities to develop

expertise in doing, applying, and evaluating sociological research for and about people facing contemporary social challenges in real-world settings.

- *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)*

Experiential Learning will be an important component of both the major and major with specialization. There will be space for students to participate in a practicum, internship, or co-op program (when available). The specialization in Applied Sociology in particular, will include the development of skills for work in community development, public policy, and organizational management, as well as communication and networking competencies. The Faculty's experiential learning program provides an academic course that prepares students for the workforce and includes a placement of at least 100 hours (in the practicum) or 280 hours (in the internship) in an appropriate workplace. Co-op opportunities in the Faculty are currently in development. With over 200 established partnerships, students may choose a relevant opportunity depending on student preferences and a successful matching process. All formal experiential learning opportunities are competitive and require a minimum 3.0 GPA and fourth-year standing.

Placements are regularly available in partner organizations such as Children's Aid Society of Durham, CMHA Toronto, Community Living Oshawa/Clarington, Grandview Kids Foundation, the City of Oshawa, Aura Freedom International, Durham Family Court Clinic, Murray McKinnon Foundation, Regional Municipality of Durham (Social Services), Safety Network Durham, New Roots Therapy, John Howard Society, AIDS Committee of Durham Region, FCJ Refugee Centre, Ministry of Finance, Ministry of the Attorney General, Ministry of Child and Youth Services, Ministry of the Solicitor General and Correctional Services, and many more. We anticipate that the program will have capacity for approximately 50 placements per year for qualifying sociology students.

- *Describe how the principles of Equity, Diversity, Inclusion, and Decolonization have been considered:*
  - *Does the program contain concepts, materials, or resources from scholars/professionals who are part of one or more historically marginalized groups?*
  - *Are multiple perspectives represented in the program, such as those offered by those who are Indigenous, Black, Persons of Colour, and/or 2SLGBTQIA+?*
  - *How has accessibility been considered? More specifically, have the needs of students with disabilities been integrated into the program design (e.g., the ways that students are asked to demonstrate their learning)?*
  - *Will this program provide space to allow for the discussion of other viewpoints outside the "dominant, Western narrative"?*
  - *Have the principles of Universal Design been considered?*
  - *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

Courses within the Sociology, Technology and Innovation program will offer a rich variety of EDI-focused themes, and social justice themes as they are a primary component of all FSSH programs. Several professors within the Sociology program and FSSH as a whole, are part of historically marginalized groups. Many of them currently teach about or conduct research on topics related to equity (e.g., Dr. Shahid Alvi examines digital victimization and violence against women), diversity (e.g., Dr. Kanika Samuels-Wortley is a CRC on race, racism and inequality), and inclusion (e.g., Dr. Arshia Zaidi researches intersections between gender, sexuality, race and ethnicity). Examples of courses related to EDI include SOCI 2020U – Issues in Diversity, SSCI 3000U – Disability, Rehabilitation and Society, POSC 3102U – Race and Racism in Political Culture, and INDG 3310U – Indigenous Peoples, Sustainability and Development: A Global Perspective. New courses being developed include SOCI 3130U – Advanced Studies in Social Inequality and SOCI 4200U, Health, Aging and Society.

Accessibility is also a central feature of all FSSH offerings, with student accommodation as necessary.

The sociology program, incorporates the three principles of Universal Design for Learning:

1. Equitable Use: Our sociology program ensures that all students, regardless of their abilities or backgrounds, can fully participate in and benefit from the learning experience. For example, our classrooms are designed with adjustable desks and wheelchair-accessible seating to accommodate students with mobility impairments, ensuring equitable access to physical spaces. This principle of equitable use extends to our online learning platform, which features customizable settings such as font size and color contrast to accommodate students with visual impairments or reading difficulties.

2. Flexibility in Use: We recognize that students have diverse learning preferences and needs. Therefore, our program offers flexibility in how students engage with course materials and demonstrate their understanding. For instance, students may choose from a variety of assessment options, including written essays, oral presentations, or multimedia projects, allowing them to showcase their knowledge and skills in ways that align with their strengths and interests. This flexibility extends to our teaching methods as well, with instructors employing a variety of instructional techniques to cater to different learning styles.

3. Simple and Intuitive Use: Our program is designed to be intuitive and easy to navigate for all students. Course materials are organized in a clear and logical manner, with consistent formatting and labeling to facilitate comprehension. In addition, we provide comprehensive instructions and guidance to support students in accessing and using course resources effectively. For example, our online learning platform includes tutorials and support resources to help students familiarize themselves with its features and functionalities, ensuring a seamless and user-friendly experience for all learners.

c) 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*
- *Note that pathway (Bridge/Advanced Entry) programs will require a separate, usually shorter, section in the Calendar; please be sure to include one entry for each program type. Pathway Calendar example*
- *New Minors, Co-op programs, or other alternatives have additional Calendar entries. Should you be including these items, please contact CIQE for more information and templates*
- *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 A for a proposed calendar copy. Please see Appendix B 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*
- *Describe any consultation undertaken with regard to the principles of Equity, Diversity, Inclusion, and Decolonization*

The proposed program is the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability, and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom. FSSH faculty are at the forefront of substantive issues around Diversity, Equity, and Inclusion. It is understood that courses will respect EDI principles as a core value. Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology

program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology, and psychology.

This program will attract new students to Ontario Tech University. There may be some impact on other programs if students choosing FSSH decide to major in Sociology, Technology and Innovation instead of existing programs, but with the interdisciplinarity of the programs in the Faculty, we anticipate that this impact will be limited. Indeed, we anticipate that in the future will develop pathways for students to undertake double majors (e.g., Sociology and Political Science) that will afford students the opportunity to develop broad-based knowledge about a range of social issues and will assist in preparing them for the workforce. Other Faculties will not be affected.

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

The program will incorporate existing courses from the Indigenous Studies Minor program. No new Indigenous content is included in this program.

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

N/A

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 2.1.2.6, 2.1.2.8 a)

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*

(cige@ontariotechu.ca) regarding any implications to existing or new agreements.

The new program will impact pathways agreements with other institutions/external partners. Any existing agreements with other institutions will be amended to allow for college-university pathways to be enhanced by the new program in Sociology, Technology and Innovation. This program will afford more college graduates the opportunity to pursue a university degree.

b) Faculty Members - Current and New Faculty Requirements

- *Complete as an Appendix, using the Faculty Information template provided, a chart detailing the list of faculty committed to the program and provide any additional details, in paragraph form below*
- *Include here 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, achieve the goals of the program and foster the appropriate academic environment, contribute substantively to the program, and commit to student mentoring*
- *Describe the role of any sessional/part-time faculty; provide an approximate percentage used in the delivery of the program and the plans to ensure the sustainability of the program and quality of the student experience*
- *Explain the provision of supervision of any experiential learning opportunities*
- *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)*

Th ere are no new faculty requirements currently. Declining enrollment in a few other areas within the Faculty of Social Science and Humanities will enable us to make more effective use of faculty resources for this program. Many of the current FSSH professors have PhDs in Sociology and/or have taught sociology courses during their careers. At least sixteen professors from all career states (Assistant, Associate and Full professors, and teaching faculty) have expressed interest in teaching in the program.

Please see Appendix C for Faculty Information template.

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)*

Several courses may be taught by sessional instructors; there is an adequate

labour market from which qualified professors are available. Most graduate students in FSSH will be well-equipped to support the Sociology program as TAs since there is a robust Criminology graduate program in addition to the new Master's in Social Practice and Innovation. Only the large 1st year course will require TA support, which is already budgeted for in the Faculty.

d) Supporting information for online and hybrid programs

- *Describe the adequacy of the technological platform to be used for online delivery*
- *Describe how the quality of education will be maintained*
- *Describe how the program objectives will be met*
- *Describe how the program learning outcomes will be met*
- *Describe the support services and training for teaching staff that will be made available*
- *Describe the sufficiency and type of supports that will be available to students*
- *How has accessibility been considered?*
- *What strategies have been considered to accommodate students with disabilities?*
- *Have the principles of Universal Design been considered?*
- *Will course content be offered in both written and audible forms (e.g., closed captioning, transcriptions)?*
- *Is course content designed logically and is it easy to follow with limited instruction?*
- *Are assignment expectations clear (i.e., a rubric)?*
- *Have the needs of students with limited or unreliable access to wi-fi been considered (e.g., breaking down pre-recorded lectures into maximum 10- minute videos)?*

Ontario Tech University has a robust learning management system (Canvas) and a stable internet system with access to secure VPN protocols. Even prior to the COVID lockdowns, Ontario Tech had well-established courses that were taught online. Since then, these tools have improved, and faculty members have become more adept at teaching online. Indeed, some faculty members have been teaching courses online since the early 2000s. Quality education can be maintained with clear expectations, careful planning of the curriculum, and engagement with the students. Since the university wishes to include a variety of delivery modalities, faculty members have developed strong methodologies for teaching online, in- person and in hybrid formats.

By designing all courses, including hybrid and online, with attention to Universal Design for Learning (UDL) protocols, we work to ensure that all students are accommodated to the best of our ability. UDL principles are

considered by ensuring that all students have access to ppt slides prior to lectures, using closed captioning on lecture videos, having flexible scheduling of assignments, and so on, within the limits imposed by university rules and structures.

Within the parameters of academic freedom, course content is designed logically and clearly outlined on the syllabus. Given the wide range of andragogical models, different courses may have different designs and levels of complexity. Assignment expectations are clearly laid out in the syllabus or in assignment information sheets and within the Canvas Learning Management System. The university's Teaching and Learning Centre provides workshops that assist instructors in planning their courses, including advice on teaching online, rubric and assignment best practices, and so on, such as chunking lecture videos into shorter 10 min segments.

Students are always encouraged to reach out to instructors, academic advisors, and the Associate Dean of Undergraduate Experience if they run into difficulties in any of their courses, whether they are online or in-person.

e) Existing student supports

Ontario Tech University, as a relatively small campus community, has a centralized delivery model for student supports. All undergraduate students have access to an extensive support system that ensures a quality student experience. Each Faculty may provide additional, Faculty- or program-specific supports. In addition to the outlined services below, students may also take advantage of the Campus Bookstore, Housing and Living Resources as well as the Ontario Tech Student Union. Further information can be found at: http://studentlife.ontariotechu.ca/.

Faculty-Specific Support

The Academic Advising department is dedicated to providing a high level of accessible and individualized support to students. Advisors are available Monday to Friday via email, virtual chat, in-person drop-ins, and daytime and evening appointments.

All students in the Faculty of Social Science and Humanities are supported by a team of both first year and upper year focused Academic Advisors. The first-year advisor is dedicated to supporting students through a successful transition to university and conducting early alert outreach and programming to support student retention. Upper year advisors work with students beyond first year to develop and refine goals, explore academic opportunities and options, problem solve challenges and provide overall support in navigating the academic environment towards graduation.

Student Life

Student Learning Centre

Ontario Tech University fosters a high level of academic excellence by working with students, undergraduate and graduate, to achieve educational success. Faculty specific academic resources are available online and include tip sheets and videos. Academic specialists offer one-on-one support services in mathematics, writing, study skills, ESL and physics. With the additional support of peer tutors and workshops, the Student Learning Centre can also accommodate the needs of a specific course or program.

Student Accessibility Services

Ontario Tech University ensures that students with disabilities have equal opportunities for academic success. Student Accessibility Services operates under the Ontario Human Rights Code and the Accessibility for Ontarians with Disabilities Act.
Services and accommodation support are provided for students with documented disabilities and include:

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

Student Accessibility Services also provides inclusive peer spaces, support groups, and skills workshops for students.

Career Readiness

Ontario Tech University offers comprehensive career service assistance, co-op and internship support 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 internships
- Interview preparation
- Job market information
- Job search strategies

The Career Centre hosts a variety of events during the academic year including employer information and networking sessions, job fairs and interviews conducted by leading employers.

Student Engagement, Equity and Inclusion, and ***Indigenous Education and Cultural Services***

The university supports students' successful transition and provides opportunities to develop leadership and professional skills throughout their university career. Services provided include:

- Equity and inclusivity programming and support groups
- Indigenous Education and Cultural Services provides space and supports for

students to connect with Indigenous culture and resources
- Opportunities to grow and develop leadership skills through the Ambassador and Peer Mentorship program
- Orientation and events through first year
- Peer mentoring
- Services and supports for international and exchange students
- Specialized programming for first-generation, graduate, Indigenous, international, mature, online, transfer and diploma-to-degree pathways students

Student Mental Health Services

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

- Access short term counselling and therapy services
- Access tools and resources online to learn about mental health and how to maintain good health and wellness
- Attend drop-in sessions
- Participate in events, activities or support groups that promote positive health and well-being
- Work with a mental health professional to address concerns

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
- Treatment of disease, illness, and injury
- Allergy injections, immunizations, and influenza injections
- Complementary Health Services featuring acupuncture, chiropractic, custom

orthotics, massage therapy, nutritional counselling, and physical therapy
- 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 SAFA 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

Ontario Tech University is a leader among North American universities in implementing and using curriculum and industry specific software in a technology- enriched learning environment (TELE). Our unique environment is adapted to each discipline based on faculty requirements and input for optimal student learning. We are committed to providing the greatest value for students' investment in education and technology while studying at Ontario Tech University.

One of the greatest advantages of Ontario Tech University's approach to TELE is that all students have equal access to the same technology, resources and services.
Whether you are inside or outside of the classroom, your course-specific software allows you to work on your own or with others and enjoy seamless access to all Ontario Tech online resources. TELE supports Bring-your-own-device (BYOD) which provides you with laptop standards when acquiring the right laptop for your program and software support services onsite and online. An annual fee for TELE covers a wide range of program-specific software, technical software support, exam support and virus protection.

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 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.

Exam support services
IT Services provide hardware, software and technical support during examinations. IT team will be equipped with loaner laptops in the event of major technical issues.

Laptop repairs
IT Services provide on campus repairs on eligible laptop models.

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.

General Use Workstations (GUWs)
Ontario Tech undergraduate students are able to use general workstations available at the library and have access to Bring Your Own Device Technology-Enriched Learning Environment (BYOD TELE) model course-specific software.

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 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 University 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 University 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.

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.* ***If new space is required, please complete Table 4 (examples in purple); otherwise, please remove this Table from the document***
- *Ideally, please provide information on the change in the number of faculty, students, administrative staff, etc. as it relates to space, 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)*
- ***If new resources are needed, describe the plan and commitment to provide these resources to support the program and the rationale in section 4g)***

There are no additional physical resource requirements.

g) Resource Summary

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

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)?

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:

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:

There are no additional resource requirements.

The resource requirements outlined above have been reviewed and approved by the Academic Resource Committee (ARC): _15, April 2024

5 Closing Statements Regarding Program Quality (QAF 2.1.2.8)

- *Please describe the appropriateness of the collective faculty expertise to contribute substantively to the proposed program; what 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*

The collective faculty expertise within our Sociology, Technology and innovation program is exceptionally well- suited to contribute substantially to the proposed program. Our faculty members bring diverse backgrounds and research interests encompassing a wide range of sociological subfields, including but not limited to: social inequality, race and ethnicity, gender studies, environmental sociology, urban sociology, technology and society, and globalization. Many of our faculty members have established themselves as leading scholars in their respective areas, with a strong record of publication in top-tier academic journals and contributions to key sociological debates. Moreover, many faculty possess extensive experience in applied sociology, community engagement, and policy analysis, enabling them to bridge theory and practice effectively. Additionally, our faculty members are committed to innovative teaching methods and pedagogical approaches that foster student engagement and critical thinking. They bring a wealth of experience in traditional and non-traditional classroom instruction and experiential learning opportunities, such as internships, fieldwork, and community-based research projects. Overall, the strength and expertise of our faculty, coupled with their dedication to innovation and scholarly excellence, will contribute to the quality of the program and enhance the student experience.

• 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.

Calendar Copy with Program Maps
List of Program Courses, New Course Proposals, Required Course Changes, Course Descriptions for Existing Courses
Detailed Listing of Faculty Committed to the Program
Library Report

Items to be separate documents sent to CIQE:

New Program Funding and Tuition form (for CIQE use only)
Full Budget Spreadsheet (for ARC use only)
CVs for all faculty committed to the program (to be provided to the external reviewers)

Sociology, Technology and Innovation

General Information

Broadly speaking, Sociology is the study of society, relationships, and institutions with the goal of understanding how social and cultural structures are shaped by human actions, beliefs, consciousness, and relationships. The Major in Sociology, Technology and Innovation affords students the opportunity to explore a wide range of issues, such as the nature of gender identity, racism and class, conflict, shared beliefs, the social implications of the internet and technology, forms of governance and social control, and their impacts on societies and communities.. Studying Sociology, Technology and Innovation will help students to think critically and analytically about human social life, looking beyond views that are often taken for granted in day-to-day interactions. Beginning in second year, students will have the opportunity to continue with the unspecialized program or to choose from two areas of specialization – Applied Sociology, or Society, Technology and Human Values.

Applied Sociology Specialization

The specialization in applied sociology equips students with the theoretical understanding and practical skills necessary to analyze and address complex social issues in real-world contexts. Through an interdisciplinary approach, students explore sociological concepts and methodologies while gaining insights into the dynamics of human behavior, social structures, and institutions. This specialization prioritizes the practical application of sociological insights across domains such as community development, social work, public policy, and organizational management. The program emphasizes the application of sociological knowledge to fields such as community development, social work, public policy, and organizational management. By engaging in research projects, students develop critical thinking, research, and communication skills essential for driving meaningful societal transformation and advocating for fairness and equity across diverse environments. Training in applied sociology provides excellent preparation for graduate and professional studies as well as administrative, analytical, and conflict resolution work in many business, non-profit, political, and other organizational fields including but not limited to counselling, clinical and social work contexts and careers, public and private organizations involved in social research, social policy, and program development.

Society, Technology and Human Values Specialization

Students in this specialization explore the intricate interplay between society, technology, and human values, acknowledging humans as both creators and consumers of technology. Learners will examine the historical and current dynamics of these relationships, gaining insights into the significant impact of technology on our everyday lives. They will acquire practical skills and knowledge to navigate the complex

intersections of society and technology. Students also learn to critically analyze technological advancements, evaluate their ethical and social consequences, and contribute to informed, ethical, and responsible decision-making regarding technology in various contexts.

Throughout the program, students engage with theoretical frameworks and empirical research to develop a comprehensive understanding of how technological advancements shape and are shaped by social structures, cultural norms, and individual values. By examining case studies, historical trends, and current developments, students gain insights into the multifaceted ways in which technology influences social processes, from communication patterns to economic systems to cultural practices. Key themes include technological determinism, digital divides, privacy concerns, labour displacement, environmental sustainability, ethical dimensions of technology use and design, privacy, surveillance, artificial intelligence, and genetic engineering.

Beyond theoretical exploration, this specialization emphasizes the acquisition of practical skills and knowledge essential for navigating the intricate intersections of society and technology. Through readings, case studies, hands-on projects, collaborative research endeavours, and experiential learning opportunities, students learn to critically analyze technological advancements, assess their ethical and social implications, and contribute to informed, ethical, and responsible decision-making in various contexts.

Admission requirements

Admission is competitive. The specific average or standing required for admission varies from year to year. Students are selected by taking into consideration a wide range of criteria including school marks, distribution of subjects taken, and performance in subjects relevant to the academic program. Possession of the minimum requirements does not guarantee acceptance. Preference will be given to applicants with the best qualifications.

Current Ontario secondary school students must complete the Ontario Secondary School Diploma (OSSD) with six 4U or 4M courses, including English (ENG4U). Expected average of 70%. All other applicants should refer to admissions for the requirements for their specific category of admission.

- **Practicum**

A limited number of fourth-year students are granted an opportunity to participate in a learning experience with a community organization. The Practicum course consists of 100 hours of fieldwork, in-class seminars, a set of academic assignments and a major research paper and poster. As part of the pre-practicum process, students will be required to acquire a Vulnerable Sector check. For additional information, please refer to the course description for SSCI 4098U.

- **Internship**

This program offers students who have successfully completed three years of study with a cumulative 3.0 GPA (B average on a 4.3 scale) an opportunity to engage in a work-integrated learning partnership with organizations locally and globally. The internship program not only gives students an opportunity to apply classroom concepts to the challenges of organizational life, but also helps them to gain valuable and relevant work experience to promote networking and life-long career success.

The internship program placement equates to a minimum of 280 hours of paid or unpaid field experience. The intern's wages, where applicable, are paid by the sponsoring organization over a contracted period. The faculty may provide links to various internship placement opportunities or a student may secure an internship opportunity that meets the criteria as prescribed by the Faculty of Social Science and Humanities. Successful work placement completion and both a verbal and written final project will result in the intern receiving a mark and three credits toward the Honours Bachelor of Arts degree requirements.

Admission to the internship program is competitive. While students are participating in an internship program, they may enrol in up to two additional courses (six credits) per semester. These courses must not interfere with the internship schedule outlined by the employer. For additional information, please refer to the course description for SSCI 4103U.

- **Double majors**

Students registered in a Bachelor of Arts (Honours) program within the Faculty of Social Science and Humanities at the university have the opportunity, in most cases, to combine two majors within the Faculty of Social Science and Humanities concurrently as a double major (note - some restrictions apply). Double major program maps have been approved by the Faculty of Social Science and Humanities and are available through the Academic Advising Office. Students undertaking a double major within the Faculty of Social Science and Humanities will, in most cases, be required to complete more than 120 credit hours. Students wishing to declare a double major must consult with the Academic Advising office. New in 2023-2024, the Faculty of Social Science and Humanities will offer a double major in Legal Studies and Political Science that is 120 credit hours to complete.

- **Degree and major requirements**

To be eligible for the Bachelor of Arts (Honours) degree in Sociology, Technology and Innovation, students must meet both the degree requirements and requirements of the major as outlined below for a total of 120 credits. Each year prior to course registration, the order and timing of course offerings will be released by the faculty and communicated to students.

Year 1 [30 credit hours]

- SOCI 1000U - Introductory Sociology
- SSCI 1910U - Writing for the Social Sciences

Three of:

- COMM 1100U - Introduction to Communication and Digital Media Studies
- CRMN 1000U - Introduction to Criminology and Justice
- LGLS 1000U - Foundations of Legal Studies
- POSC 1000U - Introduction to Political Science
- PSYC 1000U - Introductory Psychology

Three FSSH Electives

Two General Electives

Please note: any course not taken in the above option block may be taken as an elective. ALSU 1101U, INDG 1000U, SSCI 1210U, SSCI 1470U, and SSCI 1700U are recommended as electives in the first year.

Year 2 [30 credit hours]

- SOCI 2000U - Classical Sociological Theory (new course)
- SOCI 2020U - Issues in Diversity (formerly SSCI 2020U)
- SOCI 2025U - Youth Cultures (formerly SSCI 2025U)
- SSCI 2900U - Research Methods
- SSCI 2910U - Data Analysis
- SSCI 2920U - Qualitative Research Methods

Two of:

- CRMN 2030U - Social Control
- POSC 2100U - Global Politics
- POSC 2800U - Introduction to Business, Economy and Society
- SOCI 2010U - Deviance and Social Control (new)
- SOCI 2300U - Social Problems (formerly SSCI 1300U)
- SOCI 2700U - Human Sexuality (formerly SSCI 2700U)
- SOCI 2720U - Sports and Society (formerly SSCI 2720U)
- SSCI 2101U - Introduction to Social Entrepreneurship

Two General Electives

Year 3 [30 credit hours]

- SOCI 3000U - Contemporary Sociological Theory (new course)
- SOCI 3001U - Economy and Society (new course)

One of:

- SSCI 3910U - Advanced Data Analysis
- SSCI 3920U - Advanced Qualitative Methods

Three of:

- CRMN 3023U - Family Violence
- CRMN 3010U - Social Justice/Criminal Justice
- INDG 3310U - Indigenous Peoples, Sustainability and Development: A Global Perspective
- LGLS 3200U - Sociology of Law
- LGLS 3520U - Law and Technology
- LGLS 3700U - Law and Power
- POSC 3101U - Inequality, Environment and Development
- POSC 3602U - Labour in the Global Economy
- POSC 3800U - Capitalism and Socialism
- SSCI 3000U - Disability, Rehabilitation and Society

Two SOCI Electives

Two General Electives

Year 4 [30 credit hours]

- SOCI 4020U - Social Movements (new course)

One of:

- SOCI 4030U - Doing Sociology (new course)
- SSCI 4010U - Policy Development
- SSCI 4098U - Practicum
- SSCI 4103U - Internship

One of:

- COMM 4420U - Political Communication, Digital Media and Democracy
- INDG 4310U - The Politics of Indigenous Rights
- LGLS 4200U - Law and Social Change
- SOCI 4999U - Special Topics in Sociology (new)
- SSCI 4020U - Leadership and Administration

Three SOCI electives

Four General Electives

○

○ **General and FSSH electives

General electives can be taken at/or adjoining their year level, where permission has been granted and prerequisites have been fulfilled. FSSH electives are any courses offered by the Faculty of Social Science and Humanities (i.e. ALSU, COMM, CRMN, INDG, FPSY, LBAT, LGLS, POSC, PSYC and SSCI). No more than five 1000-level elective courses can be included. A minimum of three FSSH elective courses must be outside of major at the 2000-level or higher and a minimum of three elective courses must be at the 3000-level or higher.

○ **Specializations**

Students will have the opportunity to obtain additional specializations within one of two subject areas: Applied Sociology and Society, Values and Technology. To achieve a specialization, students will be required to take a minimum of 5 course credits, as described in more detail below.

Specialization in Applied Sociology

Three of:

- SOCI 3100U - Applied Sociology (new course)
- SOCI 3110U - Community-Based Participatory Action Research (new course)
- SOCI 3120U - Evaluation Research (new course)
- SOCI 4100U - Social Innovation and Change (new course)
- SOCI 4110U - Sociology of Organizations (new course)

Two of:

- COMM 2530U - Advertising as Social Communication
- COMM 3250U - Pop Culture and Entertainment
- COMM 4510U - Public Relations
- COMM 4530U - Media Activism and Protest Cultures
- CRMN 3056U - Race-ing Justice
- CRMN 3401U - Indigenous Peoples and Justice
- CRMN 4037U - Youth Justice Policy
- CRMN 4052U - Policing Diverse Communities
- SOCI 3220U - Emerging Technologies and Society (new course)
- SOCI 3130U - Advanced Studies in Social Inequality (new course)
- SSCI 3300U - Community Connections

Specialization in Society, Values and Technology

Three of:

- SOCI 3200U - Ethics in the Modern World: Challenges and Perspectives (new course)
- SOCI 3210U - Social Life and Moral Order: Exploring Norms, Values, and Social Change (new course)
- SOCI 3220U - Emerging Technologies and Society (new course)
- SOCI 4200U - Health, Aging and Society (new course)
- SOCI 4210U - Privacy, Data and Surveillance (new course)

Two of:

- COMM 2410U - Social History of Communication and Media Technologies
- COMM 3510U - Work in the Creative and Tech Industries
- COMM 3710U - Media, Identity and Intercultural Communication
- COMM 4120U - AI, Ethics and Communication
- COMM 4420U - Political Communication, Digital Media and Democracy
- COMM 4510U - Public Relations, Social Power, Social Media Platforms and Social Responsibility
- CRMN 3045U - Terrorism
- CRMN 3301U - Green Criminology and Eco-Justice
- CRMN 3401U - Indigenous Peoples and Justice
- POSC 3102U - Race and Racism in Political Culture
- POSC 3501U - Politics and Poverty
- PSYC 3500U - Stereotypes and Prejudice
- SOCI 3230U - Families in Contemporary Society (new course)
- SOCI 4100U - Social Innovation and Change (new course)
- SOCI 4220U - Technology and Environmental Sustainability (new course)

Sociology, Technology and Innovation – Advanced Entry

General Information

The Sociology, Technology and Innovation - Advanced Entry program provides college graduates with the opportunity to apply their two-year college diploma toward a Bachelor of Arts (Honours) in Sociology**,** Technology and Innovation.

Sociology**,** Technology and Innovation - Advanced Entry students will take the same mandatory courses as other Sociology students in their third and fourth years, but the order that these courses are taken will differ to facilitate completion of all course requirements within a two-year period.

Admission requirements

Admission is competitive. The specific average or standing required for admission varies from year to year. Students are selected by taking into consideration a wide range of criteria including school marks, distribution of subjects taken, and performance in subjects relevant to the academic program. Possession of the minimum requirements does not guarantee acceptance. Preference will be given to applicants with the best qualifications.

For further information, please visit college-university transfer programs.

- **Advanced Entry completion requirements**

Students accepted into the Advanced Entry program will complete the following courses.

Year 3 [30 credit hours]

- SOCI 2000U – Classical Sociological Theory (new course)
- SSCI 2900U - Research Methods
- SSCI 2910U - Data Analysis
- SSCI 2920U – Qualitative Research Methods
- SOCI 3000U – Contemporary Sociological Theory (new course)
- SOCI 3001U – Economy and Society (new course)

Two of:

- CRMN 2030U – Social Control
- POSC 2100U - Global Politics
- SOCI 2010U - Deviance and Social Control (new course)
- SOCI 2020U - Issues in Diversity (formerly SSCI 2020U)
- SOCI 2025U - Youth Cultures (formerly SSCI 2025U)
- SOCI 2300U - Social Problems (formerly SSCI 1300U)

- SOCI 2700U - Human Sexuality (formerly SSCI 2700U)
- SOCI 2720U - Sports and Society (formerly SSCI 2720U)
- SSCI 2101U - Introduction to Social Entrepreneurship

Two General Electives

Year 4 [30 credit hours]

- SOCI 4020U - Social Movements (new course)

One of:

- SSCI 3910U - Advanced Data Analysis
- SSCI 3920U - Advanced Qualitative Methods

One of:

- SOCI 4030U - Doing Sociology (new course)
- SSCI 4010U - Policy Development
- SSCI 4098U – Practicum
- SSCI 4103U – Internship

Two of:

- CRMN 3023U - Family Violence
- CRMN 3010U - Social Justice/Criminal Justice
- INDG 3310U - Indigenous Peoples, Sustainability and Development: A Global Perspective
- LGLS 3200U - Sociology of Law
- LGLS 3520U - Law and Technology
- LGLS 3700U - Law and Power
- POSC 3101U - Inequality, Environment and Development
- POSC 3800U - Capitalism and Socialism
- SSCI 3000U - Disability, Rehabilitation and Society

One of:

- COMM 4420U - Political Communication, Digital Media and Democracy
- INDG 4310U - The Politics of Indigenous Rights
- SOCI 4999U - Special Topics in Sociology (new)
- SSCI 4020U - Leadership and Administration

One 3000- or 4000-level SOCI course

One 4000-level SOCI course

Two General electives

Appendix B – List of Courses

New Courses

SOCI 2000U - Classical Sociological Theory
SOCI 2010U - Deviance and Social Control
SOCI 3000U - Contemporary Sociological Theory
SOCI 3001U - Economy and Society
SOCI 3100U - Applied Sociology
SOCI 3110U - Community-Based Participatory Action Research
SOCI 3120U - Evaluation Research
SOCI 3130U - Advanced Studies in Social Inequality
SOCI 3200U - Ethics in the Modern World: Challenges and Perspectives
SOCI 3210U - Social Life and Moral Order: Exploring Norms, Values, and Social Change
SOCI 3220U - Emerging Technologies and Society
SOCI 3230U - Families in Contemporary Society
SOCI 4020U - Social Movements
SOCI 4030U - Doing Sociology
SOCI 4100U - Social Innovation and Change
SOCI 4110U - Sociology of Organizations
SOCI 4200U - Health, Aging and Society
SOCI 4210U - Privacy, Data and Surveillance
SOCI 4220U - Technology and Environmental Sustainability
SOCI 4999U - Special Topics in Sociology

Existing Courses

COMM 1100U - Introduction to Communication and Digital Media Studies
COMM 2410U - Social History of Communication and Media Technologies
COMM 2530U - Advertising as Social Communication
COMM 3250U - Pop Culture and Entertainment
COMM 3510U - Work in the Creative and Tech Industries
COMM 3710U - Media, Identity and Intercultural Communication
COMM 4120U - AI, Ethics and Communication
COMM 4420U - Political Communication, Digital Media and Democracy
COMM 4510U - Public Relations, Social Power, Social Media Platforms and Social Responsibility
COMM 4530U - Media Activism and Protest Cultures
CRMN 1000U - Introduction to Criminology and Justice
CRMN 2030U - Social Control
CRMN 3010U - Social Justice/Criminal Justice
CRMN 3023U - Family Violence
CRMN 3045U - Terrorism
CRMN 3056U - Race-ing Justice
CRMN 3301U - Green Criminology and Eco-Justice
CRMN 3401U - Indigenous Peoples and Justice
CRMN 4037U - Youth Justice Policy
CRMN 4052U - Policing Diverse Communities
INDG 3310U - Indigenous Peoples, Sustainability and Development: A Global Perspective
INDG 4310U - The Politics of Indigenous Rights
LGLS 1000U - Foundations of Legal Studies
LGLS 3200U - Sociology of Law
LGLS 3520U - Law and Technology
LGLS 3700U - Law and Power
LGLS 4200U - Law and Social Change
POSC 1000U - Introduction to Political Science
POSC 2100U - Global Politics
POSC 2800U - Introduction to Business, Economy and Society
POSC 3101U - Inequality, Environment and Development
POSC 3102U - Race and Racism in Political Culture
POSC 3501U - Politics and Poverty
POSC 3602U - Labour in the Global Economy
POSC 3800U - Capitalism and Socialism
PSYC 1000U - Introductory Psychology
PSYC 3500U - Stereotypes and Prejudice
SOCI 1000U - Introductory Sociology
SOCI 2020U - Issues in Diversity (formerly SSCI 2020U)
SOCI 2025U - Youth Cultures (formerly SSCI 2025U)
SOCI 2300U - Social Problems (formerly SSCI 1300U)
SOCI 2700U - Human Sexuality (formerly SSCI 2700U)
SOCI 2720U - Sports and Society (formerly SSCI 2720U)
SSCI 1910U - Writing for the Social Sciences
SSCI 2101U - Introduction to Social Entrepreneurship
SSCI 2900U - Research Methods
SSCI 2910U - Data Analysis
SSCI 2920U - Qualitative Research Methods
SSCI 3000U - Disability, Rehabilitation and Society
SSCI 3300U - Community Connections
SSCI 3910U - Advanced Data Analysis
SSCI 3920U - Advanced Qualitative Methods
SSCI 4010U - Policy Development
SSCI 4020U - Leadership and Administration
SSCI 4098U - Practicum
SSCI 4103U - Internship

Appendix B1 – New Course Templates

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: **FSSH**

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

A new core course for an existing program, specialization or minor*: Minor Program Adjustment*

A new elective course for an existing program, specialization or minor, listed in the program map*: Course Placement*

A new course (core or elective) related to a Major Program Modification*: Major Program Modification*

A new course (core or elective) related to a New Program*: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology , Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 2000U**
Full Course Title: Classical Sociological Theory	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:

This course introduces foundational theories that have significantly shaped the discipline of sociology. Students will engage with the works of influential sociological theorists, including but not limited to De Tocqueville, Marx, Weber, Durkheim, Simmel, Mead, Parsons, and Goffman. By examining key texts and engaging in critical discussions, students will gain insight into the theoretical frameworks underpinning sociological inquiry.

The course will contextualize these theories within their respective historical periods, providing students with a deeper understanding of the social, political, and intellectual contexts that influenced their development. While recognizing the breadth of sociological theory's historical landscape, emphasis will be placed on extracting the analytical assumptions and implications inherent in each theoretical perspective.

Sociological theories serve as tools for comprehending the complexities of the social world, offering both logical frameworks and empirical insights. Through close analysis of primary texts and supplementary materials, students will develop the skills necessary to grasp the internal logic of each theory and apply it to real-world social phenomena.

Furthermore, the course aims to enhance students' critical thinking and writing abilities. Through a combination of class discussions, written assignments, and analytical exercises, students will refine their capacity to articulate complex sociological concepts and theories effectively.

By the conclusion of the course, students will have acquired a comprehensive understanding of classical sociological theory, strengthened their analytical skills, and cultivated a proficiency in applying sociological frameworks to interpret and analyze diverse social phenomena.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3		**Lab:**
Tutorial:		**Other:**
Cross-listings		
Prerequisites for Calendar	SOCI 1000U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**	

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	x	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	x	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Recall the major theoretical traditions in classical sociological theory.
- Identify key figures and their contributions to classical sociological theory.
- Explain the primary concepts, arguments, and theoretical frameworks of classical sociological theorists.
- Interpret the significance of classical sociological theories within the broader context of sociological discourse.
- Apply knowledge of historical, social, and intellectual contexts to situate classical sociological theories.
- Utilize theoretical frameworks to analyze and interpret real-world social issues and phenomena.
- Critically assess the foundational assumptions underlying classical sociological theories.
- Evaluate the relevance, applicability, and limitations of classical sociological theories in understanding contemporary social phenomena.
- Judge the strengths and weaknesses of classical sociological theories in light of empirical evidence.
- Assess the ongoing relevance and importance of classical sociological perspectives in understanding contemporary social issues.
- Develop coherent arguments and interpretations based on engagement with theoretical texts and discussions.
- Generate innovative insights and connections between classical sociological theory and contemporary social dynamics.
- Demonstrate writing proficiency through assignments, essays, and analytical reflections.
- Effectively communicate complex sociological ideas and arguments in a clear and coherent manner.
- Critique and analyze scholarly literature on classical sociological theory to refine research skills.
- Synthesize multiple sources to develop comprehensive understandings of classical sociological perspectives.
- Recognize and appreciate the ongoing relevance of classical sociological perspectives in understanding contemporary social issues and dynamics.

Does this course contain any experiential learning components? ☐ Yes X No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	

Field Experiences		
Other Types of Experiences:		

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses is the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology.

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain**:

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology **BA in Sociology - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 2010U** *ensure the course code has not been previously used
Full Course Title: Deviance and Social Control	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:
.This course adopts a critical sociological perspective to analyze the historical portrayal of deviance by social control in the modern West. It examines formal expressions of social control theories by religious authorities, legal experts, medical therapists, social scientists, philosophers, politicians, and activists, exploring their social context and the interplay between social power and knowledge production. This perspective views deviance as a perpetual struggle between a prevailing social order, which defines and enforces norms, and marginalized individuals or groups who resist, subvert, and transform these boundaries. The course investigates how societies construct and contest normative boundaries, examining the material and symbolic consequences of these constructions, particularly regarding sex/gender, race/ethnicity, and class/economics. Additionally, it explores how mass media disseminate theoretical perspectives into common understanding and represent deviance in contemporary popular culture.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3	**Lab:**	
Tutorial:	**Other:**	
Cross-listings		
Prerequisites for Calendar	SOCI 1000U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**	

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	x	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	x	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

· Analyze the concept of deviance from multiple theoretical perspectives, including sociological, historical, and cultural lenses.

· Evaluate the role of social control mechanisms throughout the history of the modern West and understand their impact on shaping societal norms and boundaries.

· Examine how various social institutions, such as religious authorities, legal systems, and media, contribute to the construction and enforcement of normative boundaries.

· Critically assess the intersections of power, privilege, and identity in the labeling and marginalization of deviant individuals or groups.

· Explore the ways in which deviant behaviors and identities are resisted, subverted, and transformed by marginalized communities.

· Investigate the relationship between deviance, social inequality, and systems of oppression, particularly regarding sex/gender, race/ethnicity, and class/economics.

· Develop critical thinking skills through engagement with complex sociological theories and empirical research on deviance and social control.

· Apply theoretical frameworks to real-world examples of deviant behaviors and social control mechanisms.

Enhance communication skills through class discussions, written assignments, and presentations on topics related to deviance and its control.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ Yes ☐ NA

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.

Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 3000U** *ensure the course code has not been previously used
Full Course Title: Contemporary Sociological Theory	

Short-Form Course Title (max. 30 characters)**:**

Course Description:

This course provides a comprehensive exploration of contemporary sociological theory, through in-depth examination of works by prominent contemporary theorists. Students will analyze and engage with cutting-edge theoretical frameworks that illuminate the complexities of modern social life.

Drawing upon the works of influential figures such as Anthony Giddens, Pierre Bourdieu, Judith Butler, Zygmunt Bauman, Saskia Sassen, Manuel Castells, and others, students will critically evaluate the key concepts, methodologies, and theoretical insights central to contemporary sociological thought. Topics covered may include the dynamics of globalization, the construction of identity, the impacts of technology and digital culture, the intersections of power and inequality, and the challenges of social change and transformation.

By studying the contributions of these leading theorists, students will gain an appreciation for the diverse theoretical perspectives that inform sociological analysis in the 21st century. Through in-depth readings, discussions, and written assignments, students will develop the analytical skills necessary to critically assess theoretical arguments, evaluate empirical research, and apply sociological concepts to contemporary social phenomena.

Furthermore, the course will explore emerging trends and debates within contemporary sociological theory, providing students with insights into the evolving nature of sociological inquiry. Through engagement with current scholarship and active participation in academic discourse, students will cultivate a deeper understanding of the complex social dynamics shaping our world today.

By the conclusion of the course, students will emerge with a nuanced understanding of contemporary sociological theory, equipped with the analytical tools and critical perspectives needed to navigate and contribute to ongoing discussions within the field. This course will prepare students for further study in sociology or related disciplines.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3		**Lab:**
Tutorial:		**Other:**
Cross-listings		
Prerequisites for Calendar	SSCI 1000U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	

Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)	
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Understand the central concepts and methodologies of contemporary sociological theory as elucidated by prominent and widely cited theorists.
- Analyze and evaluate the key theoretical insights and arguments presented by contemporary sociological theorists, particularly focusing on topics such as globalization dynamics, identity construction, impacts of technology and digital culture, power structures, and social change.
- Critically assess empirical research within the framework of contemporary sociological theory, discerning its relevance and applicability to real-world social phenomena.
- Develop the ability to articulate and defend one's own interpretations and critiques of contemporary sociological theories through written assignments, discussions, and presentations.
- Demonstrate proficiency in applying sociological concepts and frameworks to analyze and interpret contemporary social issues and dynamics.
- Engage actively in academic discourse by participating in discussions, debates, and collaborative projects drawing on contemporary sociological theory.
- Identify and analyze emerging trends and debates within contemporary sociological theory, demonstrating an awareness of the evolving nature of sociological inquiry.
- Cultivate a nuanced understanding of the complex social dynamics shaping the modern world, informed by diverse theoretical perspectives and empirical evidence.
- Prepare for further study in sociology or related disciplines by acquiring advanced analytical skills, critical thinking abilities, and a deep appreciation for the ongoing discussions and contributions within the field of sociology.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			

Other Types of Experiences:

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses is the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology.

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 3001U**
Full Course Title: Economy and Society	

Short-Form Course Title (max. 30 characters)**:**

Course Description: Examines the complex interplay between economy and society, emphasizing the sociological analysis of economic processes and their impacts on social structures and relations. Drawing on theoretical frameworks from sociology and political economy, students examine topics such as capitalism, globalization, labor markets, consumption, and social inequality. Particular attention is paid to contemporary and classical theorists such as Mill, Ricardo, Marx, Schumpeter, Keynes, Hayek, Veblen, and Innis. Through interdisciplinary perspectives and case studies, students explore how economic systems intersect with issues of race, gender, and class. Discussions also address ethical and political dimensions of economic life, encouraging reflection on alternative models and social justice concerns. By the end, students gain analytical tools to critically assess economic dynamics and contribute to discussions on creating more equitable societies.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3		**Lab:**
Tutorial:		**Other:**
Cross-listings		
Prerequisites for Calendar	SOCI 1000U, SOCI 2000U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)	SOCI 3000U	
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**	

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Recall key theoretical frameworks from sociology and political economy, including contributions from classical and contemporary theorists.
- Identify and define core concepts related to the interplay between economy and society, such as capitalism, globalization, labor markets, consumption, and social inequality.
- Explain the complex relationship between economic processes and social structures, emphasizing the sociological analysis of their interplay.
- Summarize how economic systems intersect with issues of race, gender, and class, drawing on interdisciplinary perspectives and case studies.
- Apply theoretical frameworks from sociology and political economy to analyze real-world economic phenomena and their impacts on social relations and structures.
- Utilize analytical tools to critically assess economic dynamics, identifying patterns of social inequality and their underlying causes.
- Analyze the ethical and political dimensions of economic life, critically evaluating alternative models and their implications for social justice concerns.
- Critique the role of capitalism, globalization, and other economic systems in perpetuating or challenging social inequalities, drawing on both historical and contemporary examples.
- Evaluate the effectiveness of different strategies for addressing economic injustices and promoting equitable societies, considering diverse perspectives and empirical evidence.
- Assess the limitations and strengths of various theoretical perspectives in explaining the interplay between economy and society, synthesizing insights from classical and contemporary theorists.
- Generate proposals for alternative economic models or policies aimed at reducing social inequalities and fostering greater economic justice, drawing on interdisciplinary insights and ethical considerations.
- Design research projects or advocacy campaigns that address specific intersections between economic processes and social issues, demonstrating an understanding of the complexities involved and proposing innovative solutions.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses is the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.

Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology.

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary.
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 3100U** *ensure the course code has not been previously used
Full Course Title: Applied Sociology	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:
Introduction to Applied Sociology is a foundational third-year core course designed to introduce students to the principles, methods, and applications of applied sociology. As a multidisciplinary field, applied sociology focuses on utilizing sociological knowledge and research to address practical issues and effect positive social change in various settings. Emphasis is placed on understanding the role of sociologists in informing policies, interventions, and community initiatives. By course end, students will grasp the transformative potential of applied sociology and be prepared to engage actively in addressing contemporary societal issues.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3		**Lab:**
Tutorial:		**Other:**
Cross-listings		
Prerequisites for Calendar	SSCI 1000U, SSCI 2900U, SSCI 2910U, SSCI 2920U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**	

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Assessment methods may include:
- Written assignments analyzing real-world social problems from an applied sociology perspective.
- Group projects designing and implementing sociological interventions or program evaluations.
- Presentations or debates exploring ethical dilemmas and professional challenges in applied sociology.
- Reflective journals documenting students' learning and professional development throughout the course.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

By the end of the course, students will have developed a solid understanding of the principles and practices of applied sociology and gained practical skills in utilizing sociological knowledge to address social issues in different contexts. They will be able to:

- Recall fundamental principles and methods of applied sociology introduced in the course, including the utilization of sociological knowledge and research to address practical issues and effect positive social change.
- Explain the principles and objectives of applied sociology, demonstrating an understanding of its focus on practical applications and societal impact.
- Interpret the role of sociologists in addressing contemporary societal issues through applied research and interventions, recognizing the importance of interdisciplinary approaches.
- Apply sociological theories and methodologies to analyze real-world social problems and propose potential solutions, demonstrating the practical application of learned principles.
- Utilize critical thinking skills to evaluate the effectiveness of sociological approaches in addressing practical issues and effecting positive social change in various settings.
- Analyze the complexities of societal issues addressed in the course through a sociological lens, identifying underlying causes, patterns, and implications for social policy and practice.
- Critically evaluate different sociological perspectives and methodologies in their application to specific practical issues, discerning strengths and limitations.
- Appraise the transformative potential of applied sociology in addressing contemporary societal issues, assessing its impact on policies, interventions, and community initiatives.
- Assess the ethical implications of applying sociological knowledge and research in diverse settings, considering issues of power, social justice, and cultural sensitivity.
- Develop innovative approaches to addressing societal issues based on sociological insights, proposing creative solutions that integrate interdisciplinary perspectives.
- Construct research proposals or practical interventions informed by sociological theories and methodologies, demonstrating the ability to generate new ideas and contribute to positive social change.

Does this course contain any experiential learning components? ☐ **Yes** ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	x
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 3110U** *ensure the course code has not been previously used
Full Course Title: Community-Based Participatory Action Research	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:

This course focuses on community-based participatory research (CBPR) and action-based research (ABR) methodologies. CBPR involves collaborating with community members in all aspects of the research process, while ABR emphasizes using research findings to enact social change. Through theoretical exploration and practical application, students will learn to co-design research projects with community stakeholders, emphasizing shared decision-making and mutual learning. They will engage in participatory data collection techniques and collaborative analysis processes, fostering meaningful community engagement. The course addresses ethical considerations such as power dynamics and research reciprocity, and students will critically reflect on their roles as researchers within community contexts. By course end, students will possess the skills and knowledge to conduct ethical, effective, and socially impactful research in collaboration with communities, promoting social justice and positive social change.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3	**Lab:**	
Tutorial:	**Other:**	
Cross-listings		
Prerequisites for Calendar	SSCI 1000U, SSCI 2900U, SSCI 2910U, SSCI 2920U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**	

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Identify the fundamental principles and methodologies of community-based participatory research (CBPR) and action-based research (ABR), including the collaborative nature of CBPR and the focus on enacting social change in ABR.
- Explain the key concepts and theoretical frameworks underpinning CBPR and ABR methodologies, demonstrating comprehension of the principles of community engagement, shared decision-making, and mutual learning.
- Interpret the ethical considerations inherent in CBPR and ABR, including power dynamics, research reciprocity, and the researcher's role within community contexts.
- Implement CBPR and ABR methodologies to co-design research projects with community stakeholders, emphasizing collaborative decision-making and meaningful community engagement.
- Utilize participatory data collection techniques and collaborative analysis processes in conducting research projects, demonstrating proficiency in applying theoretical knowledge to practical research settings.
- Analyze the complexities of community-based research processes, identifying challenges and opportunities for meaningful community engagement and social impact.
- Critically assess the ethical implications of conducting CBPR and ABR, considering issues such as power dynamics, research reciprocity, and cultural sensitivity within diverse community contexts.
- Assess the effectiveness of CBPR and ABR methodologies in promoting social justice and positive social change within communities, evaluating the impact of research outcomes on community empowerment and well-being.
- Judge the researcher's role in fostering ethical, effective, and socially impactful research collaborations with communities, reflecting on personal and professional responsibilities within community-based research settings.
- Develop research proposals or action plans that integrate CBPR and ABR methodologies, showcasing the ability to design ethical, effective, and socially impactful research projects in collaboration with communities.
- Devise innovative strategies for addressing ethical challenges and maximizing community engagement in research processes, fostering inclusive and empowering research practices that promote social justice and positive social change.

Does this course contain any experiential learning components? ☐ Yes ☐ NO

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ Yes ☐ NA

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate**.**

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 3120U** *ensure the course code has not been previously used
Full Course Title: Evaluation Research	

Short-Form Course Title (max. 30 characters)**:**

Course Description: Examines the theory and practice of evaluation research, focusing on assessing the effectiveness, efficiency, and impact of programs, policies, and interventions. Students will explore various types of evaluation research, including formative, summative, process, outcome, and impact evaluations. Through case studies and practical exercises, students will learn to design evaluation frameworks, develop research questions, select appropriate methodologies, and analyze and interpret evaluation data. The course will also address ethical considerations in evaluation research, such as confidentiality, validity, and stakeholder engagement. By course end, students will possess the skills and knowledge to conduct rigorous evaluation studies, providing valuable insights for decision-makers in diverse fields such as education, healthcare, social services, and public policy.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3	**Lab:**	
Tutorial:	**Other:**	
Cross-listings		
Prerequisites for Calendar	SSCI 1000U, SSCI 2900U, SSCI 2910U, SSCI 2920U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**	

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Recall and classify the fundamental principles and types of evaluation research, including formative, summative, process, outcome, and impact evaluations.
- Outline key concepts related to assessing the effectiveness, efficiency, and impact of programs, policies, and interventions through evaluation research.
- Explain the theory and practice of evaluation research, demonstrating comprehension of its role in assessing the effectiveness and impact of various interventions and policies.
- Interpret the ethical considerations inherent in evaluation research, such as confidentiality, validity, and stakeholder engagement, understanding their importance in maintaining research integrity.
- Implement evaluation frameworks to design evaluation studies, demonstrating the ability to develop research questions and select appropriate methodologies for assessing program effectiveness and impact.
- Utilize practical exercises to apply evaluation methodologies, analyzing and interpreting evaluation data to draw meaningful conclusions about program outcomes and effectiveness.
- Analyze the complexities of evaluation research, identifying factors that contribute to the effectiveness and impact of programs, policies, and interventions.
- Critically evaluate the strengths and limitations of different types of evaluation research, discerning their applicability to diverse programmatic contexts and research questions.
- Assess the ethical implications of evaluation research methodologies, evaluating their adherence to principles of confidentiality, validity, and stakeholder engagement.
- Appraise the effectiveness of evaluation studies in providing valuable insights for decision-makers in fields such as education, healthcare, social services, and public policy, evaluating their impact on informed decision-making and program improvement.
- Conceptualize and develop rigorous evaluation studies that address specific research questions and objectives, showcasing the ability to design evaluation frameworks and select appropriate methodologies.
- Devise strategies for addressing ethical considerations in evaluation research, demonstrating the ability to maintain research integrity and stakeholder trust in evaluation processes.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 3130U** *ensure the course code has not been previously used
Full Course Title: Advanced Studies in Social Inequality	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:

This course critically examines contemporary forms of social inequality, examining how power structures and systemic biases shape societal hierarchies and harms. Students explore current manifestations of inequality, such as those based on race, class, gender, sexuality, disability, and immigration status, through the lens of prominent sociological theorists such as Marx, Max Weber, W.E.B. Du Bois, Patricia Hill Collins, Pierre Bourdieu, and bell hooks. Through rigorous readings, discussions, and research projects, students explore topics including income disparity, educational inequity, healthcare access, housing discrimination, ageism, and inequalities in the criminal justice system.

Topics might include:

1. Intersectionality and Kimberlé Crenshaw's framework
2. Globalization and Immanuel Wallerstein's world-systems theory
3. Digital divides and Manuel Castells' network society
4. Environmental justice and the contributions of Robert Bullard
5. Social mobility and Erik Olin Wright's class analysis

By course conclusion, students will possess the analytical acumen and critical perspectives needed to confront systemic injustices, advocate for marginalized communities, and propose actionable solutions aimed at fostering a more equitable and just society.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3	**Lab:**	
Tutorial:	**Other:**	
Cross-listings		
Prerequisites for Calendar	SSCI 1000U, SSCI 2000U, SOCI 2300U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**	

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x

Not Applicable

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

In taking this course, students will be able to:

- Demonstrate a thorough understanding of contemporary social inequality, recognizing how systemic biases and power structures perpetuate societal hierarchies and injustices.
- Analyze diverse manifestations of social inequality, including those based on race, class, gender, sexuality, disability, and immigration status, while exploring their interconnectedness and implications.
- Evaluate the impact of social inequality on various societal domains such as income distribution, education, healthcare, housing, and the criminal justice system, assessing both its consequences and potential solutions.
- Apply sociological concepts and theoretical perspectives to analyze real-world examples of social inequality, demonstrating the ability to identify underlying factors and propose effective interventions.
- Conceptualize and develop research projects that investigate specific dimensions of social inequality, employing appropriate methodologies to generate new insights and recommendations for addressing systemic injustices.
- Recall key concepts and discussions related to social inequality, including its various forms, contributing factors, and the complexities involved in addressing systemic injustices within diverse social contexts.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 3200U** *ensure the course code has not been previously used
Full Course Title: Ethics in the Modern World: Challenges and Perspectives	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:
This course examines contemporary ethical dilemmas. Through interdisciplinary exploration and critical analysis, students will engage with pressing ethical issues that shape our world today, spanning domains such as technology, politics, environment, healthcare, and global justice. Drawing upon insights from leading scholars such as Peter Singer, Martha Nussbaum, and Amartya Sen, students explore foundational ethical theories, global justice issues, technological ethics, business ethics, and social justice movements. Through readings, case studies, and discussions, students develop critical thinking skills and ethical awareness, preparing them to navigate and contribute to ethical decision-making in diverse contexts.

Credit Hours: 3	
Contact Hours – please indicate total number of hours for each component	
Lecture: 3	**Lab:**
Tutorial:	**Other:**
Cross-listings	
Prerequisites for Calendar	SOCI 1000U, SSCI 2910U, SOCI 2000U, SOCI 3000U
Prerequisites for Banner	
Co-requisites	
Prerequisites with concurrency (pre or co-requisite)	
Credit restrictions	☐ **Equivalency***
Recommended Prerequisites	
Course Restrictions	
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)	
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.
Assessment methods may include:
- Critical essays analyzing ethical issues in specific domains.
- Case study analyses demonstrating ethical reasoning and decision-making skills.
- Group projects exploring ethical solutions to real-world problems.
- Class participation in discussions and debates on ethical controversies.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Identify key ethical theories and concepts discussed in the course, including foundational ethical theories, global justice issues, technological ethics, business ethics, and social justice movements.
- Retrieve information about the interdisciplinary nature of ethical dilemmas explored in the course, spanning domains such as technology, politics, environment, healthcare, and global justice.
- Explain the foundational ethical theories and principles relevant to contemporary ethical dilemmas, drawing on insights from various disciplines.
- Comprehend the complexities of global justice issues and social justice movements, considering their implications for ethical decision-making in diverse contexts.
- Employ ethical theories and principles to analyze and evaluate contemporary ethical dilemmas, demonstrating an understanding of their relevance to real-world situations.
- Utilize critical thinking skills to apply ethical reasoning in assessing the ethical implications of technological advancements, political decisions, environmental policies, healthcare practices, and business practices.
- Examine the ethical dimensions of various case studies and scenarios, identifying stakeholders, ethical principles at play, and potential consequences of different courses of action.
- Dissect and scrutinize the arguments and perspectives presented by different stakeholders in ethical debates, considering their validity and ethical implications.
- Judge the ethical reasoning and decision-making processes employed in addressing contemporary ethical dilemmas, assessing their effectiveness and ethical soundness.
- Appraise the ethical implications of different policies, practices, and interventions aimed at addressing ethical challenges in diverse contexts.
- Formulate ethical solutions and recommendations for addressing contemporary ethical dilemmas, drawing on insights from ethical theories and interdisciplinary perspectives.
- Propose strategies for fostering ethical awareness and ethical decision-making in various domains, considering the complexities and nuances of contemporary ethical issues.

Does this course contain any experiential learning components? ☐ **Yes** ☐ No

If yes:

Case Study	X	Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 3210U** *ensure the course code has not been previously used
Full Course Title: Social Life and Moral Order: Exploring Norms, Values, and Social Change	
Short-Form Course Title (max. 30 characters)**:**	

Course Title: Social Life and Moral Order: Exploring Norms, Values, and Social Change

This course exposes students to the connections between social norms, values, and processes of social change within contemporary society. Drawing upon the foundational works of prominent scholars such as Emile Durkheim, Talcott Parsons, and Erving Goffman, students will delve into the dynamics of moral order and social cohesion, examining how norms and values shape individual behavior, group interactions, and societal institutions.

Topics covered may include:

1. Theoretical Foundations of Moral Order: Analyzing classical sociological theories of morality and social order, including Durkheim's concept of collective conscience, Parsons' theory of social systems, and Goffman's dramaturgical approach to social interaction.

2. Norms, Deviance, and Social Control: Exploring the role of social norms in defining acceptable behavior and sanctioning deviations, drawing on insights from scholars such as Howard Becker, Michel Foucault, and Kai T. Erikson.

3. Values and Belief Systems: Investigating the formation and transformation of cultural values and belief systems, including the influence of religion, ideology, and globalization on moral frameworks, with reference to the works of Max Weber, Clifford Geertz, and Robert Bellah.

4. Social Change and Moral Conflict: Examining processes of social change and moral contestation, including debates over human rights, environmental ethics, and identity politics, informed by the scholarship of Jurgen Habermas, Nancy Fraser, and Charles Taylor.

5. Moral Economy and Social Justice: Critically analyzing the distribution of resources, power, and opportunities within society through the lens of moral economy and social justice perspectives, with insights from scholars such as Karl Polanyi, Amartya Sen, and Iris Marion Young.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3		**Lab:**
Tutorial:		**Other:**
Cross-listings		
Prerequisites for Calendar	SOCI 1000U, SOCI 2000U, SOCI 3000U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		

Grading scheme	☐ N (normal alpha grade) ☐ P (pass/fail)

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Assessment methods may include:
- Critical essays analyzing sociological perspectives on norms, values, and social change.
- Case study analyses exploring real-world examples of moral dilemmas and social transformations.
- Group presentations on topics related to social norms, values, and social order.
- Participation in class discussions and debates on moral and ethical issues.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Recall key sociological theories of morality and social order discussed in the course, including concepts such as collective conscience, social systems, and dramaturgical approach.
- Remember foundational theories and concepts related to social norms, values, and processes of social change.
- Explain the role of social norms in defining acceptable behavior and regulating social life, drawing on various sociological perspectives.
- Understand the formation and transformation of cultural values and belief systems, including the influences of religion, ideology, and globalization.
- Apply theoretical frameworks to analyze processes of social change and moral contestation, including debates over human rights, environmental ethics, and identity politics.
- Utilize insights from moral economy and social justice perspectives to analyze the distribution of resources, power, and opportunities within society.
- Analyze the dynamics of moral order and social cohesion, examining how norms and values shape individual behavior, group interactions, and societal institutions.
- Critically assess the influence of social norms on defining acceptable behavior and regulating social life, drawing on a variety of sociological perspectives.
- Evaluate the influence of values and belief systems on cultural norms and moral frameworks, considering their implications for social cohesion and stability.
- Assess the implications of social change and moral conflict on contemporary society, including their impact on human rights, environmental sustainability, and social justice.
- Develop informed perspectives on the connections between social norms, values, and processes of social change within contemporary society.

- Construct strategies for addressing moral conflicts and promoting social cohesion and justice, drawing on insights from sociological theories and empirical research

Does this course contain any experiential learning components? ☐ **Yes** ☐ No

If yes:

Case Study	X	Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 3220U** *ensure the course code has not been previously used
Full Course Title: Emerging Technologies and Society	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:

Course Title: Emerging Technologies and Society

Course Description:
This course offers a comprehensive examination of the dynamic interplay between emerging technologies and society from a sociological perspective. Through the lens of leading scholars in the field, including Donna Haraway, Langdon Winner, and Sherry Turkle, students will explore the social, cultural, ethical, and political dimensions of cutting-edge technologies and their impact on contemporary society.

Topics covered include:

1. Artificial Intelligence and Automation: Analyzing the implications of AI and automation on employment, labor markets, and socioeconomic inequality, drawing on the work of scholars such as Ursula Huws and Manuel Castells.

2. Biotechnology and Bioethics: Examining the ethical dilemmas and societal implications of biotechnological advancements, including genetic engineering, cloning, and reproductive technologies, informed by the scholarship of Sheila Jasanoff and Dorothy Nelkin.

3. Blockchain and Distributed Ledger Technologies: Investigating the potential of blockchain and decentralized technologies to disrupt traditional power structures, governance models, and economic systems, with insights from scholars such as Primavera De Filippi and Kevin Werbach.

4. Surveillance Technologies and Privacy: Critically assessing the social impacts of surveillance technologies, including facial recognition, drones, and predictive analytics, informed by the works of David Lyon, Shoshana Zuboff, and Simone Browne.

5. Virtual Reality and Digital Culture: Exploring the cultural, social, and psychological dimensions of virtual reality and digital immersive technologies, drawing on the research of Howard Rheingold, Brenda Laurel, and Sherry Turkle.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3	**Lab:**	
Tutorial:	**Other:**	
Cross-listings		
Prerequisites for Calendar	SOCI 1000U, SOCI 2000U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites	SOCI 3000U	
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective**	☐ **Core or Elective**

Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)	
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Recall key sociological concepts and perspectives discussed in the course, including the social, cultural, ethical, and political dimensions of emerging technologies.
- Explain the potential impacts of technological advancements on employment, labor markets, and socioeconomic inequality.
- Understand the ethical dilemmas and societal implications of advancements in biotechnology.
- Analyze the potential for emerging decentralized technologies to influence power structures and economic systems.
- Apply sociological perspectives to analyze and interpret the societal impacts of surveillance technologies and digital immersive experiences.
- Utilize theoretical frameworks to assess the cultural, social, and psychological dimensions of emerging digital trends.
- Analyze the social, cultural, and political factors influencing the development and implementation of emerging technologies.
- Critically evaluate scholarly perspectives on the relationship between technology and society, considering various sociological approaches.
- Evaluate the ethical considerations surrounding advancements in biotechnology, reflecting on their implications for individual rights and societal values.
- Assess the potential implications of emerging decentralized technologies for governance models and economic systems.
- Develop informed viewpoints on the societal implications of emerging technologies, integrating sociological insights with technological advancements.
- Conceptualize and design strategies for addressing societal challenges arising from the adoption and use of emerging technologies.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ Yes ☐ NA

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ Yes ☐ No Please explain:

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 3230U** *ensure the course code has not been previously used
Full Course Title: Families in Contemporary Society	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:

This course offers an in-depth examination of the sociology of family in today's rapidly evolving society. Drawing upon the seminal works of prominent scholars such as Judith Stacey, Arlie Hochschild, and William J. Goode, students explore the diversity of family structures, roles, and dynamics, and analyze the impact of social, economic, and cultural forces on family life.

Topics covered include:

1. Theoretical Perspectives on Family: Introduction to key sociological theories of family, including structural-functionalism, conflict theory, symbolic interactionism, and feminist perspectives, providing students with a comprehensive framework for understanding family dynamics.

2. Changing Family Structures: Analysis of contemporary family structures and arrangements, including nuclear families, extended families, single-parent families, cohabiting couples, and LGBTQ+ families, exploring how societal shifts influence family composition and roles.

3. Gender, Work, and Family: Examination of the intersection of gender, work, and family life, including discussions on the division of household labor, gendered expectations within families, and the impact of employment patterns on family dynamics, drawing on the work of scholars such as Stephanie Coontz and Susan Ferguson.

4. Intergenerational Relations: Investigation of intergenerational relationships and dynamics within families, including discussions on parent-child relationships, sibling relationships, and the transmission of cultural values and resources across generations, informed by research from scholars such as Glen H. Elder Jr. and Annette Lareau.

5. Family Policy and Social Change: Exploration of family policies and interventions aimed at supporting families in contemporary society, including discussions on childcare, parental leave, marriage equality, and reproductive rights, with reference to the scholarship of Sara McLanahan, Nancy Folbre, and Frances Goldscheider.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3	**Lab:**	
Tutorial:	**Other:**	
Cross-listings		
Prerequisites for Calendar	SOCI 1000U, SOCI 2000U, SOCI 3000U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective**	☐ **Core or Elective**

Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)	
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Recall and classify key sociological theories of family discussed in the course.
- Explain the influence of social, economic, and cultural forces on contemporary family life, drawing on insights from seminal works in sociology of the family.
- Understand the intersection of gender, work, and family life, including discussions on the division of household labor, gendered expectations within families, and the impact of employment patterns on family dynamics.
- Apply theoretical perspectives to analyze and interpret family dynamics, including the roles of individuals within the family unit and the impact of societal changes on family structures.
- Utilize knowledge of intergenerational relationships to assess the transmission of cultural values and resources within families, considering factors such as parent-child relationships and sibling dynamics.
- Analyze the impact of changing family structures on society, considering how societal shifts influence family composition, roles, and functions.
- Critically assess family policies and interventions aimed at supporting families in contemporary society, considering their effectiveness in addressing diverse family needs and challenges.
- Evaluate the strengths and limitations of different theoretical perspectives on the family, considering their applicability to diverse family arrangements and dynamics.
- Assess the implications of gendered expectations within families and the division of household labor, considering their effects on individual well-being and family functioning.
- Develop recommendations for family policies and interventions to address contemporary challenges facing families, drawing on insights from sociology of the family literature.
- Design strategies for promoting intergenerational understanding and support within families, considering the diverse needs and dynamics of family relationships.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 4020U**
Full Course Title: Social Movements	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:
This course examines the intricacies of social movements, exploring their origins, dynamics, and impacts on society. Through theoretical analysis and empirical case studies, students will explore the various forms, strategies, and goals of social movements, including civil rights, environmental activism, feminist movements, and global justice movements. The course will also investigate the role of social media and digital technologies in shaping contemporary activism. Students will analyze the factors that contribute to the success or failure of social movements, considering issues of power, mobilization, and collective identity. The course will also explore the impacts of social movements on policy change, cultural norms, and social institutions. Through critical engagement with scholarly literature and discussions, students will develop an understanding of the complexities and significance of social movements in shaping contemporary society. This course will equip students with analytical tools to evaluate and contribute meaningfully to ongoing debates surrounding social change and activism.

Credit Hours: 3	
Contact Hours – please indicate total number of hours for each component	
Lecture: 3	**Lab:**
Tutorial:	**Other:**
Cross-listings	
Prerequisites for Calendar	SOCI 1000, SOCI 2000U, 3000U
Prerequisites for Banner	
Co-requisites	
Prerequisites with concurrency (pre or co-requisite)	
Credit restrictions	☐ **Equivalency***
Recommended Prerequisites	
Course Restrictions	
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)	
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and Assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Recall key theoretical concepts related to social movements, including their origins, dynamics, and impacts on society.
- Identify various forms, strategies, and goals of social movements discussed in the course, such as civil rights, environmental activism, feminist movements, and global justice movements.
- Explain the complexities involved in the formation and evolution of social movements, integrating theoretical analysis with empirical case studies.
- Summarize the role of social media and digital technologies in contemporary activism, considering their influence on mobilization and communication strategies.
- Apply theoretical frameworks to analyze specific social movements and their strategies for achieving change, drawing on empirical evidence and case studies.
- Utilize writing skills to articulate insights gained from theoretical analysis and empirical research, demonstrating the ability to synthesize complex information coherently.
- Analyze factors contributing to the success or failure of social movements, including issues of power dynamics, mobilization tactics, and collective identity formation.
- Evaluate the impacts of social movements on policy change, cultural norms, and social institutions, considering both short-term outcomes and long-term societal transformations.
- Critically evaluate scholarly literature on social movements, identifying strengths and weaknesses in theoretical approaches and empirical research methodologies.
- Assess the effectiveness of different communication strategies used by social movements, considering their ability to engage diverse audiences and mobilize support for social change.
- Conceptualize and generate written analyses or research papers exploring specific aspects of social movements, such as their impact on policy development or their role in challenging cultural norms.
- Conceptualize and design communication campaigns or advocacy materials aimed at raising awareness about social issues and mobilizing support for particular causes, demonstrating effective written and verbal communication skills.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ Yes ☐ NA

Process of consultation, if applicable:

The proposed program and courses is the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.

Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology.

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 4030U** *ensure the course code has not been previously used
Full Course Title: Doing Sociology	

Short-Form Course Title (max. 30 characters)**:**

Course Description: This course immerses students in the practical aspects of sociological research, emphasizing methods and ethics. Through hands-on exploration of local community problems, students learn to design research projects, select appropriate methodologies, and navigate ethical challenges. The course covers the challenges associated with the interpretation of qualitative and quantitative data. Ethical considerations are central, addressing issues like consent, confidentiality, privacy, and power dynamics. Students engage in critical reflection on ethical dilemmas and decision-making in research practice. Moreover, the course emphasizes the relevance of sociological research to communities, highlighting its potential to inform social change and empower marginalized voices. By course end, students gain practical skills and ethical awareness, preparing them for sociological research in academic, community, and professional settings. They emerge equipped to conduct rigorous research that contributes meaningfully to understanding and addressing societal issues.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3	**Lab:**	
Tutorial:	**Other:**	
Cross-listings		
Prerequisites for Calendar	SOCI 1000U, SSCI 2900U, SSCI, 2920U, SSCI 2910U.	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**	

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

Students will be able to:

- Recall key concepts related to sociological research methodologies, including qualitative and quantitative approaches, as well as ethical considerations such as consent, confidentiality, and power dynamics.
- Identify common challenges associated with the interpretation of qualitative and quantitative data in sociological research.
- Develop a deep understanding of research ethics in sociology, by focusing on issues such as consent, confidentiality, privacy, and power dynamics, and engage in critical reflection on ethical dilemmas and decision-making in research practice.
- Recognize the relevance of sociological research to communities, emphasizing its potential to inform social change and empower marginalized voices, and gain an appreciation for the practical applications of sociological research beyond academia.
- Acquire practical skills and ethical awareness necessary for conducting sociological research in academic, community, and professional settings, preparing students to contribute meaningfully to understanding and addressing societal issues through rigorous and ethical research practices.

- Explain the practical aspects of sociological research, including the process of designing research projects, selecting appropriate methodologies, and navigating ethical challenges.
- Summarize the importance of ethical considerations in sociological research, particularly in relation to issues of consent, confidentiality, privacy, and power dynamics.
- Apply sociological research methods to real-world community problems, demonstrating the ability to design research projects that address specific social issues.
- Utilize writing and communication skills to effectively communicate research findings to diverse audiences, demonstrating clarity, coherence, and persuasiveness.
- Analyze ethical dilemmas encountered in sociological research practice, critically evaluating different approaches to resolving them and their potential implications for research outcomes.
- Evaluate the relevance of sociological research to communities, assessing its potential to inform social change and empower marginalized voices.
- Assess the strengths and limitations of different sociological research methodologies in addressing specific research questions and advancing knowledge in the field.
- Generate research proposals or reports that demonstrate the application of sociological research methods to address local community problems, incorporating ethical considerations and potential implications for social change.
- Conceptualize and design communication strategies to disseminate research findings to relevant stakeholders, demonstrating the ability to engage with diverse audiences and advocate for social justice issues.

Does this course contain any experiential learning components? x Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences: This course could potentially include field experiences, applied research and workplace projects.			

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses is the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 4100U** *ensure the course code has not been previously used
Full Course Title: Social Innovation and Change	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:
Social Innovation and Change is an advanced fourth-year sociology course that explores the intersection of social innovation, transformative change, and societal progress. Rooted in sociological theory and practice, this course equips students with the knowledge, skills, and tools necessary to understand, analyze, and stimulate innovative solutions to complex social problems. Topics covered include the role of social entrepreneurship, grassroots movements, policy interventions, and technological advancements in propelling social change

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3		**Lab:**
Tutorial:		**Other:**
Cross-listings		
Prerequisites for Calendar	SOCI 1000U, SOCI 2000U, SOCI 3000U, SSCI 2910U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**	

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and Assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations

Assessment methods may include:
- Research papers or projects exploring a specific social innovation initiative or problem.
- Presentations or pitches of innovative solutions to real-world social challenges.
- Participation in group discussions, debates, or simulations on social innovation topics.
- Reflective essays or journals documenting students' learning and experiences throughout the course.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Recall key concepts and theories related to social innovation, transformative change, and societal progress discussed in the course, including the role of social entrepreneurship, grassroots movements, policy interventions, and technological advancements.
- Explain the theoretical foundations of social innovation and transformative change within the context of sociological theory and practice, demonstrating comprehension of how these concepts intersect and contribute to societal progress.
- Summarize the various roles played by social entrepreneurship, grassroots movements, policy interventions, and technological advancements in driving social change, integrating theoretical insights with practical examples.
- Utilize sociological theories and frameworks to analyze real-world examples of social innovation and transformative change, demonstrating the ability to identify underlying factors and assess their potential for addressing complex social problems.
- Employ analytical skills to evaluate the effectiveness of different change strategies.
- Examine the complexities of social problems addressed by social innovation initiatives, identifying root causes, barriers to change, and potential pathways for transformative solutions.
- Critically assess the impacts of social entrepreneurship, grassroots movements, policy interventions, and technological advancements on societal progress, considering their implications for different social groups and communities.
- Evaluate the effectiveness and limitations of various approaches to social innovation and transformative change, considering factors such as scalability, sustainability, equity, and ethical considerations.
- Assess the potential implications of social innovation initiatives for broader social structures and systems, evaluating their capacity to address systemic inequalities and promote social justice.
- Formulate innovative strategies or proposals for addressing specific social problems, drawing on insights gained from the course to devise actionable solutions that contribute to positive societal change.
- Conceptualize and construct research projects or action plans that integrate sociological perspectives and practical tools for fostering social innovation and transformative change, demonstrating the ability to apply theoretical knowledge to real-world challenges.

Does this course contain any experiential learning components? ☐ **Yes** ☐ No

If yes:

Case Study		Simulated Workplace Project	x

Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 4110U** *ensure the course code has not been previously used
Full Course Title: Sociology of Organizations	

Short-Form Course Title (max. 30 characters)**:**

Course Description:

This course examines organizational dynamics from a sociological perspective, exploring contemporary theories, research, and practices in organizational sociology. Drawing upon the works of leading experts in the field, including scholars such as Michel Crozier, Peter M. Blau, and Arlie Hochschild, students will critically examine the structures, processes, cultures, and power dynamics that shape modern organizations.

Topics covered will include:

1. Organizational Structure and Design: Analyzing different organizational forms, such as bureaucratic, networked, and hybrid structures, and their implications for efficiency, flexibility, and innovation.

2. Organizational Culture and Identity: Investigating the role of organizational culture, values, and symbols in shaping employee behavior, identity formation, and organizational performance, drawing insights from the work of Edgar Schein and Mary Jo Hatch.

3. Power and Politics in Organizations: Exploring power relations, conflicts, and political processes within organizations, informed by the theories of Max Weber and Michel Foucault.

4. Organizational Change and Innovation: Understanding the processes of organizational change, resistance, and adaptation in response to internal and external pressures, informed by research from scholars such as Karl E. Weick and W. Richard Scott.

5. Diversity and Inclusion in Organizations: Examining strategies for managing diversity, addressing inequalities, and fostering inclusive organizational environments, drawing on the work of scholars like Patricia Hill Collins and Joan Acker.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3		**Lab:**
Tutorial:		**Other:**
Cross-listings		
Prerequisites for Calendar	SOCI 1000U, SOCI 2000U, SOCI 3000U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	

Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)	
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Recall key theories and concepts in organizational sociology, including those related to organizational structure, culture, power dynamics, change, and diversity.
- Explain the significance of organizational culture, values, and symbols in shaping employee behavior, identity formation, and organizational performance.
- Summarize theories of power and politics in organizations and their implications for organizational dynamics.
- Apply theories and concepts from organizational sociology to analyze real-world organizational dynamics, including structures, processes, cultures, and power dynamics.
- Utilize knowledge of organizational change processes and innovation to propose strategies for managing change and fostering innovation within organizations.
- Analyze different organizational structures and their implications for efficiency, flexibility, and innovation, considering how they influence organizational behavior and outcomes.
- Critically assess power relations, conflicts, and political processes within organizations, identifying their impact on decision-making and organizational effectiveness.
- Evaluate strategies for managing diversity, addressing inequalities, and fostering inclusive organizational environments.
- Assess the processes of organizational change, resistance, and adaptation in response to internal and external pressures, considering their implications for organizational success.
- Develop innovative approaches for enhancing organizational culture, identity, and performance.

Does this course contain any experiential learning components? ☐ Yes ☐x No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 4200U** *ensure the course code has not been previously used
Full Course Title: Health, Aging and Society	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:

This course provides a comprehensive exploration of the relationships between aging, health, and society in contemporary contexts. Drawing upon the pioneering research of influential scholars such as Ursula M. Staudinger, Linda George, and Sarah Harper, students will examine the social, cultural, economic, and political dimensions of aging and health within diverse populations.

Topics covered include:

1. Theories of Aging: Introduction to key theoretical perspectives on aging, including life course theory, social gerontology, and critical gerontology, enabling students to understand the multifaceted nature of aging processes and experiences.

2. Health and Wellness in Later Life: Analysis of health disparities, chronic illness, and disability among older adults, exploring the social determinants of health, healthcare access, and aging-in-place initiatives, with insights from scholars such as James S. House and Vicki A. Freedman.

3. Aging and Caregiving: Examination of the roles and responsibilities of family caregivers, care recipients, and formal care providers in supporting older adults' well-being, informed by research from scholars such as Carol Levine, Nancy Folbre, and Suzanne Braun Levine.

4. Aging, Work, and Retirement: Investigation of the changing nature of work and retirement in an aging society, including discussions on phased retirement, age discrimination, and the implications of workforce aging on productivity and social security systems, drawing on the work of scholars such as Phyllis Moen and Jacqueline Angel.

5. Age-Friendly Communities and Policy: Exploration of policies and programs aimed at creating age-friendly environments and promoting social inclusion, transportation accessibility, and intergenerational connections for older adults, with reference to the scholarship of Nancy A. Morrow-Howell, Andrew Scharlach, and Jon Pynoos.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3		**Lab:**
Tutorial:		**Other:**
Cross-listings		
Prerequisites for Calendar	SOCI 1000U, SOCI 2000U, SOCI 3000U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		

Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	x	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	x	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Recall fundamental theoretical perspectives on aging, encompassing life course theory, social gerontology, and critical gerontology.
- Identify significant concepts and theories discussed in the exploration of health, aging, and society.
- Explain the factors contributing to health disparities, chronic illness, and disability among older adults.
- Understand the roles and dynamics of caregiving within families and formal care systems in supporting older adults' well-being.
- Apply theoretical frameworks to analyze the complex interplay between aging, health, and societal factors.
- Utilize knowledge of aging and caregiving dynamics to evaluate support systems and interventions for older adults.
- Analyze the changing landscape of work and retirement in societies with aging populations.
- Critically evaluate the impact of aging on productivity and social security systems.
- Evaluate the effectiveness of policies and programs aimed at creating age-friendly environments and fostering social inclusion for older adults.
- Assess the strengths and weaknesses of age-friendly community initiatives in meeting the needs of diverse older adult populations.
- Generate recommendations for enhancing age-friendly community policies and programs to address the challenges and opportunities presented by population aging.
- Design strategies for strengthening social support networks and fostering intergenerational connections to promote the well-being of older adults.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	

Field Experiences		
Other Types of Experiences:		

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 4210U** *ensure the course code has not been previously used
Full Course Title: Privacy, Data and Surveillance	

Short-Form Course Title (max. 30 characters)**:**

Course Description:

This course exposes students to the sociological analysis of privacy, data, and surveillance in modern society. Drawing on seminal works by scholars like Shoshana Zuboff and danah boyd, students will analyze contemporary issues using real-world cases like the Cambridge Analytica scandal and the Snowden revelations.

Topics include:

1. Theoretical Frameworks: Introduction to key theories such as the "surveillance society" and the right to privacy, providing a foundation for critical analysis.

2. Data Collection and Ethics: Examining ethical and legal implications of data collection, profiling, and algorithmic decision-making, with insights from cases like Facebook's data practices.

3. Surveillance Technologies: Analyzing impacts of surveillance technologies like facial recognition and social media monitoring on autonomy and social relations, referencing real-world cases of privacy invasion.

4. Digital Privacy Challenges: Exploring challenges posed by online tracking, data breaches, and privacy-preserving technologies, with examples such as the Equifax data breach.

5. Legal and Policy Responses: Reviewing legal and policy responses to privacy concerns, including discussions on GDPR and Edward Snowden's revelations, fostering understanding of international data protection frameworks.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3		**Lab:**
Tutorial:		**Other:**
Cross-listings		
Prerequisites for Calendar	SOCI 1000U, SOCI 2000U, SOCI 3000U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites	LGLS 3700U OR LGLS 3520U	
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**	

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	x	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	x	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

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

- Recall and classify fundamental theoretical frameworks introduced in the course, such as the concepts of the "surveillance society" and the right to privacy.
- Retrieve and summarize key cases and examples discussed in the exploration of privacy, data, and surveillance, including notable instances of privacy breaches and controversies.
- Explain the ethical and legal implications of data collection, profiling, and algorithmic decision-making in contemporary society.
- Understand the societal impacts of surveillance technologies such as facial recognition and social media monitoring on autonomy and social relations.
- Apply theoretical insights to analyze real-world cases of privacy invasion and surveillance, drawing connections between theoretical concepts and practical implications.
- Utilize knowledge of digital privacy challenges to assess the effectiveness of privacy-preserving technologies in mitigating online tracking and data breaches.
- Analyze the impacts of surveillance technologies on autonomy and social relations, evaluating their effects on individual freedoms and collective norms.
- Critically examine the challenges posed by data breaches and online tracking, identifying underlying factors contributing to privacy vulnerabilities.
- Evaluate legal and policy responses to privacy concerns, including the General Data Protection Regulation (GDPR) and other notable regulations, considering their effectiveness in safeguarding individual privacy rights.
- Assess the adequacy of international data protection frameworks in addressing evolving privacy challenges in the digital age.
- Develop recommendations for enhancing data ethics and privacy protection measures in various domains, considering the complexities of contemporary data-driven societies.
- Design strategies for promoting awareness and advocacy on privacy issues, aiming to empower individuals and communities to protect their privacy rights in an increasingly surveilled world.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	

Field Experiences		
Other Types of Experiences:		

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 4220U** *ensure the course code has not been previously used
Full Course Title: Technology and Environmental Sustainability	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:
Technological innovations can both contribute to and mitigate environmental challenges. Drawing upon the research of influential scholars such as Bill McKibben, Vandana Shiva, and Amory Lovins, students will examine the environmental impacts of various technologies and strategies for sustainable development within sociological frameworks.
Topics covered include:
1. Environmental Challenges: Introduction to key environmental challenges facing the planet, including climate change, pollution, resource depletion, and biodiversity loss, providing context for understanding the role of technology in addressing these issues.
2. Sustainable Technologies: Analysis of technologies designed to promote environmental sustainability, such as renewable energy systems, energy-efficient buildings, sustainable agriculture practices, and waste reduction technologies, with insights from scholars and practitioners in the field of sustainability science.
3. Green Innovation and Entrepreneurship: Exploration of innovative approaches to sustainable technology development and entrepreneurship, including case studies of successful green startups and initiatives, drawing on research from scholars such as Paul Hawken and Gunter Pauli.
4. Environmental Justice and Technology: Examination of the social and environmental justice implications of technological solutions to environmental problems, considering issues of equity, access, and participation in sustainable development efforts, with reference to the work of scholars such as David Pellow and Julian Agyeman.
5. Policy and Governance: Review of policy and governance frameworks for promoting environmental sustainability through technology, including discussions on international agreements, regulatory mechanisms, and incentives for green technology adoption, with insights from scholars such as Tim Jackson and Lester Brown.

Credit Hours: 3	
Contact Hours – please indicate total number of hours for each component	
Lecture: 3	**Lab:**
Tutorial:	**Other:**
Cross-listings	
Prerequisites for Calendar	SOCI 1000U, SOCI 2000U, SOCI 3000U
Prerequisites for Banner	
Co-requisites	
Prerequisites with concurrency (pre or co-requisite)	
Credit restrictions	☐ **Equivalency***
Recommended Prerequisites	
Course Restrictions	
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)	
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	x	HYB (In Class and Online Delivery)	x

IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	x	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

By the end of this course students will be able to:

- Define key terms related to environmental sustainability and technology.
- Recall basic principles of environmental science and sustainable development.
- Identify major environmental challenges facing society today.
- Explain the interconnections between technology, environmental sustainability, and socio-economic factors.
- Summarize the environmental impacts of various technological innovations.
- Describe the ethical considerations involved in technological solutions for environmental sustainability.
- Apply systems thinking to analyze complex interactions between technology and environmental systems.
- Propose technological solutions to address specific environmental challenges.
- Utilize design thinking principles to develop prototypes of sustainable technology solutions.
- Analyze case studies of successful sustainable technology projects and initiatives.
- Evaluate the environmental and social impacts of different technological interventions.
- Compare and contrast the effectiveness of various sustainable technology strategies.
- Critically assess the ethical implications of technological solutions for environmental sustainability.
- Evaluate the feasibility and scalability of proposed sustainable technology solutions.
- Assess the potential socio-economic benefits and drawbacks of implementing sustainable technology projects.
- Design innovative sustainable technology solutions to address specific environmental challenges.
- Collaborate with peers to develop comprehensive sustainability plans integrating technological, social, and economic factors.
- Advocate for the adoption of sustainable technology solutions through persuasive presentations and proposals.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ **Yes** ☐ **NA**

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ **Yes** ☐ **No** **Please explain:**

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

New courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact.

Faculty: FSSH

This new course is associated with: ☐ Minor Program Adjustment ☐ Major Program Modification ☐ New Program ☐ None

Will this course appear anywhere other than the course description section of the Calendar?	☐ **Yes** ☐ **No**

If you answered yes to the above, please complete:

***A new core course for an existing program, specialization or minor**: Minor Program Adjustment*

***A new elective course for an existing program, specialization or minor, listed in the program map**: Course Placement*

***A new course (core or elective) related to a Major Program Modification**: Major Program Modification*

***A new course (core or elective) related to a New Program**: New Program proposal*

Programs impacted: [Please list all impacted programs including any applicable fields or specializations.]

BA in Sociology, Technology and Innovation **BA in Sociology, Technology and Innovation - Advanced Entry**

Calendar start date: (When the course should first appear in the Academic Calendar 2020-2021)

Fall 2025

Registration start date: (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

Additional supporting information (optional; please indicate if you are attaching any additional documentation)

Subject Code: SOCI	**Course Number: 4999U** *ensure the course code has not been previously used
Full Course Title: Special Topics in Sociology	
Short-Form Course Title (max. 30 characters)**:**	

Course Description:
In this course, students engage with specialized topics within the discipline, varying each semester based on faculty expertise. Topics may include but are not limited to, health and illness, environmental sociology, gender and sexuality, globalization, digital sociology, deviance and social control, urban sociology, and sociology of education. Specific topics for each semester will be announced prior to registration, reflecting faculty interests and emerging trends in the field.

Credit Hours: 3		
Contact Hours – please indicate total number of hours for each component		
Lecture: 3	**Lab:**	
Tutorial:	**Other:**	
Cross-listings		
Prerequisites for Calendar	SSCI 1000U, SSCI 2900U, SSCI 2000U, ONE OF SSCI 2910U OR SSCI 2920U	
Prerequisites for Banner		
Co-requisites		
Prerequisites with concurrency (pre or co-requisite)		
Credit restrictions		☐ **Equivalency***
Recommended Prerequisites		
Course Restrictions		
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**	
Is the course: ☐ Undergraduate ☐ Graduate ☐ Professional (e.g. some Education courses)		
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**	

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

Course instructional method:

CLS (In Class Delivery)	X	HYB (In Class and Online Delivery)	x
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)	X	WEB (Fully Online – Asynchronous)	x
Not Applicable			

Teaching and assessment methods:

A variety of teaching and assessment methods may be used, including lectures, seminars, guest-lectures, videos, independent readings, in class or online activities. Assessments may include exams, papers, projects, assignments, and/or presentations.

Learning outcomes: (for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

Students will be able to:

- Recall fundamental concepts and theories covered in the course regarding specialized topics in sociology.
- Comprehend the significance and relevance of specialized topics within sociology, demonstrating a deep understanding of their implications for contemporary society and sociological inquiry.
- Employ sociological concepts and theories to analyze and interpret real-world phenomena related to specialized topics covered in the course.
- Implement advanced research methodologies to construct and execute sociological research projects focused on specialized topics, showcasing the practical application of theoretical knowledge.
- Dissect the complexities, associations and interrelationships between different specialized topics in sociology, discerning patterns, connections, and discrepancies within and across various sociological domains.
- Assess the effectiveness and shortcomings of various sociological approaches and methodologies in addressing specialized topics, evaluating their adaptability to diverse social contexts and research inquiries.
- Develop innovative research proposals or theoretical frameworks integrating insights from multiple specialized topics in sociology, showcasing the ability to synthesize and expand upon existing knowledge within the field.

Does this course contain any experiential learning components? ☐ Yes ☐ No

If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

We have consulted with all impacted areas: ☐ Yes ☐ NA

Process of consultation, if applicable:

The proposed program and courses are the culmination of three years of consultation and discussion among FSSH faculty as to the need, viability and content of a sociology degree at Ontario Tech University. This consultation process involved formal and informal discussion among faculty, several draft proposals and careful deliberation. Undergraduate and graduate students were consulted informally, inside and outside the classroom.
Informal consultation with students, along with the ongoing high enrolment in the 1st year introductory sociology course, indicates that a Sociology program is appealing to students. Indeed, it is a popular component of the grade 11 course that combines sociology, anthropology and psychology

Have you considered the principles of Equity, Diversity, Inclusion, or Decolonization included when creating this new course? ☐ Yes ☐ No Please explain:

Courses will offer a rich variety of EDI-focused themes; social justice is a primary component of all FSSH programs; several professors are part of historically marginalized groups.
Accessibility is also a central feature of FSSH offerings, with student accommodations as necessary
Universal design for learning: all professors are familiar with the central three components

Does this course 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**

Financial Implications

As per the new program financial plan. 10 new sections allotted for the beginning of the program. All new courses will not run every year and be rotated as appropriate.

COURSE CHANGE TEMPLATE

For new courses see New Course Template
Changes to courses must be entered into Curriculog prior to Faculty Council. Please use this template to provide the information to your Curriculog contact. If you are uncertain about a change or definitions of terms used on this form, please reach out to your Curriculog contact, or ciqe@ontariotechu.ca.

Faculty: **Faculty of Social Science and Humanities**	
Course Level	☒ **Undergraduate** ☐ **Graduate**

COURSE CHANGES (check all that apply)

☐	Contact hours	☐	Cross-listings
☐	Co-requisites	☐	Experiential Learning
☐	Course description	☐	Grade Mode (N – alpha grade, P – Pass/Fail)
☐	Course Instructional Method (CLS, HYB, WB1, WEB)	☐	Learning outcomes
☒	Course number or course Subject code	☐	Prerequisites
☐	Course title (include new short form title)	☐	Delete course from Academic Calendar
☐	Credit restrictions and/or Equivalencies	☐	Teaching and assessment methods
☐	Credit weighting	☐	Course restrictions
☐	Deleting an Elective Shown in the Program Map	☐	Other (please specify):

IS THIS COURSE CHANGE ASSOCIATED WITH A PROGRAM PROPOSAL? ☒ **Yes** ☐ **No**

REASON FOR CHANGE AND WAYS IN WHICH IT MAINTAINS/ENHANCES COURSE/PROGRAM OBJECTIVES

With the creation of the new Sociology major, this course would fall under that new program. It is to become a core Sociology offering.

FINANCIAL IMPLICATIONS

NONE

CALENDAR START DATE (When the course should first appear in the Academic Calendar e.g. 2020-2021)

Fall 2025

REGISTRATION START DATE (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

ADDITIONAL SUPPORTING INFORMATION (optional; please indicate if you are attaching any additional documentation)

COURSE INFORMATION

Subject Code: SOCI	**Course Number: 2020U**
Full Course Title: Issues in Diversity	
Short-Form Course Title (max. 30 characters):	

CHANGE TO CALENDAR DESCRIPTION (if required)

Current	**Proposed**
SSCI 2020U	**SOCI 2020U**

CHANGE TO CREDIT AND CONTACT HOURS [if applicable, indicate changes to total contact hours only; changes to frequency (e.g. 1x3 hours to 2X1.5 hours) not required]:

Credit Hours	
Lecture	Lab
Tutorial	Other

OTHER CHANGES (if applicable)

Cross-listings	
Prerequisites for Calendar and Banner	
Co-requisites	
Prerequisites with concurrency (pre or co-requisite)	
Credit restrictions	☐ **Equivalency***
Recommended Prerequisites	
Course Restrictions	
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

CHANGES TO COURSE INSTRUCTIONAL METHOD (if applicable):

CLS (In Class Delivery)		HYB (In Class and Online Delivery)	
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)		WEB (Fully Online – Asynchronous)	
Not Applicable			

CHANGES TO TEACHING AND ASSESSMENT METHODS (if applicable)

CHANGES TO LEARNING OUTCOMES (if applicable; for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

DOES THIS COURSE CONTAIN ANY EXPERIENTIAL LEARNING COMPONENTS?
If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

CONSULTATION (Curriculog contact to complete an Impact Report)

Consultation with Sociology program committee, UCC and Academic Advising. Updating Social Science courses to be included in the new Sociology major.

DOES THIS COURSE CHANGE IMPACT BOTH THE UNDERGRADUATE AND GRADUATE CALENDARS?
☐ Yes ☒ No

WE HAVE CONSULTED WITH ALL IMPACTED AREAS? ☒ Yes ☐ NA
Please describe:

ARE THERE ANY CONSIDERATIONS FOR THE PRINCIPLES OF EQUITY, DIVERSITY, INCLUSION, OR DECOLONIZATION INCLUDED WITH THIS COURSE CHANGE? ☐ Yes ☒ No Please explain:

DOES THIS COURSE 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**

Pre-Faculty Council Approval Dates (e.g. Curriculum Committee, Program Committee):

COURSE CHANGE TEMPLATE

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Faculty: **Faculty of Social Science and Humanities**	
Course Level	☒ **Undergraduate** ☐ **Graduate**

COURSE CHANGES (check all that apply)

☐	Contact hours	☐	Cross-listings
☐	Co-requisites	☐	Experiential Learning
☐	Course description	☐	Grade Mode (N – alpha grade, P – Pass/Fail)
☐	Course Instructional Method (CLS, HYB, WB1, WEB)	☐	Learning outcomes
☒	Course number or course Subject code	☐	Prerequisites
☐	Course title (include new short form title)	☐	Delete course from Academic Calendar
☐	Credit restrictions and/or Equivalencies	☐	Teaching and assessment methods
☐	Credit weighting	☐	Course restrictions
☐	Deleting an Elective Shown in the Program Map	☐	Other (please specify):

IS THIS COURSE CHANGE ASSOCIATED WITH A PROGRAM PROPOSAL? ☒ **Yes** ☐ **No**

REASON FOR CHANGE AND WAYS IN WHICH IT MAINTAINS/ENHANCES COURSE/PROGRAM OBJECTIVES

With the creation of the new Sociology major, this course would fall under that new program. It is to become a core Sociology offering.

FINANCIAL IMPLICATIONS

NONE

CALENDAR START DATE (When the course should first appear in the Academic Calendar e.g. 2020-2021)

Fall 2025

REGISTRATION START DATE (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

ADDITIONAL SUPPORTING INFORMATION (optional; please indicate if you are attaching any additional documentation)

COURSE INFORMATION

Subject Code: SOCI	**Course Number: 2025U**
Full Course Title: Youth Cultures	
Short-Form Course Title (max. 30 characters):	

CHANGE TO CALENDAR DESCRIPTION (if required)

Current	**Proposed**
SSCI 2025U	**SOCI 2025U**

CHANGE TO CREDIT AND CONTACT HOURS [if applicable, indicate changes to total contact hours only; changes to frequency (e.g. 1x3 hours to 2X1.5 hours) not required]:

Credit Hours	
Lecture	Lab
Tutorial	Other

OTHER CHANGES (if applicable)

Cross-listings	
Prerequisites for Calendar and Banner	
Co-requisites	
Prerequisites with concurrency (pre or co-requisite)	
Credit restrictions	☐ **Equivalency***
Recommended Prerequisites	
Course Restrictions	
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

CHANGES TO COURSE INSTRUCTIONAL METHOD (if applicable):

CLS (In Class Delivery)		HYB (In Class and Online Delivery)	
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)		WEB (Fully Online – Asynchronous)	
Not Applicable			

CHANGES TO TEACHING AND ASSESSMENT METHODS (if applicable)

CHANGES TO LEARNING OUTCOMES (if applicable; for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

DOES THIS COURSE CONTAIN ANY EXPERIENTIAL LEARNING COMPONENTS?
If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

CONSULTATION (Curriculog contact to complete an Impact Report)

Consultation with Sociology program committee, UCC and Academic Advising. Updating Social Science courses to be included in the new Sociology major.

DOES THIS COURSE CHANGE IMPACT BOTH THE UNDERGRADUATE AND GRADUATE CALENDARS?
☐ Yes ☒ No

WE HAVE CONSULTED WITH ALL IMPACTED AREAS? ☒ Yes ☐ NA
Please describe:

ARE THERE ANY CONSIDERATIONS FOR THE PRINCIPLES OF EQUITY, DIVERSITY, INCLUSION, OR DECOLONIZATION INCLUDED WITH THIS COURSE CHANGE? ☐ Yes ☒ No Please explain:

DOES THIS COURSE 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**

Pre-Faculty Council Approval Dates (e.g. Curriculum Committee, Program Committee):

COURSE CHANGE TEMPLATE

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Faculty: **Faculty of Social Science and Humanities**	
Course Level	☒ **Undergraduate** ☐ **Graduate**

COURSE CHANGES (check all that apply)

☐	Contact hours	☐	Cross-listings
☐	Co-requisites	☐	Experiential Learning
☐	Course description	☐	Grade Mode (N – alpha grade, P – Pass/Fail)
☐	Course Instructional Method (CLS, HYB, WB1, WEB)	☐	Learning outcomes
☒	Course number or course Subject code	☐	Prerequisites
☐	Course title (include new short form title)	☐	Delete course from Academic Calendar
☐	Credit restrictions and/or Equivalencies	☐	Teaching and assessment methods
☐	Credit weighting	☐	Course restrictions
☐	Deleting an Elective Shown in the Program Map	☐	Other (please specify):

IS THIS COURSE CHANGE ASSOCIATED WITH A PROGRAM PROPOSAL? ☒ **Yes** ☐ **No**

REASON FOR CHANGE AND WAYS IN WHICH IT MAINTAINS/ENHANCES COURSE/PROGRAM OBJECTIVES

With the creation of the new Sociology major, this course would fall under that new program. It is to become a core Sociology offering.

FINANCIAL IMPLICATIONS

NONE

CALENDAR START DATE (When the course should first appear in the Academic Calendar e.g. 2020-2021)

Fall 2025

REGISTRATION START DATE (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

ADDITIONAL SUPPORTING INFORMATION (optional; please indicate if you are attaching any additional documentation)

COURSE INFORMATION

Subject Code: SOCI	**Course Number: 2300U**
Full Course Title: Social Problems	
Short-Form Course Title (max. 30 characters):	

CHANGE TO CALENDAR DESCRIPTION (if required)

Current	**Proposed**
SSCI 1300U	**SOCI 2300U**

CHANGE TO CREDIT AND CONTACT HOURS [if applicable, indicate changes to total contact hours only; changes to frequency (e.g. 1x3 hours to 2X1.5 hours) not required]:

Credit Hours	
Lecture	Lab
Tutorial	Other

OTHER CHANGES (if applicable)

Cross-listings	
Prerequisites for Calendar and Banner	
Co-requisites	
Prerequisites with concurrency (pre or co-requisite)	
Credit restrictions	**☐ Equivalency***
Recommended Prerequisites	
Course Restrictions	
Course Type	**☐ Core ☐ Elective ☐ Core or Elective**
Grading scheme	**☐ N (normal alpha grade) ☐ P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

CHANGES TO COURSE INSTRUCTIONAL METHOD (if applicable):

CLS (In Class Delivery)		HYB (In Class and Online Delivery)	
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)		WEB (Fully Online – Asynchronous)	
Not Applicable			

CHANGES TO TEACHING AND ASSESSMENT METHODS (if applicable)

CHANGES TO LEARNING OUTCOMES (if applicable; for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

DOES THIS COURSE CONTAIN ANY EXPERIENTIAL LEARNING COMPONENTS?
If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

CONSULTATION (Curriculog contact to complete an Impact Report)

Consultation with Sociology program committee, UCC and Academic Advising. Updating Social Science courses to be included in the new Sociology major.

DOES THIS COURSE CHANGE IMPACT BOTH THE UNDERGRADUATE AND GRADUATE CALENDARS?
☐ Yes ☒ No

WE HAVE CONSULTED WITH ALL IMPACTED AREAS? ☒ Yes ☐ NA
Please describe:

ARE THERE ANY CONSIDERATIONS FOR THE PRINCIPLES OF EQUITY, DIVERSITY, INCLUSION, OR DECOLONIZATION INCLUDED WITH THIS COURSE CHANGE? ☐ Yes ☒ No Please explain:

DOES THIS COURSE 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**

Pre-Faculty Council Approval Dates (e.g. Curriculum Committee, Program Committee):

COURSE CHANGE TEMPLATE

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Faculty: **Faculty of Social Science and Humanities**	
Course Level	**☒ Undergraduate** **☐ Graduate**

COURSE CHANGES (check all that apply)

☐	Contact hours	☐	Cross-listings
☐	Co-requisites	☐	Experiential Learning
☐	Course description	☐	Grade Mode (N – alpha grade, P – Pass/Fail)
☐	Course Instructional Method (CLS, HYB, WB1, WEB)	☐	Learning outcomes
☒	Course number or course Subject code	☐	Prerequisites
☐	Course title (include new short form title)	☐	Delete course from Academic Calendar
☐	Credit restrictions and/or Equivalencies	☐	Teaching and assessment methods
☐	Credit weighting	☐	Course restrictions
☐	Deleting an Elective Shown in the Program Map	☐	Other (please specify):

IS THIS COURSE CHANGE ASSOCIATED WITH A PROGRAM PROPOSAL? **☒ Yes** **☐ No**

REASON FOR CHANGE AND WAYS IN WHICH IT MAINTAINS/ENHANCES COURSE/PROGRAM OBJECTIVES

With the creation of the new Sociology major, this course would fall under that new program. It is to become a core Sociology offering.

FINANCIAL IMPLICATIONS

NONE

CALENDAR START DATE (When the course should first appear in the Academic Calendar e.g. 2020-2021)

Fall 2025

REGISTRATION START DATE (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

ADDITIONAL SUPPORTING INFORMATION (optional; please indicate if you are attaching any additional documentation)

COURSE INFORMATION

Subject Code: SOCI	**Course Number: 2700U**
Full Course Title: Human Sexuality	
Short-Form Course Title (max. 30 characters):	

CHANGE TO CALENDAR DESCRIPTION (if required)

Current	**Proposed**
SSCI 2700U	**SOCI 2700U**

CHANGE TO CREDIT AND CONTACT HOURS [if applicable, indicate changes to total contact hours only; changes to frequency (e.g. 1x3 hours to 2X1.5 hours) not required]:

Credit Hours	
Lecture	Lab
Tutorial	Other

OTHER CHANGES (if applicable)

Cross-listings	
Prerequisites for Calendar and Banner	
Co-requisites	
Prerequisites with concurrency (pre or co-requisite)	
Credit restrictions	☐ **Equivalency***
Recommended Prerequisites	
Course Restrictions	
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

CHANGES TO COURSE INSTRUCTIONAL METHOD (if applicable):

CLS (In Class Delivery)		HYB (In Class and Online Delivery)	
IND (Individual Studies)		OFF (Off Site)	

WB1 (Virtual Meet Time – Synchronous)		WEB (Fully Online – Asynchronous)	
Not Applicable			

CHANGES TO TEACHING AND ASSESSMENT METHODS (if applicable)

CHANGES TO LEARNING OUTCOMES (if applicable; for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

DOES THIS COURSE CONTAIN ANY EXPERIENTIAL LEARNING COMPONENTS?
If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

CONSULTATION (Curriculog contact to complete an Impact Report)

Consultation with Sociology program committee, UCC and Academic Advising. Updating Social Science courses to be included in the new Sociology major.

DOES THIS COURSE CHANGE IMPACT BOTH THE UNDERGRADUATE AND GRADUATE CALENDARS?
☐ Yes ☒ No

WE HAVE CONSULTED WITH ALL IMPACTED AREAS? ☒ Yes ☐ NA
Please describe:

ARE THERE ANY CONSIDERATIONS FOR THE PRINCIPLES OF EQUITY, DIVERSITY, INCLUSION, OR DECOLONIZATION INCLUDED WITH THIS COURSE CHANGE? ☐ Yes ☒ No Please explain:

DOES THIS COURSE 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**

Pre-Faculty Council Approval Dates (e.g. Curriculum Committee, Program Committee):

COURSE CHANGE TEMPLATE

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Faculty: **Faculty of Social Science and Humanities**	
Course Level	☒ **Undergraduate** ☐ **Graduate**

COURSE CHANGES (check all that apply)

☐	Contact hours	☐	Cross-listings
☐	Co-requisites	☐	Experiential Learning
☐	Course description	☐	Grade Mode (N – alpha grade, P – Pass/Fail)
☐	Course Instructional Method (CLS, HYB, WB1, WEB)	☐	Learning outcomes
☒	Course number or course Subject code	☐	Prerequisites
☐	Course title (include new short form title)	☐	Delete course from Academic Calendar
☐	Credit restrictions and/or Equivalencies	☐	Teaching and assessment methods
☐	Credit weighting	☐	Course restrictions
☐	Deleting an Elective Shown in the Program Map	☐	Other (please specify):

IS THIS COURSE CHANGE ASSOCIATED WITH A PROGRAM PROPOSAL? ☒ **Yes** ☐ **No**

REASON FOR CHANGE AND WAYS IN WHICH IT MAINTAINS/ENHANCES COURSE/PROGRAM OBJECTIVES

With the creation of the new Sociology major, this course would fall under that new program. It is to become a core Sociology offering.

FINANCIAL IMPLICATIONS

NONE

CALENDAR START DATE (When the course should first appear in the Academic Calendar e.g. 2020-2021)

Fall 2025

REGISTRATION START DATE (The first time the course will be open for registration e.g. Fall 2020)

Fall 2025

ADDITIONAL SUPPORTING INFORMATION (optional; please indicate if you are attaching any additional documentation)

COURSE INFORMATION

Subject Code: SOCI	**Course Number: 2720U**
Full Course Title: Sports and Society	
Short-Form Course Title (max. 30 characters):	

CHANGE TO CALENDAR DESCRIPTION (if required)

Current	**Proposed**
SSCI 2720U	**SOCI 2720U**

CHANGE TO CREDIT AND CONTACT HOURS [if applicable, indicate changes to total contact hours only; changes to frequency (e.g. 1x3 hours to 2X1.5 hours) not required]:

Credit Hours	
Lecture	Lab
Tutorial	Other

OTHER CHANGES (if applicable)

Cross-listings	
Prerequisites for Calendar and Banner	
Co-requisites	
Prerequisites with concurrency (pre or co-requisite)	
Credit restrictions	☐ **Equivalency***
Recommended Prerequisites	
Course Restrictions	
Course Type	☐ **Core** ☐ **Elective** ☐ **Core or Elective**
Grading scheme	☐ **N (normal alpha grade)** ☐ **P (pass/fail)**

***Equivalency:** Two courses are similar enough in content that they are considered equivalent so students can register in either course but they will only receive credit for one course in their program.

CHANGES TO COURSE INSTRUCTIONAL METHOD (if applicable):

CLS (In Class Delivery)		HYB (In Class and Online Delivery)	
IND (Individual Studies)		OFF (Off Site)	
WB1 (Virtual Meet Time – Synchronous)		WEB (Fully Online – Asynchronous)	
Not Applicable			

CHANGES TO TEACHING AND ASSESSMENT METHODS (if applicable)

CHANGES TO LEARNING OUTCOMES (if applicable; for assistance developing course learning outcomes, please refer to the Teaching and Learning website, or contact them at teachingandlearning@ontariotechu.ca.)

DOES THIS COURSE CONTAIN ANY EXPERIENTIAL LEARNING COMPONENTS?
If yes:

Case Study		Simulated Workplace Project	
Consulting project/workplace project		Applied Research	
Field Experiences			
Other Types of Experiences:			

CONSULTATION (Curriculog contact to complete an Impact Report)

Consultation with Sociology program committee, UCC and Academic Advising. Updating Social Science courses to be included in the new Sociology major.

DOES THIS COURSE CHANGE IMPACT BOTH THE UNDERGRADUATE AND GRADUATE CALENDARS?
☐ Yes ☒ No

WE HAVE CONSULTED WITH ALL IMPACTED AREAS? ☒ Yes ☐ NA
Please describe:

ARE THERE ANY CONSIDERATIONS FOR THE PRINCIPLES OF EQUITY, DIVERSITY, INCLUSION, OR DECOLONIZATION INCLUDED WITH THIS COURSE CHANGE? ☐ Yes ☒ No Please explain:

DOES THIS COURSE 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**

Pre-Faculty Council Approval Dates (e.g. Curriculum Committee, Program Committee):

COMM1100U - Introduction to Communication and Digital Media Studies

Communications and digital media are everywhere and in everything. Journalists, public affairs officers, content creators, entertainment makers, branding experts, digital storytellers, social media influencers, consumers, activists and citizens use all kinds of media every day to produce, send, and receive digital messages and images about the world, to change it in some way. In this broad survey course, we learn about the key topics, theories, methods, and debates in contemporary communication and media studies and establish foundational knowledge of the economics, politics and policies, texts, technologies, and audiences of all kinds of media forms. The course introduces students to what communication and media studies is, how communication and media in modern society is analyzed, and why knowledge of the history, sources, roles, goals, uses, messages, and impacts of communication and media is integral to becoming media literate citizens and communications professionals.

COMM2410U - Social History of Communication and Media Technologies

This course focuses on the social history of communication as related to new developments in media technologies. The course is a foundational overview of developments in human communication with attention to the social and cultural contexts in which new media technologies emerged over time. Students learn about orality, literacy, the printing press, the telegraph, the telephone, the phonograph, the radio, the motion picture, the TV, satellites, cybernetics, personal computers, the Internet, AI, smartphones and the social media and augmented reality of today.

COMM2530U - Advertising as Social Communication

In our cluttered media environment, access to information is ubiquitous: what techniques do advertisers use to capture our attention and channel it toward persuasive pitches for brands? How does advertising make Apple, Microsoft, and Coca-Cola so pervasive and popular among so many people, online and off? Why does advertising drive new developments in communication and digital media while shaping what media creators do? To answer these and related questions, this course surveys advertising's history, industry dynamics, roles, strategies, semiotics, technologies, ethical controversies, and social and cultural influence. Students learn how advertising is a form of social communication and consider how social media algorithms, mobile devices and games are changing past practices.

COMM3250U - Pop Culture and Entertainment

"Here we are now, entertain us!" This course surveys and applies competing theories of popular culture and entertainment in society through case studies of ads, films, TV shows, video games, comic books, music, celebrities, sports, selfies, social media and more. The course helps students to understand and critically analyze the production, distribution, consumption, interpretation, uses, roles, and effects of popular culture and entertainment in our changing global digital society.

COMM3510U - Work in the Creative and Tech Industries

This course surveys the changing conditions of work in the creative and tech industries. Through an introduction to key concepts, case studies, topics and debates in the field, students learn about what it's like to work in the creative and tech industries and from the standpoint of the workers who

produce the digital media we consume and use. Showcasing current case studies of what it is like to work in entertainment, interactive games, on 'gig' apps and across social media platforms, and more, the course gives a broad overview of how changing business models, government policies, management practices and technologies are reshaping our ways of work and ways of life. It also explores current hopes and fears about the futures of work as related to social power, automation and human rights.

COMM3710U - Media, Identity and Intercultural Communication

Our identities—our sense of who we are and who we are not in society—are powerfully shaped by our histories and lived experiences as related to race, ethnicity, nation, language, religion, gender, class, age, ability, lifestyle, and so much more. Our identities are also shaped by media representations, but with all kinds of media playing such a significant role in underrepresenting, misrepresenting and sometimes outright stereotyping identities in society, much is misunderstood, and everything from cross-cultural confusion to inter-group conflict may ensue. This course surveys the field of intercultural communication in an age in which our identities are mediatized, and wherein everything from ads to anime to Instagram posts play a formative role in shaping how we come to know ourselves in relation to the identities of others. In this course, students learn how identities are shaped by communication and media with an eye to equity, diversity and inclusivity. They develop the intercultural knowledge and competence required to communicate professionally with people from a diversity of communities and cultures that may be unlike their own.

COMM4120U - AI, Ethics and Communication

Artificial Intelligence (AI) is automating human abilities and work. This course will query how people will work as communicators with autonomous AI agents, such as digital assistants, social robots, or AI writers. It will address the manner through which communicators are contextualizing their work on AI platforms that involve natural language generation, machine-learning, predictive analytics, or other AI functional applications. As literacy practices change with the use of autonomous agents, this course will provide opportunities to discuss public sphere issues such as manipulation of visual information (e.g., political deepfakes), racial and gender algorithmic bias, and automated journalism. The course will draw on a set of AI ethical principles (drawn from both international governance and technical organizations) to guide discussion toward achieving ethical practices, standards, policies, and regulations in the field. Theoretical grounding will be drawn from media studies (critical technology studies), human-computer interaction, and technical communication.

COMM4420U - Political Communication, Digital Media and Democracy

This course focuses on political communication in modern society. How do governments, parties, advocacy groups, social movements, and citizens use the old and new digital media to try to set political agendas and frames with the goal of winning people's attention, donations, support, and votes? In our misinformation and disinformation-saturated media environment of partisan news outlets, ubiquitous entertainment media, and social media networks, is it possible for political communicators to have an impact? Should we be optimistic or pessimistic about Internet and social media-driven politics in an age in which democracy faces new threats, and the future of our planet grows uncertain? To answer these and related questions, this course surveys key topics in

the industry, technology, and professional practice of political communication. Students learn how political communication links with democracy and the prospect for effective citizenship.

COMM4510U - Public Relations: Social Power, Social Media Platforms, and Social Responsibility

This course is a comprehensive introduction to the field of public relations (PR) with attention to PR's link to social power, social media platforms, and social responsibility. It gives an unflinching look at PR's history, industry, technologies, roles and goals, ethics and laws, planning, strategies, tactics, and types, as well as PR's evolving relationship to the news media and new platforms such as Facebook, Twitter, and Instagram. Drawing from past and present case studies of PR campaigns for companies, governments and notable individuals, the course probes how PR scripts, transmits and manages messages and images intended to influence public opinion for various clients. While the course focuses primarily on PR that is undertaken by and for the socially powerful, it also considers PR's social responsibility, and the PR campaigns developed and launched by public sector agencies, non-profit organizations (NGO), and grassroots advocates for the social good.

COMM4530U - Media Activism and Protest Cultures

What is the relationship between activism and media technologies? Can the arts catalyze protest? How can media and the arts be used to disrupt the status quo, and effect social change? This course is about the history, theory, and methods of media activism and protest arts and cultures. Designed for students interested in media and arts for protest and change-making, the course examines diverse forms of alternative and community media, from analog to digital and social media, through a survey of select cases and events.

CRMN1000U - Introduction to Criminology and Justice

This course provides an introduction to criminology, with a particular emphasis on the Canadian criminal justice system. Beginning with the question of "what is crime?", student's will be introduced to an analysis of historical and contemporary philosophies and practices of the criminal justice system. In addition to an analysis and overview of crime data and statistics, the course will examine the role and function of each component of the criminal justice system: the police, the court system, and corrections.

CRMN2030U - Social Control

This course will examine theoretical and empirical approaches to the study of social control, which might be understood as the ways in which societies respond to behaviour deemed inappropriate, deviant, or even criminal. Our focus will be on both informal and formal methods of social control, and the inter-relationship among them. We will discuss the cultural, structural, political, and ideological forces that have sustained and transformed both systems of social control during modernity and late modernity. Particular attention will be paid to the ways in which identity (e.g., race, class and gender) shapes one's relationship to these mechanisms of social control.

CRMN3010U - Social Justice/Criminal Justice

There can be no true criminal justice without social justice, that is, without an ethos that challenges inequality and values diversity. Students will think critically about the ways in which identity,

culture, institutions and power shape the lived experiences of diverse communities, especially within the context of criminal justice. This course ends with a consideration of social action in the interests of social justice.

CRMN3023U - Family Violence

The course will cover the history of family violence as a social problem; its dynamics, prevalence and outcomes; critical issues in conducting and interpreting research around victims within familial settings and relationships; media representations of violence against family members; the intersection of violence and social categories; violence related services as they relate to family members as victims; and contemporary family violence policy.

CRMN3045U - Terrorism

This course will explore theoretical practical issues related to understanding terrorism and the state, and public responses to it. It will review theoretical and methodological issues in the study of terrorism; social, political and economic roots of terrorism; and the representation of narratives of terror and counter-terror. This course will conclude with a critical examination of strategies used in the control of terrorist activities and the implication these have for public safety and for human rights.

CRMN3056U - Race-ing Justice

This course explores the disparate experiences of ethnic and racial minorities within the criminal justice system. Emphasis will be placed on the dual processes of the criminalization of race and the racialization of crime. Together, the professor and the students will assess and critique the relationship between race and criminal offending, victimization, policing and disposition.

CRMN3301U - Green Criminology and Eco-Justice

Green criminology is a rapidly developing field within criminology. It developed out of a concern by researchers for environmental crime and the harms that it produces. Green criminology explores the ways in which governments, corporations and ordinary people harm environments, humanity and animals. Students who successfully complete the course will develop an in-depth understanding of what we mean by 'green criminology', be able to think critically about emerging issues in green criminology and be able to assess the policies which currently govern environmental crimes. Topics include climate change, environmental disasters, animal welfare, animal trafficking, green washing, food crime and Indigenous environmentalism.

CRMN3401U - Indigenous Peoples and Justice

This course will focus on the experiences of Indigenous peoples and justice in Canada and Turtle Island (North America) and around the world using a decolonizing lens that prioritizes and privileges the voices of Indigenous scholars, activists, and allies. Specific topics that will be explored include but are not limited to: systemic and institutional racism; environmental justice; racial profiling; over-incarceration; treaty breaking; residential schools; conditions on reserves and the remote northern territories; and the Truth and Reconciliation Commission. Criminal justice policy reforms based on Indigenous principles such as sentencing circles and Family Group Conferences will be examined. Students will be introduced to Indigenous justice systems, with attention given to

different Indigenous nations' and communities' approaches. This course will highlight Indigenous activism, resilience, and power.

CRMN4037U - Youth Justice Policy

This course provides students with an understanding of the contours and purposes of various juvenile justice systems in selected countries, including Canada, through examination of various cases, legislative initiatives and social forces that have affected juvenile justice policy in these countries. In addition to examining the evolution of these juvenile justice systems, learners will examine changing approaches to the policing and adjudication of juvenile offenders, as well as the transformation of juvenile courts. Finally, students will gain an understanding of contemporary issues in juvenile justice in Canada and elsewhere, and an appreciation for the policy and analytical value of comparative methods.

CRMN4052U - Policing Diverse Communities

This course explores issues related to policing culturally diverse communities in Canada. In particular, students will explore the relevance of cultural differences between minority cultures and the assumed dominant culture for policing. Thus, it will introduce students to the origins and manifestation of bias and discrimination in policing, the use of police force, discretionary powers, police ethnic community relationships, and the utility of government appointed race and ethnic relations commissions. Further, it will explore efforts to enhance police/community relations, and their strengths and limitations.

INDG3310U - Indigenous Peoples, Sustainability and Development: A Global Perspective

This course takes a global perspective on the relationship between Indigenous peoples, sustainability, and development. Students will explore concepts such as Indigeneity, Indigenization, decoloniality, sustainability, and development as they relate to Indigenous cultures and communities throughout the world. We will ask whether Western concepts such as sustainability and development can or should be Indigenized or, alternatively, should a more thorough decolonial approach be used. Case studies will explore indigenous movements against westernizing development and toward Indigenous concepts of well-being from around the world. Theory and case-studies will be examined in the context of historical colonialism and current neocolonialism. Focus will be on understanding Indigeneity as a locally-rooted global social movement that seeks to push back against Western imperialism and neo-imperialism while defining Indigenous alternatives to the current global consumer capitalism paradigm and its allied concept: sustainable development. Students will engage these concepts in various ways, many of which are rooted in Indigenous pedagogy. Students will also learn how to undertake research in partnership with Indigenous communities and organizations as opposed to doing research on Indigenous groups.

INDG4310U - The Politics of Indigenous Rights

This course is intended to provide upper year students with the opportunity to explore the various issues related to Indigenous rights. The focus will be primarily on the Canadian context, but we will include some examples from beyond Canada's borders. The course starts from the premise that protecting and restoring Indigenous rights is important. The course is also based on the

fundamental perspective that decolonization and Indigenous methodologies are key to creating a Canadian society that is truly inclusive. Although the primary focus of the course will be on the political issues related to Indigenous rights, the course will also draw on other fields of research. Throughout the course, we will look at contemporary issues within their historical context.

LGLS1000U - Foundations of Legal Studies

The course provides students with knowledge of the basics of the Canadian legal system (structure of government, court system, and the principles, sources, and types of law) as well as critical perspectives on law and its role in society. The creation and functioning of the law and its relationship with society are examined through the lens of core themes such as: breaking the law, applying the law, making the law, resisting the law, defining the law and studying the law.

LGLS3200U - Sociology of Law

This course examines the various philosophies, theories, and perspectives that form the theoretical underpinnings of a sociological understanding of law. The focus includes perspectives influenced by classical and contemporary (including feminist, critical race and post-colonial) theorists. These theoretical perspectives will be applied to understanding the social dynamics of law, legal professions and the legal system.

LGLS3520U - Law and Technology

New technologies engage the law in at least three ways: they may become the object of regulation; they may affect the application of the law to human interactions; and they may affect the procedural elements of the law (such as evidence law). The course will examine the ways that both historical and recent technological inventions engage and are engaged by the law.

LGLS3700U - Law and Power

The course provides students with critical perspectives on the relationship between law and power. The course will examine how uneven distribution of power affects and shapes processes of law creation, access to justice and legal knowledge, susceptibility to legal sanction, and political advocacy of legal remedies. Topics studied will be drawn from the fields of law and economics, gender and law, indigenous legal issues, race and law, and legal and political theory.

LGLS4200U - Law and Social Change

This capstone course addresses the interplay between law, law-making and social change. It asks students to use the theoretical and conceptual insights of prior courses to think critically about the possibilities and limits of law as a mechanism of social change.

POSC1000U - Introduction to Political Science

This course introduces students to the central concepts of political science. The course deals with the scope, concerns, orienting concepts, leading approaches and methodologies of political inquiry, the major political ideologies, formal and informal institutions in the political process, problems of political and social change and Canadian and international politics. The emphasis is on how individuals participate in politics and on how politics may be changed through mobilization,

social movements and globalization. This course cultivates an understanding of municipal, provincial, national and international levels of politics.

POSC2100U - Global Politics

This course explores and examines the key theoretical frameworks in the field of international relations, such as realism, liberalism and constructivism, in order to provide students with the analytical tools to understand and evaluate important events in global politics. In particular, course content focuses on key historical and contemporary processes of global integration and conflict and their impact on the distribution of political power, both within and between nations.

POSC2800U - Introduction to Business, Economy and Society

This course is inspired by recent moves in interdisciplinary social sciences to 'rethink economics 101' from an interdisciplinary perspective. The goal is to help students interested in business, development, politics, or policy to undertake their studies with a better understanding of how businesses and economies operate in the 'real world', which is often more complicated than the way in which academic theories present economic activity and systems. This course will explore critical, diverse, and scientifically supported tools to understand how humans and businesses behave economically and how this behavior can produce, or reduce, inequities, environmental damage, and human flourishing. Students will develop understandings of human economic behaviour that are essential to a range of activities—from marketing, to innovation, to sustainability and justice. They will learn how businesses and consumers are impacted, and impact, the policy environment that constrains their actions while making economic activities possible in the first place. The course content will be particularly useful to those who are interested in working in business or in engaging in critical development and policy studies.

POSC3101U - Inequality, Environment and Development

Students taking this course will learn to analyze development through the lens of difference. The course content seeks to highlight both the inequitable (and unequal) distribution of power and control over development as well as the inequitable distribution of development's impacts and benefits. The role of oppressive political practices such as colonization and globalization will be featured. Particular attention will be paid to environmental issues and how they relate to inequalities of class, ethnicity, and gender.

POSC3102U - Race and Racism in Political Culture

Political culture is understood as the common values, norms and traditions of a particular country or place. Political culture in terms of 'race' and racism can reinforce ideas of 'race' and perpetuate racism through colonialism and racialization of BIPOC subjects. This course analyzes the political, economic and cultural development of 'race' and 'racism' in political discourse. The theoretical grounding of 'race' and critical race theory will be explored from an anti-racist perspective in a specifically Canadian context. The issues of immigration and multiculturalism, which have traditionally formed much of the Canadian political discourse surrounding race, will be expanded to look at intersectional analysis of race with gender, sexuality, class, disability and age. The focus of this discussion is Canadian but international examples will also be used to provide some perspective.

POSC3501U - Politics and Poverty

This course is an introduction to Canadian social policies with respect to poverty and income support. Some of the areas that may be covered include: the development of the welfare state, federal and provincial income support policies, the feminization of poverty, aboriginal poverty, childhood poverty, poverty activism, and workfare programs.

POSC3602U - Labour in the Global Economy

This course examines the nature and evolution of work from the 1700's, with emphasis on the interaction between labour, business and the state. Students will explore, both theoretically and historically, the dramatic changes in employment practice that have occurred alongside the gradual development of the global economy and the way that government policies have accommodated and influenced these important shifts.

POSC3800U - Business, Politics and the Macroeconomy

This is an introductory course in economics for public policy. This course will include an introduction to microeconomic reasoning, concepts and analytical tools as well as an introduction to labour economics.

PSYC1000U - Introductory Psychology

This course introduces students to the study of human thought and behaviour. Through a survey of major theories, principles, and research findings across a variety of fields within psychology, students will gain a better understanding of why people think and behave as they do. Typical topics include: the history of psychology, research methods, sensation and perception, learning, memory, emotion and motivation, consciousness, stress and health, social influences, developmental factors, psychological disorders and treatment.

PSYC3500U - Stereotypes and Prejudice

This course will review and analyze theory and empirical research on stereotyping and prejudice. A number of themes will be explored, including the development of stereotypes and prejudice; intentional and unintentional consequences of stereotypes and prejudice; and possible ways to change stereotypes or reduce prejudice.

SOCI1000U - Introductory Sociology

Sociology is the study of people and how they interact with each other and various social groups. This course deals with the study of people's lives, their relationship to society as a whole, and how people are affected by the society in which they live. The concepts, theories and methods of the discipline will be introduced and discussed with particular emphasis on the dynamics of Canadian society and Canadian social problems.

SSCI1910U - Writing for the Social Sciences

This course is intended to help students develop and/or enhance writing skills that will increase their likelihood of success within the social sciences. Students will learn how to research academic papers, how to critically assess and use resources, and how to write different styles of papers.

Throughout, emphasis will be on improving writing through such mechanisms as outlining, drafting and critically assessing their own work.

SSCI2101U - Making a Difference: An Introduction to Social Entrepreneurship

Have you ever learned about a social issue or problem and thought: how can I help change this? How can I make a difference? This course can aid you in taking those first steps in helping to be that change. Providing students with an introduction to the field of social entrepreneurship, the course is designed for those interested in starting their own social venture or joining an existing one. Grounded in a pragmatic, applied approach, students will build the skills required to develop resources and solutions to help address social problems, such as inequality, food insecurity and climate change, among other social justice issues.

SSCI2900U - Research Methods

This course is designed as an introduction to research methods in the social sciences. Students will develop practical experience in a variety of research methods and techniques. Quantitative and qualitative research methods will be examined. Students may choose a research question from an area of personal or professional interest to pursue in the course.

SSCI2910U - Data Analysis

This course offers an introduction to descriptive and inference based statistical data analysis techniques commonly used in the social sciences and humanities. Topics to be included are: frequency distributions, measures of central tendency and variability, cross-tabulations, independent sample t-tests, ANOVA, correlation and regression, and elementary sampling theory. The application of statistical methods will be examined in depth with examples. Activities in this course are designed to build on those in the Research Methods course.

SSCI2920U - Qualitative Research Methods

This course is a survey of qualitative research methods. Students will be introduced to the historical, theoretical, epistemological, and ethical foundations of qualitative research. The course will provide a survey of major qualitative approaches such as: interview, focus group, observation, unobtrusive methods, and action research.

SSCI3000U - Disability, Rehabilitation and Society

This course will draw from the fields of health and social sciences to identify and critically evaluate how healthcare, insurance and regulatory systems diagnose, treat, manage, compensate and support disabled persons. This cross-disciplinary approach to interpreting disability and rehabilitation will enable students to address how social determinants in the development of disability—including physical and attitudinal barriers, poverty and violence—affect quality of life and access to care. The course will address the relationships between health practitioners, caregivers, policymakers and legal tribunals that impact available disability supports, determinations of capacity, interpretations of care and recovery, rehabilitation programs, institutional versus independent and community living and equitable access.

SSCI3300U - Community Connections

This course is intended primarily to expose students to community agents, agencies, and activists through a series of lectures or workshops delivered either directly to students or as participants in other university or community events. The series will be interdisciplinary in nature, including talks from practitioners and other parties (e.g. activists) involved in areas relevant to Faculty of Social Science and Humanities programs. The series will be specifically tailored to inform and engage students in social issues affecting our communities. Schedules of lecture/workshops will vary and will occur outside of the scheduled course time. Students should expect to be somewhat flexible in order to attend lecture/workshops.

SSCI3910U - Advanced Data Analysis

Students will explore advanced descriptive and inference based statistical data analysis, as well as data modification techniques, in the context of common research problems in the social sciences and humanities using statistical software (SPSS). There will be an emphasis on developing overall research strategies and protocols using data analysis. Computer applications for data analysis will be used extensively.

SSCI3920U - Advanced Qualitative Methods

This course provides an opportunity to learn about selected qualitative methods in depth and gain practical experience applying them to a research project. Students will learn how to plan and conduct a qualitative research project from start to finish. Historical, theoretical, epistemological, and ethical foundations of selected methods will be explored in depth.

SSCI4010U - Policy Development

This capstone course explores various aspects of policy development, planning and analysis as they relate to social policy and justice policy. It will compare and contrast theories of policy implementation and analyze and evaluate social policies. Students will consider how economic, political, legal, and cultural forces shape the construction of social policy. Students will be expected to demonstrate an advanced level of understanding based on their previous courses, and apply that to the creation of a policy initiative.

SSCI4020U - Leadership and Administration

This course introduces students to the nature and structure of organizations and the behaviour of individuals and groups within organizations. Particular emphasis will be placed on the development of leadership skills within those organizations. The knowledge and skills developed will be applicable to a wide range of settings in both the private and public sector.

SSCI4098U - Practicum

The practicum is an experiential learning tool that provides students with opportunities to acquire workplace skills and knowledge, confront the relationship between theory and practice, and cultivate a sense of personal and professional development. The course consists of 100 hours of fieldwork, in-class seminars, a set of academic assignments and a major research paper and poster. As part of the pre-practicum process, students will be required to acquire a Vulnerable Sector Screening. Students are matched with community organizations based on goals, interests, and learning outcomes identified in the pre-practicum selection process. In consultation with a

designated fieldwork supervisor, students design, manage, and receive feedback on a series of self-directed workplace goals and objectives.

SSCI4103U - Internship

Internship is a form of experiential learning that provides students with opportunities to acquire workplace skills and knowledge, critically examine the relationship between work-related practices and the theories behind them while cultivating a sense of personal and professional development. The internship placement consists of a minimum of 280 hours of fieldwork (paid or unpaid) in one semester, online discussions, reflective journals, and a final project and presentation that integrates and synthesizes students' work experience with previous coursework and knowledge gained throughout their program of study.

Appendix D – Faculty Information

Faculty members by home unit, rank, and supervisory privileges

Name and Faculty Status/Rank *(Tenure/tenure track, teaching focused, continuing sessional, special appointment, emeritus, etc.)*	Terminal Degree	Home Faculty/Unit	Areas of Expertise	Role in New Program *(Note if faculty will be teaching and/or supervising in the program)*	T Te
Shahid Alvi - Professor	PhD Sociology	Faculty of Social Science and Humanities	Digital victimization and netnography, social exclusion, online incivility, violence against women, left realism, youth crime, political economy, technology and education	Teaching	Ful
Steven Downing - Associate Professor	PhD Criminology	Faculty of Social Science and Humanities	Qualitative Methods/Ethnography, Deviance, Game Studies	Teaching	Ful
Tyler Frederick - Associate Professor	PhD Sociology	Faculty of Social Science and Humanities	Sociology, Criminology, Housing and Homelessness, Youth, Gender	Teaching	2 c

Gary Genosko - Professor	PhD Social and Political Thought	Faculty of Social Science and Humanities	Contemporary Social Theory, Cultural Sociology, food and society, Surveillance studies	Teaching	2 c
Jordan Harel - Associate Teaching Professor	PhD Sociology	Faculty of Social Science and Humanities	Deviance, Crime, Social Control, Sociology of work occupations and professions	Teaching	Ful pot
Steven Hayle - Associate Teaching Professor	PhD Sociology	Faculty of Social Science and Humanities	International Criminal Justice, Comparative Drug Policy Analysis, Sociological Theory, Socio-legal Theory	Teaching	Ful
Zenia Kish - Assistant Professor	PhD - Social and Cultural Analysis	Faculty of Social Science and Humanities	Digital/social media, globalization & global media, climate/environment/sustainability, development, food & agriculture systems, Anthropocene, neoliberalism, critical finance studies/economic sociology, consumer culture, war and culture, social movements, imperialism & postcolonialism, American studies	Teaching	Ful

Timothy MacNeill - Senior Teaching Professor	PhD Sociology	Faculty of Social Science and Humanities	Sociology, Inequity, Environment, Development	Teaching	Ful
Tanner Mirrlees - Associate Professor	PhD Communication and Culture	Faculty of Social Science and Humanities	Sociology of Media, Sociology of Technology, Political Sociology, Sociology of Capitalism, Sociology of Elites, Sociology of Art, Creativity, and Culture, Sociology of Education, Sociology of Activism, Sociology of Economy, Sociology of Environment, Sociology of Energy, Sociology of Empire / Imperialism, Global Sociology	Teaching	Ful
Christopher O'Connor - Associate Professor	PhD Sociology	Faculty of Social Science and Humanities	Policing; Youth & Society; Urban Sociology, Cities & Communities; Emerging and Disruptive Technology Use & Perceptions	Teaching	2 c
Barbara Perry - Professor	PhD Sociology	Faculty of Social Science and Humanities	Hate Crime, Extremism, Social Justice	Teaching	1-2

Kanika Samuels-Wortley - Associate Professor	PhD Sociology	Faculty of Social Science and Humanities	Race, Racism, Inequality, Criminal Justice System	Teaching	Ful
Hannah Scott - Professor	PhD Sociology	Faculty of Social Science and Humanities	Vulnerable populations, deviance, statistics, methods, evaluation, gendered victimization experience, workplace violence, homicide	Teaching	Ful
Vivian Stamatopolous - Associate Teaching Professor	PhD Sociology	Faculty of Social Science and Humanities	Caregiving/young carers, Long-term care, Aging and the Elderly	Teaching	Ful
James Walsh - Associate Professor	PhD Sociology	Faculty of Social Science and Humanities	Moral Panic Media (traditional and Digital), Terrorism Security/Surveillance, Social Theory, Political Sociology, Globalization and Transnationalism	Teaching	Ful
Arshia Zaidi - Associate Professor	PhD Sociology	Faculty of Social Science and Humanities	Gender, Sexuality, Race, Ethnicity, Immigration, Hate Crime, IPV, Methodology, Statistics	Teaching	Ful

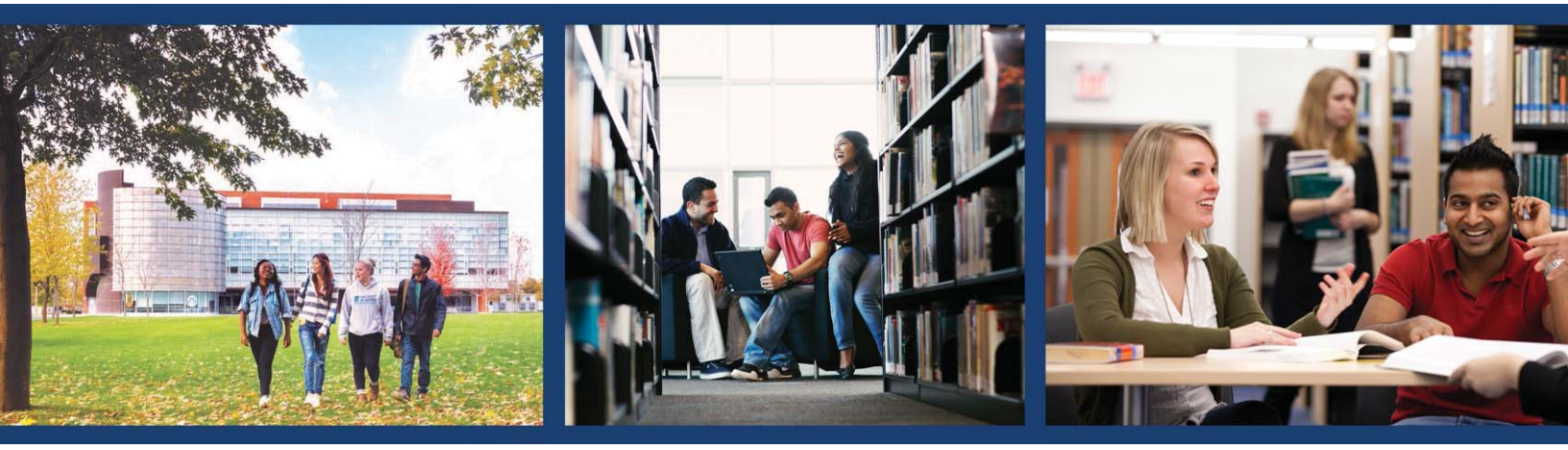
Dr. Shanti Fernando - Associate Professor	PhD - Political Science	Faculty of Social Science and Humanities	Anti-racism and social inclusion, social effects of migration and immigration, community development, sociology of the labour market, sociology of adult education, anti-poverty and social service policies	Teaching	Ful
Dr. Scott Aquanno - Assistant Professor	PhD - Political Science	Faculty of Social Science and Humanities	Political Science, Economic History, Economic Sociology	Teaching	Ful

Undergraduate Thesis supervisory records by faculty member (if applicable to the program) - N/A

New Program Assessment: Bachelor of Arts (Honours), Sociology

Library Statement of Support Provided to Ontario Tech University

Prepared by: Chelsie Lalonde, Faculty of Social Science and Humanities Liaison Librarian, March 2024



OntarioTech Library

Contents

Summary

Ontario Tech University Library's holdings in sociology are strong. Coverage is offered throughout various disciplines and subject areas of our library collections.

The proposed Bachelor of Arts, Sociology focuses on topics of gender identity, race and class and their impacts of society. The program includes specializations of Applied Sociology and Society and Values and Technology. Applied Sociology and Society focuses on the connections between society, technology, and human values, while Applied Sociology has a focus on theory and practical skills to analyze and address social issues.

This program will draw from existing collections and programs supporting communications, media studies, criminology, legal studies, political science, Indigenous studies, and psychology.

The Library's research holdings, as well as archives and special collections total more than 98,368 print volumes and 167,892 journal subscriptions. In addition, our holdings include more than 1,372,411 e-books, and primary source materials. Collection strengths support the research and instructional programs at Ontario Tech.

Opportunities exist to incorporate information literacy directly into the Bachelor of Arts, Sociology. Student feedback from information literacy sessions overwhelmingly shows that students find the skills to be useful and that information literacy instruction should ideally be incorporated into first year classes. The following courses have been identified for delivering information literacy instruction:

- SSCI 1910U: Writing for the Social Sciences
- SSCI 2900U: Research Methods

Resource Requirements

The introduction of new programs and the subsequent increase in enrollment will impact database subscription costs as pricing is linked to enrollment tiers.

Introduction

The Library supports the teaching, learning and research missions of Ontario Tech University and Durham College. Ontario Tech students have access to a joint collection of more than 98,368 print books. Additionally, our collections include extensive online resources such as e-books and online databases that are selected to meet curricular needs. Students and faculty are supported by a team of subject specialist librarians and trained library technicians who provide an array of research and teaching support services including information literacy instruction, workshops, research help and reference service.

Library Collections

The Bachelor of Arts, Sociology program will be supported by existing collection resources from programs within the Faculty of Social Science and Humanities, including communications and media studies, criminology, legal studies, political science, Indigenous studies, and psychology. This program also benefits from resources supporting business programs that cover topics in leadership and entrepreneurship.

The Library's collections budget for 2022-2023 totaled $1,812,147. Approximately 95% of this budget is directed to online resources, while the remainder is allocated to acquisition of other formats, including journals, print books, multimedia and other specialized material.

Suggestions for are welcome and faculty and students are encouraged to contact their subject specialist. All recommended purchases are evaluated according to the Collection Development Policy and with consideration to budget constraints.

Consortial Licensing

By virtue of our membership in two key consortia, the Ontario Tech community benefits from the increased bargaining power of a collective through which we subscribe to a wide array of scholarly content. Canadian Research Knowledge Network (CRKN) members represent 81 institutions across Canada that include world-class academic libraries and research institutions, two national libraries, and Canada's largest public library system.

The Ontario Council of University Libraries (OCUL) is a consortium of Ontario's 21 university libraries which works together to maximize our collective expertise and resources. OCUL enhances information services in Ontario and beyond through collective purchasing and shared digital information infrastructure, collaborative planning, advocacy, assessment, research, partnerships, communications, and professional development.

Journals

Our journal holdings in disciplines related to Sociology are strong. We provide access, through subscription, to most of the relevant journals with the highest impact factors, according to Clarivate's Journal Citation Reports (JCR) database 2022.

JCR Subject Category	Ontario Tech Access	Select Titles
Sociology	25/25	• American Sociological Review • American Journal of Sociology • Sociological Methods & Research • Information Communication & Society • Social Networks • Ethnic and Racial Studies • Gender & Society • Social Problems • Society & Natural Resources

Books & E-Books

As noted, we provide access to over 98,368 print books and over 1,372,411 e-books that support teaching, learning and research across all programs and disciplines. Students and faculty have access to collections of books and e-books from major academic publishers.

Through the library's Omni Search, students and faculty have access to books from the Ontario Tech Library and other Omni member university libraries. Articles and books that are not available through Omni Libraries, can be requested through our interlibrary loan service.

The following table highlights Library holdings by subject heading for print books and e-books that encompass the Library's sociology collection.

Subject	# Print Books	# E-Books
Sociology	1,213	38,974
Information technology – social aspects	319	18,036
Internet – social aspects	463	10,290
Technology - ethics	369	12,466
Families	1,374	9,084
Gender	444	8,554
Privacy	438	5,339
Digital media – social aspects	243	5,211
Technology – social aspects	244	451
Technology – sociological aspects	116	2,427

Subject	# Print Books	# E-Books
Social theory	224	1,952
Social policy	218	7,351
Equality	207	4,504
Intercultural communication	135	1,072
World politics	117	3,406
Sexuality	111	1,470
Social movements	80	1,800
Organizational sociology	25	749
Artificial intelligence – social aspects	28	54
Data privacy	8	256

Search Tools

The Library subscribes to many research databases and indexes that provide access to the literature in sociology. Systematic searching of these resources enables students and faculty to access journals and other academic resources such as conference proceedings, theses and dissertations, trade publications and reports.

Databases: Sociology Focus	Relevant Databases: Related Disciplines	
• ProQuest Sociology • Academic Search Premier • Web of Science • Scholars Portal Journals • Project Muse	**Communications and Media Studies:** • Communication & Mass Media Complete **Criminology:** • Criminal Justice Abstracts & Full Text • Criminal Justice Periodicals • Violence and Abuse Abstracts **Technology and Computer Science:** • ACM Digital Library • Computers & Applied Sciences Complete	**Political Science:** • Conference Board of Canada • Canada Commons **Psychology:** • PsycArticles • PsycInfo **Indigenous Studies:** • Bibliography of Indigenous Peoples of North America • Informit Indigenous Collection **Legal Studies:** • Lexis Advance Quicklaw

Other Library Resources

Data Resources

To support research that requires statistics and datasets, the Library subscribes to three main resources:

- **Data Liberation Initiative (DLI):** Access to datasets from Statistics Canada surveys including public use microdata files (PUMF).
- **odesi**: A web-based data exploration, extraction and analysis tool that enables researchers to search for variables across thousands of datasets including Statistics Canada datasets and polling data.
- **Interuniversity Consortium for Political and Social Research (ICPSR)**: Access to a data archive of more than 250,000 files of research in the social and behavioral sciences. Includes specialized collections of data in education, aging, criminal justice, substance abuse, terrorism, and other fields. Resources for teaching and learning include classroom exercises and materials to support data literacy in the classroom.

Multimedia Resources

The Library acquires streaming video resources that are relevant to subjects covered in the Bachelor of Arts, Sociology program. Multimedia resources are selected individually or as part of standing subscriptions.

Omni Search retrieves over 5,000 results for videos available through the library's streaming video subscriptions on the general topics of sociology, social aspects, and social issues. This is a sampling of some of our video collection supporting sociology and additional topics in sociology are covered through our streaming videos collections. The following video collections are particularly relevant to the curriculum in Sociology.

Relevant Streaming Video Collections

Streaming Video Collection	Relevant Titles
Kanopy Streaming Videos	Coverage and playlists include: Gender Studies; Human Rights; Jewish Studies; Race & Class Studies; LGBTQ+; Religion & Philosophy; Civil Rights; Crime; Racism; Social Justice; Community; Social Work; Poverty; Identity; Globalization; Activism; Food Studies; Urban Studies; Disability Studies Sociology: 1,427 titles Gender Studies: 832 titles Race and Class Studies: 1,158 titles Indigenous Studies: 686 titles

Streaming Video Collection	Relevant Titles
CBC Curio	Culture and Society: more than 500 titles Law: 493 titles Media and Communications: 151 titles Technology: 252 titles
National Film Board of Canada	Subject coverage includes: Children and Youth; Families; Indigenous Peoples; Law and Crime; Media and Communication; People with Disabilities; Politics and Government; Religion, Beliefs and Ethics; Sexuality and Reproduction; Social Issues; Technology

Library Services

A range of library services support teaching, learning and research at the University. Students and faculty in the Bachelor of Arts, Sociology would have access to services in-person, online and via email or telephone.

Research Support

The Library plays a vital role in supporting student and faculty research at Ontario Tech.

Reference Service & Research Consultations

Students and faculty have access to research support in-person and online, via telephone, email and through online chat help. In the 2022-2023 academic year, library staff answered 8,704 research questions from the Ontario Tech community.

Librarians provide individualized research consultations with students and faculty, in person or online. These consultations are tailored to meet the needs of individual researchers and can cover a range of topics from basic introductions to more advanced search techniques and support for literature reviews. In the 2022-2023 academic year, Librarians participated in 144 research consultations.

Open Access & Research Data Management

We provide support to faculty and students in complying with the Tri-Agency Open Access Policy (SSHRC, NSERC, CIHR). Faculty and students can make their work open by publishing in an open access or hybrid journal, by depositing their work in a subject repository, or by depositing their work in Ontario Tech's institutional repository, eScholar (https://ir.library.ontariotechu.ca).

We also provide direct support to Faculties through dedicated subject specialist/liaison librarians and online guidance with the Library's Open Access Guide (http://guides.library.ontariotechu.ca/openaccess). The Library has a Research Data Management guide (http://guides.library.ontariotechu.ca/rdm) to support faculty and students in creating data management plans and sharing research data.

During the 2022-2023 academic year, these guides were viewed 1,369 times.

Teaching & Learning Support

As partners in teaching and learning at Ontario Tech, we provide a range of instructional and curriculum supports, both in person and online.

Information Literacy Instruction

In collaboration with teaching faculty, Librarians deliver customized information literacy instruction that support the development of skills to successfully search, evaluate and ethically use scholarly resources in their course requirements. These library services are aligned with the Association of College and Research Libraries (ACRL) Framework for Information Literacy for Higher Education. Information literacy sessions are tailored to the specific requirements of the course or assignment. Information literacy may be delivered synchronously or asynchronously to classes, in person or online. Library information literacy modules are available in the Canvas Learning Management System and can be adapted and added direct into courses, or instructors can opt for asynchronous recordings.

In the 2022-2023 academic year, 433 students in the Faculty of Social Science and Humanities received instructional support from a Librarian. Information literacy instruction is frequently integrated into SSCI 1910U: Writing for the Social Sciences. Opportunities exist to incorporate information literacy instruction into SSCI 2900U: Research Methods.

Ideally, Information Literacy instruction is scaffolded across the required curriculum, enabling students to build increasingly sophisticated research skills throughout their program of study. Student feedback from information literacy sessions indicates that 78% of students felt more confident using the library after receiving library instruction, 84% if students felt that they learned something new, and that students often wish they would have received this training earlier in their program. Some comments include:

- “Definitely could have used this tutorial in prior classes for research”
- “I wish I had known about this stuff in first year”
- “I wish this was mandatory for all first year students”

Co-curricular Workshops

In addition to Information Literacy instruction that is integrated into the curriculum, the library offers several co-curricular workshops that help develop student and faculty skills. Some examples of workshops offered to Ontario Tech students in the past include:

- Library 101: Introduction to the Library
- Citation Management
- Finding and Using Open Educational Resources

Workshop offerings are regularly updated in response to the changing needs of the community.

Online Research Guides

Subject specialist librarians create custom Research Guides for each subject area that are available from the Library website. Research Guides include program and course guides that are directly related to the program and course curriculum, as well as topic guides that have cross-disciplinary relevance. Research Guides of particular importance to students in the Sociology program include:

- Communications and Digital Media Studies guide: https://guides.library.ontariotechu.ca/communications
- Criminology guide: https://guides.library.ontariotechu.ca/criminology
- Indigenous Resources guide: https://guides.library.ontariotechu.ca/indigenousstudies
- Political Science guide: https://guides.library.ontariotechu.ca/politicalscience
- Psychology guide: https://guides.library.ontariotechu.ca/psychology
- Citation guide: https://guides.library.ontariotechu.ca/citation

During the 2022-2023 academic year, these guides were viewed a combined 10,660 times.

Copyright & Academic Integrity

The Library provides copyright guidance for faculty and students. Library staff advise on license terms and the integration of content into the Learning Management System (LMS). We also help faculty find, evaluate and integrate Open Educational Resources into their courses.

Our research support services including our citation guides help students avoid plagiarism and comply with the University's Academic Conduct policy.

Course Reserves

Instructors can place materials on course reserve in the library or make course materials available online through our electronic course reserves system. Online course reserves can include the library's print holdings, as well as digitized chapters, and links to journals, e-book chapters, videos and more. We provide equitable access to resources, and our online reserves are subject to copyright compliance and licensing restrictions.

Library Staffing

The anticipated intake for students in the Sociology program for years 1-6 is as follows:

Year of Operation	Total Enrollment
2025-2026	25
2026-2027	54
2027-2028	85
2028-2029	121
2029-2030	143
2030-2031	160

We anticipate that there will be additional staffing requirements associated with growth in graduate and undergraduate degree programs across the University. These requests will be part of the regular budget planning process, following a fulsome and strategic analysis of our staffing needs.

Conclusion

The Library is well-positioned to support the Bachelor of Arts, Sociology. Our suite of services and programs will meet the needs of students and faculty in this program.

We look forward to working in collaboration with students and faculty in this new program.

Reviewers' Report on the Proposed Bachelor of Arts and Bachelor of Arts-Advanced Entry Program in Sociology at Ontario Tech University

REVIEWER 1

Vic Satzewich
Professor of Sociology and
Past President, Canadian Sociological Association
McMaster University
1280 Main Street West
Hamilton, Ontario
L8S 4K4

REVIEWER 2

Natalie Delia Deckard
Associate Professor of Criminology
University of Winsor
401 Sunset Avenue
Windsor, ON
N9B 3P4

1. OUTLINE OF THE REVIEW

Please indicate whether this review was conducted by desk audit or site visit. For those reviews that included a site visit, please indicate who was interviewed:

Sarah Thrush, AVP, Strategic Planning and Analysis
Dr. Peter Stoett, Dean, Faculty of Social Science and Humanities
Dr. Alyson King, Associate Dean, Faculty of Social Science and Humanities
Dr. Shahid Alvi, Professor, Faculty of Social Science and Humanities
Darryl, Papke, Program and Curriculum Analyst, CIQE
Michelle Patterson, Academic Planning Specialist
Stephen Thickett, Director, Planning and Operations, Student Life
Monica Jain, Director, Careers, Counselling and Accessibility
Chelsie Lalonde, Social Science and Education Librarian
Catie Sahadath, Associate University Librarian, Scholarly Resources
Aaron Mitchell, Director, Planning and Operations
Amy Anderson, Manager, Academic Advising
Dan Walters, Practicum and Internship Coordinator
Sociology Faculty Meeting
Dr. Shahid Alvi
Dr. Scott Aquanno
Dr. Tyler Frederick
Dr. Gary Genosko
Dr. Jordan Harel
Dr. Steven Hayle
Dr. Zenia Kish
Dr. Timothy MacNeill
Dr. Tanner Mirrlees
Dr. Vivian Stamatopolous

The external review of the new Sociology program proposal from Ontario Tech was conducted with a virtual site visit on June 3 and 4, 2024. Because of the virtual nature of the visit, external reviewers were unable to see physical facilities.

2. EVALUATION CRITERIA

NOTE: Reviewers are asked to provide feedback on each of the following Evaluation Criteria (Quality Assurance Framework 2021, Section 2.1.2).

2.1 Program Objectives

- Clarity of the program's objectives
- Appropriateness of degree nomenclature given the program's objectives
- Consistency of the program's objectives with the institution's mission and academic plans

The Faculty of Social Sciences and Humanities at Ontario Technical University is proposing to establish a new Bachelor of Arts Major in Sociology. The proposed major will be made up of two specializations: 1) Society, Values and Technology and 2) Applied Sociology. This four-year program will allow students to complete the major, or the major with a specialization. It also offers students the opportunity to complete a double major with a variety of cognate majors. In addition, the program is structured to allow students who have completed a two-year college diploma to complete the Sociology major with two additional years of study (Advanced Entry program).

There are two main objectives of the new Sociology Major: one is to help students use sociological theories, perspectives, concepts, and methodologies to help them understand, analyze and navigate the increasingly complex challenges in a rapidly evolving technological society; the other is to train students in the practical application of sociological theories and methods in order to help individuals, organizations and policy communities to effect positive social change. The skills that students will develop by completing the Major in Sociology are in demand among a diverse range of public and private sector employers and governmental and non-governmental agencies. We expect that the skills that graduates develop by completing the program will result in meaningful opportunities for both their employment and social impact.

The degree nomenclature is appropriate given the program objectives. The proposal clearly articulates the general focus of what sociology as a discipline involves and is about, and links that with a clear explanation of how training in the discipline will advance overall program objectives.

Ontario Technical university's Integrated Academic-Research Plan (2023-2028) indicates that its overall mission is to 'equip future leaders to solve complex problems' (pg. 3). Within that context, its plan is structured around four interrelated pillars/priorities: 1) tech with a conscience; 2) learning re-imagined; 3) creating a sticky campus; 4) and the development of meaningful partnerships with local and global communities.

The proposed new BA in Sociology Major is clearly aligned with the overall mission and plans of the university. Pedagogically speaking, the two proposed specializations clearly tap into and advance the 'tech with a conscience' and the 'partnerships' priorities of the university. Technology, as many experts and authorities already know, is not value neutral. As the world continues to look to technological solutions to major social problems, it is increasingly clear that social values and

ethical values are embedded in those technologies. Despite the interconnectedness of values, ethics and technology, the process of actually identifying how values and ethnics are embedded in, and ought to be embedded in certain technologies is still in its infancy. This is the major 'value proposition' of the proposed Sociology specialization in Society, Values, and Technology. It will help students understand technological issues through social inequality, social justice, privacy and harm lenses.

The Sociology Major's second specialization, 'Applied Sociology' is clearly intended to advance the institutional priorities of 'learning re-imagined' and 'partnerships'. An integral part of the Sociology Major is its focus on internships and practicums. We also note the broader Faculty of Social Sciences and Humanities is advancing a proposed co-op program, which will enhance the Sociology program's ability to continue to make and solidify partnerships with the broader Durham community. Many non-governmental organizations (NGOs) that rely on government funding, such as the immigrant settlement sector, are faced with the challenge of demonstrating that those monies are spent effectively and achieve intended and desired results. One of the gaps in many other Sociology programs in the province is, arguably, in the realm of skill development in policy and program analysis. As a result, good program evaluation skills are in high demand and the research skills that students develop in the program will help position OTU to be leader in this respect.

The proposed major also has the potential to enhance cross faculty and cross disciplinary collaborations and partnerships. The STEM based disciplines, which help to define the uniqueness of Ontario Technical University, will potentially benefit by Sociology faculty and student interests in the values and ethical dimensions of technological advancements and help bring faculty and students interested in these matters into greater and more meaningful conversation.

2.2 Program requirements

- Appropriateness of the program's structure and the requirements to meet its objectives and program-level learning outcomes
- Appropriateness of the program's structure, requirements and program-level learning outcomes in meeting the undergraduate or graduate Degree Level Expectations
- Appropriateness of the proposed mode(s) of delivery to facilitate students' successful completion of the program-level learning outcomes
- Ways in which the curriculum addresses the current state of the discipline or area of study

The proposed BA Major in Sociology has identified several program-level learning outcomes. By the end of their studies, students are expected to be able to: explain sociological concepts and apply them to everyday issues; critically evaluate and analyze social and technological change; evaluate ethical and socially responsible practice; develop and apply skills for social analysis and intervention; apply sociological concepts to informed decision making; develop effective and interdisciplinary communication, collaboration, and advocacy skills. The program will achieve these learning objectives through a combination of required and elective courses; theory, methodology and substantive focused courses; and through the option of an internship or practicum. The program provides for a solid foundation in the discipline of Sociology by its required courses, which include a first-year survey of the field, two second year theory courses (classical and contemporary), and three second year methods courses (methods, data analysis and qualitative methods).

Beyond the second year, program requirements vary by specialization so that students who plan to pursue the Applied Sociology option are required to take three out of a suite of five courses that

deal specifically with how to apply Sociological theories, concepts, and methods to 'real world' situations and contexts. These include newly developed and approved courses in Applied Sociology, Community-based Participatory Action Research, Evaluation Research, Social innovation and Social Change and Sociology of Organizations. Students who plan to specialize in Society, Values and Technology are required to take three of five upper years courses that variously focus on Ethics in the Modern World, Social Life and Moral Order, Emerging Technologies and Society, Health Aging and Society and Privacy, Data and Surveillance. In the case of both specializations, students will also be required to take an additional two courses that touch specifically on their substantive interests (for example, AI, Ethics and Communication, Youth Justice Policy, and Policing in Diverse Societies, to name only a few). Students who plan to complete the BA in Sociology without a specialization are required to take an appropriate combination of theory, methods, and applied sociology courses at years three and four of the program. The suite of courses available for students to take will ensure that they receive an appropriate combination of depth and breadth within the discipline.

Additionally, students in the two specializations, and the broader major, can take several substantive Communications, Criminology Political Science Psychology, Sociology and other Social Science and Humanities courses as electives to round out their degree requirements. The latter will enable students to enhance the breadth of their understanding and analysis of the social world. Notably, strong students will also be given the option of a for-credit practicum or internship.

This is well thought through program structure that is consistent with many other good quality Sociology programs in the province of Ontario, but with its own unique, innovative strengths in Applied Sociology and Society, Values and Technology.

The Program has identified a number of degree level expectations, including depth and breadth of knowledge, awareness of the limits of knowledge, knowledge of methodologies, application of knowledge, autonomy and professional capacity and communication skills. The program structure and requirements noted above are well thought through and will help ensure that students graduate with the skills that they are expected to develop. The program is structured so that students can build on and develop skills as they progress through their degrees.

The proposed modes of program delivery are appropriate for the realization of program outcomes and degree level expectations. In addition to traditional modes of testing, the program will help develop student skills through a combination of written assignments, group projects and presentations, structured debates, reflective journals, research papers, and case study analyses. A review of existing course outlines of courses offered by faculty who will participate in the program shows that collectively, they already use a number of the above creative mechanisms to deliver program content and build student skills. The program will deliver its courses through a combination of in person, hybrid, and asynchronous teaching. The latter two modes of delivery are increasingly popular in the post-Covid environment and one of their advantages is that they expand opportunities for learning to students who are employed full or part time and to those with family responsibilities that make in-person attendance a challenge.

The proposed curriculum is consistent with other good quality Sociology programs in the province of Ontario and will provide students with an education is at the leading edge of the discipline. The focus on foundational introductory sociology, theory and methods courses is common to most programs in Ontario. But the unique, 'cutting edge' aspects of the program are to be found in its two specializations. The program explicitly wants students to not simply develop generic research and analysis skills; it expects students to apply these skills to real world contexts and situations through a combination of practicums, internships, applied sociology, program evaluation, and

policy analysis courses and exercises. Moreover, the explicit focus on society, technology and values is needed today in a context where the pace of technological change seems to be rapidly increasing. The need to critically reflect on and analyze the social implications and social determinates of technological change is badly needed, and this program has the potential to help put the discipline of Sociology at the forefront of conversations between the social sciences with more STEM based disciplines.

~~**2.3 Program requirements for graduate programs only**~~

- ~~Clear rationale for program length that ensures that students can complete the program level learning outcomes and requirements within the proposed time~~
- ~~Evidence that each graduate student in the program is required to take a minimum of two-thirds of the course requirements from among graduate-level courses~~
- ~~For research-focused graduate programs, clear indication of the nature and suitability of the major research requirements for degree completion~~

2.4 Assessment of teaching and learning

- Appropriateness of the methods for assessing student achievement of the program-level learning outcomes and degree level expectations
- Appropriateness of the plans to monitor and assess:
  i. The overall quality of the program
  ii. Whether the program is achieving in practice its proposed objectives
  iii. Whether its students are achieving the program-level learning outcomes
  iv. How the resulting information will be documented and subsequently used to inform continuous program improvement

The proposed BA Major in Sociology has identified several methods of assessing students in their progress towards program-level learning outcomes and degree level expectations. By the end of their studies, students are expected to be able to: explain sociological concepts and apply them to everyday issues; critically evaluate and analyze social and technological change; evaluate ethical and socially responsible practice; develop and apply skills for social analysis and intervention; apply sociological concepts to informed decision making; develop effective and interdisciplinary communication, collaboration, and advocacy skills. The program will achieve these learning objectives through a combination of required and elective courses; theory, methodology and substantive focused courses; and through the option of an internship or practicum. In each course, course syllabi and new course application forms indicate that course learning outcomes are in line with program-level learning outcomes. Each course builds student competence in either theory, methods, or a substantive sociological area of learning. Assignments and evaluations are a mixture of written assignments, group projects, presentations, debates, reflective journals, critical essays, case studies, group projects/presentations, discussions and debates, and research papers or projects. This diversity of expectations is in line with current best practices both in the scholarship of teaching and learning and in sociological pedagogy.

In terms of degree level expectations, including depth and breadth of knowledge, awareness of the limits of knowledge, knowledge of methodologies, application of knowledge, autonomy and professional capacity and communication skills, assessments have been designed specifically to be consistent and have been intentionally mapped to courses and methods of assessment. Classes and assessment practices as outlined in the proposal will be closely monitored on an ongoing basis through the internal curriculum committee. The program structure and requirements noted above are well thought through and will help ensure that students graduate with the skills that students

are expected to develop. The program is structured so that students can build on and develop skills as they progress through their degrees.

The program proposal indicates that Sociology will be externally reviewed during cyclical reviews and assessed on an ongoing basis through indicators such as enrolment levels, student grades, retention, and yearly course evaluations. It also notes that classes and assessment practices as outlined in the proposal will be closely monitored on an ongoing basis through the internal curriculum committee. These plans are in compliance with institutional and departmental requirements in order to ensure that the student experience is taken into account.

2.5 Admission requirements

- Appropriateness of the program's admission requirements given the program's objectives and program-level learning outcomes
- Sufficient explanation of alternative requirements, if applicable, for admission into a graduate, second-entry or undergraduate program, e.g., minimum grade point average, additional languages or portfolios, and how the program recognizes prior work or learning experience

Admitted sociology students have the standard requirements for admission to any Bachelor of Arts program at Ontario Tech – the completion of an Ontario Secondary School Diploma (OSSD) with six 4U or 4M courses, including English (ENG4U). They are expected to have a minimum average of 70%. It is noted that admission is expected to be competitive and the specific average or standing required for admission will vary from year to year. Students are selected by taking into consideration a wide range of criteria including school marks, distribution of subjects taken and performance in subjects relevant to the academic program. English will provide students with the necessary communication and analytical skills needed for the first year of university studies. The Sociology program will require students to read, analyze and communicate their understanding of social and technological advances and challenges, especially with attention to the application of sociological ideas to the future sustainability of Canadian society and technological innovations.

These admissions standards are in line with sociology programs throughout Ontario. There is little diversity of admission criteria in terms of alternative admissions requirements. Beyond a consideration of the distribution of subjects taken, there is no opportunity for potential students to demonstrate competence beyond high school grade point average.

Advanced Entry from College programs represents a generative and efficient way to increase the pool of Sociology students. Proposed pathways from College are in line with other Sociology programs in Ontario universities.

2.6 Resources for all programs

Given the program's planned /anticipated class sizes and cohorts as well as its program-level learning outcomes:

- Participation of a sufficient number and quality of core faculty who are competent to teach and/or supervise in and achieve the goals of the program and foster the appropriate academic environment
- If applicable, discussion/explanation of the role and approximate percentage of adjunct and part-time faculty/limited term appointments used in the delivery of the program and the associated plans to ensure the sustainability of the program and quality of the student experience

- If required, provision of supervision of experiential learning opportunities
- Adequacy of the administrative unit's planned utilization of existing human, physical and financial resources, including implications for the impact on other existing programs at the university
- Evidence that there are adequate resources to sustain the quality of scholarship and research activities produced by students, including library support, information technology support, and laboratory access
- If necessary, additional institutional resource commitments to support the program in step with its ongoing implementation

The resources allocated to the new program are sufficient to adequately meet program and degree-level student learning outcomes.

Physical Space

Charles Hall has sufficient space for the new course offerings and the administration of the new program. Because Ontario Tech's Faculty of Social Sciences and Humanities in non-departmentalized, there is no need for distinct department offices.

Faculty

The 18 faculty who will deliver the program are, collectively, highly accomplished scholars who will be teaching in the program on load. This will be accomplished through the offering of a combination of existing Sociology classes that are already being taught towards the completion of other existing degrees, cross-listing new Sociology classes so they are applicable interdisciplinarily, and the parsimonious creation of courses applicable only to Sociology that will be taught by both core faculty members and sessionals. There is a budget to ensure that a small number of sessional instructors, when needed, will be engaged so that necessary courses will be offered to facilitate student completion of the major.

Teaching Assistants

Resources have been allocated for appropriate Teaching Assistant support, though TAs will be from outside of the Sociology program.

Library

Library resources to facilitate sociological research, archival work, data warehousing and the like are plentiful. Librarians are well-prepared to support Sociology's creation and growth, with expertise ranging from digital sociology to sociological methods. Physically, there is also sufficient library study space to ensure access for Sociology students.

Student Life

The offices concerned with Student Life for students at Ontario Tech are well-positioned to serve incoming sociology students. Career Services, particularly, has thoroughly planned to support the professional trajectories of sociology majors. Demonstrated competence in Student Life support for existing students should transfer well to sociology majors.

Support Staff

In the areas of academic advising, practicum and internship coordination, and academic planning, Ontario Tech has assembled a strong team of support staff in administrative roles that has planned for and will implement a strong support structure for sociology majors. This is key to the provision of a variety of experiential education opportunities – largely planned for through practicum and internship coordination.

~~2.7 Resources for graduate programs only~~

~~Given the program's planned /anticipated class sizes and cohorts as well as its program-level learning outcomes:~~

- ~~Evidence that faculty have the recent research or professional/clinical expertise needed to sustain the program, promote innovation, and foster an appropriate intellectual climate~~
- ~~Where appropriate to the program, evidence that financial assistance for students will be sufficient to ensure adequate quality and numbers of students~~
- ~~Evidence of how supervisory loads will be distributed, in light of qualifications and appointment status of the faculty~~

2.8 Quality and other indicators

- Evidence of quality of the faculty (*e.g.*, qualifications, funding, honours, awards, research, innovation and scholarly record; appropriateness of collective faculty expertise to contribute substantively to the program and commitment to student mentoring)
- Any other evidence that the program and faculty will ensure the intellectual quality of the student experience

An evaluation of the faculty c.v.'s clearly demonstrates that the 18 faculty who will deliver the program are, collectively, highly accomplished scholars with outstanding track records in publishing and teaching, and strong records of engaging students in the learning and research process. Most faculty have terminal, PhD degrees in Sociology while others have terminal PhDs in closely aligned disciplines in Criminology, Social and Political Thought, Social and Cultural Analysis, Political Science and Communication and Culture. The program faculty complement has one Canada Research Chair, one former Canada Research Chair and Director of a Centre on Hate, Bias and Extremism. Several faculty members are recipients of teaching, best paper, and other prestigious academic and community-based awards. Faculty publish in a combination of good quality disciplinary and interdisciplinary, Canadian and international scholarly journals, specialist and generalist journals including, but not limited to: *The Canadian Journal of Criminology and Criminal Justice*, *Ethnic and Racial Studies, Economy and Society, Third World Quarterly, Canadian Journal of Communication, Critical Criminology, Canadian Public Policy,* and *The Journal of Historical Sociology.* Faculty members are also active in book, and book chapter publishing. Again, without being exclusive, faculty publish books with good quality academic and commercial presses, including, but not limited to: *Routledge*, *Oxford University Press*, *Palgrave*, *Springer*, *Sage*, *University of Illinois* and *Blackwell's*, among many others.

Faculty who will participate in the program have all secured research funding from various sources, including highly competitive grants from The Social Sciences and Humanities Research Council of Canada.

Impressively, many of the faculty could be described as public sociologists. They effectively communicate the results of their research and broader disciplinary and interdisciplinary perspectives to non-academic audiences. These public sociology interventions take the form of op eds, interviews with various media outlets, podcasts, public lectures, consulting and community-based research reports.

Faculty members have strong and meaningful links to the broader community and community-based organizations. They also have significant connections and links to relevant policy circles, mainly in the fields of criminology and social justice. These connections will serve the program, and its students well.

Collectively speaking the program contains a good critical mass of faculty who can successfully deliver a general Sociology BA and the two identified specializations in Applied Sociology and Society Values and Technology. This is a highly accomplished group of scholars and teachers who clearly have the capacity to effectively deliver the program.

NOTE: Reviewers are urged to avoid using references to individuals. Rather, they are asked to assess the ability of the faculty as a whole to deliver the program and to comment on the appropriateness of each of the areas of the program (fields) that the university has chosen to emphasize, in view of the expertise and scholarly productivity of the faculty.

3. EQUITY, DIVERSITY, INCLUSION, AND DECOLONIZATION

Please comment on any consideration of the principles of equity, diversity, inclusion, and decolonization in the new program.

The new program will incorporate some existing courses from the Indigenous Studies Minor Program as program electives. In addition, students will have access to several courses that focus on diversity, equity and inclusion as part of their content. These courses include, 'Race-ing Justice', Policing Diverse Communities', Indigenous Peoples and Justice', 'Race and Racism in Political Culture', 'Politics of Poverty', Stereotypes and Prejudice', 'Health, Aging and Society', and Families in Contemporary Society', Indigenous Peoples, Sustainability and Development'.

More broadly, Sociology faculty are well-versed in issues of marginalization and oppression across multiple axes of inequality. Of particular interest to enhancing the equity, diversity, inclusion, and decolonization aims of Ontario Tech is work in the following areas, among others:

Gender
- Shahid Alvi
- Steven Downing
- Tyler Frederick
- Zenia Kish
- Hannah Scott

Race
- Kanika Samuels-Wortley
- Arshia Zaidi
- Shanti Fernando

Class
- Tanner Mirrlees
- Christopher O'Connor

Sexuality
- Arshia Zaidi

The creation of a Sociology program will allow scholarly and pedagogical excellence in anti-oppression, towards the ends of equity, diversity, inclusion, and decolonization to flourish.

4. OTHER ISSUES

- Please highlight any unique curriculum or program innovation, creative components, or significant high-impact practices
- Please identify any other issues that may not be covered above

5. SUMMARY AND RECOMMENDATIONS

Please provide a summary of your conclusions and include a numbered list of each of your recommendations.

1. We enthusiastically recommend that this proposal be accepted by the Ontario Universities Council on Quality Assurance.

2. In anticipation of program approval, the reviewers recommend that the Faculty of Social Sciences and Humanities undertake more robust efforts to track student experiences of the program, graduation rates, and the employment outcomes of graduates.

3. Towards the end of creating an inclusive decision-making conversation among Sociology faculty, we recommend implementing best practices for inclusive meeting discussions – including tabling all voices as a matter of course.

4. While this new program has the potential to facilitate more cross disciplinary conversations about ethics and technology with faculty in STEM based disciplines, we encourage the Faculty of Social Sciences and Humanities to continue to find ways to encourage sustained and meaningful collaborations. One idea could be to organize as half day symposium hosted by the new program to showcase to the broader university faculty what Sociology can offer and bring to the table when it comes to ethics, values and new technologies.

5. While the program will have access to Teaching Assistants, many of those TAs are not Sociology majors. The program and the wider faculty should continue its efforts to ensure appropriate matches between TA backgrounds and course material. As the first cohorts of students advance through the degree, the program should consider hiring senior Sociology undergraduate students, at least for the first-year course.

6. Creating a 'sticky' campus in a post-Covid environment where on-line, hybrid and asynchronous courses, are increasingly popular, creates challenges associated with student on-campus engagement. As the program develops, the faculty should consider ways to bring students together on campus to develop a sense of collective identity. Events such as a half day research symposium or visiting speaker series may be one way to do this.

7. There are many student groups and clubs on campus. Sociology majors may develop a Sociology Society or some other organization spontaneously. However, the program should be proactive, and explicitly encourage the formation of a Sociology student society as it admits it first cohorts.

NOTE: The responsibility for arriving at a recommendation on the final classification of the program belongs to the Appraisal Committee. Individual reviewers are asked to refrain from making recommendations in this respect.

Signature:_____

Date: June 17, 2024

Signature: 

Date: **June 17, 2024**

Faculty Response to the External Review for the

_____

Bachelor of Arts – Sociology, Technology and Innovation

Submitted By: Faculty of Social Science and Humanities

Dr. Shahid Alvi
Date: June 19, 2024

Dr. Peter Stoett, Dean, FSSH
Date: June 19, 2024

Introduction

Brief comments on the external reviewers report and the program review process in general.
Dean Stoett thanks the reviewers for this detailed, thoughtful, and insightful external review. FSSH is grateful for the time and effort it entailed, and pleased with the essential conclusion that "This is well thought through program structure that is consistent with many other good quality Sociology programs in the province of Ontario, but with its own unique, innovative strengths in Applied Sociology and Society, Values and Technology." The recommendations are all manageable and responses follow.

Summary of Recommendations and Faculty Responses

Recommendation 1: We enthusiastically recommend that this proposal be accepted by the Ontario Universities Council on Quality Assurance.

Program's Response: thank you for this strong recommendation.

Dean's response: thank you for this enthusiastic recommendation.

Recommendation 2: In anticipation of program approval, the reviewers recommend that the Faculty of Social Sciences and Humanities undertake more robust efforts to track student experiences of the program, graduation rates, and the employment outcomes of graduates.

Program's Response: agreed, strong efforts to track our students' experiences, graduation rates, and employment outcomes should be taken.

Dean's response: we will work with Advising, the Office of the Registrar, and the Office of Advancement (Alumni Affairs) to achieve this tracking over the course of the program's initial years and beyond.

Recommendation 3: Towards the end of creating an inclusive decision-making conversation among Sociology faculty, we recommend implementing best practices for inclusive meeting discussions - including tabling all voices as a matter of course.

Program's Response: program meetings will be run according to this principal.

Dean's response: at Faculty Council, program meetings, and any other meeting fora, all voices will be tabled. I am under the impression that we already sustain such a collegial and inclusive atmosphere but will pursue this question with faculty and staff.

Recommendation 4: While this new program has the potential to facilitate more cross disciplinary conversations about ethics and technology with faculty in STEM based disciplines, we encourage the Faculty of Social Sciences and Humanities to continue to find ways to encourage sustained and meaningful collaborations. One idea could be to organize as half day symposium hosted by the new program to showcase to the broader university faculty what Sociology can offer and bring to the table when it comes to ethics, values and new technologies.

Program's Response: an excellent idea!

Dean's response: Yes this would be quite advantageous and we will feature such a symposium each year.

Recommendation 5: While the program will have access to Teaching Assistants, many of those TAs are not Sociology majors. The program and the wider faculty should continue its efforts to ensure appropriate matches between TA backgrounds and course material. As the first cohorts of students advance through the degree, the program should consider hiring senior Sociology undergraduate students, at least for the first-year course.

Program's Response: we would pursue this if it is feasible.

Dean's response: this would be difficult to achieve because there are limited TA-ships available with present funding, and it would be unfair to begin this process for a new program while not allowing it for all of our programs without direct links between disciplines at the undergraduate and graduate levels. However, there will be ample TAs available with Sociology backgrounds in both the Criminology Graduate Program (MA and PhD) and the MSPI Program, and more still in the Forensic Psychology Graduate Program. I have also asked the newly formed FSSH Graduate Committee to explicitly address the question of TA fit-for-class and training.

Recommendation 6: Creating a 'sticky' campus in a post-Covid environment where on-line, hybrid and asynchronous courses, are increasingly popular, creates challenges associated with student on-campus engagement. As the program develops, the faculty should consider ways to bring students together on campus to develop a sense of collective identity. Events such as a half day research symposium or visiting speaker series may be one way to do this.

Program's Response: This is an excellent suggestion that could help to ensure that the new Sociology program contributes to the development of a "sticky campus."
Dean's response: We will develop an ongoing strategy to enhance non-curricular events on campus, including the suggestions made above. We already have a public speaker series which rotates amongst programs and Sociology will be immediately added to the rotation.

Recommendation 7: There are many student groups and clubs on campus. Sociology majors may develop a Sociology Society or some other organization spontaneously. However, the program should be proactive, and explicitly encourage the formation of a Sociology student society as it admits it first cohorts.

Program's Response: This is a helpful suggestion.
Dean's response: We can explicitly encourage the formation of a Sociology Student Society (or a similar group) when the first cohort arrives. This would be a welcome addition to the extant groups: the Ontario Tech Humanities Society, the Psychology Association, and the Law Association.

<u>Suggested Revisions for the Proposal following External Review:</u>

Minor editorial changes for clarity.

BOARD REPORT

ACTION REQUESTED:

Recommendation	☐
Decision	☒
Discussion/Direction	☐
Information	☐

DATE: **28 November 2024**

FROM: **Academic Council**

SUBJECT: **New Program Proposal – Doctor of Philosophy in Cybersecurity**

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 for the establishment of a Doctor of Philosophy in Cybersecurity.

MOTION FOR CONSIDERATION:

That, pursuant to the recommendation of Academic Council, the Board of Governors hereby approves the establishment of a Doctor of Philosophy in Cybersecurity, as presented.

BACKGROUND/CONTEXT & RATIONALE:

The proposed PhD in Cybersecurity provides the highest-level degree of expertise in the broad area of Cybersecurity and will be a multidisciplinary research-intensive program that would cover a broad range of themes related to cybersecurity; including technology, policy and governance, AI and human behaviour, aiming to attract students from a variety of backgrounds and prior education, including computer science, information technology, business and management, social and political science.

The importance and emergence of the field of cybersecurity in today's world cannot be overstated, and its impact is no longer limited to technical (e.g. IT) domain. Entire infrastructures, government operations, social connections, health services, and almost every business sector rely on facilities that are potentially vulnerable to cyberattacks. Governments and businesses are increasingly looking for experts who are equipped not only with technical knowledge of the field, but also a deep understanding of its impacts on various aspects of our society. With Ontario Tech's mandate for market-driven programs and the well-established reputation of its IT security programs, it is only natural to add this program to our current portfolio.

The proposed program fits into the Faculty of Business and IT (FBIT) strategic research plan themes of Digital Economy, Data Analytics and Artificial Intelligence, and Digital Technologies. This new degree will complement and build upon FBIT's portfolio of programs in information security, which includes our highly reputed Bachelor of Information Technology in Networking and IT Security (NITS), established in 2005, as well as our successful Master of IT Security program, which is offered with 3 distinct fields: IT security, Artificial Intelligence, and Cybersecurity governance. The proposed program will be housed at

FBIT Institute on CyberSecurity and Resilient Systems (ICRS), a multi-disciplinary global centre for cybersecurity research, innovation, teaching, and outreach.

There is a great opportunity within Ontario Tech to establish interdisciplinary research and collaboration among faculties in this program. For instance, research on global impact of cybersecurity policies could be supported by Faculty of Social Science and Humanities (FSSH) political science researchers, while applications of machine learning in cybersecurity could be explored by FBIT and Faculty of Science (FSCI) computer science researchers. Cybercrime research can be supported by researchers from both FSSH and FBIT, while FBIT and Faculty of Engineering and Applied Science (FEAS) experts can collaborate on infrastructure and smart city cybersecurity.

The program includes a number of components that each may be delivered differently. While some courses may be delivered using in-person, online, hybrid or asynchronous modes, it is expected that the seminar and research components will take place mostly on-campus and/or in collaboration with external organizations, industry and government agencies.

To our knowledge, this program will be the first specialized Ph.D. program in Cybersecurity in Canada, and among a handful of elite programs in this area in the world. The cross-faculty and cross-disciplinary nature of this program provides additional strength and differentiates it from cybersecurity specializations at other universities which are typically offered under Computer Science programs.

RESOURCES REQUIRED:

It is expected that most courses will be taught by core faculty members, with occasional hiring of adjunct instructors from the industry for specialized courses, if needed.

Recent Tenure and Tenure Track hires at FBIT are in line with the requirements of this program. As recommended in the external reviewers' report, it is recommended that the university prioritize hiring or appointing research chairs (NSERC CRC, Industry chairs or university research chairs) in cybersecurity, particularly in areas related to social and business aspects of cybersecurity. This is an important area of growth in the faculty and a differentiating factor that would enhance the multidisciplinary nature of the program.

The administration of the program at the faculty level will be added to the role of the Graduate Program Director and Graduate Program Assistant for Master of IT Security (MITS).

No Additional or dedicated space is required for the new program. Classes will be shared with MITS and CS graduate programs, and research work will be conducted in supervisors' research labs.

CONSULTATION AND APPROVAL:

- ✓ Academic Resource Committee: 18 December 2023
- ✓ FBIT Faculty Council: 1 October 2024
- ✓ Graduate Studies Committee (Recommendation): 22 October 2024
- ✓ Academic Council (Approval and Recommendation): 26 November 2024
- Board of Governors (Approval): 28 November 2024

NEXT STEPS:

- The proposal must also proceed through the following external approval steps:
  - Ontario Universities Council on Quality Assurance
  - Ontario Ministry of Colleges and Universities

The preferred date of implementation is in the Fall of 2025

SUPPORTING REFERENCE MATERIALS:

- New Program Proposal with Appendices
- Reports from External Review

New Graduate Program Proposal

Name of proposed program (as it will appear on the student's transcript):	Doctor of Philosophy in Cybersecurity
Degree Designation/Credential (e.g. BA, BSc, BEng, etc.):	Ph.D.
Cost Recovery Program?	☐ Yes ☑No
Professional Program?	☐ Yes ☑ No
For Graduate Diplomas	☐ Type 2 ☐ Type 3
Faculty (where the program will be housed):	Faculty of Business and Information Technology
Collaborating Faculty (if applicable):	
Program Delivery Location:	North Oshawa Campus
Collaborating Institution(s) (if applicable):	
Proposed Program Start Date:	September 2025
Proposal Contact:	Michael Bliemel, Carolyn McGregor and Shahram S. Heydari
Submission Date:	
Approved by Dean: (signature and date)	

For CIQE Use Only:

Date of Academic Council Approval:	
QAF Version Used:	2021 QAF
☐External reviewers' report ☐Program's and Dean's response (with date)* ☐Summary of changes	☐Final, revised proposal ☐CVs, course outlines, and other supporting material (as appendices)

Table of Contents

1 Introduction

a) Program Abstract

Please provide a brief overview of the proposed program, to be shared with the public, in 1000 characters or less, including:

- *A clear statement of the purpose of the program*
- *Any program components, such as fields, pathways, or micro-credentials (note that fields, pathways, and microcredentials are not required)*
- *Any distinctive elements, including alternative modes of delivery (including online)*
- *Note that this statement is for external purposes; what do you want potential students/advisors to know about this program?*

The PhD in Cybersecurity program is a multidisciplinary research-intensive program that covers a broad range of themes related to cybersecurity; including technology, policy and governance, AI and human behaviour. This program aims to prepare specialized socio-technical academics who can perform leading-edge research and teaching in the academia or industry, and help governments in policymaking in the area of cybersecurity. The proposed PhD in Cybersecurity program is the first of its kind in Canada.

The objectives of the program are achieved through a combination of coursework, seminars and a research thesis. The PhD in Cybersecurity program includes graduate-level courses, a seminar course, a thesis proposal and candidacy exam, a dissertation and final defence. Potential students could come from a broad range of backgrounds including computer science, information technology, business and management, social and political science.

b) Background and Rationale

- *Identify what is being proposed, what are the program objectives, and provide an academic rationale for the proposed program*
- *Explain the appropriateness of the program name and degree nomenclature as they relate to the program objectives; list any program specializations, pathways, etc.* ***(QAF 2.1.2.1a/b)***
- *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 2.1.2.2c)***
- *Describe the ways in which the program fits into the broader array of program offerings within the Faculty and the University*
- *Describe any unique curriculum or program innovations, creative components, or significant high impact practice*

The proposed PhD in Cybersecurity provides the highest-level degree of expertise in the broad area of Cybersecurity and will be a multidisciplinary research-intensive program that would cover a broad range of themes related to cybersecurity; including technology, policy and governance, AI and human behaviour, aiming to attract students from a variety of backgrounds and prior education, including computer science, information technology, business and management, social and political science.

The importance and emergence of the field of cybersecurity in today's world cannot be overstated, and its impact is no longer limited to technical (e.g. IT) domain. Entire infrastructures, government operations, social connections, health services, and almost every business sector rely on facilities that are potentially vulnerable to cyberattacks. Governments and businesses are increasingly looking for experts who are equipped not only with technical knowledge of the field, but also a deep understanding of its impacts on various aspects of our society. With Ontario Tech's mandate for market-driven programs and the well-established reputation of its IT security programs, it is only natural to add this program to our current portfolio.

The proposed program fits into FBIT strategic research plan themes of Digital Economy, Data Analytics and Artificial Intelligence, and Digital Technologies. This new degree will complement and build upon FBIT's portfolio of programs in information security, which includes our highly reputed bachelor of information technology in networking and IT security (NITS), established in 2005, as well as our successful Master of IT Security program, which is offered with 3 distinct fields: IT security, Artificial Intelligence, and Cybersecurity governance. The proposed program will be housed at FBIT Institute on CyberSecurity and Resilient Systems (ICRS), a multi-disciplinary global centre for cybersecurity research, innovation, teaching, and outreach.

There is a great opportunity within Ontario Tech to establish interdisciplinary research and collaboration among faculties in this program. For instance, research on global impact of cybersecurity policies could be supported by FSSH political science researchers, while applications of machine learning in cybersecurity could be explored by FBIT and FSCI computer science researchers. Cybercrime research can be supported by researchers from both FSSH and FBIT, while FBIT and FEAS experts can collaborate on infrastructure and smart city cybersecurity.

The program includes a number of components that each may be delivered differently. While some courses may be delivered using in-person, online, hybrid or asynchronous modes, it is expected that the seminar and research components will take place mostly on-campus and/or in collaboration with external organizations, industry and government agencies.

To our knowledge, this program will be the first specialized Ph.D. program in Cybersecurity in Canada, and among a handful of elite programs in this area in the world. The cross-faculty and cross-disciplinary nature of this program provides additional strength and differentiates it from cybersecurity specializations at other universities which are typically offered under Computer Science programs.

c) Consistency of Program Objectives with University Mission, Vision, Integrated Academic and Research Plan, and Strategic Mandate Agreement (QAF 2.1.2.1c)

- *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*

The proposed program is an embodiment of the university's main priority, "Tech with a conscience", to advance scientific and technical knowledge in a domain that affects not just the daily lives of people but also of the well-being of the world.

Through its affiliation with the Institute for Cybersecurity and Resilience Systems (ICRS), the proposed program will achieve the university's strategic priority of "partnership" by connecting researchers across different faculties with industry partners, government organizations and other research institutes outside the university.

The proposed program also aligns with the university's core values, in particular, intellectual resilience and innovation, through developing research expertise, intellectual properties and innovations in the emerging field of cybersecurity. The proposed program builds upon the successful Master of IT Security program at FBIT, which has been one of the fastest growing graduate programs at Ontario Tech University.

The PhD program in Cybersecurity fits into several areas of strengths/growth that were identified in the university's strategic mandate. In particular, it builds upon and grows our strength in digital technologies and artificial intelligence; and due to the multidisciplinary nature of cybersecurity, it also has the potential to expand our strength in crime, justice and forensic science, automotive and transportation systems; and community wellness. The proposed program is also relevant to the university's strategic research priority area of disruptive technology and new economy, as cybersecurity continues to become an increasingly important factor in most social, business and public decision-making processes.

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*

Considering the rising interest in Cybersecurity programs at universities worldwide and the need for specialist academics to teach and conduct research in the field, we expect the number of applicants to be quite sufficient for our target student numbers. As confirmed by the University Registrar and AVP International, the university's international agent network has confirmed significant demand for cybersecurity among international students, pointing out that our Master of IT Security (MITS) has had as many as 800 applicants for 50-100 spots each year and this alone could likely stimulate a PhD program.

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*

The following numbers indicate the anticipated enrollments per year, based on the typical number of applications to other PhD programs at Ontario Tech, and the number of faculty members who will accept students under this program. It is expected that the program will reach stability in year 5 (2029-2030) for a total number of 20 students.

Table 1: Projected Enrollment by Academic and Program Year

	Academic Year					
	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Level of Study						
Ph.D. year 1	4	5	5	5	5	5
Ph.D. year 2		4	5	5	5	5
Ph.D. year 3			4	5	5	5
Ph.D. year 4				4	5	5
Total Enrolment	4	9	14	19	20*	20*

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; you may also wish to review the Durham Workforce Authority website and provide any relevant sector portfolio or local/community impact information*
- *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 number of cybersecurity job openings across the globe is expected to grow to 3.5 million unfilled positions through 2025 (Cybercrime magazine, Nov. 9, 2021). The Canadian federal government has stated that "due to a shortage of cyber security talent in Canada and worldwide, cyber security professionals are needed across government." and "Nearly all Canadian federal government departments have a need for cyber security professionals." Currently roughly 20% of the 130+ postings on the Association of Information Systems job portal are looking for Cybersecurity assistant professors across the English-speaking countries where most are in business schools. This market is relatively new as cybersecurity from a management and technical perspective gains importance globally as a consequence of the digital economy that has accelerated from the pandemic driven digital transformation in all industries.

Given the growing reliance of the society on cyberspace in almost all aspects of life, the need for cybersecurity professionals and services is projected to increase significantly. Consequently, we expect a growing need for highly-skilled experts who could contribute to training, research, policymaking, and consultation in cybersecurity for businesses and governments. Graduates of the proposed program may be employed as university and college professors, industry researchers, government researchers and specialists, policymakers and business consultants.

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?*

The PhD program in cybersecurity will provide a venue for aspiring students in MITS (graduate), NITS (undergraduate) as well as graduates of Computer science (CS) and social science programs who want to specialize in the field of cybersecurity. Given that several FBIT faculty members participating in this program are also members of the CS graduate program, some CS grad applicants may choose this specialized Ph.D. program in

Cybersecurity over the general CS graduate program. However, we don't expect these programs to compete with each other. Both programs are hosted or co-hosted by FBIT. These programs are intended to complement each other for broader attractions of research-focused graduate students to the university. The Ph.D. program in cybersecurity focuses on applications of information Technology, and has a significantly broader scope as it covers policy, governance, privacy and IT management issues that are not covered under the Computer Science program.

- *Identify similar or complementary programs offered elsewhere in Ontario in Table 2. Please be brief but specific in the table. Avoid value-based statements*

Table 2: List of Similar Programs in Ontario

Institution Name	**Credential Level and Program Name**
Queen's University	PhD, School of Computing
Link to Program Web Page: https://cyber.cs.queensu.ca/program/	
Brief Program Description: The school of computing at Queen's University offers a PhD program in Computing Science in which students can also specialize in Cybersecurity. The program was originally supported by a 2019 NSERC CREATE grant. This is the only PhD program in Ontario currently listed under Government of Canada's Post-secondary cyber security related programs guide.	
What differentiates the new program from this existing program: Queen's program is a standard computing science PhD by research, with only a condition that students must take two courses in Cybersecurity. The proposed program at Ontario Tech focuses entirely on Cybersecurity (including all coursework), and does it from a multidisciplinary view, allowing non-CS students also to specialize in social, political and governmental aspects of cybersecurity. Such level of breadth does not exist in Queen's university program.	
Institution Name	**Credential Level and Program Name**
Carleton University	PhD, School of Information Technology
Link to Program Web Page: https://www.csit.carleton.ca/index.php?pageID=GradPHD	
Brief Program Description: Carleton's School of Information technology (CSIT) offers a PhD program in Information Technology with a focus on applications of IT in various fields, including network security. This is one of the few PhD programs in IT (and distinguished from similar programs in Computer Science) in Canada.	

What differentiates the new program from this existing program:
While students in Carleton's PhD in IT program may be able to conduct their research in the area of IT security, the proposed Ontario Tech program provides a broader multidisciplinary focus on cybersecurity. The coursework of our proposed program also covers various aspects of cybersecurity, which gives the graduates both deeper and broader knowledge in this field.

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

No similar PhD program with a focus and breadth in the field of cybersecurity currently exists in Ontario, which justifies the launching of this new program at Ontario Tech.

2 Program Requirements

a) Admission Requirements (QAF 2.1.2.5)

- *Outline the formal admission requirements; explain how these are appropriate for the program objectives and 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 minimum grade point average, 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, PhD in Cybersecurity applicants must meet the following program-specific requirements.

• Students would normally be expected to have completed a four-year undergraduate degree and a thesis-based Masters degree in a relevant field from a Canadian university, or its equivalent from a recognized institution, with an overall academic standing of at least 3.5 on a 4.0/4.3 scale or its equivalent in their last two years of study.

MITS Pathway: Graduates of Ontario Tech University Master of IT Security (MITS) program can apply to the Ph.D. program If they have completed the MITS program with an overall academic standing of at least 3.5/4.3.

• A minimum of two letters of reference from persons having direct knowledge of the applicant's academic competence. Academic references are preferred; however professional references will be accepted. Letters of reference should come from

individuals under whom the applicant has worked closely or studied. The quality of the letters will be assessed by the Graduate Committee to make sure relevant requirements have been met.

- Proof of English proficiency is needed from those applicants whose first language is not English, as per university regulations.

- Applicants must find a prospective faculty supervisor from among the list of graduate faculty members of the PhD in Cybersecurity program and receive formal acceptance of the faculty member to supervise their research. No applicant will be accepted to the program without having an approved prospective supervisor in advance.

- As part of the application form, students are required to provide a minimum 3000-word long personal research statement, outlining their area of interest in cybersecurity, their proposed academic research plan, and identify the faculty supervisor who has agreed to supervise their research.

- Students admitted to the program must demonstrate their broad proficiency in the area of cybersecurity through evidence of completing or having completed graduate-level coursework in the fields of theory, applications, legal and governance issues of cybersecurity. Students who do not demonstrate appropriate background in research methods and cybersecurity fundamentals and/or ethics will be required to complete the following additional/prerequisite courses within the first 18 months of the program:

    1. Cybersecurity: The following courses are required for students who do not have prior background in IT security.

        - INFR 5010G - Fundamentals of IT security (6 Credits)
        - MITS 5100G - Law and Ethics of IT Security (3 Credits)

    2. Research methods: The following prerequisite is required for students who have not completed a previous thesis-based Master's program in a relevant field.

        - CSCI 5010G – Survey of Computer Science Research Topics and Methods (3 Credits)

Note: Students who demonstrate sufficient proficiency through prior graduate-level coursework or extensive related work experience, can request a waiver for the corresponding prerequisite course from the Graduate Program Director. Waiver requests are not guaranteed and will be considered on a case-by-case basis.

b) Program Learning Outcomes and Assessment of Student Knowledge (QAF 2.1.2.2 a/b/d, 2.1.2.3, 2.1.2.4)

- ***Connect with CIQE (ciqe@ontariotechu.ca) early in the program development to participate in learning outcome development sessions or arrange for assistance and review prior to the scheduling of the external site visit***
- *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: 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.)
Demonstrate a thorough understanding and detailed knowledge of the state of the art in threats and attacks against computing systems, cyber-physical systems and social networks	• Depth & Breadth of Knowledge • Research & Scholarship	INFR6040G INFR6110G INFR7100G INFR7200G	Course Exam, Candidacy Defence, Thesis Defence
Analyze, plan and apply various techniques for vulnerability assessment, protection, detection, mitigation and response to cyberattacks	• Research & Scholarship • Application of Knowledge • Awareness of limits of Knowledge • Autonomy and Professional Capacity	INFR6020G INFR6040G INFR7100G INFR7200G	Course Exam, Candidacy Defence, Thesis Defence
Develop and evaluate information security and risk management practices, policies, and procedures that comply with the current standards, federal, provincial and international laws, agreements and policies on issues related to	• Application of Knowledge • Awareness of limits of Knowledge • Autonomy and Professional Capacity	MITS5600G INFR6040G INFR6110G INFR6120G INFR6130G	Course Exam

cybersecurity, ethical hacking and data privacy.			
Demonstrate a thorough understanding and detailed knowledge of the economic, social and business drivers of cybersecurity and related technologies	• Depth & Breadth of Knowledge • Research & Scholarship • Application of Knowledge	INFR6020G INFR6120G INFR6130G MITS6900G	Course Exam
Demonstrate a thorough understanding and detailed knowledge of the state of the art in applications of Artificial Intelligence to cybersecurity, attack detection and mitigation.	• Depth & Breadth of Knowledge • Research & Scholarship • Application of Knowledge	INFR6010G INFR7100G INFR7200G	Course Exam, Candidacy Defence, Thesis Defence
Evaluate, analyze and criticize limitations of cybersecurity and Artificial Intelligence tools in terms of privacy protection, algorithmic and data biases, sociopolitical impact and other potential problems	• Awareness of limits of Knowledge • Autonomy and Professional Capacity	INFR6010G INFR6020G INFR6030G	Course Exam
Communicate effectively and accurately to the public and in professional circles about various aspects of cybersecurity	• Communication Skills	INFR6120G INFR7000G INFR7100G INFR7200G	Seminar Evaluations, Candidacy Defence, Thesis Defence

- *Selecting a few examples from above, and with assistance from CIQE (ciqe@ontariotechu.ca), please provide further details on:*
  - *Appropriateness of the program's structure and the requirements to meet its objectives and program learning outcomes; Guidance on program objectives and program-level learning outcomes, including examples, is available here*
  - *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?); and*
  - *Completeness and appropriateness of plans for monitoring and assessing:*
    - *The overall quality of the program*
    - *Whether the program is achieving in practice its proposed objectives;*

- *Whether the students are achieving the program learning outcomes; and*
- *How the resulting information will be documented and subsequently used to inform continuous program improvement*

Please see Guidance on Assessment of Teaching and Learning for advice on how to satisfy these criteria.

The following includes examples that illustrate the connections between learning outcomes, program elements and structure, and assessment methods. We also describe our plan for monitoring and assessing program quality, objectives and learning outcomes.

Program Learning Outcome: Demonstrate a thorough understanding and detailed knowledge of the state of the art in threats and attacks against computing systems, cyber-physical systems and social networks.

The PhD in Cybersecurity program provides a comprehensive theoretical understanding of the state-of-the art in information security through a foundation course in cybersecurity, INFR5010G. This course is designed particularly for those who enter the program without a deep theoretical knowledge of the field, and includes learning modules in cryptography, principles of network security, system vulnerabilities, malware, and a review of hacker tools and methods. The learning outcomes of this course will be assessed through individual module tests. The students will further enhance their knowledge of the field through developing a PhD research proposal which must be evaluated and defended in front of a committee of examiners, and subsequently write and defend their PhD thesis, which must include sufficient review of state-of-the art and elements of novel contributions to the field.

Program Learning Outcome: Analyze, plan and apply various techniques for vulnerability assessment, protection, detection, mitigation and response to cyberattacks

The PhD in Cybersecurity program provides a thorough understanding of the state-of-the art in cybersecurity defense through a foundation course in cybersecurity, INFR5010G. This course is designed particularly for those who enter the program without a applied knowledge of the field, and includes learning modules in design principles for secure systems, trusted computing base, security models, authentication, authorization and accounting (AAA), identity and access control, logging and auditing, intrusion detection, and information security management. The learning outcomes of this course will be assessed through individual module tests. The students will further enhance their knowledge of the field through developing a PhD research proposal which must be evaluated and defended in front of a committee of examiners, and subsequently write and defend their PhD thesis, which must include sufficient review of state-of-the art and elements of novel contributions to the field.

Program Learning Outcome: Develop and evaluate information security and risk management practices, policies, and procedures that comply with the current standards, federal, provincial and international laws, agreements and policies on issues related to cybersecurity, ethical hacking and data privacy.

The PhD in Cybersecurity program includes two courses that contribute toward this outcome. The INFR5100G – Law and Ethics of IT Security is a prerequisite program course which provides an overview of the laws and professional ethics that information security professionals must understand and apply. This course includes reviews of the current laws on e-contracts, regulations, online crime, intellectual property, privacy and data breach liability. Students will be assessed through research assignments to demonstrate their knowledge of the laws and standards. The INFR5600G – security policies and risk management, is a multidisciplinary course where students will learn about how to develop strong security policies and procedures, conduct risk management and identify vulnerabilities in security policies. The course includes lecture classes and lab exercises, and students will be assessed through quizzes and presentations.

Program Learning Outcome: Demonstrate a thorough understanding and detailed knowledge of the state of the art in applications of Artificial Intelligence to cybersecurity, attack detection and mitigation.

The PhD in Cybersecurity Program offers a course in AI in Cybersecurity – INFR6010G, along with a number of elective courses in this field from the MITS program. This course empowers students with knowledge about how AI can be used by attackers as well as in defence systems, and techniques to mitigate such attacks using machine learning programming. The learning outcomes of this course is assessed through assignments and projects. The students will have further opportunities to enhance their knowledge in this area through developing a relevant PhD research proposal which must be evaluated and defended in front of a committee of examiners, and subsequently write and defend their PhD thesis, which must include sufficient review of state-of-the art and elements of novel contributions to the field.

Program Learning Outcome: Evaluate, analyze and criticize limitations of cybersecurity and Artificial Intelligence tools in terms of privacy protection, algorithmic and data biases, sociopolitical impact and other potential problems

The PhD in Cybersecurity program addresses this important learning outcome in a number of courses that focus on potential issues arising from cybersecurity. The IT Security Law and Ethics – INFR5100G course discusses the issue of privacy from legal and technical standpoints. The AI in Cybersecurity – INFR6010G course includes discussions of algorithmic bias in AI. The Information Trust – INFR6030G course includes discussions of trust in computing and data, and how cybersecurity techniques and policies should be

built around this issue. All courses provide assessment of the learning outcomes through student assignments, presentations and course projects.

Program Learning Outcome: Communicate effectively and accurately to the public and in professional circles about various aspects of cybersecurity

The PhD in Cybersecurity program includes several elements to prepare students for effective communication of cybersecurity ideas and solutions. Students are required to register in and participate in a zero-credit seminar course every semester. Each student must present at least two seminars throughout their program: one seminar before the candidacy exam, and one exit seminar before their thesis defence. Additionally, each student must present and defend their research proposal in an open session for an examining committee and public audience, and do the same for defending their thesis. Many of program courses also include student presentations as part of the assessment.

In general, learning outcomes overall are assessed on an ongoing basis by each student's supervisory committee. Student progress reports are submitted each term by the committee to the Graduate Program Director and School of Graduate and Postdoctoral Studies (SGPS) for assessment.

- *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?*
- *Address how the program's structure, requirements, and program-level learning outcomes are appropriate in meeting the Degree Level Expectations.*
    - *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.*

- *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 learning outcomes and requirements can be reasonably completed*

The Ph.D. program in Cybersecurity is a full-time and includes graduate-level courses, a seminar course, a thesis proposal and candidacy exam, a dissertation and final defence. All coursework is at graduate level.

The course requirements of the program may include a variety of delivery options, including in-person, online or hybrid, depending on the course. The research portion of the program is normally conducted on campus and/or in a research facility.

The Ph.D. program in Cybersecurity is unique in Canada in terms of the scope, breadth and area of focus. It is a multidisciplinary research-intensive program that covers a broad range of themes related to cybersecurity; including technology, policy and governance, AI and human behaviour. No program with such scope currently exists in Canada. Cybersecurity research in other universities is either provided under computer science programs and limited to technical issues, or under political science and governance programs and limited to policy issues. There is a lack of a multidisciplinary program whose graduates are provide opportunities to gain a reasonable grasp of both angles, and the proposed program aims to fill this gap. Additionally, this program will provide a unique opportunity to graduates of Computer Science programs to gain expertise in policy and governance issues of cybersecurity, and to graduates of social policy and governance programs to learn about technical aspects of cybersecurity.

The program follows a traditional model for doctoral studies in North America. Similar to other doctoral programs at Ontario Tech university, students should be able to complete all requirements within four years of full-time study. Students are expected to complete course requirements and pass the candidacy exams within 18-24 months after starting the program, and complete and defend their research thesis within 48 months after starting the program.

Only graduate-level courses are accepted for fulfilling the requirements of this program. That includes both mandatory and elective courses.

- *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 proposed curriculum includes common elements of most other PhD by research program at Ontario Tech as well as other Ontario Universities. Those include coursework to prepare students for development of a research proposal; a candidacy exam where faculty experts examine the proposal and provide guidelines and critique to the student with regards to the nature and suitability of the research proposal; and a final thesis defence in front of internal and external arm-length experts to evaluate the quality of research work. Students are supported throughout this process by continuous guidance and feedback from their supervisors as well as regular meeting with their supervisory committee. Regular progress reports will be submitted every semester to SGPS.

- *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)*

Select students may have the opportunity to work on applied industry sponsored research through the Institute for Cybersecurity and Resilient Systems as part of their dissertation.

- *Describe how the principles of Equity, Diversity, Inclusion, and Decolonization have been considered:*
  - *Does the program contain concepts, materials, or resources from scholars/professionals who are part of one or more historically marginalized groups?*
  - *Are multiple perspectives represented in the program, such as those offered by those who are Indigenous, Black, Persons of Colour, and/or 2SLGBTQIA+?*
  - *How has accessibility been considered? More specifically, have the needs of students with disabilities been integrated into the program design (e.g., the ways that students are asked to demonstrate their learning)?*
  - *Will this program provide space to allow for the discussion of other viewpoints outside the "dominant, Western narrative"?*
  - *Have the principles of Universal Design been considered?*
- *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 Faculty of Business and IT (FBIT) is among the most diverse and inclusive faculties at Ontario Tech university in terms of racial, religious and gender diversity in faculty members and students. It is expected that the new PhD program in cybersecurity will also follow those standards. In particular, this program will help diversify the extreme gender imbalance in CyberSecurity by looking to recruit from our diverse pool of Master of IT Security students. Training and mentorship of the next generation of female and minority researchers and educators in the field of cybersecurity would also create a pool of role models for historically marginalized groups in this field.

The program also includes areas of research related to marginalized and indigenous communities where such students will have many opportunities to apply their learning back into their own communities through already established research projects and

partnerships with communities and organizations. Examples include: cybersecurity policies and their impact on marginalized communities; algorithmic and data biases in cybersecurity; inclusion of marginalized communities and their well-being in cybersecurity decision-making process; and global cybersecurity issues. As part of this proposal, a special scholarship is proposed for indigenous students who intend to complete the Ph.D. program in cybersecurity.

EDI metrics will be evaluated during regular program reviews.

Similar to other graduate programs at Ontario Tech University, this program will also follow the 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

c) 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 for proposed calendar copy and 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*
- *Describe any consultation undertaken with regard to the principles of Equity, Diversity, Inclusion, and Decolonization*

The Ph.D. program in cybersecurity would create a new interdisciplinary venue for collaboration between Faculty of Business and IT (FBIT) and Faculty of Social Science and Humanities (FSSH), with additional areas of potential collaborations with Faculty of

Science (FSCI) and Faculty of Engineering and Applied Science (FEAS) too. It is expected that some members from the aforementioned faculties would join this graduate program as associate or full members.

The program has currently been discussed and received support and feedback at FBIT at the current levels:

- Dean
- Academic Resource Committee approval of NOI and feedback (Feb 23, 2023)
- Faculty Council – information and feedback (June 20, 2023)
- Individual feedback from the networking and IT Security area (May-July 2023)
- FBIT Graduate Education Committee Approval (Nov 15, 2023)

Consultation with SGPS – Sep 6, 2023, October 25, 2023
Consultation with FSCI and FEAS faculty members – Sep 13, 2023
Request for comments from IEAC – Nov 10, 2023
Consultation with CIQE and TLC– Nov 10, 2023
External Review (site visit) – June 25/26, 2024
FBIT Faculty Council Approval – Oct 1, 2024
GSC Approval - Oct 22, 2024

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 2.1.2.6, 2.1.2.7, 2.1.2.8 a)

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.*

There are no impacts on enrollment agreements or agreements with other institutions.

b) Faculty Members - Current and New Faculty Requirements

- *Complete as an Appendix, using the Faculty Information templates provided, charts chart detailing the list of faculty committed to the program and provide any additional details, in paragraph form 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. This should also demonstrate how supervisory loads are distributed in light of qualifications and appointment status; if necessary, include this information below*
- *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 and achieve the goals of the program and foster the appropriate academic environment, contribute substantively to the program, and commit to student mentoring*
- *Describe the role of any sessional/part-time faculty; provide an approximate percentage used in the delivery of the program and the plans to ensure the sustainability of the program and quality of the student experience*
- *Explain the provision of supervision of any experiential learning opportunities; how will supervisory loads be distributed?*
- ***If new faculty resources are needed, describe the plan and commitment to provide these resources to support the program and the rationale in section 4h)***

Recent TTT hires at FBIT are in line with the requirements of this program. As recommended in the external reviewers report, it is recommended that the university prioritize hiring or appointing research chairs (NSERC CRC, Industry chairs or university research chairs) in cybersecurity, particularly in areas related to social and business aspects of cybersecurity. This is an important area of growth in the faculty and a differentiating factor that would enhance the multidisciplinary nature of the program.

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 4h)***

We expect that most courses will be taught by core faculty members, with occasional hiring of adjunct instructors from the industry for specialized courses, if needed.
The administration of the program at the faculty level will be added to the role of the Graduate Program Director and Graduate Program Assistant for Master of IT Security (MITS).

d) Supporting information for online and hybrid programs

- *Describe the adequacy of the technological platform to be used for online delivery*
- *Describe how the quality of education will be maintained*
- *Describe how the program objectives will be met*
- *Describe how the program learning outcomes will be met*
- *Describe the support services and training for teaching staff that will be made available*
- *Describe the sufficiency and type of supports that will be available to students*
  - *How has accessibility been considered?*
  - *What strategies have been considered to accommodate students with disabilities?*
  - *Have the principles of Universal Design been considered?*
  - *Will course content be offered in both written and audible forms (e.g., closed captioning, transcriptions)?*
  - *Is course content designed logically and is it easy to follow with limited instruction?*
  - *Are assignment expectations clear (i.e., a rubric)?*

- *Have the needs of students with limited or unreliable access to wi-fi been considered (e.g., breaking down pre-recorded lectures into maximum 10-minute videos)?*

Not Applicable.

e) Existing non-financial student supports

<u>School of Graduate and Post-Doctoral Studies</u>

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) at Ontario Tech University is the main point of contact for our postgraduates, facilitating support and offering guidance for our growing graduate community of students, postdoctoral fellows and graduate faculty members. The SGPS Graduate Academic Affairs Specialist works to identify and provide advice to solutions for graduate students based on graduate policies, resources and working with faculty partners. The SGPS assists students in areas such as: student-supervisor relationships; personal or academic barriers to progression; research progression; and navigating academic regulations. The SGPS works closely with campus partners to refer students to other helpful resources and supports across our campus community.

The SGPS Graduate Engagement Team coordinates a range of programs such as Graduate Pro Skills and the Three Minute Thesis. SGPS' most recent initiative, Base Camp, represents foundational programming that provides our graduate students and postdoctoral fellows with specific skills necessary to succeed as global citizens in the workplace and beyond. Centered around four pillars: Achieve, Empower, Ascend, Inspire, Base Camp builds on the aptitudes and lived experiences of our graduate students and postdoctoral fellows, propelling them forward to new heights. The SGPS team supports prospective, new and returning graduate students from the start of their journey beginning with recruitment and admissions, through registration, funding and scholarships, to then join us at orientation, professional development workshops and a range of events, ultimately supporting our graduates through to successful degree conferral.

<u>Faculty-Specific Support</u>

Academic Advising

Graduate students will receive academic advice and support at FBIT through the office of Graduate program Director (GPD). A dedicated graduate program assistant provides support for all graduate programs at FBIT.

Student Life

Ontario Tech University, as a relatively small campus community, has a centralized delivery model for many student supports. All undergraduate students have access to an extensive support system that ensures a quality student experience. Each Faculty may provide additional, Faculty- or program-specific supports. In addition to the outlined services below, students may also take advantage of the Campus Bookstore, Housing and Living Resources as well as the Ontario Tech Student Union. Further information can be found at: http://studentlife.ontariotechu.ca/.

Student Learning Centre

Ontario Tech University fosters a high level of academic excellence by working with students, undergraduate and graduate, to achieve educational success. Faculty specific academic resources are available online and include tip sheets and videos. Academic specialists offer one-on-one support services in mathematics, writing, study skills, ESL and physics. With the additional support of peer tutors and workshops, the Student Learning Centre can also accommodate the needs of a specific course or program.

Student Accessibility Services

Ontario Tech University ensures that students with disabilities have equal opportunities for academic success. Student Accessibility Services operates under the Ontario Human Rights Code and the Accessibility for Ontarians with Disabilities Act. Services and accommodation support are provided for students with documented disabilities and include:

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

Student Accessibility Services also provides inclusive peer spaces, support groups, and skills workshops for students.

Career Readiness

Ontario Tech University offers comprehensive career service assistance, co-op and internship support 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 internships
- Interview preparation
- Job market information
- Job search strategies

The Career Centre hosts a variety of events during the academic year including employer information and networking sessions, job fairs and interviews conducted by leading employers.

Student Engagement, ***Equity and Inclusion***, and ***Indigenous Education and Cultural Services***

The university supports students' successful transition and provides opportunities to develop leadership and professional skills throughout their university career. Services provided include:

- Equity and inclusivity programming and support groups
- Indigenous Education and Cultural Services provides space and supports for students to connect with Indigenous culture and resources
- Opportunities to grow and develop leadership skills through the Ambassador and Peer Mentorship program
- Orientation and events through first year
- Peer mentoring
- Services and supports for international and exchange students
- Specialized programming for first-generation, graduate, Indigenous, international, mature, online, transfer and diploma-to-degree pathways students

Student Mental Health Services

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

- Access short term counselling and therapy services
- Access tools and resources online to learn about mental health and how to maintain good health and wellness
- Attend drop-in sessions
- Participate in events, activities or support groups that promote positive health and well-being
- Work with a mental health professional to address concerns

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
- Treatment of disease, illness, and injury
- Allergy injections, immunizations, and influenza injections
- Complementary Health Services featuring acupuncture, chiropractic, custom orthotics, massage therapy, nutritional counselling, and physical therapy
- 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 SAFA 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

Ontario Tech University is a leader among North American universities in implementing and using curriculum and industry specific software in a technology-enriched learning environment (TELE). Our unique environment is adapted to each discipline based on faculty requirements and input for optimal student learning. We are committed to providing the greatest value for students' investment in education and technology while studying at Ontario Tech University.

One of the greatest advantages of Ontario Tech University's approach to TELE is that all students have equal access to the same technology, resources and services. Whether you are inside or outside of the classroom, your course-specific software allows you to work on your own or with others and enjoy seamless access to all Ontario Tech online resources. TELE supports Bring-your-own-device (BYOD) which provides you with laptop standards when acquiring the right laptop for your program and software support services onsite and online. An annual fee for TELE covers a wide range of program-specific software, technical software support, exam support and virus protection.

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 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.

Exam support services
IT Services provide hardware, software and technical support during examinations. IT team will be equipped with loaner laptops in the event of major technical issues.

Laptop repairs
IT Services provide on campus repairs on eligible laptop models.

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.

General Use Workstations (GUWs)
Ontario Tech undergraduate students are able to use general workstations available at the library and have access to Bring Your Own Device Technology-Enriched Learning Environment (BYOD TELE) model course-specific software.

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 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 University 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 University 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.

f) 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*

Full time students in the program will receive guaranteed financial support from the following sources:

1. Graduate Research Assistantship from their supervisors, for the amount set by SGPS and guaranteed for four years of full-time study (subject to satisfactory standing).
2. Graduate Teaching Assistantship from the faculty, for 270 hours of TA work in a year at the rate determined by the university, and guaranteed for four years of full-time study (subject to satisfactory standing).

3. International student tuition scholarship for international students, equivalent to the difference between international and domestic tuition fees, subject to SGPS rules and availability.
4. A special graduate scholarship (funded by SGPS) for indigenous students in the program.

Part-time students in the program will not be guaranteed any financial support.

g) 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.* ***If new space is required, please complete Table 4 (examples in purple); 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)*
- ***If new resources are needed, d the plan and commitment to provide these resources to support the program and the rationale in section 4h)***

No Additional or dedicated space is required for the new program. Classes will be shared with MITS and CS graduate programs, and research work will be conducted in supervisors' research labs.

Table 4: Additional Space Requirements

Space Type	Number Required	Space Requirements (sq. ft)

h) Resource Summary

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

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)?

A new TTT hire with expertise in the area of cybersecurity has already been hired for the program.

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:

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): _____
(date of review)

5 Closing Statements Regarding Program Quality (QAF 2.1.2.8)

- *Please describe any additional evidence of the quality of the faculty (e.g. qualifications, funding, honours, awards, research, innovation and scholarly record) not already discussed*
- *Please provide any other evidence that the program and faculty will ensure the intellectual quality of the student experience*

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 DLEs
Appendix B: Calendar Copy
Appendix C: List of Program Courses, New Course Proposals, Required Course Changes, Course Syllabi for Existing Courses (can each be attached as separate appendices)
Appendix D: Detailed Listing of Faculty Committed to the Program (please use template)
Appendix E: Library Report

Items to be separate documents sent to CIQE:

New Program Funding and Tuition form (for CIQE use only)
Budget Spreadsheet (for ARC use only)
CVs for all faculty committed to the program (to be provided to the external reviewers)

Appendix A: Full Doctoral GDLE Mapping

	Demonstrate a thorough understanding and detailed knowledge of the state of the art in threats and attacks against computing systems, cyber-physical systems and social networks	Analyze, plan and apply various techniques for vulnerability assessment, protection, detection, mitigation and response to cyberattacks	Develop and evaluate information security and risk management practices, policies, and procedures that comply with the current standards, federal, provincial and international laws, agreements and policies on issues related to cybersecurity, ethical hacking and data privacy.	Demonstrate a thorough understanding and detailed knowledge of the economic, social and business drivers of cybersecurity and related technologies	Demonstrate a thorough understanding and detailed knowledge of the state of the art in applications of Artificial Intelligence to cybersecurity, attack detection and mitigation.	Evaluate, analyze and criticize limitations of cybersecurity and Artificial Intelligence tools in terms of privacy protection, algorithmic and data biases, sociopolitical impact and other potential problems	Communicate effectively and accurately to the public and in professional circles about various aspects of cybersecurity
Depth and Breadth of Knowledge	X			X	X		
A thorough understanding of a substantial body of knowledge that is at the forefront of their academic discipline or area of professional practice including, where appropriate, relevant knowledge outside the field and/or discipline.	X			X	X		
Research and scholarship	X	X		X	X		
a) The ability to conceptualize, design, and implement research for the generation of new knowledge, applications, or understanding at the forefront of the discipline, and to adjust the research design or methodology in the light of unforeseen problems;	X	X		X	X		
b) The ability to make informed judgments on complex issues in specialist fields, sometimes requiring new methods; and	X	X		X	X		
c) The ability to produce original research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication.	X	X		X	X		
Level of Application of Knowledge- The capacity to:		X	X	X	X		
a) undertake pure and/or applied research at an advanced level; and		X	X	X	X		
b) contribute to the development of academic or professional skills, techniques, tools, practices, ideas, theories, approaches, and/or materials.		X	X	X	X		
Communication Skills							X
The ability to communicate complex and/or ambiguous ideas, issues and conclusions clearly and effectively.							X
Awareness of limits of knowledge		X	X			X	
An appreciation of the limitations of one's own work and discipline, of the complexity of knowledge, and of the potential contributions of other interpretations, methods, and disciplines.		X	X			X	
Autonomy/Professional capacity		X	X			X	
a) The qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex situations;		X	X			X	
b) The intellectual independence to be academically and professionally engaged and current;		X	X			X	
c) The ethical behaviour consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and		X	X			X	
d) The ability to evaluate the broader implications of applying knowledge to particular contexts.		X	X			X	

Appendix B – Calendar Copy

Contact Information

Faculty of Business and Information Technology
Ontario Tech University
2000 Simcoe Street North
Oshawa, ON L1G 0C5
T: 905.721.8668
E: fbit@ontariotechu.ca

Program

Ph.D. in CyberSecurity

Program General information

The PhD in Cybersecurity program is a multidisciplinary research-intensive program that covers a broad range of themes related to cybersecurity; including technology, business, policy and governance, AI and human behaviour. This program aims to prepare specialized socio-technical academics who can perform leading edge research and teaching in Academia or in Industry and help governments in policymaking in the area of cybersecurity. The objectives of the program are achieved through a combination of coursework, seminars and a research thesis. Students will gain comprehensive knowledge of theory and technologies of cybersecurity, legal and ethical issues around cybersecurity and privacy, and cybersecurity policies, as well as proficiency in cybersecurity research methodology and state-of-the art research topics. The Ph.D. in cybersecurity program is hosted at Ontario Tech Faculty of Business and Information Technology and affiliated with the Institute for Cybersecurity and Resilient Systems (ICSR), a multi-disciplinary, global centre for cybersecurity research, innovation, teaching, and outreach at Ontario Tech University.

Admission requirements

In addition to the general admission requirements for graduate studies, PhD in Cybersecurity applicants must meet the following program-specific requirements.

- Students would normally be expected to have completed a four-year undergraduate degree and a thesis-based Masters degree in a relevant field from a Canadian university, or its equivalent from a recognized institution, with an overall academic standing of at least 3.5 on a 4.0/4.3 scale or its equivalent in their last two years of study.

MITS Pathway: Graduates of Ontario Tech University Master of IT Security (MITS) program can apply to the Ph.D. program If they have completed the MITS program with an overall academic standing of at least 3.5/4.3.

- A minimum of two letters of reference from persons having direct knowledge of the applicant's academic competence. Academic references are preferred; however professional references will be accepted. Letters of reference should come from individuals under whom the applicant has worked closely or studied. The quality of the letters will be assessed by the Graduate Committee to make sure relevant requirements have been met.

- Proof of English proficiency is needed from those applicants whose first language is not English, as per university regulations.

- Applicants must find a prospective faculty supervisor from among the list of graduate faculty members of the PhD in Cybersecurity program and receive formal acceptance of the faculty member to supervise their research. No applicant will be accepted to the program without having an approved prospective supervisor in advance.

- As part of the application form, students are required to provide a minimum 3000-word long personal research statement, outlining their area of interest in cybersecurity, their proposed academic research plan, and identify the faculty supervisor who has agreed to supervise their research.

- Students admitted to the program must demonstrate their broad proficiency in the area of cybersecurity through evidence of completing or having completed graduate-level coursework in the fields of theory, applications, legal and governance issues of cybersecurity. Students who do not demonstrate appropriate background in research methods and cybersecurity fundamentals and/or ethics will be required to complete the following additional/prerequisite courses within the first 18 months of the program:

    1. Cybersecurity: The following courses are required for students who do not have prior background in IT security.

        - INFR 5010G - Fundamentals of IT security (6 Credits)
        - INFR 5100G - Law and Ethics of IT Security (3 Credits)

    2. Research methods: The following prerequisite is required for students who have not completed a previous thesis-based Master's program in a relevant field.

        - CSCI 5010G – Survey of Computer Science Research Topics and Methods (3 Credits)

Note: Students who demonstrate sufficient proficiency through prior graduate-level coursework or extensive related work experience, can request a waiver for the corresponding prerequisite course from the Graduate Program Director. Waiver requests are not guaranteed and will be considered on a case-by-case basis.

Part-time studies

The PhD in Cybersecurity program is intended to be a full-time program.

Degree requirements

a. Coursework component

The coursework component of the program may include prerequisite courses (if required as noted above), specialized courses, a seminar, a thesis proposal and a final thesis.

Students in the PhD program in Cybersecurity must take three specialized courses with the approval of their supervisory committee. These courses must be completed prior to the thesis candidacy proposal examination. The specialized courses for each year will be announced at the time of registration for that academic year, and may vary from year to year based on instructor availability. Some examples of specialized course topics are as following:

- INFR 6010G - Artificial Intelligence in Cybersecurity
- INFR 6020G - Usable Security
- INFR 6030G - Information Trust
- INFR 6040G - Infrastructure and Cyberphysical Security
- INFR 6050G – Advanced Topics in Cybersecurity
- INFR 6110G - Global Cybersecurity Threats
- INFR 6120G - Cybersecurity Leadership
- INFR 6130G – CyberCrime
- MITS 5600G – Security Policies and Risk Management
- MITS 6900G - Blockchain Fundamentals and Technologies

Note: Students may take up to two relevant MITS or CSCI 5xxx/6xxx-level courses as specialized courses (If not taken in a previous degree) with the approval of their supervisory committee and the Graduate Program Director.

Seminar/Proposal/Thesis Courses

Students must register in the following zero-credit courses for their seminar, proposal and thesis work:

- INFR 7000G - PhD Cybersecurity Seminar
- INFR 7100G - PhD thesis proposal and candidacy Exam
- INFR 7200G - PhD Dissertation

b. Research component

Students who successfully complete their coursework will then enter the thesis phase of the program. At this stage, students must prepare a thesis proposal under the supervision of their supervising committee, and then defend their proposal in an oral candidacy exam. After successful defence of their proposal, they will be considered PhD candidates. It is strongly recommended that students complete their coursework and candidacy exam within 24 months after entering the program on a full-time basis.

All PhD Candidates must defend their final thesis in an oral session in front of a committee of internal and external examiners, as per university regulations. Upon successful defence of their thesis and subject to completion of all other requirements of the program, a degree of PhD in Cybersecurity will be conferred upon them.

c. Seminars

All /students in the PhD in Cybersecurity program must register in and participate in a zero-credit seminar course every semester. Each student must present at least two seminars throughout their program: one seminar before the candidacy exam, and one exit seminar before their thesis defence.

Appendix C – List of Courses

CSCI 5010G – Survey of Computer Science Research Topics and Methods

INFR 5010G - Fundamentals of IT security

MITS 5100G - Law and Ethics of IT Security

INFR 6010G - Artificial Intelligence in Cybersecurity (Syllabus provided for MITS 5620G - Special Topics; this topic is now being offered as a stand-alone course)

INFR 6020G - Usable Security

INFR 6030G - Information Trust

INFR 6040G - Infrastructure and Cyberphysical Security

INFR 6050G – Advanced Topics in Cybersecurity

INFR 6110G - Global Cybersecurity Threats

INFR 6120G - Cybersecurity Leadership

INFR 6130G – CyberCrime

INFR 7000G - PhD Cybersecurity Seminar

INFR 7100G - PhD thesis proposal and candidacy Exam

INFR 7200G - PhD Dissertation

MITS 5600G – Security Policies and Risk Management

MITS 6900G - Blockchain Fundamentals and Technologies

UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY

Faculty of Business and Information Technology

MITS5100G
Law and Ethics of IT Security
Course outline for Fall 2017

1. Course Details & Important Dates*

Term	Course Type	CRN	Day	Time	Room
Fall	Lecture	42996	Mon	6:40 pm – 9:30 pm	UA3230

Classes Start	Classes End	Last day to drop course without academic consequence	Final Exam Period
September 11th, 2017	December 4th ,2017	October 4th, 2017	December 6-17th, 2017

* for other important dates go to: www.uoit.ca >Current Students >Important Dates and Deadlines

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
David Clark	TBA	416.642.3688	david.clark@uoit.ca
Office Hours: Before and after class, or by arrangement			

3. Course Description

One year ago the big Tech story was Pokémon GO. Today the news is filled with US federal investigations into whether Russian hackers interfered with US federal elections through hacking and online social media manipulation, as well as stories about the surge in ransomware that threatens entire business sectors and even the governments of nation states. And legal issues figured heavily into both. While people wandering the streets playing games on their phones[1] seems to have little in common with cyber attacks on businesses and democratic institutions, both situations point out what happens when technology creates new ways for people to communicate and interact. That is to say, sometimes the law does not keep up very well.

[1] During the summer of 2016 there were many articles in the popular and IT industry media about: the game causing a danger to players and non-players; homeowners suing the publisher Niantic Inc. for trespass (even though no one from Niantic ever sets foot on those properties); calls to regulate the game or the players to remove them from sacred sites like cemeteries and memorials; and even comments that the selection of sites for PokéStops showed unintended racial biases justifying calls for a code of ethics for future programmers of location-based augmented reality games.

Why should we pay attention to this? Because both situations teach us a great deal about why technology, law and ethics sometimes clash. And they also help us understand where the law and technology can work well together.

Information technology in its many forms presents exciting new opportunities for enterprises of all kinds. With each innovation the doors are flung open for new business models to be born and for existing businesses to reinvent themselves. What they all have in common is the need to safeguard information. This is transforming IT departments and professionals into protectors of significant business assets, the custodians of official business records, and the wardens of customers' private information. Laws and the courts impose many of these duties. They also provide critical and effective tools to achieving success in protecting information and other intellectual property.

Yet the very characteristics of e-commerce and online activities that create great opportunities also present significant challenges for the law. And many times, laws are ultimately incapable of providing meaningful protection for computer systems and data. Therefore, as IT Security Professionals, you must understand this interplay between IT and the law. Only then can you anticipate how the law may best be used to achieve IT security in the face of new technologies, and when other tools may be required. Furthermore, when a breach of security actually occurs, you must know how to respond, and even this is shaped by laws and legal principles.

However, as IT Security Professionals responding to the challenges of new technologies, you will also find that the law sometimes fails to provide "real world" guidance about what security methods are acceptable. Moreover, news media are filled with stories about how governments which are are supposed to be protecting citizens are engaging in far-reaching and pervasive monitoring of their electronic communications. Some call these activities illegal. Others defend them and counter that the monitoring is permitted under the law. In these and other circumstances, behaviour that is legally permissible may nevertheless seem improper or ethically challenging. For such cases, you must also have a solid understanding of professional ethics developed by your professional community and peers.

This course will provide an overview of the laws and professional ethics that IT Security Professionals must understand. In the early weeks of the course, we will examine some of the basic ideas and dynamics that will help us analyze and discuss the interplay between technology, law and professional ethics. Later, we will examine one or two substantive areas of law each week, including: e-contracts; e-regulation; online crime; intellectual property; privacy; data breach liability; and we will conclude by examining the concept of ethical hacking, the "white hat" hacker vs. the "black hat" hacker, and those in between.

4. Learning Outcomes

On the successful completion of the course, students will be able to:

- Explain basic principles of substantive areas of law covered in the course;
- Demonstrate a basic understanding of the principles, dynamics and tools of computer law;
- Explain how and why online activities and e-business challenge traditional areas of law, and where the law is successful in regulating behavior;
- Demonstrate an understanding of common ethical systems and professional Codes of Ethics;

- Analyze novel situations to identify IT Security issues from the legal and ethical perspectives;
- Explain issues arising from hacking and ethical hacking.

5. Course Design

Course content will be delivered through a combination of lectures, discussions and assignments. Success in the course will require students to attend and participate in class. Reading assignments must be completed prior to each class in preparation for the more advanced discussions in the lecture.

The lectures and discussions will provide the core theory. Assignments will include short papers. There will also be a term project. These activities allow students to apply information from course theory and readings and to utilize problem solving and decision-making skills to analyze realistic scenarios.

Through written assignments, examination, and participation in class discussions, students will gain practice in the use of oral and written communication skills. There is a Blackboard course web page which includes a constantly updating calendar of course milestones, assignment and test dates, and so on. Students are expected to log on to the page regularly and to keep informed of course requirements. Items posted on the course site are deemed communicated to the class. Students are required to use the email tool attached to the Blackboard course website if they wish to communicate with the instructor by email.

[The rest of this page left blank intentionally.]

6. Outline of Topics in the Course

Lecture #	Date	Topics
Lecture 1	Sept 11	• Introduction to Law and Ethics • What is "Law"? • Computer Ethics
Lecture 2	Sept 18	• Dynamics, Themes and Skill Sets of Computer Law • Law of the Horse: Code as Law
Lecture 3	Sept 25	• Jurisdiction in a Borderless World • Is there a "there" there? • Evidence Law
Lecture 4	Oct 2	• e-Contracts • Implied Click Consent & Express Click Consent
	Oct 9	THANKSGIVING – NO CLASSES
Lecture 5	Oct 16	• Computer Crime in Canada and the US • Preventing Harmful Conduct
Lecture 6	Oct 23	• Privacy Law in Canada, the EU and US • Data Breach Regulation
Lecture 7	Oct 30	• Intellectual Property: Part 1 • Patents • Trade-mark Law
Lecture 8	Nov 6	• Intellectual Property: Part 2 • Copyright • Digital Rights Management (DRM) • DMCA (US and others)
Lecture 9	Nov 13	• Self-Regulation and Indirect Regulation of Online Activities • White House Cybersecurity Framework
Lecture 10	Nov 20	• Regulating Social Media • SPAM - CASL
Lecture 11	Nov 27	• Cyberliability • Privacy breach liability • Cyber Insurance as Risk Management
Lecture 12	Dec 4	• Ethical Hacking

7. Required Texts/Readings

Fitzgerald, P., Wright, B., & Kazmierski, V., *Looking at Law – Canada's Legal System*, 6th Edition. Toronto: LexisNexis Canada, 2010.

Takach, George S., *Computer Law*, 2nd Edition, Toronto: Irwin Law, 2003.

(*Both textbooks are also available on three-hour reserve from the Reserve Desk at the UOIT Library*).

Each week, **additional mandatory readings** will be posted on the course website on Blackboard that **you will be responsible to prepare**.

8. Evaluation Method

The evaluation components and their respective weightings towards the final mark are shown below:

Course Component	Portion of Final Mark	Date Assigned*	Date Due*
First Assignment	5%	Sept 18	Sept 25
Second Assignment	5%	TBA	TBA
Midterm Exam	30%	Oct 16	Oct 23
Project / Paper	20%	Oct 23	Nov 20
Final Exam	40%	TBA	TBA

*These dates are subject to change. Changes will be announced in class and on Blackboard.

More specific instructions and deadlines for submission will be provided for each Course Component. You are responsible to review and adhere to them.

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found in the Academic Regulations of the UOIT Academic Calendar.

9. Assignments and Tests

All assignments, tests and examinations will be in a "take home" format. You are expected to adhere to the Academic Regulations contained in the UOIT Academic Calendar 2017/18, as well as all other Academic and Administrative Policies of UOIT.

There will be no make-up assignments or tests.

Missed Term Test
Students who miss a midterm or term test for medical or compassionate grounds may submit a request for deferral along with supporting documentation to the Faculty Advising offices within three (3) working days. Medical deferrals will be comprised of a completed UOIT Medical

Statement form completed by the student and physician within 24 hours of the missed course work. These forms can be found on the UOIT website or the FBIT Announcement Board on Blackboard. If a midterm or term test is missed for approved reasons, the weight of the missed component will be added to the final.

Missed Course Work
Coursework missed for medical or serious personal reasons must be documented and reported to the instructor within three (3) working days of the missed work. Medical absences must be accompanied by a UOIT Medical Statement form completed by the student and physician within 24 hours of the missed course work. Coursework includes, but is not limited to, quizzes; written assignments; participation; case studies; etc… If missed coursework totals more than 20% of the final grade, this must be documented through the FBIT Academic Advising office. The weight of the missed course component will be reweighted to the final examination. If you miss coursework and do not notify the instructor within the three (3) working day deadline, you will receive a score of zero on the missed component.

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@uoit.ca for support.

10. Accessibility

Accommodating students with disabilities at UOIT is a responsibility shared among various partners: the students themselves, SAS staff and faculty members. To ensure that disability-related concerns are properly addressed during this course, students with documented disabilities and who may require assistance to participate in this class are encouraged to speak with me as soon as possible. **Students who suspect they have a disability that may affect their participation in this course are advised to go to Student Accessibility Services (SAS) as soon as possible.** Maintaining communication and working collaboratively with SAS and faculty members will ensure you have the greatest chance of academic success.

Students taking courses on the North Campus Location can visit Student Accessibility Services in the U5 Building located in the Student Life Suite. Students taking courses on the Downtown Oshawa Campus Location can visit Student Accessibility Services in the 61 Charles St. Building, 2nd Floor, Room DTA 225 in the Student Life Suite.

Disability-related support and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Mon-Fri. For more information on services provided, you can visit the SAS website at http://uoit.ca/studentaccessibility

Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@uoit.ca

Students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here

www.uoit.ca/SASexams. Students must sign up for tests, midterms or quizzes AT LEAST seven (7) days before the date of the test.

Students must register for final exams by the registration deadline, which is typically 2 weeks prior to the start of the final examination period. SAS will notify students of the registration deadline date.

11. Academic Integrity

Students and faculty at UOIT share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness and mutual respect for the aim and principles of the pursuit of education. Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action.

Students are expected to be familiar with and abide by UOIT's regulations on Academic Conduct (Section 5.15 of the Academic Calendar) which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, among other academic offences. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic misconduct, which can range from a resubmission of work to a failing grade to permanent expulsion from the university. A lack of familiarity with UOIT's regulations on academic conduct does not constitute a defense against its application.

Further information about academic misconduct can be found in the Academic Integrity link on your laptop. Extra support services are available to all UOIT students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found in the Academic Calendar (Section 8).

12. Turnitin

UOIT and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review by Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents for five academic years. The instructor may require students to submit their assignments electronically to Turnitin.com or the instructor may submit questionable text on behalf of a student. The terms that apply to UOIT's use of the Turnitin.com service are described on the Turnitin.com website.

Students who do not wish to have their work submitted to Turnitin.com must provide with their assignment at the time of submission to the instructor a signed Turnitin.com Assignment Cover sheet:
http://www.uoit.ca/assets/Academic~Integrity~Site/Forms/Assignment%20Cover%20sheet.pdf

Further information about Turnitin can be found on the Academic Integrity link on your laptop.

13. Final Examinations

Final examinations are held during the final examination period at the end of the semester and may take place in a different room and on a different day from the regularly scheduled class. Check the published Examination Schedule for a complete list of days and times.

Students are advised to obtain their Student ID Card well in advance of the examination period as they will not be able to write their examinations without it. Student ID cards can be obtained at the Campus ID Services, in G1004 in the Campus Recreation and Wellness Centre.

Students who are unable to write a final examination when scheduled due to religious publications may make arrangements to write a deferred examination. These students are required to submit a Request for Accommodation for Religious Obligations to the Faculty concerned as soon as possible and no later than three week prior to the first day of the final examination period.

Further information on final examinations can be found in Section 5.25 of the Academic Calendar.

14. Freedom of Information and Protection of Privacy Act

The following is an important notice regarding the process for submitting course assignments, quizzes and other evaluative material in your courses in the Faculty of Business and Information Technology.

As you may know, UOIT is governed by the *Freedom of Information and Protection of Privacy Act* ("FIPPA"). In addition to providing a mechanism for requesting records held by the university, this legislation also requires that UOIT not disclose the personal information of its students without their consent.

FIPPA's definition of "personal information" includes, among other things, documents that contain both your name and your Banner ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of Faculty of Business and Information Technology encourages you to use only your Banner ID on assignments or test papers being submitted for grading. This policy is intended to prevent the inadvertent disclosure of your information where graded papers are returned to groups of students at the same time. If you still wish to write both your name and your Banner ID on your tests and assignments, please be advised that UOIT will interpret this as an implied consent to the disclosure of your personal information in the normal course of returning graded materials to students.

If you have any questions or concerns relating to the new policy or the issue of implied consent addressed above, please contact accessandprivacy@uoit.ca

15. Course Evaluations

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of UOIT's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course evaluations will be sent via e-mail, and posted on Blackboard, Weekly News and signage around the campus.

16. Sexual Violence Policy

UOIT is committed to the prevention of sexual violence in all is forms. For *any* UOIT student who has experienced Sexual Violence, **UOIT can help**. UOIT will make accommodations to cater to the diverse backgrounds, cultures, and identities of students when dealing with individual cases.

If you think you have been subjected to or witnessed sexual violence:

- Reach out to a Support Worker, who are specially trained individuals authorized to receive confidential disclosures about incidents of sexual violence. Support Workers can offer help and resolutions options which can include safety plans, accommodations, mental health support, and more. To make an appointment with a Support Worker, call 905.721.3392 or email supportworker@uoit.ca
- Learn more about your options at: www.uoit.ca/sexualviolence

Appendix: Other Policies and Expectations for the Learning Environment

1. Effective Learning in the Classroom

The following are suggestions on how to carry out effective learning in your daily studying:

• Pre-Class Preparation:

Before you go to your classroom, you should allow enough time for commuting, and eat a healthy meal or snack. Also, you should ask yourself the following questions:

- Have you *previewed* the reading assignments?
- Have you noted down key insights and questions from your reading?

* *Rule of thumb*: for every hour lecture, you need approximately three hours of outside class studying to reinforce the material learnt in class.

• In-Class Attitude:

In order to get the most out of your lectures, you need to:

- Arrive to class On Time
- Concentrate (be curious and be motivated)
- Be Active:
  - in class discussion
  - in group activities
  - in creative and critical thinking

And you should also AVOID the following:

- Eating 'strong smelling' or 'noisy' food
- Getting involved in side conversations
- Sending signs that scheduled class time is up, i.e. closing up your laptop or standing
- Answering cellular phones in class

• After class:

- Review lecture notes; highlight key points
- Consult instructors or TA for unresolved questions
- Seek help when necessary
- Finish assignments on time

2. The use of your laptop in the classroom

The use of laptops often enhances the learning experience. However, there are circumstances when it can be obstructive. Instructors have the right and the responsibility to determine appropriate classroom protocols for student use of laptops. Students refusing to comply with such requests may be requested to remove themselves from the classroom. Students refusing to comply may also be considered to be in violation of our University code of conduct and disciplinary action may result.

- **Examples of appropriate use of laptops**:

  - Taking lecture notes
  - Course related computing
  - Limited messaging for learning purposes
  - Download course material from Blackboard

- **Examples of Inappropriate Use of Laptop**

  - Watching movies
  - Playing computer games
  - Social messaging

3. Effective team management

The following are suggestions on how to effectively manage your teamwork:

Setting clear objectives
Signing the team contract
Meeting regularly
Conducting effective meetings

- Assigning roles to members
- Staying in touch: meeting; emails; phones
- Managing conflicts effectively

4. Managing Conflict

The following are suggestions on how to resolve conflict that could possibly happen during your studying:

- Have a team contract to guide conflict resolution.
- The team "leader" might send an e-mail to the absent member, and copy all members, asking why he or she missed the meeting.
- Keep an attendance log and use this as part of your peer review process.
- Try to avoid making any decisions that are known to be an issue for an absent member until that person can be reached.

5. In the event of the illness

In the event of illness, you are suggested to:

- Please stay home so as not to spread it to others
- Contact your Academic Advisor by email or phone right away – not your instructor.

The Academic Advisors will organize any assignment, test or lab adjustments if needed.
You can find your academic advisor contact information at:
http://www.businessandit.uoit.ca/people/academic-advisors.php

- Also check the following website http://www.cdc.gov for further health and wellness information.

6. Academic Planning and General Information

Please follow the link below to view our academic resources and calendar. This link will provide you with information pertaining to Grade point average (GPA), Academic Standing Requirements, Internship Programs, Graduation Information, etc.
https://uoit.ca/current-students/index.php

Other links of interest include:

http://www.businessandit.uoit.ca/undergraduate/index.php for information pertaining to **FBIT Undergraduate Programs**

http://www.gradstudies.uoit.ca/ for information on **Graduate Programs**

https://uoit.ca/current-students/campus-services/ for information on **Campus Services**

http://www.businessandit.uoit.ca/about/student-societies/index.php for information pertaining to **Student Societies**

Faculty of Business and Information Technology

MITS6900G Blockchain Foundation and Technology

Course outline for **FALL 2022**

1. Course Details & Important Dates*

Term	Course Type	Day	Time	Location	CRN #
FALL 2022	Lecture	Tuesday	5:10PM – 8:00PM	UA2120	44919

Classes Start	Classes End	Last day to drop course without academic consequence	Final Exam Period
September 6, 2022	December 5, 2022	October 3, 2022	December 7 – 16, 2022

* Visit https://ontariotechu.ca/current-students/academics/important-dates-and-deadlines.php

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Sheikh Ahmed Munieb	UB2018	905.721.8668 Ext: 5361	Ahmed.sheikh@ontariotechu.ca
Office Hours: By Appointment Tuesday: 12PM – 1:00PM			

Laboratory/Teaching Assistant Name	Email
Divyesh Savani	divyeshlallubhai.savani@ontariotechu.net

3. Course Description

This course introduces blockchains from a technical perspective. Students will learn: the fundamentals of blockchains, cryptocurrencies, and dApps; the key business and value drivers of blockchain services; application development fundamentals, best practices, and supportive technologies; economic drivers and bleeding-edge trends. This course includes the development and deployment of a custom blockchain using Python, followed by multiple smart contract implementations using Solidity.

4. Learning Outcomes

On the successful completion of the course, students will be able to:

- demonstrate and verbalize a deep understanding of blockchains and their technical underpinnings
- understand the economic and business drivers of blockchain and web 3.0
- compare and contrast blockchain technologies, their use cases, and emerging technologies
- architect, develop, and deploy basic blockchain solutions using industry-standard tools and languages

5. Course Design

Course content will be presented to students during the assigned lecture periods. Some lectures will include hands-on components and exercises. Lecture slides will be posted on Canvas, however some hands-on content and discussions or Q/A in the class may not be covered in the lecture slide. Students should plan to attend all lectures and take notes to get the most out of this course.

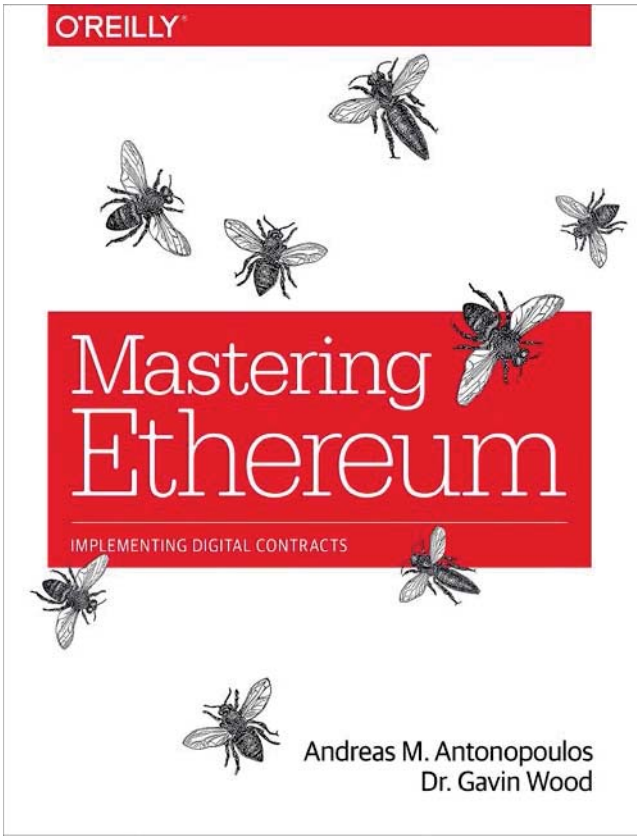
6. Outline of Topics in the Course

Lecture #	Date	Time	Topics	Details of topics to be covered in the course, by unit or by week
1	September 6th ,2022	5:10PM – 8:00PM	Blockchain – Introduction	
2	September 13th ,2022	5:10PM – 8:00PM	Blockchain – Technical Deep-Dive	
3	September 20th ,2022	5:10PM – 8:00PM	Blockchain – Development (Python & Flask)	
4	September 27th, 2022	5:10PM – 8:00PM	Cryptocurrency – Bitcoin 1	
5	October 4th, 2022	5:10PM – 8:00PM	Cryptocurrency – Bitcoin 2	
	October 10, 2022		Thanksgiving Day, no scheduled academic activities.	
STUDY BREAK	October 11 to 16, 2022		Study Break, no scheduled academic activities	

6	October 18th, 2022	5:10PM – 8:00PM	Cryptocurrency – Development (Python & Flask)	
7	October 25th, 2022	5:10PM – 8:00PM	Ethereum & Smart Contracts	
8	November 1st, 2022	5:10PM – 8:00PM	Alternative Cryptocurrencies	
9	November 8th, 2022	5:10PM – 8:00PM	Building Smart Contracts with Solidity – Part 1	
10	November 15th, 2022	5:10PM – 8:00PM	Building Smart Contracts with Solidity – Part 2	
11	November 22nd, 2022	5:10PM – 8:00PM	Building Smart Contracts with Solidity Part-3 / Final Project Presentations	
12	November 29th, 2022	5:10PM – 8:00PM	Final Project Presentations	
	December 6, 2022		Study break, no scheduled academic activities.	

7. Required Texts/Readings

Below is the recommended book for this course:



Publisher: O'Reilly Media; 1st edition (Jan. 8 2019)
Language: English
Paperback: 424 pages
ISBN-10: 1491971940
ISBN-13: 978-1491971949

Additional readings may be assigned or recommended during the course.

8. Evaluation Method

Students will be graded according to the following distribution:

Assignment 1	15%	Details TBA on Canvas
Development Assignment 2	15%	Details TBA on Canvas
Research Assignment 3	15%	Details TBA on Canvas
Cryptocurrency Video Assignment	25%	Details TBA on Canvas
Final Project Code	20%	Details TBA on Canvas
Final Project Presentation	10%	Details TBA on Canvas

Note: You must meet the following criteria in order to receive credit for this course:

1. Pass at least one development assignment
2. Pass one of: cryptocurrency video assignment OR final project code

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found at:
https://calendar.ontariotechu.ca/content.php?catoid=55&navoid=2422

9. Assignments and Tests

Important Due Dates

Assignment 1	October 7th 2022
Development Assignment 2	October 29th 2022
Research Assignment 3	November 15th 2022
Cryptocurrency Video Assignment	November 1st 2022
Final Project Code	November 21st 2022
Final Project Presentation	22nd & 29th November 2022

Note: All students must demonstrate contribution to their group's video assignment and final project in order to pass this course (unless a deferral has been granted by the faculty or instructor).

All development assignment details will be released in-class prior to the due date. The cryptocurrency video assignment and final project details will be released on Canvas during the third week of September.

Missed Course Work

Coursework missed for medical or serious personal reasons must be documented and reported to the instructor within three (3) working days of the missed work using an Academic Consideration form. Coursework includes, assignments and Project. If missed coursework totals more than 25% of the final grade, this must be documented through the FBIT Academic Advising office, instructor will then contact you for make-up course work. If you miss coursework and do not notify the instructor within the three (3) working day deadline, you will receive a score of zero on the missed component.

10. Technology Requirements and Learning Management System Information

Ontario Tech uses *Canvas*™ as its learning management system (LMS). Access to the LMS is limited to students formally registered in courses. That access is for the duration of the semester **and for an additional 120 days once the semester is over**. Students are strongly encouraged to download any/all relevant course material during that access period. Any requests for access post this period must be made in writing to the instructor/faculty member responsible for the course.

To support online learning, the university recommends certain technology requirements for laptops, software and internet connectivity which are available at: https://itsc.ontariotechu.ca/remote-learning.php.

Students experiencing technical difficulties such that they are unable to meet the technology requirements may contact the IT Service Help Desk at: servicedesk@dc-uoit.ca
Students experiencing financial difficulties such that they are unable to meet the technology requirements may contact Student Awards and Financial Aid Office at: connect@ontariotechu.ca

By remaining enrolled in this course, you acknowledge that you have read, understand and agree to observe the Recommended Technology Requirements for accessing university online learning resources, including those minimum requirements that are specific to your faculty and program.

11. Sensitive/Offensive Subject Matter

The classroom (both physical and virtual) is intended to provide a safe, open space for the critical and civil exchange of ideas and opinions. Some articles, media and other course materials may contain sensitive content that is offensive and/or disturbing. For example, some articles or videos may contain e.g. graphical depictions of violence, profanity, human anatomy, sexual acts, matters pertaining to race, gender, or sexuality. The Course Instructor will try to identify such material and communicate warnings to students in advance of the distribution and use of such materials, affording students the choice to either emotionally prepare for, or not to view or interact with, the content.

12. Student Support

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@ontariotechu.ca for support. Furthermore, please notify your professor if you are comfortable in doing so. This will enable them to provide any resources and help that they can.

13. Sexual Violence Support and Education

Ontario Tech is committed to the prevention of sexual violence in all its forms. For any student who has experienced Sexual Violence, Ontario Tech can help. We will make accommodations to cater to the diverse backgrounds, cultures, and identities of students when dealing with individual cases.

If you think you have been subjected to or witnessed sexual violence:

- Reach out to a Support Worker, a specially trained individual authorized to receive confidential disclosures about incidents of sexual violence. Support Workers can offer help and resolution options which can include safety plans, accommodations, mental health support, and more. To make an appointment with a Support Worker, call 905.721.3392 or email studentlife@ontariotechu.ca
- Learn more about your options at: https://studentlife.ontariotechu.ca/sexualviolence/

14. Students with Disabilities

Accommodating students with disabilities at Ontario Tech is a responsibility shared among various partners: the students themselves, SAS staff and faculty members. To ensure that disability-related concerns are properly addressed during this course, students with documented disabilities and who may require assistance to participate in this class are encouraged to speak with me as soon as possible. **Students who suspect they have a disability that may affect their participation in this course are advised to go to Student Accessibility Services (SAS) as soon as possible.** Maintaining communication and working collaboratively with SAS and faculty members will ensure you have the greatest chance of academic success.

When on campus access is allowed, students taking courses on north Oshawa campus can visit Student Accessibility Services in Shawenjigewining Hall, third floor, room 320. Students taking courses on the **downtown Oshawa campus** can visit Student Accessibility Services in the 61 Charles St. Building, 2nd Floor, Room DTA 225 in the Student Life Suite.

Disability-related and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Monday to Friday, closed Wednesday's 8:30am – 10:00am. For more

information on services provided, you can visit the SAS website at https://studentlife.ontariotechu.ca/services/accessibility/index.php. Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@ontariotechu.ca.

When on campus access is allowed, students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here https://disabilityservices.ontariotechu.ca/uoitclockwork/custom/misc/home.aspx. Students must sign up for tests, midterms, or quizzes AT LEAST seven (7) days before the date of the test.

Students must register for final exams by the registration deadline, which is typically two (2) weeks prior to the start of the final examination period. SAS will notify students of the registration deadline date.

15. Professional Suitability

Ontario Tech University is a community that values and promotes respect, integrity, diversity and accountability among all members of the university. These values can only be achieved in an environment that supports and protects the safety and security of its members. The Ontario Tech University Policy on Student Conduct defines and guides standards of student behaviour at the university to uphold these values and ensure that behaviour contrary to these standards are dealt with in a manner that is fair, open and effective.

The Faculty of Business & IT has the following expectations related to professionalism for all its community members, including without limitation, students, Staff, and Faculty:

- **Respect, civility, and courtesy:** Community members are expected to treat each other with respect, civility, and courtesy both in and outside of the classroom. Rudeness, profanity, insults, harassment, and class disruptions are unacceptable.
- **Critique ideas, not the people who raise the ideas:** Discussions, debates, and the exchange of ideas are normal parts of life in an academic community. Community members are expected to engage in discussions, debates, and the exchange of ideas in respectful ways, even while vigorously advocating for one's perspective.
- **Talk *to* those with whom you have a complaint, not *about* them.** When community members have disputes, complaints, and/or concerns about another community member, they are expected to do their best to address the matter directly and informally with the other member, provided that it is safe to do so. (See Appendix A for more information about how students can raise concerns about academic matters.)
- **Special obligations:** Community members in positions of authority have special obligations to demonstrate respect, civility, and professionalism and to encourage the development of these values within the FBIT community.

The *Professional Suitability* policy can be found at https://usgc.ontariotechu.ca/policy/policy-library/policies/academic/academic-conduct-and-professional-suitability-policy.php and the related procedures are hosted at

https://usgc.ontariotechu.ca/policy/policy-library/policies/academic-misconduct-and-professional-unsuitability.php

16. Academic Integrity

Students and faculty at Ontario Tech University share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness and mutual respect for the aim and principles of the pursuit of education. Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action.

Students are expected to be familiar with and abide by Ontario Tech University's regulations on Academic Conduct which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, among other academic offences. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic misconduct, which can range from a resubmission of work to a failing grade to permanent expulsion from the university. A lack of familiarity with these regulations on academic conduct does not constitute a defense against its application. This information can be found at https://usgc.ontariotechu.ca/policy/policy-library/policies/academic/academic-integrity-policy.php

Extra support services are available to all Ontario Tech University students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found at https://studentlife.ontariotechu.ca/services/academic-support/index.php

17. Turnitin (if applicable)

Ontario Tech University and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review by Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. The instructor may require students to submit their assignments electronically to Turnitin.com or the instructor may submit questionable text on behalf of a student. The terms that apply to Ontario Tech University's use of the Turnitin.com service are described on the Turnitin.com website.

Students who do not wish to have their work submitted to Turnitin.com must provide with their assignment at the time of submission to the instructor a signed Turnitin.com Assignment Cover sheet: https://tlc.ontariotechu.ca/educational-technology/assignment-cover-sheet_updatedmay2021-1.pdf

18. Online Test and Exam Proctoring (Virtual Proctoring)

Ontario Tech University will conduct virtual monitoring of examinations in accordance with Ontario privacy legislation and all approved policy instruments.

19. Final Examinations (if applicable)

Final examinations are held during the final examination period at the end of the semester and **when on campus access is allowed,** may take place in a different room and on a different day from the regularly scheduled class. Check the published Examination Schedule for a complete list of days and times.

Students are required to show their Student ID card (campus ID) when **in-person examinations are allowed.** Students are advised to obtain their Student ID Card well in advance of the examination period as they will not be able to write their examinations without it. More information on ID cards can be found at https://registrar.ontariotechu.ca/campus-id/index.php.

Students who are unable to write a final examination when scheduled due to religious publications may make arrangements to write a deferred examination. These students are required to submit a Request for Accommodation for Religious Obligations to the Faculty concerned as soon as possible and no later than three weeks prior to the first day of the final examination period.

Further information on final examinations can be found at https://usgc.ontariotechu.ca/policy/policy-library/policies/academic/procedures-for-final-examination-administration.php

20. Freedom of Information and Protection of Privacy Act

The following is an important notice regarding the process for submitting course assignments, quizzes, and other evaluative material in your courses in the Faculty of Business and IT.

Ontario Tech University is governed by the Freedom of Information and Protection of Privacy Act ("FIPPA"). In addition to providing a mechanism for requesting records held by the university, this legislation also requires that the University not disclose the personal information of its students without their consent.

FIPPA's definition of "personal information" includes, among other things, documents that contain both your name and your Banner (student) ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of Business and IT encourages you to use only your Banner ID on assignments or test papers being submitted for grading. This policy is intended to prevent the inadvertent disclosure of your information where graded papers are returned to groups of students at the same time. If you still wish to write both your name and your Banner ID on your tests and assignments, please be advised that Ontario Tech University will interpret this as an implied consent to the disclosure of your personal information in the normal course of returning graded materials to students.

If you have any questions or concerns relating to the new policy or the issue of implied consent addressed above, please contact accessandprivacy@ontariotechu.ca

Notice of Collection and Use of Personal Information

Throughout this course, personal information may be collected through the use of certain technologies under the authority of the *University of Ontario Institute of Technology Act, SO*

2002, c. 8, Sch. O. and will be collected, protected, used, disclosed and retained in compliance with Ontario's *Freedom of Information and Protection of Privacy Act R.S.O. 1990, c. F.31.*

This course will use the following technologies that may collect, use, disclose and retain personal information (including images) for the purposes described below:

- Peer-shared applications, services or technologies that may be reviewed, assessed, or used as part of coursework.
- Other applications, services, or technologies that support or enhance online learning that include, but are not limited to, the following: Turnitin, cryptocurrency wallets etc

For more information relating to these technologies, we encourage you to visit: https://tlc.ontariotechu.ca/learning-technology/index.php Questions regarding personal information may be directed to: Ontario Tech University Access and Privacy Office, 2000 Simcoe Street North, Oshawa, ON L1G 0C5, email: accessandprivacy@ontariotechu.ca.

By remaining enrolled in this course, you acknowledge that you have read, understand, and agree to the terms and conditions under which the technology provider(s) may collect, use, disclose and retain your personal information. You agree to the university using the technologies and using your personal information for the purposes described in this course outline.

21. Human Rights and Respect

Ontario Tech University is committed to providing a campus environment in which all University Members are treated with dignity and to fostering a climate of understanding and mutual respect. The University will not tolerate, ignore or condone Discrimination or Harassment by or against anyone. Examples of Harassing behavior include, but are not limited to; bullying, taunting or mocking someone's race or creed, ridiculing an individual's disability, or targeting individuals with unwanted sexual or negative stereotypical comments about one's sex, gender, sexual orientation, gender identity and/or gender expression. Pursuant to Ontario Tech's Respectful Campus Policy, students are reminded of their role in ensuring a campus environment that is equitable and inclusive. Requirements to refrain from harassment and discrimination apply broadly to the classroom, including in lectures, labs and practicums, as well as through the use of sanctioned and unsanctioned technological tools that facilitate remote learning, e.g. class and other chat functions, video conferencing, electronic mail and texts, and social media content amongst or about University students, faculty and staff.

22. Freedom of Expression

Pursuant to Ontario Tech's Freedom of Expression Policy, all students are encouraged to express ideas and perspectives freely and respectfully in university space and in the online university environment, subject to certain limitations. Students are reminded that the limits on Freedom of Expression include speech or behaviour that: is illegal or interferes with the university's legal obligations; defames an individual or group; constitutes a threat, harassment or discrimination; is a breach of fiduciary, contractual, privacy or confidentiality obligations or commitments; and unduly disrupts and interferes with the functioning of the university. In the context of working online, different forms of communication are used.

Where permitted, students using “chat” functions or other online forms of communication are encouraged to ensure that their communication complies with the Freedom of Expression Policy.

23. Copyright Notice

All teaching materials provided by the instructor throughout the course, including, but not limited to, in whole or in part, recorded lectures, slides, videos, diagrams, case studies, assignments, quizzes, and examinations are subject to the Copyright Act, R.S.C., 1985, c. C-42. Teaching materials are owned by the faculty member, instructor or other third party who creates such works. The copyright owner(s) reserves all intellectual property rights in and to the teaching materials, including the sole right to copy, reproduce, distribute, and modify the teaching materials. Consistent with the university's Intellectual Property Policy, teaching materials are intended only for the educational use of Ontario Tech University students registered in the course that is the subject of this course outline. Any distribution or publishing of this material (e.g. uploading material to a third-party website) is strictly prohibited under the law unless the student has obtained the copyright owner's prior written consent. Any violation of copyright law or the Intellectual Property Policy, if proven, may be subject to sanction as academic misconduct, and/or under the Student Conduct Policy.

24. Student Course Feedback Surveys

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of Ontario Tech University’s programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course evaluations will be sent via e-mail, and posted on Canvas, Weekly News, and signage around the campus.

University Response to COVID-19

The government response to the COVID-19 pandemic is continually evolving. As new information becomes available from federal and provincial public health authorities, the Province of Ontario and the Regional Municipality of Durham, Ontario Tech University will remain nimble and prepared to respond to government orders, directives, guidelines and changes in legislation to ensure the health and safety of all members of its campus community. In accordance with public health recommendations, the university may need to adjust the delivery of course instruction and the availability and delivery mode of campus services and co-curricular opportunities. Ontario Tech University appreciates the understanding and flexibility of our students, faculty and staff as we continue to navigate the pandemic and work together to demonstrate our strong commitment to academic, research and service excellence during these challenging and unprecedented times.

The Accessibility for Ontarians with Disabilities Act (AODA) standards have been considered in the development of this model course template and it adheres to the principles outlined in the University’s Accessibility Policy.

Appendix A – Dealing with Course Concerns

Dealing with Course Concerns: Navigating University Processes

Start with your professor

Suppose you are frustrated with some element of the course organization. Or maybe you disagree with how an assignment was graded. Or perhaps you are struggling to understand a concept. **Your first step is always to talk to your professor.** Set up an appointment. TALK with your professor to ensure clarity in communication.

Ongoing concerns or struggling with your studies

Our Academic Advisors are amazing. They can offer support and point you to resources to assist you with your studies and with other challenges, including anxiety, stress, and concerns about your courses.

Unresolved concerns about grades

If your conversation with your professor does not resolve concerns or questions you have about a grade on a test or assignment, **you can appeal the grade**. At the end of the term, file a Request for a Grade Reappraisal. Your request will be assessed by a neutral, independent faculty member.

Course-related concerns and feedback

The end-of-term course evaluations give you an opportunity to share your feedback about a course. **The course evaluations are taken seriously by the Faculty**, and you should use them to share what worked in the course and what didn't.

More questions about these processes?

Reach out to your advisor! FBITAdvising@ontariotechu.ca

Faculty of Business and Information Technology

MITS 5620G: Special Topics in IT Management – AI & Security

Course outline for **SPRING/SUMMER 2021**

1. Course Details & Important Dates*

Term	Course Type	Day	Time	Location	CRN #
Spring/Summer 2021	Lecture - Online	Tuesdays	6:10 PM – 9:0-0 PM	SYNC - Online	10904

Classes Start	Classes End	Last day to drop course without academic consequence	Final Exam Period
Spring/Summer term: May 3, 2021	August 3, 2021	May 31, 2021	August 5 – 8, 2021

* For other important dates go to: https://ontariotechu.ca/current-students/academics/important-dates-and-deadlines.php

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Ruba Al Omari	NA	NA	Ruba.alomari@durhamcollege.ca
Office Hours:			

Laboratory/Teaching Assistant Name	Office	Phone	Email
Office Hours:			

3. Course Description

This course introduces the use of artificial intelligence in identifying and predicting cybersecurity threats. Students will learn: the fundamentals of using artificial intelligence in network anomaly detection, malware threat detection, user behavioral analytics for fraud prevention, and detecting email cybersecurity threats; generative adversarial networks and their use in attack and defense scenarios, and the challenges and promises of artificial intelligence in Cybersecurity.

4. Learning Outcomes

On the successful completion of the course, students will be able to:

1. Demonstrate and verbalize a deep understanding of the use of artificial intelligence in predicting security threats
2. Learn how to predict network intrusions and detect anomalies with machine learning algorithms
3. Learn how to detect email threats such as phishing using machine learning algorithms
4. Learn how to detect zero-day and polymorphic malware samples
5. Evaluate the effectiveness of various alternative solutions, using appropriate analysis metrics

5. Course Design

The course is delivered through online class sessions and students must have stable internet connection for the online lectures. Note that this will require access to a specific set of technology tools; access to a laptop/tablet/PC with a built-in or external microphone and camera or web cam.

This course focuses on the use of artificial intelligence (AI) in cybersecurity. It explores the use of machine learning algorithms in detecting threats, network anomaly, spam, malware, and user behavioral analytics for fraud prevention.
The primary teaching method will be class lectures and out of class assignments. The lectures will discuss the course topics listed below, while out of class assignments acquaint students with practical skills and techniques relevant to the disciplines which are discussed in the lectures.

All lecture notes, including student presentations, will be recorded and uploaded to Canvas.

Class attendance is highly recommended, and students must complete all in-class coding exercises in order to understand the concepts and ideas introduced in the class.

6. Outline of Topics in the Course

Lecture #	Date	Time	Topics	Details of topics to be covered in the course, by unit or by week
1	May 4	6:10 pm – 9:00 pm	Introduction to the use of AI and Machine Learning in Cybersecurity	Course Plan
2	May 11	6:10 pm – 9:00 pm	Ham or Spam? Detecting Email Cybersecurity Threats with AI	Assignment#1
3	May 18	6:10 pm – 9:00 pm	Anomaly Detection and Network Traffic Analysis	
4	May 25	6:10 pm – 9:00 pm	Malware Analysis and Threat Detection	Assignment#2
5	June 1	6:10 pm – 9:00 pm	Individual Paper Presentations - I	
6	June 8	6:10 pm – 9:00 pm	Individual Paper Presentations - II	

STUDY BREAK	June 15 – 19, 2021		Study Break, no scheduled academic activities	
7	June 22	6:10 pm – 9:00 pm	Securing User Authentication	Assignment#3
8	June 29	6:10 pm – 9:00 pm	Fraud Prevention with AI Solutions	
9	July 6	6:10 pm – 9:00 pm	Protecting the Consumer Web	
10	July 13	6:10 pm – 9:00 pm	Adversarial Machine Learning	
11	July 20	6:10 pm – 9:00 pm	Final Project Presentations + Group Project Discussion	
12	July 27	6:10 pm – 9:00 pm	Final Project Presentations + Group Project Discussion	
	August 4, 2021		Study break, no scheduled academic activities.	

7. Required Texts/Readings

There is no assigned textbook. All assigned readings and cases will be introduced in the class. A list of recommended readings and references will be provided for each lecture.

Additional readings may be assigned or recommended during the course.

8. Evaluation Method

This course takes a project-based approach to provide experiential learning through its development. Project information will be made available on Canvas after the course starts.

Students will be and evaluated as follows:

Item	Weight (%)
Assignments (3 x 15% each)	45
Individual Paper Presentation	15
Group Project Plan	5
Group Project Report	25
Group Project Presentation	10

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found at:
http://calendar.uoit.ca/content.php?catoid=22&navoid=879#Grading

9. Assignments and Tests

Item	Release Week/Time*	Due Week/Time*	Weight (%)
Assignments (3 x 15% each)	Tuesdays during class time on Weeks 2,4,and 7	Sundays @ 11:59 PM (second Sunday after release)	45
Group Project Plan	Week 1 (In-Class)	Week 4	5
Individual Paper Presentation + Group Project Discussion	Week 1 (In-Class)	Weeks 5 and 6 (In-Class)	15
Group Project Report	Week 1 (In-Class)	Week 10	25
Group Project Presentation	Week 1 (In-Class)	Weeks 11 and 12 (In-Class)	10

*Check Canvas for the exact date and time.

Any issues related to the assignments should be brought to the professor's attention within 5 days of the mark release. No review of assignment's marking will be done after that.

All other term issues must be brought to the professor's attention and be resolved by the last lecture (July 28th). Instructions for the assignments and final project will be available on Canvas. We will be using electronic submission for the labs and final project via Canvas. No other means of submission (e.g., hard copy, email, fax, etc.) will be accepted. Project plan and final project presentations will be presented by students during our class time.

Missed Course Work
Coursework missed for medical or serious personal reasons must be documented and reported to the instructor within three (3) working days of the missed work using an Academic Consideration form. Coursework includes, but is not limited to, quizzes; written assignments; participation; case studies; etc… If missed coursework totals more than 25% of the final grade, this must be documented through the FBIT Academic Advising office. The weight of the missed course component will be reweighted to the next equivalent component (e.g., Assignment#1 mark is carried over to Assignment#2 mark). If you miss coursework and do not notify the instructor within the three (3) working day deadline, you will receive a score of zero on the missed component.

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@ontariotechu.ca for support. Furthermore, please notify your professor if you are comfortable in doing so. This will enable them to provide any resources and help that they can.

10. Technology Requirements

To support online learning, the university recommends certain technology requirements for laptops, software and internet connectivity which are available at: https://itsc.ontariotechu.ca/remote-learning.php.

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14. Students with Disabilities

Accommodating students with disabilities at Ontario Tech is a responsibility shared among various partners: the students themselves, SAS staff and faculty members. To ensure that disability-related concerns are properly addressed during this course, students with

documented disabilities and who may require assistance to participate in this class are encouraged to speak with me as soon as possible. **Students who suspect they have a disability that may affect their participation in this course are advised to go to Student Accessibility Services (SAS) as soon as possible.** Maintaining communication and working collaboratively with SAS and faculty members will ensure you have the greatest chance of academic success.

When on campus access is allowed, students taking courses on north Oshawa campus can visit Student Accessibility Services in the Student Life Building, U5, East HUB (located in the Founders North parking lot). Students taking courses on the **downtown Oshawa campus** can visit Student Accessibility Services in the 61 Charles St. Building, 2nd Floor, Room DTA 225 in the Student Life Suite.

Disability-related and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Monday to Friday, closed Wednesday's 8:30am – 10:00am. For more information on services provided, you can visit the SAS website at https://studentlife.ontariotechu.ca/services/accessibility/index.php. Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@ontariotechu.ca.

When on campus access is allowed, students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here https://disabilityservices.ontariotechu.ca/uoitclockwork/custom/misc/home.aspx. Students must sign up for tests, midterms, or quizzes AT LEAST seven (7) days before the date of the test.

Students must register for final exams by the registration deadline, which is typically two (2) weeks prior to the start of the final examination period. SAS will notify students of the registration deadline date.

15. Professional Conduct (if applicable)

Ontario Tech University is a community that values and promotes respect, integrity, diversity and accountability among all members of the university. These values can only be achieved in an environment that supports and protects the safety and security of its members. The Ontario Tech University Policy on Student Conduct defines and guides standards of student behaviour at the university to uphold these values and ensure that behaviour contrary to these standards are dealt with in a manner that is fair, open and effective.

Additional information on professional suitability can be found at http://calendar.uoit.ca/content.php?catoid=22&navoid=879#Academic_conduct

16. Academic Integrity

Students and faculty at Ontario Tech University share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness and mutual respect for the aim and principles of the pursuit of education. Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action.

Students are expected to be familiar with and abide by Ontario Tech University's regulations on Academic Conduct which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, among other academic offences. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic misconduct, which can range from a resubmission of work to a failing grade to permanent expulsion from the university. A lack of familiarity with these regulations on academic conduct does not constitute a defense against its application. This information can be found at https://usgc.ontariotechu.ca/policy/policy-library/policies/academic/academic-conduct-and-professional-suitability-policy-undergraduate.php

Extra support services are available to all Ontario Tech University students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found at https://studentlife.ontariotechu.ca/services/academic-support/index.php

17. Turnitin (if applicable)

Ontario Tech University and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review by Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. The instructor may require students to submit their assignments electronically to Turnitin.com or the instructor may submit questionable text on behalf of a student. The terms that apply to Ontario Tech University's use of the Turnitin.com service are described on the Turnitin.com website.

Students who do not wish to have their work submitted to Turnitin.com must provide with their assignment at the time of submission to the instructor a signed Turnitin.com Assignment Cover sheet:
https://shared.uoit.ca/shared/department/academic-integrity/Forms/assignment-cover-sheet.pdf

18. Final Examinations (if applicable)

Final examinations are held during the final examination period at the end of the semester and **when on campus access is allowed,** may take place in a different room and on a

different day from the regularly scheduled class. Check the published Examination Schedule for a complete list of days and times.

Students are required to show their Student ID card (campus ID) when **in-person examinations are allowed.** Students are advised to obtain their Student ID Card well in advance of the examination period as they will not be able to write their examinations without it. More information on ID cards can be found at https://registrar.ontariotechu.ca/campus-id/index.php.

Students who are unable to write a final examination when scheduled due to religious publications may make arrangements to write a deferred examination. These students are required to submit a Request for Accommodation for Religious Obligations to the Faculty concerned as soon as possible and no later than three weeks prior to the first day of the final examination period.

Further information on final examinations can be found at https://usgc.ontariotechu.ca/policy/policy-library/policies/academic/procedures-for-final-examination-administration.php

19. Freedom of Information and Protection of Privacy Act

The following is an important notice regarding the process for submitting course assignments, quizzes, and other evaluative material in your courses in the Faculty of Business and IT.

Ontario Tech University is governed by the Freedom of Information and Protection of Privacy Act ("FIPPA"). In addition to providing a mechanism for requesting records held by the university, this legislation also requires that the University not disclose the personal information of its students without their consent.

FIPPA's definition of "personal information" includes, among other things, documents that contain both your name and your Banner (student) ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of [Insert Faculty name] encourages you to use only your Banner ID on assignments or test papers being submitted for grading. This policy is intended to prevent the inadvertent disclosure of your information where graded papers are returned to groups of students at the same time. If you still wish to write both your name and your Banner ID on your tests and assignments, please be advised that Ontario Tech University will interpret this as an implied consent to the disclosure of your personal information in the normal course of returning graded materials to students.

If you have any questions or concerns relating to the new policy or the issue of implied consent addressed above, please contact accessandprivacy@ontariotechu.ca

Notice of Collection and Use of Personal Information

Throughout this course, personal information may be collected through the use of certain technologies under the authority of the *University of Ontario Institute of Technology Act, SO*

2002, c. 8, Sch. O. and will be collected, protected, used, disclosed and retained in compliance with Ontario's *Freedom of Information and Protection of Privacy Act R.S.O. 1990, c. F.31.*

This course may use the following technologies that may collect, use, disclose and retain personal information (including images) for the purposes described below; according to the instructor:

- Respondus Monitor and Proctortrack to maintain academic integrity for examinations;
- Google Meet and Kaltura Virtual Classroom to facilitate remote instruction and interactive learning;
- Peer-shared applications, services or technologies that may be reviewed, assessed, or used as part of coursework.
- Other applications, services, or technologies that support or enhance online learning that include, but are not limited to, others indicated by the instructor.

For more information relating to these technologies, we encourage you to visit: https://tlc.ontariotechu.ca/learning-technology/index.php Questions regarding personal information may be directed to: Ontario Tech University Access and Privacy Office, 2000 Simcoe Street North, Oshawa, ON L1G 0C5, email: accessandprivacy@ontariotechu.ca.

By remaining enrolled in this course, you acknowledge that you have read, understand, and agree to the terms and conditions under which the technology provider(s) may collect, use, disclose and retain your personal information. You agree to the university using the technologies and using your personal information for the purposes described in this course outline.

20. Freedom of Expression

Pursuant to Ontario Tech's Freedom of Expression Policy all students are encouraged to express ideas and perspectives freely and respectfully in university space and in the online university environment, subject to certain limitations. Students are reminded that the limits on Freedom of Expression include speech or behaviour that: is illegal or interferes with the university's legal obligations; defames an individual or group; constitutes a threat, harassment or discrimination; is a breach of fiduciary, contractual, privacy or confidentiality obligations or commitments; and unduly disrupts and interferes with the functioning of the university. In the context of working online, different forms of communication are used. Where permitted, students using "chat" functions or other online forms of communication are encouraged to ensure that their communication complies with the Freedom of Expression Policy.

21. Student Course Feedback Surveys

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of Ontario Tech University's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course

evaluations will be sent via e-mail, and posted on Canvas, Weekly News, and signage around the campus.

University Response to COVID-19

The government response to the COVID-19 pandemic is continually evolving. As new information becomes available from federal and provincial public health authorities, the Province of Ontario and the Regional Municipality of Durham, Ontario Tech University will remain nimble and prepared to respond to government orders, directives, guidelines and changes in legislation to ensure the health and safety of all members of its campus community. In accordance with public health recommendations, the university may need to adjust the delivery of course instruction and the availability and delivery mode of campus services and co-curricular opportunities. Ontario Tech University appreciates the understanding and flexibility of our students, faculty and staff as we continue to navigate the pandemic and work together to demonstrate our strong commitment to academic, research and service excellence during these challenging and unprecedented times.

The Accessibility for Ontarians with Disabilities Act (AODA) standards have been considered in the development of this model course template and it adheres to the principles outlined in the University's Accessibility Policy.

UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY

Faculty of Science

CSCI 5010G – Survey of Computer Science Research Topics & Methods

Course outline for Fall 2016

1. Course Details & Important Dates*

Course Type	Day	Time	Location
Lecture	Tues.	2:10pm – 5:00pm	ERC1094

* for other important dates go to: www.uoit.ca >Current Students >Important Dates and Deadlines

2. Instructor Contact Information

Instructor Name	Office	Email
Dr. Jeremy S. Bradbury	UA4016	jeremy.bradbury@uoit.ca
Office Hours: Fri. 11:00am-12:00pm, or by appointment.		

3. Course Description

CSCI 5010G – Survey of Computer Science Research Topics and Methods. This course is a survey of some of the main research topics in computer science and the corresponding computer science research methods. Topics covered vary from year to year and may include digital media, computer graphics, human-computer interaction, computer networks, security, health informatics, databases and software design. Research methods covered include library methods, topic analysis, data management, technical writing, presentations, evaluation methods and peer review. This course includes guest lectures by experts in the research topics covered. Credit hours: 3

5. Course Design

Survey of Computer Science is a required course for all Computer Science MSc and PhD students. The course is designed as a comprehensive survey of Computer Science research areas and research methods that provides a strong research foundation for any student pursing graduate studies in Computer Science. The research areas/topics surveyed will be presented by weekly guest lectures from graduate faculty in the Computer Science program. In addition to surveying Computer Science topics the course will also survey Computer Science research methods. Each week half of the lecture will be devoted to introducing a new research method. Students will be evaluated by applying the covered research methods to their own area of interest within Computer Science.

6. Outline of Topics in the Course

- State-of-the-art research examples from the Computer Science graduate program fields:
  - Digital Media
  - Information Systems
  - Networks and IT Security
  - Software Design
- Research Methods to address the following questions:
  - How do I learn about my chosen field of research?
    - Finding research papers and creating an annotated bibliography
    - Conducting literature reviews, classifications and taxonomies
  - How do I select a research topic?
    - Conducting a topic analysis
    - Technical writing
  - How do I write a thesis proposal?
    - The structure of a thesis proposal
    - Defining a research hypothesis
    - Proposing a methodology and understanding the possible outcomes
  - Is there a right way to manage my research?
    - Research logs
    - Research meetings – agendas, notes
    - Backing up data! – The benefit of version control systems
  - How do I evaluate my research work?
    - Evaluation methods for computer science research tools and techniques
    - Evaluation methods for computer science research involving human subjects
    - The importance of reproducibility, threats to validity
    - Conducting ethical research
  - How do I write up and defend my thesis?
    - The structure of a thesis proposal
    - Advice on obtaining feedback from your supervisor and committee
  - How do I publish and disseminate my research?
    - Different kinds of research publication venues – workshops, conferences, journals, books
    - Publication quantity vs. quality – understanding publication metrics, citation counts, etc.
    - The peer review process and how to review a paper
    - Oral communication and research presentations

7. Required Texts/Readings

Textbooks.

Writing the Doctoral Dissertation: A Systematic Approach, 3/E
by Gordon B. Davis & Clyde A. Parker

Writing for Computer Science, 3/E
by Justin Zobel

Online Resources.

Online articles and websites will be used to supplement the textbook. Links to all online resources will be posted on the course website.

8. Evaluation Method

Annotated Bibliography	15%
Paper	25%
Peer Review	15%
Presentations	25%
Attendance & Participation	20%

All students are required to attend 80% of the lectures and 80% of the Computer Science seminars in order to pass the course.

9. Assignments and Tests

The schedule for course deliverables is as follows:

- Presentation 1 –Oct. 11, 2016
- Annotated Bibliography – mid Oct. 2016
- Paper (preliminary submission) – mid. Nov. 2016
- Peer Review – late Nov. 2016
- Paper (final submission) – early Dec. 2016
- Presentation 2 – Nov. 29, 2016

10. Students with Disabilities

Accommodating students with disabilities at UOIT is a responsibility shared among various partners: the students themselves, SAS staff and faculty members. To ensure that disability-related concerns are properly addressed during this course, students with documented disabilities and who may require assistance to participate in this class are encouraged to speak with me as soon as possible. **Students who suspect they have a disability that may affect their participation in this course are advised to go to Student Accessibility Services (SAS) as soon as possible.** Maintaining communication and working collaboratively with SAS and faculty members will ensure you have the greatest chance of academic success.

Students taking courses on the North Campus Location can visit Student Accessibility Services in the U5 Building located in the Student Life Suite
Students taking courses on the Downtown Oshawa Campus Location can visit Student Accessibility Services in the 61 Charles St. Building, 2nd Floor, Room DTA 225 in the Student Life Suite.

Disability-related support and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Mon-Fri. For more information on services provided, you can visit the SAS website at http://uoit.ca/studentaccessibility

Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@uoit.ca

Students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here www.uoit.ca/SASexams. Students must sign up for tests, midterms or quizzes AT LEAST seven (7) days before the date of the test.
Students must register for final exams by the registration deadline, which is typically 2 weeks prior to the start of the final examination period. SAS will notify students of the registration deadline date.

12. Academic Integrity

Students and faculty at UOIT share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness and mutual respect for the aim and principles of the pursuit of education. Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action.

Students are expected to be familiar with and abide by UOIT's regulations on Academic Conduct (Section 5.15 of the Academic Calendar) which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, among other academic offences. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic misconduct, which can range from a resubmission of work to a failing grade to permanent expulsion from the university. A lack of familiarity with UOIT's regulations on academic conduct does not constitute a defense against its application.

Further information about academic misconduct can be found in the Academic Integrity link on your laptop. Extra support services are available to all UOIT students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found in the Academic Calendar (Section 8).

15. Freedom of Information and Protection of Privacy Act

The following is an important notice regarding the process for submitting course assignments, quizzes and other evaluative material in your courses in the Faculty of Science.

As you may know, UOIT is governed by the *Freedom of Information and Protection of Privacy Act* ("FIPPA"). In addition to providing a mechanism for requesting records held by the university, this legislation also requires that UOIT not disclose the personal information of its students without their consent.

FIPPA's definition of "personal information" includes, among other things, documents that contain both your name and your Banner ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of Science encourages you to use only your Banner ID on assignments or test papers being submitted for grading. This policy is intended to prevent the inadvertent disclosure of your information where graded papers are returned to groups of students at the same time. If you still wish to write both your name and your Banner ID on your tests and assignments, please be advised that UOIT will interpret this as an implied consent to the disclosure of your personal information in the normal course of returning graded materials to students.

If you have any questions or concerns relating to the new policy or the issue of implied consent addressed above, please contact accessandprivacy@uoit.ca

16. Course Evaluations

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of UOIT's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course evaluations will be sent via e-mail, and posted on Blackboard, Weekly News and signage around the campus.

Ontario Tech University acknowledges the lands and people of the Mississaugas of Scugog Island First Nation. We are thankful to be welcomed on these lands in friendship. The lands we are situated on are covered under the Williams Treaties and the traditional territory of the Mississaugas, a branch of the greater Anishinaabeg Nation, including Algonquin, Ojibway, Odawa and Pottawatomi. These lands remain home to a number of Indigenous nations and people.

We acknowledge this land out of respect for the Indigenous nations who have cared for Turtle Island, also called North America, from before the arrival of settler peoples until this day. Most importantly, we remember the history of these lands has been tainted by poor treatment and a lack of friendship with the First Nations who call them home.

This history is something we are all affected by as we are all treaty people in Canada. We all have a shared history to reflect on, and each of us is affected by this history in different ways. Our past defines our present, but if we move forward as friends and allies, then it does not have to define our future.

FACULTY OF BUSINESS AND IT
Fundamentals of Cybersecurity
2024-25

1. Course Details & Important Dates*

Term	Course Type	Day	Time	Location	CRN#
2024-25	Online				

Classes Start	Classes End	**Last day to drop course without academic consequence**	Final Exam Period

* Visit Ontario Tech's Important Dates and Deadlines for other dates.

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Stephen Marsh			Canvas Email
Office Hours: by appointment			

Laboratory/Teaching Assistant Name	Office	Phone	Email
Office Hours: by appointment			

3. Course Description

This course introduces a concise review of the foundations of IT Security. It is designed as a collection of six modules using asynchronous online delivery method, covering the following topics:

Module 1: Fundamentals of Networking
Module 2: Foundations of Cryptography
Module 3: Authentication and Identity Management
Module 4: Network attacks and malicious codes
Module 5: Intrusion Detection and Protection
Module 6: IT Forensics

Each module includes approximately 8-10 hours of video lectures and reading material, and is expected to be completed over four weeks.

4. Learning Outcomes

On successful completion of the course, students will be able to:

- Describe the architecture of today's Internet; identify and differentiate TCP/IP layers and protocols; and analyze various communication technologies.
- Explain the basic concepts and theoretical underpinnings of symmetric cryptography, public-key cryptography and hash functions.
- Explain the basic concepts of authentication and access control, and differentiate various techniques.
- Describe different types of malicious software, and explain how OS and software vulnerabilities can be exploited by malware and network attacks.
- Understand Intrusion Detection Systems (IDSs), Anomaly Detection and Behavior Analysis, Security Information and Event Management Systems and Deception Technologies.
- Describe how to implement a computer forensics incident-response strategy, and how to conduct proper IT forensics and investigation.

5. Course Design

The course will be modular, with 6 modules over two semesters, each focusing on a different aspect of cybersecurity. Each module has its own assessment and a grade of 70% per module is required to pass the entire course. The course is delivered entirely online, with recorded lectures, extensive office hours available per week, an online synchronous (1.5 hour) exam per module, and readings in the form of academic papers and an Open Educational Resource.

Students requiring assistance are encouraged to speak to their instructor during class or during office hours. Should you wish to meet with the instructor outside of office hours, please email first to make an appointment. Students should get into the habit of making and keeping business appointments. Should you fail to attend or cancel the appointment at least 24 hours in advance, you will lose the right to book another appointment.

Email is commonly used by students to communicate with their instructor. However, it does limit the effectiveness of the communications and may not be the best way for instructors to

answer student questions, especially those requiring an explanation of concepts covered in this course or some personal concerns. Therefore, the instructor may request a telephone call or personal/online meeting. *Your instructor will inform you as to their expectations about emails.*

6. Outline of Topics in the Course

Tentative Course Schedule, Fall 2024 and Winter 2025			
Module/Week #	**Date**	**Topics**	**Material Covered**
1/1		Fundamentals of Networking	Data communication Fundamentals
1/2			Network models and architectures
1/3			Emerging trends in networking
1/4			
			Module assessment
2/1		Foundations of Cryptography	Random bit generation and stream ciphers
2/2			Advanced Encryption Standard
2/3			Secure Hash Algorithm (SHA-2)
2/4			Message Authentication Codes Public-Key Certificates
			Module assessment
3/1			User Authentication
3/2		Authentication and Identity Management	Access control
3/3			OS Security (Windows, Linux) Mobile Authentication and Zero Trust
3/4			Audits and logs
			Module assessment
Semester Break			
4/1			Denial of Service Attacks and Botnets
4/2			Malicious Software
4/3			
4/4			Disaster Recovery
			Module assessment
5/1		Intrusion Detection and Prevention	Intrusion Detection Systems
5/2			Firewalls and Network Security
5/3			
5/4			AI and IDS/IDP
			Module assessment
6/1		IT Forensics	Introduction to Digital Forensics Digital Investigation Fundamentals
6/2			Volume Analysis File System Analysis

6/3			Operating System Forensics
6/4			Mobile forensics
			Module assessment
			Final presentation (online, recorded)

Important Notes: *Adjustment of scheduled lectures might be made in accordance with any unforeseen circumstances during the semester.*

7. Required Readings

An Open Educational Resource is available for the course which contains the reading material for each module.

Additional readings may be assigned or recommended during the course.

8. Evaluation Method

Each module will have a final assessment in its fourth (4th) week, which usually takes the form of an exam. To pass the course, each assessment must be passed with at least 70% in the assessment. The final grade is an average of each of the modules amounting to 90% of the final grade of the course, with an additional 10% for an online recorded final presentation and engagement, due date end of final module.

A within-exam grade of 70% (10.5/15) or higher is necessary **in each module** in order to pass the entire course.

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found under Academic Regulations at: Ontario Tech's Academic regulations

9. Assignments and Tests

Each module has a final online assessment (usually in the form of an exam) of one hour which is worth 15% of the final grade for the course. In order to pass the course it is necessary to achieve a grade of 70% (or 10.5 out of 15) in each of these exams. The assessment will normally be held during an online synchronous session in the final week of each module.

Missed In-Term Course Work

A request for consideration for missed course work worth 20% or less of the final grade must be documented and reported to the instructor in writing within the deadlines specified in the Procedures for Consideration of Missed In-Term Course Work and Examinations. Course work includes, but is not limited to: quizzes, written assignments (problem set), participation, case studies, etc. If missed coursework totals more than 20% of the final grade, the request for consideration must be submitted to the Faculty of Business and IT Advising Office and to the course instructor in writing using the Academic Consideration Form, along with supporting documentation. The request must be submitted within the deadlines specified in the Procedures for Consideration of Missed In-Term Course Work

and Examinations. If approved, the extended deadline of the missed course component will be granted. If a student misses coursework and does not follow the procedure above, they will receive a score of zero on the missed component.

All forms can also be found through MyOntarioTech or on the Ontario Tech University website.

For information on how missed/late assignments and medical excuses are managed, please refer to the university's revised *Procedures for Consideration of Missed In-Term Course Work and Examinations*

10. Technology Requirements and Learning Management System Information

Ontario Tech uses *Canvas*™ as its learning management system (LMS). Access to the LMS is limited to students formally registered in courses. That access is for the duration of the semester **and for an additional 120 days once the semester is over**. Students are strongly encouraged to download any/all relevant course material during that access period. Any requests for access post this period must be made in writing to the instructor/faculty member responsible for the course.

To support online learning, the university recommends certain technology requirements for laptops, software and internet connectivity which are available at: Ontario Tech's Remote Learning Policies.

Students experiencing technical difficulties such that they are unable to meet the technology requirements may contact the IT Service Help Desk at: servicedesk@dc-uoit.ca
Students experiencing financial difficulties such that they are unable to meet the technology requirements may contact Student Awards and Financial Aid Office at: connect@ontariotehu.ca

By remaining enrolled in this course, you acknowledge that you have read, understand and agree to observe the Recommended Technology Requirements for accessing university online learning resources, including those minimum requirements that are specific to your faculty and program.

11. Sensitive/Offensive Subject Matter

The classroom (both physical and virtual) is intended to provide a safe, open space for the critical and civil exchange of ideas and opinions. Some articles, media and other course materials may contain sensitive content that is offensive and/or disturbing. For example, some articles or videos may contain graphical depictions of violence, profanity, human anatomy, sexual acts, matters pertaining to race, gender, or sexuality. The Course Instructor will try to identify such material and communicate warnings to students in advance of the distribution and use of such materials, affording students the choice to either emotionally prepare for, or not to view or interact with, the content.
Disclaimer: "The content you are about to view contains sensitive subject matter that may be considered offensive and/or disturbing to some viewers. By viewing and/or interacting with the content you acknowledge and agree that it is your decision to view and interact with the content and to take the risk that you will experience a negative emotional response or reaction to the nature of the content."

12. Student Support

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@ontariotechu.ca for support. Furthermore, please notify your professor if you are comfortable in doing so. This will enable them to provide any resources and help that they can.

13. Student Sexual Violence Support and Education

Ontario Tech is committed to the prevention of sexual violence in all its forms. For any student who has experienced Sexual Violence, Ontario Tech can help. We will make accommodations to cater to the diverse backgrounds, cultures, and identities of students when dealing with individual cases.

If you think you have been subjected to or witnessed sexual violence:

- Reach out to the gender-based case specialist in the Human Rights office, a specially trained individual authorized to receive confidential disclosures about incidents of sexual violence. The Human Rights Office will make support services, including counselling, access or referrals to medical services, safety planning and accommodations, available to Students affected by an Incident of Sexual Violence. Book a consultation with the Case Specialist for more information.

Learn more about your options at: Ontario Tech's Policy on Sexual Violence and Support Information.

14. Students with Disabilities

Ontario Tech University is committed to promoting an environment where everyone has an equal opportunity to contribute to their fullest potential. Students who require accommodation for a disability are advised to contact Student Accessibility Services (SAS) as soon as possible. Accommodation decisions will be made in accordance with the Ontario Human Rights Code. Accommodations will be consistent with and supportive of the essential requirements of courses and programs, and provided in a way that respects the dignity of students with disabilities and encourages integration and equality of opportunity. Reasonable academic accommodation may require instructors to exercise creativity and flexibility in responding to the needs of students with disabilities while maintaining integrity.

Disability-related and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Monday, Tuesday, Thursday, and Friday, Wednesday's 10:00 am to 4:30. Please note they are closed each day between noon and 1:00 pm. For more information on services provided, you can visit the SAS website at Ontario Tech's Student Accessibility Services (SAS). Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@ontariotechu.ca.

Students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here Registration Link to write examinations in SAS at Ontario Tech. Students must sign up for tests, midterms, or quizzes **AT LEAST seven (7) working days before the date of the test.**

Students must register for final exams no later **than 3 weeks prior to the start of the final examination period**. The final examination period is given at Ontario Tech University's Important dates and deadlines.

15. Professional Suitability (if applicable)

Ontario Tech University is a community that values and promotes respect, integrity, diversity and accountability among all members of the university. These values can only be achieved in an environment that supports and protects the safety and security of its members. The Ontario Tech University Policy on Student Conduct defines and guides standards of student behaviour at the university to uphold these values and ensure that behaviour contrary to these standards are dealt with in a manner that is fair, open and effective.

The Faculty of Business & IT has the following expectations related to professionalism for all its community members, including without limitation, students, Staff, and Faculty:

- **Respect, civility, and courtesy:** Community members are expected to treat each other with respect, civility, and courtesy both in and outside of the classroom. Rudeness, profanity, insults, harassment, and class disruptions are unacceptable.
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This course will use the following technologies that may collect, use, disclose and retain personal information (including images) for the purposes described below:

- Respondus Monitor and Proctortrack to maintain academic integrity for examinations;
- Google Meet and Kaltura Virtual Classroom to facilitate remote instruction and interactive learning;
- Peer-shared applications, services or technologies that may be reviewed, assessed, or used as part of coursework.
- Other applications, services, or technologies that support or enhance online learning that include, but are not limited to, the following: Internet and Webcam.

For more information relating to these technologies, we encourage you to visit: Educational Technologies used at Ontario Tech.

Questions regarding personal information may be directed to: Ontario Tech University Access and Privacy Office, 2000 Simcoe Street North, Oshawa, ON L1G 0C5, email: accessandprivacy@ontariotechu.ca.

By remaining enrolled in this course, you acknowledge that you have read, understand, and agree to the terms and conditions under which the technology provider(s) may collect, use, disclose and retain your personal information. You agree to the university using the technologies and using your personal information for the purposes described in this course outline.

21. Human Rights and Respect

Ontario Tech University is committed to providing a campus environment in which all University Members are treated with dignity and to fostering a climate of understanding and mutual respect. The University will not tolerate, ignore or condone Discrimination or Harassment by or against anyone. Examples of Harassing behavior include, but are not limited to; bullying, taunting or mocking someone's race or creed, ridiculing an individual's disability, or targeting individuals with unwanted sexual or negative stereotypical comments about one's sex, gender, sexual orientation, gender identity and/or gender expression. Pursuant to Ontario Tech's Respectful Campus Policy, students are reminded of their role in ensuring an equitable and inclusive learning environment. Requirements to refrain from harassment and discrimination apply broadly to on campus activities, e.g., on University property, in the classroom, including in lectures, labs and practicums, and also apply to off-campus activities, e.g. during any organized Ontario Tech class or extra-curricular activity including experiential learning opportunities such as co-op, practicum or during research endeavors, during official Ontario Tech events or using University equipment and technological tools that facilitate remote learning, e.g., class and other chat functions, video conferencing, and electronic mail.

22. Freedom of Expression

Pursuant to Ontario Tech's Freedom of Expression Policy, all students are encouraged to express ideas and perspectives freely and respectfully in university space and in the online university environment, subject to certain limitations. Students are reminded that the limits on Freedom of Expression include speech or behaviour that: is illegal or interferes with the university's legal obligations; defames an individual or group; constitutes a threat, harassment or discrimination; is a breach of fiduciary, contractual, privacy or confidentiality obligations or commitments; and unduly disrupts and interferes with the functioning of the university. In the context of working online, different forms of communication are used. Where permitted, students using "chat" functions or other online forms of communication are encouraged to ensure that their communication complies with the Freedom of Expression Policy.

23. Copyright Notice

All Teaching Materials, as they are defined under Ontario Tech's Intellectual Property policy ("IP Policy"), provided by the instructor throughout the course, including, but not limited to, in whole or in part, course notes, teaching notes, custom books, tutorials, evaluation tools, presentations and examinations are subject to the Copyright Act, R.S.C., 1985, c. C-42 and the IP Policy. Subject to the IP Policy, Teaching Materials are owned by the faculty member, instructor or other third party who creates such works, with a license to the University. The copyright owner(s) reserves all intellectual property rights in and to the foregoing materials. Consistent with the IP Policy, Teaching Materials are intended to be used by Ontario Tech University students registered in the course that is the subject of this course outline for educational purposes only. Any distribution or publishing of this material (e.g., uploading material to a third-party website) by a student is strictly prohibited under the law unless the student has obtained the copyright owner's prior written consent. Any violation of copyright law or the IP Policy, if proven, may be subject to sanction as academic misconduct, and/or under the Student Conduct Policy.

24. Student Course Feedback Surveys

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of Ontario Tech University's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course evaluations will be sent via e-mail, and posted on Canvas, Weekly News, and signage around the campus.

25. AODA

The Accessibility for Ontarians with Disabilities Act (AODA) standards have been considered in the development of this model course template and it adheres to the principles outlined in the University's Accessibility Policy.

Ontario Tech University acknowledges the lands and people of the Mississaugas of Scugog Island First Nation. We are thankful to be welcomed on these lands in friendship. The lands we are situated on are covered under the Williams Treaties and the traditional territory of the Mississaugas, a branch of the greater Anishinaabeg Nation, including Algonquin, Ojibway, Odawa and Pottawatomi. These lands remain home to a number of Indigenous nations and people.

We acknowledge this land out of respect for the Indigenous nations who have cared for Turtle Island, also called North America, from before the arrival of settler peoples until this day. Most importantly, we remember the history of these lands has been tainted by poor treatment and a lack of friendship with the First Nations who call them home.

This history is something we are all affected by as we are all treaty people in Canada. We all have a shared history to reflect on, and each of us is affected by this history in different ways. Our past defines our present, but if we move forward as friends and allies, then it does not have to define our future.

FACULTY OF BUSINESS AND IT

INFR 6020: Usable Security

Course outline for Fall 2024

1. Course Details & Important Dates*

Term	Course Type	Day	Time	Location	CRN#
FALL 2024	Lecture	TBA	TBA	TBA	TBA

Classes Start	Classes End	**Last day to drop course without academic consequence**	Final Exam Period
TBA, 2024	TBA, 2024	TBA	TBA

* Visit Ontario Tech's Important Dates and Deadlines for other dates.

Important Note – Final Exams

The final exam for this course will be run ON CAMPUS during the regular final exam period. If a student cannot attend due to COVID-19 related international travel restrictions you **must email your course instructor ASAP** (as soon as possible) regarding the possibility of alternate arrangements.

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Dr. Julie Thorpe	UB2016		Julie.thorpe@ontariotechu.ca
Office Hours: TBA			

Laboratory/Teaching Assistant Name	Office	Phone	Email
Office Hours:			

3. Course Description

The security offered by a system can be dramatically influenced by its user interface. This effect has been observed across many cybersecurity applications that aim to help users in tasks such as secure authentication, encryption, system administration, and secure software development. The user interfaces for such applications require not only good usability, but also need to assist users in understanding risks and making decisions, typically in environments and situations where cybersecurity is not their primary concern. This course provides foundational knowledge on general HCI, usable security, and user interface techniques that have been proposed for cybersecurity applications. The course also discusses a set of cybersecurity problems whereby usable security approaches have been proposed.

4. Learning Outcomes

On successful completion of the course, students will be able to:

- Explain the challenges of usable security
- Describe, review, and critique recent literature in usable security
- Compare the strengths and weaknesses of usable security solutions, from both a usability perspective and a cybersecurity perspective
- Propose solutions to current problems in usable security
- Design user studies and analyze their results

5. Course Design

Each lecture period reviews and discusses the materials of that week. There will be in-class paper presentations and related activities. Assignments and quizzes will reinforce the weekly topics. Understanding of course concepts will be demonstrated through a final project. The scheduled topics and readings are detailed below.

6. Outline of Topics in the Course

Week #	Date	Topics	Readings (papers may vary slightly based on most recent research at the time of offering)
1		Introduction to Usable Security	• Garfinkel Chapters 1 and 2
2		Experimental Research and Design	• Lazar Chapters 2 and 3
3		Authentication	• Garfinkel Chapters 3.1 and 5.1
4		Statistical Analysis in HCI Research	• Lazar Chapter 4
5		Social Engineering and Phishing	• Garfinkel Chapters 3.3 and 4
6		Nudging and Cybersecurity Decisions	• A. Caraban et al. “23 Ways to Nudge: A Review of Technology-Mediated Nudging in Human-Computer Interaction”. Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems, 2019. • V. Zimmermann and K. Renaud. “The Nudge Puzzle: Matching Nudge Interventions to Cybersecurity Decisions.” ACM Trans. Comput.-Hum. Interact. 28, 1, Article 7 (2021).
7		Designing Surveys	• Lazar Chapter 5 • E. Redmiles et al. “A Summary of Survey Methodology Best Practices for Security and Privacy Researchers.” University of Maryland CS-TR-5055, 2017.
8		Usability Testing and Working with Human Subjects	• Lazar Chapters 10 and 15 • Schechter, Stuart. "Common pitfalls in writing about security and privacy human subjects experiments, and how to avoid them." Microsoft, 2013, URL: https://www.microsoft.com/en-us/research/wp-content/uploads/2016/02/commonpitfalls.pdf
9		Mental Models and User Education in Cybersecurity	• Jampen, D., Gür, G., Sutter, T. et al. Don’t Click: Towards an Effective Anti-Phishing Training. A Comparative Literature Review. Hum. Cent. Comput. Inf. Sci. 10, 33 (2020). • Elissa M. Redmiles et al., A Comprehensive Quality Evaluation of Security and Privacy Advice on the Web, In Proceedings of the 29th USENIX Security Symposium, 2020.

10		Usable Encryption	• Garfinkel Chapter 3.2 • Scott Ruoti, Nathan Kim, Ben Burgon, Timothy van der Horst, and Kent Seamons. 2013. Confused Johnny: when automatic encryption leads to confusion and mistakes. In Proceedings of the Ninth Symposium on Usable Privacy and Security (SOUPS), 2013. • C. Stransky et al. On the Limited Impact of Visualizing Encryption: Perceptions of E2E Messaging Security. In Proceedings of SOUPS, 2021. • C. Stransky, O. Wiese, V. Roth, Y. Acar and S. Fahl. 27 Years and 81 Million Opportunities Later: Investigating the Use of Email Encryption for an Entire University. In Proceedings of the IEEE Symposium on Security and Privacy, 2022.
11		Usability for Secure Software Development	• M. Green and M. Smith, "Developers are Not the Enemy!: The Need for Usable Security APIs," in IEEE Security & Privacy, vol. 14, no. 5, pp. 40-46, Sept.-Oct. 2016. • D. Votipka et al. “Understanding security mistakes developers make: Qualitative analysis from Build It, Break It, Fix It.” In Proceedings of the USENIX Security Symposium, 2020. • A. Krause et al. “Pushed by Accident: A Mixed-Methods Study on Strategies of Handling Secret Information in Source Code Repositories.” In Proceedings of the 32nd USENIX Security Symposium, 2023.
12		Usability for Secure System Administration	• Garfinkel Chapters 3.10 and 5.3 • Schreuders, Z. Cliffe, Tanya McGill, and Christian Payne. "Empowering end users to confine their own applications: The results of a usability study comparing SELinux, AppArmor, and FBAC-LSM." ACM Transactions on Information and System Security (TISSEC) 14.2 (2011): 1-28.

7. Required Texts/Readings

The following textbooks are mandatory for this course:

1. Garfinkel, Simson and Lipford, Heather Richter. *Usable Security: History, Themes, and Challenges.* Synthesis Lectures on Information Security, Privacy, and Trust, 2014.
2. Lazar, Jonathan, Jinjuan Heidi Feng, and Harry Hochheiser. *Research Methods in Human-Computer Interaction*. Morgan Kaufmann, 2017.

Additional readings may be assigned or recommended during the course.

8. Evaluation Method

- Paper presentation: 20%
- Final project: 40%
- Assignments: 20%
- Quizzes: 20%

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found under Academic Regulations at: Ontario Tech's Academic regulations

9. Assignments and Tests

- Week 1: Paper presentation sign-up. Paper presentation will be in-class, the date will depend on the paper signed up for.
- Week 2: Assignment #1 released, due Week 4
- Week 3: Quiz #1
- Week 4: Assignment #2 released, due Week 6
- Week 6: Quiz #2
- Week 9: Quiz #3
- Week 12: Quiz #4
- Final Project: Due 1 week after last class

Missed In-term Examination
Students who miss an in-term examination such as a midterm or a term test may submit a request for consideration to the Faculty of Business and IT Advising Office and to the course instructor in writing using the Academic Consideration Form, along with supporting documentation. The request must be submitted within the deadlines specified in the Procedures for Consideration of Missed In-Term Course Work and Examinations. If a midterm or term test is missed for approved reasons, the weight of the missed component will be added to the weight of the final exam (or another exam component). If a student misses an in-term examination and does not follow the procedure above, they will receive a score of zero on the missed component.

All forms can also be found through MyOntarioTech or on the Ontario Tech University website.

Missed In-Term Course Work
A request for consideration for missed course work worth 20% or less of the final grade must be documented and reported to the instructor in writing within the deadlines specified in the Procedures for Consideration of Missed In-Term Course Work and Examinations. Course work includes, but is not limited to: quizzes, written assignments, participation, case studies, etc. If missed coursework totals more than 20% of the final grade, the request for consideration must be submitted to the Faculty of Business and IT Advising Office and to the course instructor in writing using the Academic Consideration Form, along with supporting documentation. The request must be submitted within the deadlines specified in the Procedures for Consideration of Missed In-Term

Course Work and Examinations. If approved, the weight of the missed course component will be added to the weight of the final project. If a student misses coursework and does not follow the procedure above, they will receive a score of zero on the missed component.

For information on how missed/late assignments and medical excuses are managed, please refer to the university's revised *Procedures for Consideration of Missed In-Term Course Work and Examinations*

10. Technology Requirements and Learning Management System Information

Ontario Tech uses *Canvas*™ as its learning management system (LMS). Access to the LMS is limited to students formally registered in courses. That access is for the duration of the semester **and for an additional 120 days once the semester is over**. Students are strongly encouraged to download any/all relevant course material during that access period. Any requests for access post this period must be made in writing to the instructor/faculty member responsible for the course.

To support online learning, the university recommends certain technology requirements for laptops, software and internet connectivity which are available at: Ontario Tech's Remote Learning Policies.

Students experiencing technical difficulties such that they are unable to meet the technology requirements may contact the IT Service Help Desk at: servicedesk@dc-uoit.ca
Students experiencing financial difficulties such that they are unable to meet the technology requirements may contact Student Awards and Financial Aid Office at: connect@ontariotehu.ca

By remaining enrolled in this course, you acknowledge that you have read, understand and agree to observe the Recommended Technology Requirements for accessing university online learning resources, including those minimum requirements that are specific to your faculty and program.

11. Sensitive/Offensive Subject Matter

The classroom (both physical and virtual) is intended to provide a safe, open space for the critical and civil exchange of ideas and opinions. Some articles, media and other course materials may contain sensitive content that is offensive and/or disturbing. For example, some articles or videos may contain e.g. graphical depictions of violence, profanity, human anatomy, sexual acts, matters pertaining to race, gender, or sexuality. The Course Instructor will try to identify such material and communicate warnings to students in advance of the distribution and use of such materials, affording students the choice to either emotionally prepare for, or not to view or interact with, the content.

12. Student Support

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@ontariotechu.ca for support. Furthermore, please notify your professor if you are comfortable in doing so. This will enable them to provide any resources and help that they can.

13. Student Sexual Violence Support and Education

Ontario Tech is committed to the prevention of sexual violence in all its forms. For any student who has experienced Sexual Violence, Ontario Tech can help. We will make accommodations to cater to the diverse backgrounds, cultures, and identities of students when dealing with individual cases.

If you think you have been subjected to or witnessed sexual violence:

- Reach out to the gender-based case specialist in the Human Rights office, a specially trained individual authorized to receive confidential disclosures about incidents of sexual

violence. The Human Rights Office will make support services, including counselling, access or referrals to medical services, safety planning and accommodations, available to Students affected by an Incident of Sexual Violence. Book a consultation with the Case Specialist for more information.

Learn more about your options at: Ontario Tech's Policy on Sexual Violence and Support Information.

14. Students with Disabilities

Ontario Tech University is committed to promoting an environment where everyone has an equal opportunity to contribute to their fullest potential. Students who require accommodation for a disability are advised to contact Student Accessibility Services (SAS) as soon as possible. Accommodation decisions will be made in accordance with the Ontario Human Rights Code. Accommodations will be consistent with and supportive of the essential requirements of courses and programs, and provided in a way that respects the dignity of students with disabilities and encourages integration and equality of opportunity. Reasonable academic accommodation may require instructors to exercise creativity and flexibility in responding to the needs of students with disabilities while maintaining integrity.

Disability-related and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Monday, Tuesday, Thursday, and Friday, Wednesday's 10:00 am to 4:30. Please note they are closed each day between noon and 1:00 pm. For more information on services provided, you can visit the SAS website at Ontario Tech's Student Accessibility Services (SAS). Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@ontariotechu.ca.

Students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here Registration Link to write examinations in SAS at Ontario Tech. Students must sign up for tests, midterms, or quizzes **AT LEAST seven (7) working days before the date of the test.**

Students must register for final exams no later **than 3 weeks prior to the start of the final examination period**. The final examination period is given at Ontario Tech University's Important dates and deadlines.

15. Professional Suitability (if applicable)

Ontario Tech University is a community that values and promotes respect, integrity, diversity and accountability among all members of the university. These values can only be achieved in an environment that supports and protects the safety and security of its members. The Ontario Tech University Policy on Student Conduct defines and guides standards of student behaviour at the university to uphold these values and ensure that behaviour contrary to these standards are dealt with in a manner that is fair, open and effective.

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- Other applications, services, or technologies that support or enhance online learning that include, but are not limited to, the following: Turnitin.

  For more information relating to these technologies, we encourage you to visit: Educational Technologies used at Ontario Tech.

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Pursuant to Ontario Tech's Freedom of Expression Policy, all students are encouraged to express ideas and perspectives freely and respectfully in university space and in the online university environment, subject to certain limitations. Students are reminded that the limits on Freedom of Expression include speech or behaviour that: is illegal or interferes with the university's legal obligations; defames an individual or group; constitutes a threat, harassment or discrimination; is a breach of fiduciary, contractual, privacy or confidentiality obligations or commitments; and unduly disrupts and interferes with the functioning of the university. In the context of working online, different forms of communication are used. Where permitted, students using "chat" functions or other online forms of communication are encouraged to ensure that their communication complies with the Freedom of Expression Policy.

23. Copyright Notice

All Teaching Materials, as they are defined under Ontario Tech's Intellectual Property policy ("IP Policy"), provided by the instructor throughout the course, including, but not limited to, in whole or in part, course notes, teaching notes, custom books, tutorials, evaluation tools, presentations and examinations are subject to the Copyright Act, R.S.C., 1985, c. C-42 and the IP Policy. Subject to the IP Policy, Teaching Materials are owned by the faculty member, instructor or other third party who creates such works, with a license to the University. The copyright owner(s) reserves all intellectual property rights in and to the foregoing materials. Consistent with the IP Policy, Teaching Materials are intended to be used by Ontario Tech University students registered in the course that is the subject of this course outline for educational purposes only. Any distribution or publishing of this material (e.g., uploading material to a third-party website) by a student is strictly prohibited under the law unless the student has obtained the copyright owner's prior written consent. Any violation of copyright law or the IP Policy, if proven, may be subject to sanction as academic misconduct, and/or under the Student Conduct Policy.

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FACULTY OF BUSINESS AND IT

INFR 6030G: Information Trust

Course outline for ----

1. Course Details & Important Dates*

Term	Course Type	Day	Time	Location	CRN#
----				----	

Classes Start	Classes End	**Last day to drop course without academic consequence**	Final Exam Period
----	----	----	----

* Visit Ontario Tech's Important Dates and Deadlines for other dates.

Please Choose ONE of the following, *if applicable*:

Important Note – Final Exams

There is no final exam for this course

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Office Hours:			

Laboratory/Teaching Assistant Name	Office	Phone	Email

Office Hours:			

3. Course Description

In this course, students examine trust, provenance, critical thinking and design thinking for information from first principles to action. How to measure and judge information quality is discussed, as well as the various ways in which trust can be attacked in the context of information. More specifically, we will also examine how to use information to make trustworthy decisions in different cybersecurity and other contexts.

4. Learning Outcomes

On the successful completion of the course, students will be able to:

- Compare and Contrast different philosophies and models of trust
- Apply Design Thinking and Critical Thinking to information trust and provenance problems
- Discuss different approaches for the protection of information as an object
- Construct learning materials to help others in the understanding of information trust problems
- Hypothesize on the ways in which information is useful and used in the context of trust and future technoloogies

5. Course Design

The course is an online discussion-based course with presentations from experts from industry and academia on the ways in which trust, information design, critical and design thinking come together to address the increasingly difficult provenance questions as they relate to information that can be used to inform decisions, justify actions and build worthwhile, trustworthy knowledge.

We will use lectures to discuss the fundamentals of the concepts, and case or paper-based student-led discussions about how real examples reflect the content of the course fundamentals. This is a student-driven course and students are expected to provide their own personal and/or professional examples of how information trust works (or doesn't) for the class.

6. Outline of Topics in the Course

Lecture #	Topics	Details of topics to be covered in the course, by unit or by week
1	What is trust? How can we even use it?	Trust fundamentals, computational trust, computing trust.
2	Trust in information, the basics	
3	Provenance	What it is, what is means, how it can be determined, what it means to trust
4	Building knowledge	How is knowledge built? What builds it? What links together? What are the problems?
5	Design Thinking	An introduction to design thinking and why it matters here

6	Critical Design Thinking	Applying critical thinking to the design thinking problem and coming up with a new paradigm
7	Information Trust, tying it all together	A look at Atele-William's Information Trust models
8	Applying what was learned	How can what we have looked at help with things like provenance and knowledge bulding? We will do our information trust problem this week.
9	Attacks on trust	Trust is fragile. How? Why? What can kill or damage it?
10	Attacks on information	Information has always been precious, and has always been attacked, to be stolen or (more relevant to us) weaponized. How, when and why?
11	Defences and panaceas	And how can we defend it, either by being pre-informed or by putting sensible checks and balances in place?
12	Wrapping up: a design for information trust for the LLM world and beyond	The world is changing. How can we best adapt and put in place a sensible way to think about what we see before us based on what we have learned?

7. Required Texts/Readings

The course is reading and discussion-based. Some of the materials are expected to come from students themselves (related to their own experiences in the area) whilst some are drawn from sources that are either freely available or available through the library at no cost to the student. There is no textbook but as a reference we will be using the Open Educational Resource, "Trust Systems" (Marsh, 2022) which is available on the Ontario Open Library. Further open resources will be curated during the course by the students as part of their evaluated work.

The readings and cases will be assigned at the start of the course, and will include sections and papers related to:

- Design Thinking
- Critical Thinking
- Computational Trust
- Information Trust
- Decision-making
- Trust Attacks
- Provenance
- AI and LLMs
- Privacy

Additional readings may be assigned or recommended during the course.

8. Evaluation Method

Participation in classes is expected, attendance is mandatory (a maximum of 2 classes can be missed before the final grade becomes a zero). Participation is 30% of the final grade.

Presentation of case/papers (weekly, assigned at the start of the class): 25%

A recorded video presentation of one of the class topics will be required by students: 25%

Peer evaluation of recorded presentations: 10%

Worked problem example: 10% (this will use the skills developed in the course of the class in order to address information trust in a curated information sample).

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found under Academic Regulations at: Ontario Tech's Academic regulations

9. Assignments and Tests

Missed In-Term Course Work
A request for consideration for missed course work worth 20% or less of the final grade must be documented and reported to the instructor in writing within the deadlines specified in the Procedures for Consideration of Missed In-Term Course Work and Examinations. Course work includes, but is not limited to: quizzes, written assignments, participation, case studies, etc. If missed coursework totals more than 20% of the final grade, the request for consideration must be submitted to the Faculty of Business and IT Advising Office and to the course instructor in writing using the Academic Consideration Form, along with supporting documentation. The request must be submitted within the deadlines specified in the Procedures for Consideration of Missed In-Term Course Work and Examinations. If approved, the weight of the missed course component will be added to the weight of the final information trust problem. If a student misses coursework and does not follow the procedure above, they will receive a score of zero on the missed component.

Attendance in the weekly classes is mandatory. Given the discussional nature of the course, students who miss more than 2 of the weekly sessions will receive an automatic zero for the course.

For information on how missed/late assignments and medical excuses are managed, please refer to the university's revised *Procedures for Consideration of Missed In-Term Course Work and Examinations*

10. Technology Requirements and Learning Management System Information

Ontario Tech uses *Canvas*™ as its learning management system (LMS). Access to the LMS is limited to students formally registered in courses. That access is for the duration of the semester **and for an additional 120 days once the semester is over**. Students are strongly encouraged to download any/all relevant course material during that access period. Any requests for access post this period must be made in writing to the instructor/faculty member responsible for the course.

To support online learning, the university recommends certain technology requirements for laptops, software and internet connectivity which are available at: Ontario Tech's Remote Learning Policies.

Students experiencing technical difficulties such that they are unable to meet the technology requirements may contact the IT Service Help Desk at: servicedesk@dc-uoit.ca
Students experiencing financial difficulties such that they are unable to meet the technology requirements may contact Student Awards and Financial Aid Office at: connect@ontariotehu.ca

By remaining enrolled in this course, you acknowledge that you have read, understand and agree to observe the Recommended Technology Requirements for accessing university online learning resources, including those minimum requirements that are specific to your faculty and program.

11. Sensitive/Offensive Subject Matter

The classroom (both physical and virtual) is intended to provide a safe, open space for the critical and civil exchange of ideas and opinions. Some articles, media and other course materials may contain sensitive content that is offensive and/or disturbing. For example, some articles or videos may contain Instructors should provide examples that are applicable to the course subject matter – e.g. graphical depictions of violence, profanity, human anatomy, sexual acts, matters pertaining to race, gender, or sexuality. The Course Instructor will try to identify such material and communicate warnings to students in advance of the distribution and use of such materials, affording students the choice to either emotionally prepare for, or not to view or interact with, the content. Instructors should publish a warning statement in advance so as to give students adequate opportunity to make a choice to avoid any such matter. The following is a sample disclaimer: "The content you are about to view contains sensitive subject matter that may be considered offensive and/or disturbing to some viewers. By viewing and/or interacting with the content you acknowledge and agree that it is your decision to view and interact with the content and to take the risk that you will experience a negative emotional response or reaction to the nature of the content."

12. Student Support

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@ontariotechu.ca for support. Furthermore, please notify your professor if you are comfortable in doing so. This will enable them to provide any resources and help that they can.

13. Student Sexual Violence Support and Education

Ontario Tech is committed to the prevention of sexual violence in all its forms. For any student who has experienced Sexual Violence, Ontario Tech can help. We will make accommodations to cater to the diverse backgrounds, cultures, and identities of students when dealing with individual cases.

If you think you have been subjected to or witnessed sexual violence:

- Reach out to the gender-based case specialist in the Human Rights office, a specially trained individual authorized to receive confidential disclosures about incidents of sexual violence. The Human Rights Office will make support services, including counselling, access or referrals to medical services, safety planning and accommodations, available to Students affected by an Incident of Sexual Violence. Book a consultation with the Case Specialist for more information.

Learn more about your options at: Ontario Tech's Policy on Sexual Violence and Support Information.

14. Students with Disabilities

Ontario Tech University is committed to promoting an environment where everyone has an equal opportunity to contribute to their fullest potential. Students who require accommodation for a disability are advised to contact Student Accessibility Services (SAS) as soon as possible. Accommodation decisions will be made in accordance with the Ontario Human Rights Code. Accommodations will be consistent with and supportive of the essential requirements of courses and programs, and provided in a way that respects the dignity of students with disabilities and encourages integration and equality of opportunity. Reasonable academic accommodation may require instructors to exercise creativity and flexibility in responding to the needs of students with disabilities while maintaining integrity.

Disability-related and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Monday, Tuesday, Thursday, and Friday, Wednesday's 10:00 am to 4:30. Please note they are closed each day between noon and 1:00 pm. For more information on services provided, you can visit the SAS website at Ontario Tech's Student Accessibility Services (SAS). Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@ontariotechu.ca.

Students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here Registration Link to write examinations in SAS at Ontario Tech. Students must sign up for tests, midterms, or quizzes **AT LEAST seven (7) working days before the date of the test.**

Students must register for final exams no later **than 3 weeks prior to the start of the final examination period**. The final examination period is given at Ontario Tech University's Important dates and deadlines.

15. Professional Suitability (if applicable)

Ontario Tech University is a community that values and promotes respect, integrity, diversity and accountability among all members of the university. These values can only be achieved in an environment that supports and protects the safety and security of its members. The Ontario Tech University Policy on Student Conduct defines and guides standards of student behaviour at the university to uphold these values and ensure that behaviour contrary to these standards are dealt with in a manner that is fair, open and effective.

The Faculty of Business & IT has the following expectations related to professionalism for all its community members, including without limitation, students, Staff, and Faculty:

- **Respect, civility, and courtesy:** Community members are expected to treat each other with respect, civility, and courtesy both in and outside of the classroom. Rudeness, profanity, insults, harassment, and class disruptions are unacceptable.
- **Critique ideas, not the people who raise the ideas:** Discussions, debates, and the exchange of ideas are normal parts of life in an academic community. Community members are expected to engage in discussions, debates, and the exchange of ideas in respectful ways, even while vigorously advocating for one's perspective.
- **Talk *to* those with whom you have a complaint, not *about* them.** When community members have disputes, complaints, and/or concerns about another community member, they are expected to do their best to address the matter directly and informally with the other member, provided that it is safe to do so.

- **Special obligations:** Community members in positions of authority have special obligations to demonstrate respect, civility, and professionalism and to encourage the development of these values within the FBIT community.

The *Professional Suitability* policy can be found at Ontario Tech's Professional Suitability Policy and the related procedures are hosted at Ontario Tech's Professional Suitability Procedures.

16. Academic Integrity

Students and faculty at Ontario Tech University share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness and mutual respect for the aim and principles of the pursuit of education. Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action.

Students are expected to be familiar with and abide by Ontario Tech University's regulations on Academic Conduct which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, among other academic offences. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic misconduct, which can range from a resubmission of work to a failing grade to permanent expulsion from the university. A lack of familiarity with these regulations on academic conduct does not constitute a defense against its application. Please note that generative artificial intelligence (GAI) tools should not be utilized without advance, specific written approval by the faculty member teaching the course.

More information can be found at Ontario Tech's Academic Integrity Policy.

Extra support services are available to all Ontario Tech University students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found at Academic Support at Ontario Tech.

17. Turnitin (if applicable)

Ontario Tech University and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review by Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. The instructor may require students to submit their assignments electronically to Turnitin.com or the instructor may submit questionable text on behalf of a student. The terms that apply to Ontario Tech University's use of the Turnitin.com service are described on the Turnitin.com website.

Students who do not wish to have their work submitted to Turnitin.com must provide with their assignment at the time of submission to the instructor a signed Turnitin.com Assignment Cover sheet: Signed Turnitin Coversheet to Withdraw Permission to Submit Work.

18. Online Test and Exam Proctoring (Virtual Proctoring)

Ontario Tech University will conduct virtual monitoring of examinations in accordance with Ontario privacy legislation and all approved policy instruments.

19. Final Examinations (if applicable)

Final examinations are held during the final examination period at the end of the semester and may take place in a different room and on a different day from the regularly scheduled class. Check the published Examination Schedule for a complete list of days and times.

Students are required to show their valid physical or digital Ontario Tech University student photo ID card (campus ID), or a valid government issued photo ID that is in English when writing an **in-person examination.** Students are advised to obtain their Student ID Card well in advance of the examination period as they will not be able to write their examinations without it. More information on ID cards can be found at Information on Ontario Tech's Student ID Cards.

Students who are unable to write a final examination when scheduled due to religious publications may make arrangements to write a deferred examination. These students are required to submit an Academic Consideration form to the applicable Faculty as soon as possible and no later than three weeks prior to the first day of the final examination period.

Further information on final examinations can be found in the university's *Procedures for Final Examination Administration* Ontario Tech's Procedures for Final Examinations and in the Procedures for Consideration of Missed In-Term Course Work and Examinations.

20. Freedom of Information and Protection of Privacy Act

The following is an important notice regarding the process for submitting course assignments, quizzes, and other evaluative material in your courses in the Faculty of Business and IT.

Ontario Tech University is governed by the Freedom of Information and Protection of Privacy Act ("FIPPA"). In addition to providing a mechanism for requesting records held by the university, this legislation also requires that the University not disclose the personal information of its students without their consent.

FIPPA's definition of "personal information" includes, among other things, documents that contain both your name and your Banner (student) ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of Business and IT encourages you to use only your Banner ID on assignments or test papers being submitted for grading. This policy is intended to prevent the inadvertent disclosure of your information where graded papers are returned to groups of students at the same time. If you still wish to write both your name and your Banner ID on your tests and assignments, please be advised that Ontario Tech University will interpret this as an implied consent to the disclosure of your personal information in the normal course of returning graded materials to students.

If you have any questions or concerns relating to the new policy or the issue of implied consent addressed above, please contact accessandprivacy@ontariotechu.ca

Notice of Collection and Use of Personal Information
Throughout this course, personal information may be collected through the use of certain technologies under the authority of the *University of Ontario Institute of Technology Act, SO 2002, c. 8, Sch. O.* and will be collected, protected, used, disclosed and retained in compliance with Ontario's *Freedom of Information and Protection of Privacy Act R.S.O. 1990, c. F.31.*

This course will use the following technologies that may collect, use, disclose and retain personal information (including images) for the purposes described below: Instructors should edit this section according to the systems and technologies to be used in this specific course (e.g. If using Proctortrack, remove any reference to Respondus)

- Respondus Monitor and Proctortrack to maintain academic integrity for examinations;
- Google Meet and Kaltura Virtual Classroom to facilitate remote instruction and interactive learning;
- Peer-shared applications, services or technologies that may be reviewed, assessed, or used as part of coursework.
- Other applications, services, or technologies that support or enhance online learning that include, but are not limited to, the following: Instructor to list all relevant components.

For more information relating to these technologies, we encourage you to visit: Educational Technologies used at Ontario Tech.

Questions regarding personal information may be directed to: Ontario Tech University Access and Privacy Office, 2000 Simcoe Street North, Oshawa, ON L1G 0C5, email: accessandprivacy@ontariotechu.ca.

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FACULTY OF BUSINESS AND IT
Cybersecurity in Critical Infrastructure
2024-25

1. Course Details & Important Dates*

Term	Course Type	Day	Time	Location	CRN#
2024-25	Online				

Classes Start	Classes End	**Last day to drop course without academic consequence**	Final Exam Period

* Visit Ontario Tech's Important Dates and Deadlines for other dates.

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Khalil El-Khatib			Canvas Email
Office Hours: by appointment			

Laboratory/Teaching Assistant Name	Office	Phone	Email
Office Hours: by appointment			

3. Course Description

Today, every nation has identified several critical infrastructures that are essential for national and economic security. The Canadian National Strategy has identified 10 CI sectors including information and communication technology, energy and utilities, water, manufacturing, food, government, health, safety, finance, and transportation. Ensuring the security and resiliency of these infrastructure is a key priority for the Canadian government and for every government around the world. The course will teach students about identifying physical and cybersecurity threats that can affect the security of a critical infrastructure, and also understanding and developing integrated risk management strategies

4. Learning Outcomes

On successful completion of the course, students will be able to:

- Understand the key concepts in critical infrastructure protection,
- Understand the security requirements and considerations for critical infrastructure.
- Understand interdependencies among critical infrastructures.
- Perform risk analysis for critical infrastructure protection.
- Develop an integrated risk management strategies for critical infrastructure protection.

5. Course Design

The lectures for the course are designed to include a fair amount of discussion with the necessary theory to meet the level of a graduate course. Students are expected to attend all lectures. To succeed in this course, it is highly advisable that students:

1. Read the notes/textbook/papers prior to the lecture to have an idea of the new concept(s) that will be introduced that day.
2. During the lecture, make sure the new topic(s) being introduced is understood. Ask questions.
3. Pay attention to lectures.
4. After the lecture, review the material studied during that session.
5. See the professor during office hours or schedule extra consultation time, if necessary.
6. Assignments are designed to provide students with hands-on learning on the concepts studied in the course.
7. The Final Project is designed so that students will become very familiar with a specific topic, and will be able to write a survey paper on that area as well as articulate a presentation to the class.

6. Outline of Topics in the Course

Week #	Date	Topics	Readings
1		Introduction to Critical Infrastructure	•
2		The convergence of Physical and cybersecurity	•
3		Industrial Control Systems	•

4		Critical Infrastructure Threats	•
5		Energy and Utilities Sector	•
6		finance and Government Sector	
7		Risk Assessments	•
8		Incident Response	•
9		Policy & Governance	•
10		Student Presentations	•
11		Student Presentations	
12			

Important Notes: *Adjustment of scheduled lectures might be made in accordance with any unforeseen circumstances during the semester.*

7. Required Readings

Students will be assigned various up-to-date research papers to read on each topic. students might wish to read some of the following textbooks, including:

- Industrial Network Security: Securing Critical Infrastructure Networks for Smart Grid, Scada, and Other Industrial Control Systems, by Eric D. Knapp and Joel Thomas Langill
- Critical Infrastructure Protection A Complete Guide, by Gerardus Blokdyk

Additional readings may be assigned or recommended during the course.

8. Evaluation Method

The course has only a final term paper and presentation. Students are encouraged to pick a topic related to critical infrastructure protection, do a literature review about the topic, present it to the whole class, and finally write a report about it.

9. Assignments and Tests

There are no tests in this course.

10. Technology Requirements and Learning Management System Information

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The classroom (both physical and virtual) is intended to provide a safe, open space for the critical and civil exchange of ideas and opinions. Some articles, media and other course materials may contain sensitive content that is offensive and/or disturbing. For example, some articles or videos may contain graphical depictions of violence, profanity, human anatomy, sexual acts, matters pertaining to race, gender, or sexuality. The Course Instructor will try to identify such material and communicate warnings to students in advance of the distribution and use of such materials, affording students the choice to either emotionally prepare for, or not to view or interact with, the content.
Disclaimer: “The content you are about to view contains sensitive subject matter that may be considered offensive and/or disturbing to some viewers. By viewing and/or interacting with the content you acknowledge and agree that it is your decision to view and interact with the content and to take the risk that you will experience a negative emotional response or reaction to the nature of the content.”

12. Student Support

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@ontariotechu.ca for support. Furthermore, please notify your professor if you are comfortable in doing so. This will enable them to provide any resources and help that they can.

13. Student Sexual Violence Support and Education

Ontario Tech is committed to the prevention of sexual violence in all its forms. For any student who has experienced Sexual Violence, Ontario Tech can help. We will make accommodations to cater to the diverse backgrounds, cultures, and identities of students when dealing with individual cases.

If you think you have been subjected to or witnessed sexual violence:

- Reach out to the gender-based case specialist in the Human Rights office, a specially trained individual authorized to receive confidential disclosures about incidents of sexual violence. The Human Rights Office will make support services, including counselling, access or referrals to medical services, safety planning and accommodations, available to Students affected by an Incident of Sexual Violence. Book a consultation with the Case Specialist for more information.

Learn more about your options at: Ontario Tech's Policy on Sexual Violence and Support Information.

14. Students with Disabilities

Ontario Tech University is committed to promoting an environment where everyone has an equal opportunity to contribute to their fullest potential. Students who require accommodation for a disability are advised to contact Student Accessibility Services (SAS) as soon as possible. Accommodation decisions will be made in accordance with the Ontario Human Rights Code.

Accommodations will be consistent with and supportive of the essential requirements of courses and programs, and provided in a way that respects the dignity of students with disabilities and encourages integration and equality of opportunity. Reasonable academic accommodation may require instructors to exercise creativity and flexibility in responding to the needs of students with disabilities while maintaining integrity.

Disability-related and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Monday, Tuesday, Thursday, and Friday, Wednesday's 10:00 am to 4:30. Please note they are closed each day between noon and 1:00 pm. For more information on services provided, you can visit the SAS website at Ontario Tech's Student Accessibility Services (SAS). Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@ontariotechu.ca.

Students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here Registration Link to write examinations in SAS at Ontario Tech. Students must sign up for tests, midterms, or quizzes **AT LEAST seven (7) working days before the date of the test.**

Students must register for final exams no later **than 3 weeks prior to the start of the final examination period**. The final examination period is given at Ontario Tech University's Important dates and deadlines.

15. Professional Suitability (if applicable)

Ontario Tech University is a community that values and promotes respect, integrity, diversity and accountability among all members of the university. These values can only be achieved in an environment that supports and protects the safety and security of its members. The Ontario Tech University Policy on Student Conduct defines and guides standards of student behaviour at the university to uphold these values and ensure that behaviour contrary to these standards are dealt with in a manner that is fair, open and effective.

The Faculty of Business & IT has the following expectations related to professionalism for all its community members, including without limitation, students, Staff, and Faculty:

- **Respect, civility, and courtesy:** Community members are expected to treat each other with respect, civility, and courtesy both in and outside of the classroom. Rudeness, profanity, insults, harassment, and class disruptions are unacceptable.
- **Critique ideas, not the people who raise the ideas:** Discussions, debates, and the exchange of ideas are normal parts of life in an academic community. Community members are expected to engage in discussions, debates, and the exchange of ideas in respectful ways, even while vigorously advocating for one's perspective.
- **Talk *to* those with whom you have a complaint, not *about* them.** When community members have disputes, complaints, and/or concerns about another community member, they are expected to do their best to address the matter directly and informally with the other member, provided that it is safe to do so.
- **Special obligations:** Community members in positions of authority have special obligations to demonstrate respect, civility, and professionalism and to encourage the development of these values within the FBIT community.

The *Professional Suitability* policy can be found at Ontario Tech's Professional Suitability Policy and the related procedures are hosted at Ontario Tech's Professional Suitability Procedures.

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Students are expected to be familiar with and abide by Ontario Tech University's regulations on Academic Conduct which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, among other academic offences. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic misconduct, which can range from a resubmission of work to a failing grade to permanent expulsion from the university. A lack of familiarity with these regulations on academic conduct does not constitute a defense against its application. Please note that generative artificial intelligence (GAI) tools should not be utilized without advance, specific written approval by the faculty member teaching the course.

More information can be found at Ontario Tech's Academic Integrity Policy.

Extra support services are available to all Ontario Tech University students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found at Academic Support at Ontario Tech.

17. Turnitin (if applicable)

Ontario Tech University and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review by Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. The instructor may require students to submit their assignments electronically to Turnitin.com or the instructor may submit questionable text on behalf of a student. The terms that apply to Ontario Tech University's use of the Turnitin.com service are described on the Turnitin.com website.

Students who do not wish to have their work submitted to Turnitin.com must provide with their assignment at the time of submission to the instructor a signed Turnitin.com Assignment Cover sheet: Signed Turnitin Coversheet to Withdraw Permission to Submit Work.

18. Online Test and Exam Proctoring (Virtual Proctoring)

Ontario Tech University will conduct virtual monitoring of examinations in accordance with Ontario privacy legislation and all approved policy instruments.

19. Final Examinations (if applicable)

Final examinations are held during the final examination period at the end of the semester and may take place in a different room and on a different day from the regularly scheduled class. Check the published Examination Schedule for a complete list of days and times.

Students are required to show their valid physical or digital Ontario Tech University student photo ID card (campus ID), or a valid government issued photo ID that is in English when writing an **in-person examination.** Students are advised to obtain their Student ID Card well in advance of the

examination period as they will not be able to write their examinations without it. More information on ID cards can be found at Information on Ontario Tech's Student ID Cards.

Students who are unable to write a final examination when scheduled due to religious publications may make arrangements to write a deferred examination. These students are required to submit an Academic Consideration form to the applicable Faculty as soon as possible and no later than three weeks prior to the first day of the final examination period.

Further information on final examinations can be found in the university's *Procedures for Final Examination Administration* Ontario Tech's Procedures for Final Examinations and in the Procedures for Consideration of Missed In-Term Course Work and Examinations.

20. Freedom of Information and Protection of Privacy Act

The following is an important notice regarding the process for submitting course assignments, quizzes, and other evaluative material in your courses in the Faculty of Business and IT.

Ontario Tech University is governed by the Freedom of Information and Protection of Privacy Act ("FIPPA"). In addition to providing a mechanism for requesting records held by the university, this legislation also requires that the University not disclose the personal information of its students without their consent.

FIPPA's definition of "personal information" includes, among other things, documents that contain both your name and your Banner (student) ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of Business and IT encourages you to use only your Banner ID on assignments or test papers being submitted for grading. This policy is intended to prevent the inadvertent disclosure of your information where graded papers are returned to groups of students at the same time. If you still wish to write both your name and your Banner ID on your tests and assignments, please be advised that Ontario Tech University will interpret this as an implied consent to the disclosure of your personal information in the normal course of returning graded materials to students.

If you have any questions or concerns relating to the new policy or the issue of implied consent addressed above, please contact accessandprivacy@ontariotechu.ca

Notice of Collection and Use of Personal Information
Throughout this course, personal information may be collected through the use of certain technologies under the authority of the *University of Ontario Institute of Technology Act, SO 2002, c. 8, Sch. O.* and will be collected, protected, used, disclosed and retained in compliance with Ontario's *Freedom of Information and Protection of Privacy Act R.S.O. 1990, c. F.31.*

This course will use the following technologies that may collect, use, disclose and retain personal information (including images) for the purposes described below:

- Respondus Monitor and Proctortrack to maintain academic integrity for examinations;
- Google Meet and Kaltura Virtual Classroom to facilitate remote instruction and interactive learning;
- Peer-shared applications, services or technologies that may be reviewed, assessed, or used as part of coursework.
- Other applications, services, or technologies that support or enhance online learning that include, but are not limited to, the following: Internet and Webcam.

For more information relating to these technologies, we encourage you to visit: Educational Technologies used at Ontario Tech.

Questions regarding personal information may be directed to: Ontario Tech University Access and Privacy Office, 2000 Simcoe Street North, Oshawa, ON L1G 0C5, email: accessandprivacy@ontariotechu.ca.

By remaining enrolled in this course, you acknowledge that you have read, understand, and agree to the terms and conditions under which the technology provider(s) may collect, use, disclose and retain your personal information. You agree to the university using the technologies and using your personal information for the purposes described in this course outline.

21. Human Rights and Respect

Ontario Tech University is committed to providing a campus environment in which all University Members are treated with dignity and to fostering a climate of understanding and mutual respect. The University will not tolerate, ignore or condone Discrimination or Harassment by or against anyone. Examples of Harassing behavior include, but are not limited to; bullying, taunting or mocking someone's race or creed, ridiculing an individual's disability, or targeting individuals with unwanted sexual or negative stereotypical comments about one's sex, gender, sexual orientation, gender identity and/or gender expression. Pursuant to Ontario Tech's Respectful Campus Policy, students are reminded of their role in ensuring an equitable and inclusive learning environment. Requirements to refrain from harassment and discrimination apply broadly to on campus activities, e.g., on University property, in the classroom, including in lectures, labs and practicums, and also apply to off-campus activities, e.g. during any organized Ontario Tech class or extra-curricular activity including experiential learning opportunities such as co-op, practicum or during research endeavors, during official Ontario Tech events or using University equipment and technological tools that facilitate remote learning, e.g., class and other chat functions, video conferencing, and electronic mail.

22. Freedom of Expression

Pursuant to Ontario Tech's Freedom of Expression Policy, all students are encouraged to express ideas and perspectives freely and respectfully in university space and in the online university environment, subject to certain limitations. Students are reminded that the limits on Freedom of Expression include speech or behaviour that: is illegal or interferes with the university's legal obligations; defames an individual or group; constitutes a threat, harassment or discrimination; is a breach of fiduciary, contractual, privacy or confidentiality obligations or commitments; and unduly disrupts and interferes with the functioning of the university. In the context of working online, different forms of communication are used. Where permitted, students using "chat" functions or other online forms of communication are encouraged to ensure that their communication complies with the Freedom of Expression Policy.

23. Copyright Notice

All Teaching Materials, as they are defined under Ontario Tech's Intellectual Property policy ("IP Policy"), provided by the instructor throughout the course, including, but not limited to, in whole or in part, course notes, teaching notes, custom books, tutorials, evaluation tools, presentations and examinations are subject to the Copyright Act, R.S.C., 1985, c. C-42 and the IP Policy. Subject to the IP Policy, Teaching Materials are owned by the faculty member, instructor or other third party who creates such works, with a license to the University. The copyright owner(s) reserves all intellectual property rights in and to the foregoing materials. Consistent with the IP Policy, Teaching Materials are intended to be used by Ontario Tech University students registered in the course that is the subject of this course outline for educational purposes only. Any distribution or publishing of this material (e.g., uploading material to a third-party website) by a student is strictly prohibited under the law unless the student has obtained the copyright owner's prior written consent. Any

violation of copyright law or the IP Policy, if proven, may be subject to sanction as academic misconduct, and/or under the Student Conduct Policy.

24. Student Course Feedback Surveys

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of Ontario Tech University's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course evaluations will be sent via e-mail, and posted on Canvas, Weekly News, and signage around the campus.

25. AODA

The Accessibility for Ontarians with Disabilities Act (AODA) standards have been considered in the development of this model course template and it adheres to the principles outlined in the University's Accessibility Policy.

FACULTY OF BUSINESS AND IT

INFR 6110G: Global Cybersecurity Threats

Course outline for **Fall 2023**

1. Course Details & Important Dates*

Term	Course Type	Day	Time	Location	CRN #
FALL 2023					

Classes Start	Classes End	**Last day to drop course without academic consequence**	Final Exam Period
September 5, 2023	December 4, 2023	October 2, 2023	December 6 - 16, 2023

* Visit Ontario Tech's Important Dates and Deadlines for other dates.

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Office Hours:			

Laboratory/Teaching Assistant Name	Office	Phone	Email
Office Hours:			

3. Course Description

In a hyper connected world, threat actors see no limits or boundaries to their targets, and cybersecurity incidents can have major effects on individuals, organizations, and governments around the world. Cybersecurity managers find themselves obliged to learn about the latest cyber threats to protect their digital assets. The objective of this course is to learn about the global power dynamics, conflicts and risk factors in cyberspace; cyber-based sabotage, espionage and subversion activities; and major and recent cyber incidents that have unfolded internationally and to evaluate their implications. Students will also go over recent threat reports from various security organizations to learn about how the global cyberthreat landscape is evolving.

3. Learning Outcomes

On the successful completion of the course, students will be able to:

- Describe the nature of cyber threats at the global level

- Understand how leading organizations, regulators and governments around the world analyze and prepare for global threats.
- Analyze various threat reports from various sources to understand the cyber threat Landscape and develop cybersecurity strategies.
- Analyze the intrigued world of global cybersecurity threats, opportunities, risks, and policies.
- Develop some actionable information on emerging global cybersecurity threats.

5. Course Design

The course will be structured to include a variety of pedagogy exercises including case studies, reports analysis, guest speakers, lectures, classroom discussions, and student presentations. Students are expected to participate in all discussions in the classroom. For some activities, teams maybe be formed by the instructors, with each team assigned different activities,

6. Outline of Topics in the Course

Given the dynamic nature of the course that focuses on state-of-the-art threats, the topics in the course are determined on a year-to-year basis. Some core topics are included in the table below:

Lecture #	Date	Time	Topics	Details of topics to be covered in the course, by unit or by week
1			Fundamentals of Cyber warfare	
2			Global Cyber threats	
3			Analysis of cyber incidents	
4			Geopolitics and Cyber power	
	October 9, 2023		Thanksgiving Day, no scheduled academic activities.	
STUDY BREAK	October 10 to 15, 2023		Study Break, no scheduled academic activities.	
5			Hacktivism	
6			Cyber Deterrence and surveillance	
7			Global issues related to ethics and legality of cyber warfare	
			Student Presentations	
			Student Presentations	
	December 5, 2023		Study break, no scheduled academic activities.	

7. Required Texts/Readings

There is no textbook required for this course.
Students will be assigned various articles on each topic, including the latest threat reports from various security organizations.
Students will also be assigned cases and students finding weekly news cybersecurity nuggets.

Additional readings may be assigned or recommended during the course.

8. Evaluation Method

Students will be evaluated based on their participation in the class.
Students will also be required to submit a cumulative "portfolio" assignment of "what happened in the 12 weeks during the term." Here is a tentative percentage for each work:

- Class participation: 50%
- Presentation: 30%
- Peer evaluation 20%

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found at: Ontario Tech's Academic regulations

9. Assignments and Tests

[Provide a schedule of term assignments (format, description, length, due dates, submission requirements, etc.), tests and examinations. If collaborative group work is component of the course, include a statement that sets out the roles and roles and responsibilities of members for their own work and for the work of the other members of the group. Detail also how missed/late assignment and medical excuses will be managed in accordance with Faculty rules.]

Step #1: If you have midterms/term tests in your course, you **MUST** include the "Missed Term Test" paragraph below.

Missed Term Test
Students who miss a midterm or term test may submit a request for deferral using an Academic Consideration form, along with supporting documentation to the Faculty Advising offices within three (3) working days. We do not require students to submit Ontario Tech University Medical Statements at this time. If a midterm or term test is missed for approved reasons, the weight of the missed component will be added to the final (or select this sentence: a make-up test will be offered at a date set by the course instructor). If you miss the midterm or term test and do not follow the procedure above, you will receive a score of zero on the missed component.

All forms can also be found through MyOntarioTech or on the Ontario Tech University website.

Step #2: If you have no midterms/term tests in your course, however have coursework/ quizzes/ assignments you **MUST select** Option #1 OR Option #2 of the "Missed Course Work" paragraphs (below).

If you also have a coursework/quiz/assignment component in addition to midterms/term tests you **MUST** include the "Missed Term Test" paragraph (above) AND select Option #1 OR Option #2 of the "Missed Course Work" paragraphs(below).

Select - Option #1: Missed Course Work
Coursework missed for medical or serious personal reasons must be documented and reported to the instructor within three (3) working days of the missed work using an Academic Consideration form. Coursework includes, but is not limited to, quizzes; written assignments; participation; case

studies; etc… If missed coursework totals more than 25% of the final grade, this must be documented through the FBIT Academic Advising office. The weight of the missed course component will be reweighted to … (or select this sentence: the instructor will contact you regarding a make-up assignment) If you miss coursework and do not notify the instructor within the three (3) working day deadline, you will receive a score of zero on the missed component.

Or Select - Option #2: Missed Course Work
To cover any coursework missed due to unexpected absences, the lowest (out of xx) quizzes/assignments/journals/seminars/etc… will be dropped. Please note that this provision is not a free ticket to skip coursework as there will be no make-up quizzes/assignments/journals/seminars/etc for the missed ones.

(**REMOVE** this paragraph **after you have read**): The object of these paragraphs is to note that any missed assignment/quiz/coursework that is worth LESS than 25% of the final grade in the course will be **handled by the course instructor NOT** the FBIT Advising Office. As in the past, any missed final exam or test/assignment/midterm worth 25% or more of the final grade will be administered through the FBIT Advising Office.

10. Technology Requirements and Learning Management System Information

Ontario Tech uses *Canvas*™ as its learning management system (LMS). Access to the LMS is limited to students formally registered in courses. That access is for the duration of the semester **and for an additional 120 days once the semester is over**. Students are strongly encouraged to download any/all relevant course material during that access period. Any requests for access post this period must be made in writing to the instructor/faculty member responsible for the course.

To support online learning, the university recommends certain technology requirements for laptops, software and internet connectivity which are available at: Ontario Tech's Remote Learning Policies.

Students experiencing technical difficulties such that they are unable to meet the technology requirements may contact the IT Service Help Desk at: servicedesk@dc-uoit.ca
Students experiencing financial difficulties such that they are unable to meet the technology requirements may contact Student Awards and Financial Aid Office at: connect@ontariotehu.ca

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If you think you have been subjected to or witnessed sexual violence:

- Reach out to a Support Worker, a specially trained individual authorized to receive confidential disclosures about incidents of sexual violence. Support Workers can offer help and resolution options which can include safety plans, accommodations, mental health support, and more. To make an appointment with a Support Worker, call 905.721.3392 or email studentlife@ontariotechu.ca
- Learn more about your options at: Ontario Tech's Policy on Sexual Violence and Support Information

14. Students with Disabilities

Accommodating students with disabilities at Ontario Tech is a responsibility shared among various partners: the students themselves, SAS staff and faculty members. To ensure that disability-related concerns are properly addressed during this course, students with documented disabilities and who may require assistance to participate in this class are encouraged to speak with me as soon as possible. **Students who suspect they have a disability that may affect their participation in this course are advised to go to Student Accessibility Services (SAS) as soon as possible.** Maintaining communication and working collaboratively with SAS and faculty members will ensure you have the greatest chance of academic success.

When on campus access is allowed, students taking courses on North Oshawa campus can visit Student Accessibility Services in Shawenjigewining Hall. Students taking courses on the **downtown Oshawa campus** can visit Student Accessibility Services in Charles Hall, Room 225.

Disability-related and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Monday, Tuesday, Thursday, and Friday, Wednesday's 10:00 am to 4:30. Please note they are closed each day between noon and 1:00 pm. For more information on services provided, you can visit the SAS website at Ontario Tech's Student Accessibility Services (SAS). Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@ontariotechu.ca.

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Students must register for final exams by the registration deadline, which is typically two (2) weeks prior to the start of the final examination period. SAS will notify students of the registration deadline date.

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- **Special obligations:** Community members in positions of authority have special obligations to demonstrate respect, civility, and professionalism and to encourage the development of these values within the FBIT community.

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Further information on final examinations can be found at Ontario Tech's Procedures for Final Examinations.

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This course will use the following technologies that may collect, use, disclose and retain personal information (including images) for the purposes described below: [Instructors should edit this section according to the systems and technologies to be used in this specific course (e.g. If using Proctortrack, remove any reference to Respondus)]

- Respondus Monitor and Proctortrack to maintain academic integrity for examinations;
- Google Meet and Kaltura Virtual Classroom to facilitate remote instruction and interactive learning;
- Peer-shared applications, services or technologies that may be reviewed, assessed, or used as part of coursework.
- Other applications, services, or technologies that support or enhance online learning that include, but are not limited to, the following: [Instructor to list all relevant components].

For more information relating to these technologies, we encourage you to visit: Educational Technologies used at Ontario Tech. Questions regarding personal information may be directed to: Ontario Tech University Access and Privacy Office, 2000 Simcoe Street North, Oshawa, ON L1G 0C5, email: accessandprivacy@ontariotechu.ca.

By remaining enrolled in this course, you acknowledge that you have read, understand, and agree to the terms and conditions under which the technology provider(s) may collect, use, disclose and retain your personal information. You agree to the university using the technologies and using your personal information for the purposes described in this course outline.

21. Human Rights and Respect

Ontario Tech University is committed to providing a campus environment in which all University Members are treated with dignity and to fostering a climate of understanding and mutual respect. The University will not tolerate, ignore or condone Discrimination or Harassment by or against anyone. Examples of Harassing behavior include, but are not limited to; bullying, taunting or mocking someone's race or creed, ridiculing an individual's disability, or targeting individuals with unwanted sexual or negative stereotypical comments about one's sex, gender, sexual orientation, gender identity and/or gender expression. Pursuant to Ontario Tech's Respectful Campus Policy, students are reminded of their role in ensuring a campus environment that is equitable and inclusive. Requirements to refrain from harassment and discrimination apply broadly to the classroom, including in lectures, labs and practicums, as well as through the use of sanctioned and unsanctioned technological tools that facilitate remote learning, e.g. class and other chat functions, video conferencing, electronic mail and texts, and social media content amongst or about University students, faculty and staff.

22. Freedom of Expression

Pursuant to Ontario Tech's Freedom of Expression Policy, all students are encouraged to express ideas and perspectives freely and respectfully in university space and in the online university environment, subject to certain limitations. Students are reminded that the limits on Freedom of Expression include speech or behaviour that: is illegal or interferes with the university's legal obligations; defames an individual or group; constitutes a threat, harassment or discrimination; is a breach of fiduciary, contractual, privacy or confidentiality obligations or commitments; and unduly disrupts and interferes with the functioning of the university. In the context of working online, different forms of communication are used. Where permitted, students using "chat" functions or other online forms of communication are encouraged to ensure that their communication complies with the Freedom of Expression Policy.

23. Copyright Notice

All teaching materials provided by the instructor throughout the course, including, but not limited to, in whole or in part, recorded lectures, slides, videos, diagrams, case studies, assignments, quizzes, and examinations are subject to the Copyright Act, R.S.C., 1985, c. C-42. Teaching materials are owned by the faculty member, instructor or other third party who creates such works. The copyright owner(s) reserves all intellectual property rights in and to the teaching materials, including the sole right to copy, reproduce, distribute, and modify the teaching materials. Consistent with the university's Intellectual Property Policy, teaching materials are intended only for the educational use of Ontario Tech University students registered in the course that is the subject of this course outline. Any distribution or publishing of this material (e.g. uploading material to a third-party website) is strictly prohibited under the law unless the student has obtained the copyright owner's prior written consent. Any violation of copyright law or the Intellectual Property Policy, if proven, may be subject to sanction as academic misconduct, and/or under the Student Conduct Policy.

24. Student Course Feedback Surveys

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of Ontario Tech University's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course evaluations will be sent via e-mail, and posted on Canvas, Weekly News, and signage around the campus.

University Response to COVID-19

The government response to the COVID-19 pandemic is continually evolving. As new information becomes available from federal and provincial public health authorities, the Province of Ontario and the Regional Municipality of Durham, Ontario Tech University will remain nimble and prepared to respond to government orders, directives, guidelines and changes in legislation to ensure the health and safety of all members of its campus community. In accordance with public health recommendations, the university may need to adjust the delivery of course instruction and the availability and delivery mode of campus services and co-curricular opportunities. Ontario Tech University appreciates the understanding and flexibility of our students, faculty and staff as we continue to navigate the pandemic and work together to demonstrate our strong commitment to academic, research and service excellence during these challenging and unprecedented times.

The Accessibility for Ontarians with Disabilities Act (AODA) standards have been considered in the development of this model course template and it adheres to the principles outlined in the University's Accessibility Policy.

Ontario Tech University acknowledges the lands and people of the Mississaugas of Scugog Island First Nation. We are thankful to be welcomed on these lands in friendship. The lands we are situated on are covered under the Williams Treaties and the traditional territory of the Mississaugas, a branch of the greater Anishinaabeg Nation, including Algonquin, Ojibway, Odawa and Pottawatomi. These lands remain home to a number of Indigenous nations and people.

We acknowledge this land out of respect for the Indigenous nations who have cared for Turtle Island, also called North America, from before the arrival of settler peoples until this day. Most importantly, we remember the history of these lands has been tainted by poor treatment and a lack of friendship with the First Nations who call them home.

This history is something we are all affected by as we are all treaty people in Canada. We all have a shared history to reflect on, and each of us is affected by this history in different ways. Our past defines our present, but if we move forward as friends and allies, then it does not have to define our future.

FACULTY OF BUSINESS AND IT

INFR 6120G: Cybersecurity Leadership

Course outline for XXX

1. Course Details & Important Dates*

Term	Course Type	Day	Time	Location	CRN#
----				Online	

Classes Start	Classes End	**Last day to drop course without academic consequence**	Final Exam Period
----	----	----	----

* Visit Ontario Tech's Important Dates and Deadlines for other dates.

Important Note – Final Exams

There is no final exam for this course

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Office Hours:			

Laboratory/Teaching Assistant Name	Office	Phone	Email
Office Hours:			

3. Course Description

This course examines the concept of leadership, how it works and specifically how it may be applied to the specific needs of cybersecurity. This includes leadership in times of normalcy, crisis and continuance. The course includes case discussions, roleplaying exercises and input as available from external cybersecurity experts. The course will be held in a hybrid format, with online and face to face discussions and exercises according to the availability of students.

4. Learning Outcomes

On the successful completion of the course, students will be able to:

- Analyze different leadership styles in the context of cybersecurity
- Construct and justify different actions in response to cybersecurity activities and events
- Demonstrate how leadership makes a difference in cybersecurity events
- Debate the strengths and weaknesses of different leadership styles in context

5. Course Design

This course is largely discussion-based, with a few lectures on the concepts of leadership and how it is different or similar in different cybersecurity concepts. We will use a case-based and discussion method to tease out the ways in which different leadership styles and the actions of leaders have led to different outcomes. There may well be visiting presenters who will share their expertise of how and when the different styles and requirements of leadership make sense, in 'normal', crisis and post-crisis settings. There will be ample opportunity to discuss the governance and leadership issues associated with the cases, as well as in a final 'war game' scenario and subsequent debriefing in which students will participate.

6. Outline of Topics in the Course

Week #	Topics	Details of topics to be covered in the course, by unit or by week
1	What do we mean by leadership? From philosophy to sociology through psychology. From stoicism to authoritarianism and beyond.	The Romans, the Greeks, "Great Man" Theory, military leadership, civilian leadership.
2	Leadership rules. Leadership actions. Leadership versus management.	Leadership styles, how leadership works in context.
3	Why cybersecurity needs leadership. What is different about cybersecurity?	The different timescales of cybersecurity. The different people and tools of cybersecurity. The similarities between cybersecurity and other areas.
4	Communication	How, why, when and again, how.

5	Normalcy	How to lead in uncertain and normal times, in different kinds of environment.
6	Crisis	The requirements of a crisis: pro-action, reaction, availability, communication, understanding.
7	Post-crisis and return to normalcy	What happens next? Who knows?
8	Legal concerns	The law in Canada and elsewhere as it relates to cybersecurity and why it impacts leadership requirements.
9	Recognizing and building new leaders in our field and work	Coaching and encouraging.
10	Incompetency and worse: There is no I in team	How to fail. How to spot failing. Self-assessment and self-regulation.
11	"War game"	
12	Debriefing	

7. Required Texts/Readings

There is no specific text assigned for the course. Cases will be assigned on a weekly basis to help discuss the concepts presented. Readings from different texts and articles will be required. All of these will be available in or through the university library (no purchase of texts will be required.)

Additional readings may be assigned or recommended during the course.

8. Evaluation Method

This is a course that requires people to participate.

There are weekly case discussions. Students will be expected to prepare and present a case assigned to them at some point during the semester. The presentation and analysis is worth 25% of the final grade for the course.

The 'war game' will be a **full day** session in which all students are expected to take part in different roles – it is a reactive simulation that is designed to examine the different ways in which leadership makes a difference in various situations. A report on what transpired is required per student and participation in the debrief session is also required.

War game participation and activity: 20%
Report: 15%
Debrief: 15%

Participation in the weekly sessions/discussions is worth up to 15% of the final grade.

Contribution to the ongoing course educational resource (an OER created and maintained by the class) is worth up to 15% of the final grade and opportunities to contribute will present themselves throughout the course.

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found under Academic Regulations at: Ontario Tech's Academic regulations

9. Assignments and Tests

Weekly cases (at least one per student group).
Online and in class discussions (generally, topics will be assigned but can be requested).
OER contributions (to be discussed in class, due by end of semester).

Attendance at the weekly sessions/discussions is therefore mandatory. Up to two may be missed for personal or other reasons without penalty, but given the unique nature of what we are discussing and how, further absences will result in the student being unable to complete the course.

For information on how missed/late assignments and medical excuses are managed, please refer to the university's revised *Procedures for Consideration of Missed In-Term Course Work and Examinations*

10. Technology Requirements and Learning Management System Information

Ontario Tech uses *Canvas*™ as its learning management system (LMS). Access to the LMS is limited to students formally registered in courses. That access is for the duration of the semester **and for an additional 120 days once the semester is over**. Students are strongly encouraged to download any/all relevant course material during that access period. Any requests for access post this period must be made in writing to the instructor/faculty member responsible for the course.

To support online learning, the university recommends certain technology requirements for laptops, software and internet connectivity which are available at: Ontario Tech's Remote Learning Policies.

Students experiencing technical difficulties such that they are unable to meet the technology requirements may contact the IT Service Help Desk at: servicedesk@dc-uoit.ca
Students experiencing financial difficulties such that they are unable to meet the technology requirements may contact Student Awards and Financial Aid Office at: connect@ontariotehu.ca

By remaining enrolled in this course, you acknowledge that you have read, understand and agree to observe the Recommended Technology Requirements for accessing university online learning resources, including those minimum requirements that are specific to your faculty and program.

11. Sensitive/Offensive Subject Matter

The classroom (both physical and virtual) is intended to provide a safe, open space for the critical and civil exchange of ideas and opinions. Some articles, media and other course materials may contain sensitive content that is offensive and/or disturbing. The Course Instructor will try to identify such material and communicate warnings to students in advance of the distribution and use of such materials, affording students the choice to either emotionally prepare for, or not to view or interact with, the content

12. Student Support

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@ontariotechu.ca for support. Furthermore, please notify your professor if you are comfortable in doing so. This will enable them to provide any resources and help that they can.

13. Student Sexual Violence Support and Education

Ontario Tech is committed to the prevention of sexual violence in all its forms. For any student who has experienced Sexual Violence, Ontario Tech can help. We will make accommodations to cater to the diverse backgrounds, cultures, and identities of students when dealing with individual cases.

If you think you have been subjected to or witnessed sexual violence:

- Reach out to the gender-based case specialist in the Human Rights office, a specially trained individual authorized to receive confidential disclosures about incidents of sexual violence. The Human Rights Office will make support services, including counselling, access or referrals to medical services, safety planning and accommodations, available to Students affected by an Incident of Sexual Violence. Book a consultation with the Case Specialist for more information.

Learn more about your options at: Ontario Tech's Policy on Sexual Violence and Support Information.

14. Students with Disabilities

Ontario Tech University is committed to promoting an environment where everyone has an equal opportunity to contribute to their fullest potential. Students who require accommodation for a disability are advised to contact Student Accessibility Services (SAS) as soon as possible. Accommodation decisions will be made in accordance with the Ontario Human Rights Code. Accommodations will be consistent with and supportive of the essential requirements of courses and programs, and provided in a way that respects the dignity of students with disabilities and encourages integration and equality of opportunity. Reasonable academic accommodation may require instructors to exercise creativity and flexibility in responding to the needs of students with disabilities while maintaining integrity.

Disability-related and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Monday, Tuesday, Thursday, and Friday, Wednesday's 10:00 am to 4:30. Please note they are closed each day between noon and 1:00 pm. For more information on services provided, you can visit the SAS website at Ontario Tech's Student Accessibility Services (SAS). Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@ontariotechu.ca.

Students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here Registration Link to write examinations in SAS at Ontario Tech. Students must sign up for tests, midterms, or quizzes **AT LEAST seven (7) working days before the date of the test.**

Students must register for final exams no later **than 3 weeks prior to the start of the final examination period**. The final examination period is given at Ontario Tech University's Important dates and deadlines.

15. Professional Suitability (if applicable)

Ontario Tech University is a community that values and promotes respect, integrity, diversity and accountability among all members of the university. These values can only be achieved in an environment that supports and protects the safety and security of its members. The Ontario Tech University Policy on Student Conduct defines and guides standards of student behaviour at the university to uphold these values and ensure that behaviour contrary to these standards are dealt with in a manner that is fair, open and effective.

The Faculty of Business & IT has the following expectations related to professionalism for all its community members, including without limitation, students, Staff, and Faculty:

- **Respect, civility, and courtesy:** Community members are expected to treat each other with respect, civility, and courtesy both in and outside of the classroom. Rudeness, profanity, insults, harassment, and class disruptions are unacceptable.
- **Critique ideas, not the people who raise the ideas:** Discussions, debates, and the exchange of ideas are normal parts of life in an academic community. Community members are expected to engage in discussions, debates, and the exchange of ideas in respectful ways, even while vigorously advocating for one's perspective.
- **Talk *to* those with whom you have a complaint, not *about* them.** When community members have disputes, complaints, and/or concerns about another community member, they are expected to do their best to address the matter directly and informally with the other member, provided that it is safe to do so.
- **Special obligations:** Community members in positions of authority have special obligations to demonstrate respect, civility, and professionalism and to encourage the development of these values within the FBIT community.

The *Professional Suitability* policy can be found at Ontario Tech's Professional Suitability Policy and the related procedures are hosted at Ontario Tech's Professional Suitability Procedures.

16. Academic Integrity

Students and faculty at Ontario Tech University share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness and mutual respect for the aim and principles of the pursuit of education. Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action.

Students are expected to be familiar with and abide by Ontario Tech University's regulations on Academic Conduct which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, among other academic offences. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic misconduct, which can range from a resubmission of work to a failing grade to permanent expulsion from the university. A lack of familiarity with these regulations on academic conduct does not constitute a defense against its application. Please note that generative artificial intelligence (GAI) tools should not be utilized without advance, specific written approval by the faculty member teaching the course.

More information can be found at Ontario Tech's Academic Integrity Policy.

Extra support services are available to all Ontario Tech University students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found at Academic Support at Ontario Tech.

17. Turnitin (if applicable)

Ontario Tech University and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review by Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. The instructor may require students to submit their assignments electronically to Turnitin.com or the instructor may submit questionable text on behalf of a student. The terms that apply to Ontario Tech University's use of the Turnitin.com service are described on the Turnitin.com website.

Students who do not wish to have their work submitted to Turnitin.com must provide with their assignment at the time of submission to the instructor a signed Turnitin.com Assignment Cover sheet: Signed Turnitin Coversheet to Withdraw Permission to Submit Work.

18. Online Test and Exam Proctoring (Virtual Proctoring)

Ontario Tech University will conduct virtual monitoring of examinations in accordance with Ontario privacy legislation and all approved policy instruments.

19. Final Examinations (if applicable)

Final examinations are held during the final examination period at the end of the semester and may take place in a different room and on a different day from the regularly scheduled class. Check the published Examination Schedule for a complete list of days and times.

Students are required to show their valid physical or digital Ontario Tech University student photo ID card (campus ID), or a valid government issued photo ID that is in English when writing an **in-person examination.** Students are advised to obtain their Student ID Card well in advance of the examination period as they will not be able to write their examinations without it. More information on ID cards can be found at Information on Ontario Tech's Student ID Cards.

Students who are unable to write a final examination when scheduled due to religious publications may make arrangements to write a deferred examination. These students are required to submit an Academic Consideration form to the applicable Faculty as soon as possible and no later than three weeks prior to the first day of the final examination period.

Further information on final examinations can be found in the university's *Procedures for Final Examination Administration* Ontario Tech's Procedures for Final Examinations and in the Procedures for Consideration of Missed In-Term Course Work and Examinations.

20. Freedom of Information and Protection of Privacy Act

The following is an important notice regarding the process for submitting course assignments, quizzes, and other evaluative material in your courses in the Faculty of Business and IT.

Ontario Tech University is governed by the Freedom of Information and Protection of Privacy Act ("FIPPA"). In addition to providing a mechanism for requesting records held by the university, this legislation also requires that the University not disclose the personal information of its students without their consent.

FIPPA's definition of "personal information" includes, among other things, documents that contain both your name and your Banner (student) ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of Business and IT encourages you to use only your Banner ID on assignments or test papers being submitted for grading. This policy is intended to prevent the inadvertent disclosure of your information where graded papers are returned to groups of students at the same time. If you still wish to write both your name and your Banner ID on your tests and assignments, please be advised that Ontario Tech University will interpret this as an implied consent to the disclosure of your personal information in the normal course of returning graded materials to students.

If you have any questions or concerns relating to the new policy or the issue of implied consent addressed above, please contact accessandprivacy@ontariotechu.ca

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This course will use the following technologies that may collect, use, disclose and retain personal information (including images) for the purposes described below:

- Google Meet and Kaltura Virtual Classroom to facilitate remote instruction and interactive learning;
- Peer-shared applications, services or technologies that may be reviewed, assessed, or used as part of coursework.
- Other applications, services, or technologies that support or enhance online learning that include, but are not limited to, the following: pressbooks, mentimeter.

For more information relating to these technologies, we encourage you to visit: Educational Technologies used at Ontario Tech.

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activity including experiential learning opportunities such as co-op, practicum or during research endeavors, during official Ontario Tech events or using University equipment and technological tools that facilitate remote learning, e.g., class and other chat functions, video conferencing, and electronic mail.

22. Freedom of Expression

Pursuant to Ontario Tech's Freedom of Expression Policy, all students are encouraged to express ideas and perspectives freely and respectfully in university space and in the online university environment, subject to certain limitations. Students are reminded that the limits on Freedom of Expression include speech or behaviour that: is illegal or interferes with the university's legal obligations; defames an individual or group; constitutes a threat, harassment or discrimination; is a breach of fiduciary, contractual, privacy or confidentiality obligations or commitments; and unduly disrupts and interferes with the functioning of the university. In the context of working online, different forms of communication are used. Where permitted, students using "chat" functions or other online forms of communication are encouraged to ensure that their communication complies with the Freedom of Expression Policy.

23. Copyright Notice

All Teaching Materials, as they are defined under Ontario Tech's Intellectual Property policy ("IP Policy"), provided by the instructor throughout the course, including, but not limited to, in whole or in part, course notes, teaching notes, custom books, tutorials, evaluation tools, presentations and examinations are subject to the Copyright Act, R.S.C., 1985, c. C-42 and the IP Policy. Subject to the IP Policy, Teaching Materials are owned by the faculty member, instructor or other third party who creates such works, with a license to the University. The copyright owner(s) reserves all intellectual property rights in and to the foregoing materials. Consistent with the IP Policy, Teaching Materials are intended to be used by Ontario Tech University students registered in the course that is the subject of this course outline for educational purposes only. Any distribution or publishing of this material (e.g., uploading material to a third-party website) by a student is strictly prohibited under the law unless the student has obtained the copyright owner's prior written consent. Any violation of copyright law or the IP Policy, if proven, may be subject to sanction as academic misconduct, and/or under the Student Conduct Policy.

24. Student Course Feedback Surveys

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of Ontario Tech University's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course evaluations will be sent via e-mail, and posted on Canvas, Weekly News, and signage around the campus.

25. AODA

The Accessibility for Ontarians with Disabilities Act (AODA) standards have been considered in the development of this model course template and it adheres to the principles outlined in the University's Accessibility Policy.

FACULTY OF BUSINESS AND IT

INFR6130G: Cybercrime

Course outline for **** **20****

1. Course Details & Important Dates*

Term	Course Type	Day	Time	Location	CRN #
-	Lecture	-	3 hours	-	-

Classes Start	Classes End	**Last day to drop course without academic consequence**	Final Exam Period
-	-	-	-

* Visit Ontario Tech's Important Dates and Deadlines for other dates.

Important Note – Final Exams
The final exam for this course will be run ON CAMPUS during the regular final exam period. If a student cannot attend due to COVID-19 related international travel restrictions you **must email your course instructor ASAP** (as soon as possible) regarding the possibility of alternate arrangements.

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Dr. Fletcher Lu	UB3062	905-721-8668 ext. 3761	fletcher.lu@ontariotechu.ca
Office Hours: TBA*			

Teaching Assistant Name	Office	Phone	Email

*TBA = To Be Announced

3. Course Description

This course covers different manifestations of cybercrime including hacking, viruses and other forms of malicious software. It presents technical and social issues of cybercrime, covers the origins and extent of the cybercrime problem, ethical and legal issues as well as analytical techniques to detect cybercrime.

4. Learning Outcomes

On the successful completion of the course, students will be able to:

1. Identify and describe techniques for cyber-fraud, online deception and scams,

2. Distinguish between criminal hacking, and non-criminal hacking.
3. Describe how computer technologies have altered the ways in which theft, terrorism, ransoming, fraud, and identity crimes are committed.
4. Identify and distinguish the various types of viruses and malicious code.
5. Identify and define the primary security technologies used to protect information.
6. Explain the conflicting roles within law enforcement pertaining to investigation vs. intelligence gathering.
7. Identify the legal issues related to various cybercrime activities both domestically and internationally.
8. Describe social issues related to cybercrime including cyberbullying and harassment.

5. Course Design

Many of the topics covered in this course are contemporary in nature and not adequately covered by any single textbook. Due to this contemporary nature, extensive online reading and material are required. Students are strongly recommended to attend lectures as not all material necessary for exams and assignments may appear on printed lecture notes, but instead are drawn from articles and postings that are cited and discussed during lectures. Thus, students will need to take comprehensive notes during lectures or be prepared to obtain another student's notes for any missed lectures. For missed lectures, it is the responsibility of the student to obtain such notes from another student and NOT from the instructor.

Online interactive computer tools will be used during lectures, thus students must bring their laptop with them to lectures and it is strongly encouraged to bring an internet cable to help reduce lag time due to the slower wireless transfer speeds.

6. Outline of Topics in the Course

Week #	Date	Time	Topics*
1	-	-	1. Introduction and Overview • Introduction to course • Overview of assignments, grading • Defining cybercrime • Current events, issues
2	-	-	2. Online fraud, email spam and scams • Peer to peer network dangers • Who is tracking your online activities • Phishing, Pharming, Spams and scams • Misinformation, Deception & Deep Fakes
3	-	-	3. Analytics for Crime Detection • Modeling methods • Probabilistic Association Rules • Training & outlier techniques
4	-	-	4. Computer viruses, spyware and attacks • Approaches, techniques and medium • Protection methods and mechanisms • DOS attacks
5	-	-	5. Theft, piracy and security issues • Theft and protections of identity and data • Approaches to commit identity and data theft

			• Legal and technological protections • Smartphone and WiFi issues • Midterm Review
6	-	-	Midterm
7	-	-	6. Online Surveillance • Surveillance through mobile and computer devices • Government, individual and business surveillance tactics • Tracking systems
8	-	-	7. Bullying, pornography and sex crimes • Stalking, bullying and harassment • Definitions, laws and protections • Sexual predators • Security measures • Protections
9	-	-	8. Advanced Techniques • Misinformation, DeepFakes and AI in cybercrime • Techniques for detection and prevention
10	-	-	Project Presentations
11	-	-	Project Presentations
12	-	-	Final Exam

*topic schedule subject to change

7. Required Texts/Readings

There is no required textbook, however additional readings are assigned or recommended during the course.

8. Evaluation Method

	Due Date[1]	Percentage of Final Grade*
Assignment 1	-	15%
Midterm	-	15%
Assignment 2	-	15%
Term Project	*Written Report portion*: -	20%
	Oral Presentation portion: -	20%
Final Exam	-	15%

1. Due dates are subject to change, be sure to check the course Canvas account for updates/changes.
2. TBD = to be determined

**Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found at: Ontario Tech's Academic regulations*

9. Assignments and Tests

All assignments must be submitted on or before the due date and time. No late submissions will be accepted unless accompanied by an acceptable excuse (medical or compassionate with supporting documentation) that has been approved by the instructor. All late submissions without an approved

excuse by the instructor will receive a mark of zero. Note: technical difficulties due to such issues as a slow or dropped connection, lag on server, etc. are NOT approvable excuses. Students are strongly encouraged to avoid such difficulties by following a principle of submitting both early and often before the due date/time. The principle behind 'early and often' submission is that as soon as you have some work done such as part of one question, submit it so you always avoid getting a zero due to a missed or late assignment as you will have at least something submitted. And then keep resubmitting as you complete more of the assignment material.

Assignments will be posted on the Canvas system with submissions handed in electronically through Canvas. The term project has both a written and oral presentation component. The written component is due all on the same due date. For the project, students will work in groups and each group will be randomly assigned to a presentation date. Each group member is required to participate in the oral presentation. It is the responsibility of the group members to ensure that work is equitably shared among the group's members.

Missed Term Test
Students who miss a midterm or term test may submit a request for deferral using an Academic Consideration form, along with supporting documentation to the Faculty Advising offices within three (3) working days. We do not require students to submit Ontario Tech University Medical Statements at this time. If a midterm or term test is missed for approved reasons, the weight of the missed component will be added to the final. If you miss the midterm or term test and do not follow the procedure above, you will receive a score of zero on the missed component.

All forms can also be found through MyOntarioTech or on the Ontario Tech University website.

Missed Course Work
Coursework missed for medical or serious personal reasons must be documented and reported to the instructor within three (3) working days of the missed work using an Academic Consideration form. Coursework includes, but is not limited to, quizzes; written assignments; participation; case studies; etc… If missed coursework totals more than 25% of the final grade, this must be documented through the FBIT Academic Advising office. The weight of the missed course component will be reweighted to the final exam. If you miss coursework and do not notify the instructor within the three (3) working day deadline, you will receive a score of zero on the missed component.

10. Technology Requirements and Learning Management System Information

Ontario Tech uses *Canvas*™ as its learning management system (LMS). Access to the LMS is limited to students formally registered in courses. That access is for the duration of the semester **and for an additional 120 days once the semester is over**. Students are strongly encouraged to download any/all relevant course material during that access period. Any requests for access post this period must be made in writing to the instructor/faculty member responsible for the course.

To support online learning, the university recommends certain technology requirements for laptops, software and internet connectivity which are available at: Ontario Tech's Remote Learning Policies.

Students experiencing technical difficulties such that they are unable to meet the technology requirements may contact the IT Service Help Desk at: servicedesk@dc-uoit.ca
Students experiencing financial difficulties such that they are unable to meet the technology requirements may contact Student Awards and Financial Aid Office at: connect@ontariotehu.ca

By remaining enrolled in this course, you acknowledge that you have read, understand and agree to observe the Recommended Technology Requirements for accessing university online learning resources, including those minimum requirements that are specific to your faculty and program.

11. Sensitive/Offensive Subject Matter

The classroom (both physical and virtual) is intended to provide a safe, open space for the critical and civil exchange of ideas and opinions. Some articles, media and other course materials may contain sensitive content that is offensive and/or disturbing. For example, some articles or videos may contain depictions of violence, profanity, human anatomy, sexual acts, matters pertaining to race, gender, or sexuality. The Course Instructor will try to identify such material and communicate warnings to students in advance of the distribution and use of such materials, affording students the choice to either emotionally prepare for, or not to view or interact with, the content.

12. Student Support

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@ontariotechu.ca for support. Furthermore, please notify your professor if you are comfortable in doing so. This will enable them to provide any resources and help that they can.

13. Sexual Violence Support and Education

Ontario Tech is committed to the prevention of sexual violence in all its forms. For any student who has experienced Sexual Violence, Ontario Tech can help. We will make accommodations to cater to the diverse backgrounds, cultures, and identities of students when dealing with individual cases.

If you think you have been subjected to or witnessed sexual violence:

- Reach out to a Support Worker, a specially trained individual authorized to receive confidential disclosures about incidents of sexual violence. Support Workers can offer help and resolution options which can include safety plans, accommodations, mental health support, and more. To make an appointment with a Support Worker, call 905.721.3392 or email studentlife@ontariotechu.ca

- Learn more about your options at: Ontario Tech's Policy on Sexual Violence and Support Information

14. Students with Disabilities

Accommodating students with disabilities at Ontario Tech is a responsibility shared among various partners: the students themselves, SAS staff and faculty members. To ensure that disability-related concerns are properly addressed during this course, students with documented disabilities and who may require assistance to participate in this class are encouraged to speak with me as soon as possible. **Students who suspect they have a disability that may affect their participation in this course are advised to go to Student Accessibility Services (SAS) as soon as possible.** Maintaining communication and working collaboratively with SAS and faculty members will ensure you have the greatest chance of academic success.

When on campus access is allowed, students taking courses on North Oshawa campus can visit Student Accessibility Services in Shawenjigewining Hall. Students taking courses on the **downtown Oshawa campus** can visit Student Accessibility Services in Charles Hall, Room 225.

Disability-related and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Monday, Tuesday, Thursday, and Friday, Wednesday's 10:00 am to 4:30. Please note they are closed each day between noon and 1:00 pm. For more information on services provided, you can visit the SAS website at Ontario Tech's Student Accessibility Services (SAS). Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@ontariotechu.ca.

When on campus access is allowed, students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here Registration Link to write examinations in SAS at Ontario Tech. Students must sign up for tests, midterms, or quizzes AT LEAST seven (7) days before the date of the test.

Students must register for final exams by the registration deadline, which is typically two (2) weeks prior to the start of the final examination period. SAS will notify students of the registration deadline date.

15. Professional Suitability (if applicable)

Ontario Tech University is a community that values and promotes respect, integrity, diversity and accountability among all members of the university. These values can only be achieved in an environment that supports and protects the safety and security of its members. The Ontario Tech University Policy on Student Conduct defines and guides standards of student behaviour at the university to uphold these values and ensure that behaviour contrary to these standards are dealt with in a manner that is fair, open and effective.

The Faculty of Business & IT has the following expectations related to professionalism for all its community members, including without limitation, students, Staff, and Faculty:

- **Respect, civility, and courtesy:** Community members are expected to treat each other with respect, civility, and courtesy both in and outside of the classroom. Rudeness, profanity, insults, harassment, and class disruptions are unacceptable.
- **Critique ideas, not the people who raise the ideas:** Discussions, debates, and the exchange of ideas are normal parts of life in an academic community. Community members are expected to engage in discussions, debates, and the exchange of ideas in respectful ways, even while vigorously advocating for one's perspective.
- **Talk *to* those with whom you have a complaint, not *about* them.** When community members have disputes, complaints, and/or concerns about another community member, they are expected to do their best to address the matter directly and informally with the other member, provided that it is safe to do so. (See Appendix A for more information about how students can raise concerns about academic matters.)
- **Special obligations:** Community members in positions of authority have special obligations to demonstrate respect, civility, and professionalism and to encourage the development of these values within the FBIT community.

The *Professional Suitability* policy can be found at Ontario Tech's Professional Suitability Policy and the related procedures are hosted at Ontario Tech's Professional Suitability Procedures.

16. Academic Integrity

Students and faculty at Ontario Tech University share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness and mutual respect for the aim and principles of the pursuit of education. Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action.

Students are expected to be familiar with and abide by Ontario Tech University's regulations on Academic Conduct which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, among other academic offences. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic

misconduct, which can range from a resubmission of work to a failing grade to permanent expulsion from the university. A lack of familiarity with these regulations on academic conduct does not constitute a defense against its application. This information can be found at Ontario Tech's Academic Integrity Policy.

Extra support services are available to all Ontario Tech University students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found at Academic Support at Ontario Tech's Student Learning Centre.

17. Turnitin (if applicable)

Ontario Tech University and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review by Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. The instructor may require students to submit their assignments electronically to Turnitin.com or the instructor may submit questionable text on behalf of a student. The terms that apply to Ontario Tech University's use of the Turnitin.com service are described on the Turnitin.com website.

Students who do not wish to have their work submitted to Turnitin.com must provide with their assignment at the time of submission to the instructor a signed Turnitin.com Assignment Cover sheet: Signed Turnitin Coversheet to Withdraw Permission to Submit Work.

18. Online Test and Exam Proctoring (Virtual Proctoring)

Ontario Tech University will conduct virtual monitoring of examinations in accordance with Ontario privacy legislation and all approved policy instruments.

19. Final Examinations (if applicable)

Final examinations are held during the final examination period at the end of the semester and **when on campus access is allowed,** may take place in a different room and on a different day from the regularly scheduled class. Check the published Examination Schedule for a complete list of days and times.

Students are required to show their Student ID card (campus ID) when **in-person examinations are allowed.** Students are advised to obtain their Student ID Card well in advance of the examination period as they will not be able to write their examinations without it. More information on ID cards can be found at Information on Ontario Tech's Student ID Cards.

Students who are unable to write a final examination when scheduled due to religious publications may make arrangements to write a deferred examination. These students are required to submit a Request for Accommodation for Religious Obligations to the Faculty concerned as soon as possible and no later than three weeks prior to the first day of the final examination period.

Further information on final examinations can be found at Ontario Tech's Procedures for Final Examinations.

20. Freedom of Information and Protection of Privacy Act

The following is an important notice regarding the process for submitting course assignments, quizzes, and other evaluative material in your courses in the Faculty of Business and IT.

Ontario Tech University is governed by the Freedom of Information and Protection of Privacy Act ("FIPPA"). In addition to providing a mechanism for requesting records held by the university, this

legislation also requires that the University not disclose the personal information of its students without their consent.

FIPPA's definition of "personal information" includes, among other things, documents that contain both your name and your Banner (student) ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of [Insert Faculty name] encourages you to use only your Banner ID on assignments or test papers being submitted for grading. This policy is intended to prevent the inadvertent disclosure of your information where graded papers are returned to groups of students at the same time. If you still wish to write both your name and your Banner ID on your tests and assignments, please be advised that Ontario Tech University will interpret this as an implied consent to the disclosure of your personal information in the normal course of returning graded materials to students.

If you have any questions or concerns relating to the new policy or the issue of implied consent addressed above, please contact accessandprivacy@ontariotechu.ca

Notice of Collection and Use of Personal Information
Throughout this course, personal information may be collected through the use of certain technologies under the authority of the *University of Ontario Institute of Technology Act, SO 2002, c. 8, Sch. O.* and will be collected, protected, used, disclosed and retained in compliance with Ontario's *Freedom of Information and Protection of Privacy Act R.S.O. 1990, c. F.31.*

This course will use the following technologies that may collect, use, disclose and retain personal information (including images) for the purposes described below:

- Respondus Monitor and Proctortrack to maintain academic integrity for examinations;
- Google Meet and Kaltura Virtual Classroom to facilitate remote instruction and interactive learning;
- Peer-shared applications, services or technologies that may be reviewed, assessed, or used as part of coursework.
- Other applications, services, or technologies that support or enhance online learning that include, but are not limited to, the following: Mentimeter (www.menti.com) for participation polling.

For more information relating to these technologies, we encourage you to visit: Educational Technologies used at Ontario Tech. Questions regarding personal information may be directed to: Ontario Tech University Access and Privacy Office, 2000 Simcoe Street North, Oshawa, ON L1G 0C5, email: accessandprivacy@ontariotechu.ca.

By remaining enrolled in this course, you acknowledge that you have read, understand, and agree to the terms and conditions under which the technology provider(s) may collect, use, disclose and retain your personal information. You agree to the university using the technologies and using your personal information for the purposes described in this course outline.

21. Human Rights and Respect

Ontario Tech University is committed to providing a campus environment in which all University Members are treated with dignity and to fostering a climate of understanding and mutual respect. The University will not tolerate, ignore or condone Discrimination or Harassment by or against anyone. Examples of Harassing behavior include, but are not limited to; bullying, taunting or mocking someone's race or creed, ridiculing an individual's disability, or targeting individuals with unwanted sexual or negative stereotypical comments about one's sex, gender, sexual orientation, gender identity and/or gender expression. Pursuant to Ontario Tech's Respectful Campus Policy, students are reminded of their role in ensuring a campus environment that is equitable and

inclusive. Requirements to refrain from harassment and discrimination apply broadly to the classroom, including in lectures, labs and practicums, as well as through the use of sanctioned and unsanctioned technological tools that facilitate remote learning, e.g. class and other chat functions, video conferencing, electronic mail and texts, and social media content amongst or about University students, faculty and staff.

22. Freedom of Expression

Pursuant to Ontario Tech's Freedom of Expression Policy, all students are encouraged to express ideas and perspectives freely and respectfully in university space and in the online university environment, subject to certain limitations. Students are reminded that the limits on Freedom of Expression include speech or behaviour that: is illegal or interferes with the university's legal obligations; defames an individual or group; constitutes a threat, harassment or discrimination; is a breach of fiduciary, contractual, privacy or confidentiality obligations or commitments; and unduly disrupts and interferes with the functioning of the university. In the context of working online, different forms of communication are used. Where permitted, students using "chat" functions or other online forms of communication are encouraged to ensure that their communication complies with the Freedom of Expression Policy.

23. Copyright Notice

All teaching materials provided by the instructor throughout the course, including, but not limited to, in whole or in part, recorded lectures, slides, videos, diagrams, case studies, assignments, quizzes, and examinations are subject to the Copyright Act, R.S.C., 1985, c. C-42. Teaching materials are owned by the faculty member, instructor or other third party who creates such works. The copyright owner(s) reserves all intellectual property rights in and to the teaching materials, including the sole right to copy, reproduce, distribute, and modify the teaching materials. Consistent with the university's Intellectual Property Policy, teaching materials are intended only for the educational use of Ontario Tech University students registered in the course that is the subject of this course outline. Any distribution or publishing of this material (e.g. uploading material to a third-party website) is strictly prohibited under the law unless the student has obtained the copyright owner's prior written consent. Any violation of copyright law or the Intellectual Property Policy, if proven, may be subject to sanction as academic misconduct, and/or under the Student Conduct Policy.

24. Student Course Feedback Surveys

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of Ontario Tech University's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course evaluations will be sent via e-mail, and posted on Canvas, Weekly News, and signage around the campus.

University Response to COVID-19

The government response to the COVID-19 pandemic is continually evolving. As new information becomes available from federal and provincial public health authorities, the Province of Ontario and the Regional Municipality of Durham, Ontario Tech University will remain nimble and prepared to respond to government orders, directives, guidelines and changes in legislation to ensure the health and safety of all members of its campus community. In accordance with public health recommendations, the university may need to adjust the delivery of course instruction and the availability and delivery mode of campus services and co-curricular opportunities. Ontario Tech University appreciates the understanding and flexibility of our students, faculty and staff as we continue to navigate the pandemic and work together to demonstrate our strong commitment to academic, research and service excellence during these challenging and unprecedented times.

The Accessibility for Ontarians with Disabilities Act (AODA) standards have been considered in the development of this model course template and it adheres to the principles outlined in the University's Accessibility Policy.

Ontario Tech University acknowledges the lands and people of the Mississaugas of Scugog Island First Nation. We are thankful to be welcomed on these lands in friendship. The lands we are situated on are covered under the Williams Treaties and the traditional territory of the Mississaugas, a branch of the greater Anishinaabeg Nation, including Algonquin, Ojibway, Odawa and Pottawatomi. These lands remain home to a number of Indigenous nations and people.

We acknowledge this land out of respect for the Indigenous nations who have cared for Turtle Island, also called North America, from before the arrival of settler peoples until this day. Most importantly, we remember the history of these lands has been tainted by poor treatment and a lack of friendship with the First Nations who call them home.

This history is something we are all affected by as we are all treaty people in Canada. We all have a shared history to reflect on, and each of us is affected by this history in different ways. Our past defines our present, but if we move forward as friends and allies, then it does not have to define our future.

FACULTY OF BUSINESS AND IT
Financial Implications of Cyber Risk
2024-25

1. Course Details & Important Dates*

Term	Course Type	Day	Time	Location	CRN#
2024-25	Lecture				

Classes Start	Classes End	**Last day to drop course without academic consequence**	Final Exam Period

* Visit Ontario Tech's Important Dates and Deadlines for other dates.

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Dr. Julia Zhu	UB3036		Canvas Email
Office Hours: by appointment			

Laboratory/Teaching Assistant Name	Office	Phone	Email
Office Hours: by appointment			

3. Course Description

This course attempts to provide a comprehensive and integrated introduction to cyber risk. We use contemporary models in accounting, finance, and economics to analyze and understand financial costs and implications of cyber risk. The focus will be on various issues regarding the causes and determinants of data privacy breaches, and the adverse consequences of cyberattacks.

Prerequisite(s):

4. Learning Outcomes

On the successful completion of the course, students will be able to:

- Demonstrate financial costs and implications of cyber risk
- Identify causes and determinants of data privacy breaches
- Evaluate the adverse consequences resulting from cyberattacks
- Estimate economic importance and financial consequences of cyberattacks
- Improve communication, teamwork, analytical, academic writing skills

5. Course Design

The course will be presented in the format of lectures, discussions, case study, simulated research projects, presentations, and term papers. A good understanding of the research papers and contemporary academic concepts is necessary for successful completion of this course. Students are therefore urged to work conscientiously on all assigned problems, questions, and readings. The practical implications will be analyzed through case study.

Lectures focus on the material presented in the distributed academic papers and general discussion relating to the topic(s) outlined in the lecture schedule. Students are expected to read the assigned academic journal articles and readings before class, and be prepared for class discussion. *Your instructor may not necessarily cover all of the materials in the paper, but it is the responsibility of the student to understand the concepts presented in the paper and lectures. If you are unsure of any of the concepts, please take the initiative to ask the instructor during class.*

Students requiring assistance are encouraged to speak to their instructor during class or during office hours. Should you wish to meet with the instructor outside of office hours, please email first to make an appointment. Students should get into the habit of making and keeping business appointments. Should you fail to attend or cancel the appointment at least 24 hours in advance, you will lose the right to book another appointment.

Email is commonly used by students to communicate with their instructor. However, it does limit the effectiveness of the communications and may not be the best way for instructors to answer student questions, especially those requiring an explanation of concepts covered in this course or some personal concerns. Therefore, the instructor may request a telephone call or personal/online meeting. *Your instructor will inform you as to her expectations about emails.*

Any surfing of the Internet during lectures that is not directly related to the class discussion is distracting and strictly forbidden. Additionally, the use of any electronic devices (e.g., cellular phones, Blackberrys, iphones) for e-mailing, text-messaging, etc. is strictly

prohibited. Please turn OFF your phone before the beginning of each lecture. The laptop is to be used in class for academic purposes only.

6. Outline of Topics in the Course

Tentative Course Schedule, 2024-2025			
Lecture #	**Date**	**Topics**	**Material Covered**
Lecture 1		Overview	Course Outline
		Introduction	Freeze, 2019; Bank of Canada, 2019
Lecture 2		Cyber Risk in Accounting and Finance	Deloitte, 2016; Institute of Internal Auditors, 2018; Interpol, 2020
Lecture 3		Research methods in Finance	Amir et al., 2018; Richardson et al., 2019
Lecture 4		Data Breach Investigations Report and	AICPA, 2018; PSC, 2018; Verizon, 2019
		Case study	
Lecture 5		Accounting audits	Chichernea, Holder, Petkevich, and Robin, 2018
Lecture 6		Trade secrets	Ettredge, Guo, and Li, 2018
Family Day, no scheduled academic activities ***Study Break, no scheduled academic activities***			
Lecture 7		Board-level technology committees	Higgs, Pinkser, Smith, and Young, 2016
Lecture 8		Financial Costs of Cyber Risk	Deloitte Development LLC, 2018; Lloyd's, 2017; Rajgopal and Srinivasan, 2016
		Case study	
Lecture 9		Cyber risk disclosure	Amir et al., 2018; Hilary et al., 2016
Lecture 10		Financial reports and audit fees	Smith et al., 2019; Lawrence et al., 2018
Lecture 11		Mixed effects of cyberattacks on stock market	Gatzlaff and McCullough, 2010; Richardson et al., 2019; Spanos and Angelis, 2016
Lecture 12		Private-sector firms	Gordon et al., 2015; Gordon et al., 2018

Important Notes: *Adjustment of scheduled lectures might be made in accordance with any unforeseen circumstances during the semester.*

7. Required Readings

1. AICPA (American Institute of Certified Public Accountants), 2018. Cybersecurity risk management reporting fact sheet. Available at: www.aicpa.org/content/dam/aicpa/interestareas/frc/assuranceadvisoryservices/downloadabledocuments/cybersecurity-fact- sheet.pdf

2. Amir, E., Levi, S. and Livne, T., 2018. Do firms underreport information on cyber-attacks? Evidence from capital markets. Review of Accounting Studies 23, 1177-1206.

3. BoC (Bank of Canada), 2019. Cyber security strategy: Reducing Risk Promoting Resilience. Available at: https://www.bankofcanada.ca/wp-content/uploads/2019/06/cyber-security-strategy-2019-2021.pdf

4. Chichernea, D., Holder, A., Petkevich, A., and Robin, A., 2018. Better audits, better cybersecurity? Available at http://www.fmaconferences.org/SanDiego/SanDiegoProgram.htm.

5. Deloitte, 2016. Beneath the surface of a cyberattack: A deeper look at business impacts. Oakland, CA: Deloitte Development LLC.

6. Deloitte Development LLC. 2018. Black market ecosystem: Estimating the cost of ownership. Available at: https://www2.deloitte.com/content/dam/Deloitte/us/Documents/risk/us-risk-black-marketecosystem.pdf.

7. Ettredge, M., Guo, F., and Li, Y., 2018. Trade secrets and cyber security breaches. Journal of Accounting and Public Policy 37, 564– 585.

8. Freeze, Di. 2019. Cybersecurity almanac: 100 facts, figures, predictions and statistics. Cisco/CybersecurityVentures 2019 Cybersecurity Almanac. Available at https://cybersecurityventures.com/cybersecurity-almanac-2019/

9. Gatzlaff, K.M., McCullough, K.A., 2010. The effect of data breaches on shareholder wealth. Risk Management and Insurance Review 13, 61-83.

10. Gordon, L.A., Loeb, M.P., Lucyshyn, W. and Zhou, L., 2015. Externalities and the magnitude of cybersecurity underinvestment by private sector firms: a modification of the Gordon-Loeb model. Journal of Information Security 6, 24-30.

11. Gordon, L.A., Loeb, M.P., Lucyshyn, W. and Zhou, L. 2018. Empirical evidence on the determinants of cybersecurity investments in private sector firms. Journal of Information Security 9,133-153.

12. Higgs, J., Pinkser, R., Smith, T., and Young, G. 2016. The relationship between board-level technology committees and reported security breaches. Journal of Information Systems 30, 79–98.

13. Hilary, G., Segal, B., Zhang, M.H., 2016. Cyber-risk disclosure: Who cares? Unpublished working paper, Georgetown University.

14. IIA (Institute of Internal Auditors), 2018. The future of cybersecurity in internal audit. A joint research report by the internal audit foundation and crowe Horwath. Available at: https://bookstore.theiia.org/the-future-of-cybersecurity-in-internal-audit

15. Interpol, COVID-19 Cybercrime Analysis Report - August 2020.

16. Lawrence, A., Minutti-Meza, M., Vyas, D., 2018. Is operational control risk informative of financial reporting deficiencies? Auditing 37, 139-165.

17. Lloyd's, 2017. Closing the gap. Insuring your business against evolving cyber threats, http://www.lloyds.com/lloyds/about-us/what-do-we-insure/what-lloyds-insures/cyber/cyber-riskinsight/closing-the-gap.

18. PSC (Public Safety of Canada), 2018. Canada's vision for security and prosperity in the digital age. Available at: https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/ntnl-cbr-scrt-strtg/ntnl-cbr-scrt-strtg-en.pdf

19. Rajgopal, S., Srinivasan, S., 2016. Why the market Yawned when Yahoo was hacked. The Wall Street Journal. Available at: https://www.wsj.com/articles/why-the-market-yawned-when-yahoo-washacked-1475537076.

20. Richardson, V.J., Smith, R.E., and Warson, M.W., 2019. Much ado about nothing: the (lack of) economic impact of data privacy breaches. Journal of Information System, 33 (3): 227–265.

21. Smith, T., Higgs, J.L. and Pinsker, R., 2019. Do auditors price breach risk in their audit fees?" Journal of Information Systems 33, 177-204.

22. Spanos, G. and Angelis, L., 2016. The impact of information security events to the stock market: a systematic literature review. Computers and Security 58, 216-229.

23. Verizon, 2019. Data Breach Investigations Report. Available at https://enterprise.verizon.com/resources/executivebriefs/2019-dbir-executive-brief.pdf.

Additional readings may be assigned or recommended during the course.

8. Evaluation Method

Evaluations	Weights	Due dates
In class presentation	15%	
Paper summary	15%	
Simulated project 1	20%	
Simulated project 2	20%	
Term paper	30%	
	100%	

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found under Academic Regulations at: Ontario Tech's Academic regulations

9. Assignments and Tests

Paper Summary, Simulated Projects, and Term Papers:
Paper summary, simulated projects, and term papers are **individual** assignments.

Late submissions for above assignments will be accepted with a 20% **per day** penalty. Late submissions (penalty or not) are NOT accepted 2 days after the due date.

Missed In-Term Course Work
A request for consideration for missed course work worth 20% or less of the final grade must be documented and reported to the instructor in writing within the deadlines specified in the Procedures for Consideration of Missed In-Term Course Work and Examinations. Course work includes, but is not limited to: quizzes, written assignments (problem set), participation, case studies, etc. If missed coursework totals more than 20% of the final grade, the request for consideration must be submitted to the Faculty of Business and IT Advising Office and to the course instructor in writing using the Academic Consideration Form, along with supporting documentation. The request must be submitted within the deadlines specified in the Procedures for Consideration of Missed In-Term Course Work and Examinations. If approved, the extended deadline of the missed course component will be granted. If a student misses coursework and does not follow the procedure above, they will receive a score of zero on the missed component.

All forms can also be found through MyOntarioTech or on the Ontario Tech University website.

For information on how missed/late assignments and medical excuses are managed, please refer to the university's revised *Procedures for Consideration of Missed In-Term Course Work and Examinations*

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Disclaimer: “The content you are about to view contains sensitive subject matter that may be considered offensive and/or disturbing to some viewers. By viewing and/or interacting with the content you acknowledge and agree that it is your decision to view and interact with the content and to take the risk that you will experience a negative emotional response or reaction to the nature of the content.”

12. Student Support

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@ontariotechu.ca for support. Furthermore, please notify your professor if you are comfortable in doing so. This will enable them to provide any resources and help that they can.

13. Student Sexual Violence Support and Education

Ontario Tech is committed to the prevention of sexual violence in all its forms. For any student who has experienced Sexual Violence, Ontario Tech can help. We will make accommodations to cater to the diverse backgrounds, cultures, and identities of students when dealing with individual cases.

If you think you have been subjected to or witnessed sexual violence:

- Reach out to the gender-based case specialist in the Human Rights office, a specially trained individual authorized to receive confidential disclosures about incidents of sexual violence. The Human Rights Office will make support services, including counselling, access or referrals to medical services, safety planning and accommodations, available to Students affected by an Incident of Sexual Violence. Book a consultation with the Case Specialist for more information.

Learn more about your options at: Ontario Tech's Policy on Sexual Violence and Support Information.

14. Students with Disabilities

Ontario Tech University is committed to promoting an environment where everyone has an equal opportunity to contribute to their fullest potential. Students who require accommodation for a disability are advised to contact Student Accessibility Services (SAS) as soon as possible. Accommodation decisions will be made in accordance with the Ontario Human Rights Code. Accommodations will be consistent with and supportive of the essential requirements of courses and programs, and provided in a way that respects the dignity of students with disabilities and encourages integration and equality of opportunity. Reasonable academic accommodation may require instructors to exercise creativity and flexibility in responding to the needs of students with disabilities while maintaining integrity.

Disability-related and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm,

Monday, Tuesday, Thursday, and Friday, Wednesday's 10:00 am to 4:30. Please note they are closed each day between noon and 1:00 pm. For more information on services provided, you can visit the SAS website at Ontario Tech's Student Accessibility Services (SAS). Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@ontariotechu.ca.

Students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here Registration Link to write examinations in SAS at Ontario Tech. Students must sign up for tests, midterms, or quizzes **AT LEAST seven (7) working days before the date of the test.**

Students must register for final exams no later **than 3 weeks prior to the start of the final examination period**. The final examination period is given at Ontario Tech University's Important dates and deadlines.

15. Professional Suitability (if applicable)

Ontario Tech University is a community that values and promotes respect, integrity, diversity and accountability among all members of the university. These values can only be achieved in an environment that supports and protects the safety and security of its members. The Ontario Tech University Policy on Student Conduct defines and guides standards of student behaviour at the university to uphold these values and ensure that behaviour contrary to these standards are dealt with in a manner that is fair, open and effective.

The Faculty of Business & IT has the following expectations related to professionalism for all its community members, including without limitation, students, Staff, and Faculty:

- **Respect, civility, and courtesy:** Community members are expected to treat each other with respect, civility, and courtesy both in and outside of the classroom. Rudeness, profanity, insults, harassment, and class disruptions are unacceptable.
- **Critique ideas, not the people who raise the ideas:** Discussions, debates, and the exchange of ideas are normal parts of life in an academic community. Community members are expected to engage in discussions, debates, and the exchange of ideas in respectful ways, even while vigorously advocating for one's perspective.
- **Talk *to* those with whom you have a complaint, not *about* them.** When community members have disputes, complaints, and/or concerns about another community member, they are expected to do their best to address the matter directly and informally with the other member, provided that it is safe to do so.
- **Special obligations:** Community members in positions of authority have special obligations to demonstrate respect, civility, and professionalism and to encourage the development of these values within the FBIT community.

The *Professional Suitability* policy can be found at Ontario Tech's Professional Suitability Policy and the related procedures are hosted at Ontario Tech's Professional Suitability Procedures.

16. Academic Integrity

Students and faculty at Ontario Tech University share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness and mutual respect for the aim and principles of the pursuit of education. Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action.

Students are expected to be familiar with and abide by Ontario Tech University's regulations on Academic Conduct which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, among other academic offences. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic misconduct, which can range from a resubmission of work to a failing grade to permanent expulsion from the university. A lack of familiarity with these regulations on academic conduct does not constitute a defense against its application. Please note that generative artificial intelligence (GAI) tools should not be utilized without advance, specific written approval by the faculty member teaching the course.

More information can be found at Ontario Tech's Academic Integrity Policy.

Extra support services are available to all Ontario Tech University students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found at Academic Support at Ontario Tech.

17. Turnitin (if applicable)

Ontario Tech University and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review by Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. The instructor may require students to submit their assignments electronically to Turnitin.com or the instructor may submit questionable text on behalf of a student. The terms that apply to Ontario Tech University's use of the Turnitin.com service are described on the Turnitin.com website.

Students who do not wish to have their work submitted to Turnitin.com must provide with their assignment at the time of submission to the instructor a signed Turnitin.com Assignment Cover sheet: Signed Turnitin Coversheet to Withdraw Permission to Submit Work.

18. Online Test and Exam Proctoring (Virtual Proctoring)

Ontario Tech University will conduct virtual monitoring of examinations in accordance with Ontario privacy legislation and all approved policy instruments.

19. Final Examinations (if applicable)

Final examinations are held during the final examination period at the end of the semester and may take place in a different room and on a different day from the regularly scheduled class. Check the published Examination Schedule for a complete list of days and times.

Students are required to show their valid physical or digital Ontario Tech University student photo ID card (campus ID), or a valid government issued photo ID that is in English when writing an **in-person examination.** Students are advised to obtain their Student ID Card well in advance of the examination period as they will not be able to write their examinations without it. More information on ID cards can be found at Information on Ontario Tech's Student ID Cards.

Students who are unable to write a final examination when scheduled due to religious publications may make arrangements to write a deferred examination. These students are required to submit an Academic Consideration form to the applicable Faculty as soon as possible and no later than three weeks prior to the first day of the final examination period.

Further information on final examinations can be found in the university's *Procedures for Final Examination Administration* Ontario Tech's Procedures for Final Examinations and in the Procedures for Consideration of Missed In-Term Course Work and Examinations.

20. Freedom of Information and Protection of Privacy Act

The following is an important notice regarding the process for submitting course assignments, quizzes, and other evaluative material in your courses in the Faculty of Business and IT.

Ontario Tech University is governed by the Freedom of Information and Protection of Privacy Act ("FIPPA"). In addition to providing a mechanism for requesting records held by the university, this legislation also requires that the University not disclose the personal information of its students without their consent.

FIPPA's definition of "personal information" includes, among other things, documents that contain both your name and your Banner (student) ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of Business and IT encourages you to use only your Banner ID on assignments or test papers being submitted for grading. This policy is intended to prevent the inadvertent disclosure of your information where graded papers are returned to groups of students at the same time. If you still wish to write both your name and your Banner ID on your tests and assignments, please be advised that Ontario Tech University will interpret this as an implied consent to the disclosure of your personal information in the normal course of returning graded materials to students.

If you have any questions or concerns relating to the new policy or the issue of implied consent addressed above, please contact accessandprivacy@ontariotechu.ca

Notice of Collection and Use of Personal Information
Throughout this course, personal information may be collected through the use of certain technologies under the authority of the *University of Ontario Institute of Technology Act, SO 2002, c. 8, Sch. O.* and will be collected, protected, used, disclosed and retained in compliance with Ontario's *Freedom of Information and Protection of Privacy Act R.S.O. 1990, c. F.31.*

This course will use the following technologies that may collect, use, disclose and retain personal information (including images) for the purposes described below:

- Respondus Monitor and Proctortrack to maintain academic integrity for examinations;
- Google Meet and Kaltura Virtual Classroom to facilitate remote instruction and interactive learning;
- Peer-shared applications, services or technologies that may be reviewed, assessed, or used as part of coursework.
- Other applications, services, or technologies that support or enhance online learning that include, but are not limited to, the following: Internet and Webcam.

For more information relating to these technologies, we encourage you to visit: Educational Technologies used at Ontario Tech.

Questions regarding personal information may be directed to: Ontario Tech University Access and Privacy Office, 2000 Simcoe Street North, Oshawa, ON L1G 0C5, email: accessandprivacy@ontariotechu.ca.

By remaining enrolled in this course, you acknowledge that you have read, understand, and agree to the terms and conditions under which the technology provider(s) may collect, use, disclose and retain your personal information. You agree to the university using the

technologies and using your personal information for the purposes described in this course outline.

21. Human Rights and Respect

Ontario Tech University is committed to providing a campus environment in which all University Members are treated with dignity and to fostering a climate of understanding and mutual respect. The University will not tolerate, ignore or condone Discrimination or Harassment by or against anyone. Examples of Harassing behavior include, but are not limited to; bullying, taunting or mocking someone's race or creed, ridiculing an individual's disability, or targeting individuals with unwanted sexual or negative stereotypical comments about one's sex, gender, sexual orientation, gender identity and/or gender expression. Pursuant to Ontario Tech's Respectful Campus Policy, students are reminded of their role in ensuring an equitable and inclusive learning environment. Requirements to refrain from harassment and discrimination apply broadly to on campus activities, e.g., on University property, in the classroom, including in lectures, labs and practicums, and also apply to off-campus activities, e.g. during any organized Ontario Tech class or extra-curricular activity including experiential learning opportunities such as co-op, practicum or during research endeavors, during official Ontario Tech events or using University equipment and technological tools that facilitate remote learning, e.g., class and other chat functions, video conferencing, and electronic mail.

22. Freedom of Expression

Pursuant to Ontario Tech's Freedom of Expression Policy, all students are encouraged to express ideas and perspectives freely and respectfully in university space and in the online university environment, subject to certain limitations. Students are reminded that the limits on Freedom of Expression include speech or behaviour that: is illegal or interferes with the university's legal obligations; defames an individual or group; constitutes a threat, harassment or discrimination; is a breach of fiduciary, contractual, privacy or confidentiality obligations or commitments; and unduly disrupts and interferes with the functioning of the university. In the context of working online, different forms of communication are used. Where permitted, students using "chat" functions or other online forms of communication are encouraged to ensure that their communication complies with the Freedom of Expression Policy.

23. Copyright Notice

All Teaching Materials, as they are defined under Ontario Tech's Intellectual Property policy ("IP Policy"), provided by the instructor throughout the course, including, but not limited to, in whole or in part, course notes, teaching notes, custom books, tutorials, evaluation tools, presentations and examinations are subject to the Copyright Act, R.S.C., 1985, c. C-42 and the IP Policy. Subject to the IP Policy, Teaching Materials are owned by the faculty member, instructor or other third party who creates such works, with a license to the University. The copyright owner(s) reserves all intellectual property rights in and to the foregoing materials. Consistent with the IP Policy, Teaching Materials are intended to be used by Ontario Tech University students registered in the course that is the subject of this course outline for educational purposes only. Any distribution or publishing of this material (e.g., uploading material to a third-party website) by a student is strictly prohibited under the law unless the student has obtained the copyright owner's prior written consent. Any violation of copyright law or the IP Policy, if proven, may be subject to sanction as academic misconduct, and/or under the Student Conduct Policy.

24. Student Course Feedback Surveys

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of Ontario Tech University's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the

last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course evaluations will be sent via e-mail, and posted on Canvas, Weekly News, and signage around the campus.

25. AODA

The Accessibility for Ontarians with Disabilities Act (AODA) standards have been considered in the development of this model course template and it adheres to the principles outlined in the University's Accessibility Policy.

Course Outline

MITS 6810 - Adversarial Machine Learning

Course Description

This course introduces adversarial attacks and defenses against machine learning models. Covered topics include evasion attacks against learning-based schemes, causative attacks by perturbing training datasets, and an introduction to robust statistics. Additionally, the course provides an overview of attacks against learning-based schemes utilized in some of the cybersecurity applications, such as *Spam Detection* and *Intrusion Detection*. The course provides the latest overview of state-of-the-art Adverserial Machine Learning (AML) schemes, such as *Generative Adversarial Networks* (GAN) and *Adversarial Active Learning*.

Learning Outcomes

Upon successful completion of the course, students will be able to:

- Describe different categories of attacks against machine learning models.
- Outline different categories of defenses for the development of robust learning-based models.
- Identify vulnerabilities of adaptive learning-based schemes deployed in an adversarial environment.
- Explain the importance of robust statistics and the use of invariant features in developing robust learning-based schemes for different cybersecurity applications.

Course Design

Course content will be presented to students during assigned lecture periods. Lecture slides will shall be posted on Canvas; however, the lecture slides may not cover some hands-on content, discussions and Q/A discussed in the class. Therefore, students are expected to attend assigned lectures, participate in class discussions as well as take notes to gain the most out of this course.

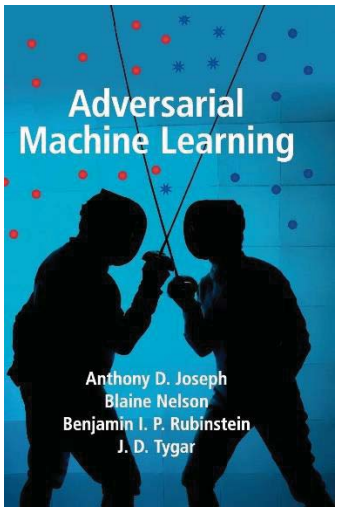
The two assignments and a final project constitute hands-on components and exercises related to the previously discussed topics during assigned lecture periods.

Outline of Topics in the Course

Week	Theme	Topics	Reading Assignments
1	A framework for Secure Learning	Overview of AML	Chapter 1
2		Characteristics of Adversarial Capabilities	Chapter 3
3		Exploratory vs. Causative Attacks	
4		Poisoning Hypersphere Learners	Chapter 4

5	Causative Attacks	Poisoning Retraining with Data Replacement	
6		Feature Space Attack: Red herring	*Selection of Research Papers*
7		Case Study – Causative Attack against Integrity and Availability	Chapter 5 and Chapter 6
8		Case Study – Active Learning and Malicious Labelers	*Selection of Research Papers*
9	Exploratory Attacks	Optimal Evasion Attacks	*Selection of Research Papers*
10		Evasion of Convex Inducing Classifiers	Chapter 8
11	Robust Learning	Robust Statistics for Learning	*Selection of Research Papers*
12		Generative Adversarial Networks	*Selection of Research Papers*
13		Randomized Classifiers (If time permits)	*Selection of Research Papers*

Required Texts/Readings



Textbook:

Title: Adversarial Machine Learning

Authors: Joseph, A., Rubinstein, B., Tygar, J.

ISBN-13: 9781107043466

Example of Papers:

- Brendel (2017) Decision-Based Adversarial Attacks: Reliable Attacks Against Black-Box Machine Learning Models
- Chen (2019) HopSkipJumpAttack: A Query-efficient Decision-based Adversarial Attack
- Guo (2019) Simple Black-box Adversarial Attacks
- Xiao (2018) Generating Adversarial Examples with Adversarial Networks
- Tramer (2018) Ensemble Adversarial Training: Attacks and Defenses
- Xu (2017) Feature Squeezing: Detecting Adversarial Examples in Deep Neural Networks
- Shafahi (2018) Poison Frogs! Targeted Clean-Label Poisoning Attacks on Neural Networks
- Zhang (2019) Theoretically Principled Trade-off between Robustness and Accuracy
- Belle (2020) Principles and Practice of Explainable Machine Learning
- Miller (2014) Adversarial Active Learning.

** Additional readings may be assigned or recommended during the course.*

Evaluation Method

Item	Weight (%)
Assignment 1 – (Coding & Report)	25%
Assignment 2 – (Coding & Report)	25%
Final Project – Outline	10%

Final Project – Report/Code	25%
Final Project – Presentation	15%

Assignments and Final Project

Assignments #1 and #2

For the two assignments (25% each), students will implement studied "causative" and "exploratory" attacks, and defenses methods utilizing different cybersecurity datasets. The students must implement the assignments using Python programming language and document their work (i.e. in report form) on Jupyter notebooks and must use common ML libraries, such as sci-kit learn and TensorFlow. The students may use free Jupyter notebooks provided by Google Colab (as their development environment) or choose to run a local Jupiter instance on their own machines.

Final Project

The students have the option to either: (a) select an AML research paper to implement or (b) define a learning-based application in cybersecurity that can be attacked/defended using the studied topics. Each student must prepare a project report explaining the selected problem statement, type of threats that selected learning-based scheme may face, demonstrate a successful attack, and present a viable defence. The report (25%) must be accompanied by a python implementation on the Juypyter notebook that can be shared with other students at the end of the term. Additionally, each student must prepare a presentation (15%) that shall be no more than 10 minutes long to discuss their project report with class.

Appendix D – Faculty Information

Please include here only those currently at the institution and affiliated with the program. Examples in p removed. ***Where available, link each faculty name to their Research or Profile page on the website***

Faculty members by home unit, rank, and supervisory privileges

Name and Faculty Status/Rank (Tenure/tenure-track, teaching-focused, continuing sessional, special appointment, emeritus, etc.)	Terminal Degree	Home Faculty/Unit	Areas of Expertise	Supervisory Privileges and Role in New Program (Note if faculty will be teaching and/or supervising in the program; indicate primary supervisor by asterisks)	Tot (inc (No cours
Patrick Hung, Professor	Ph.D.	FBIT	Privacy and Security	Teaching and Supervising	One
Miguel Vargas Martin, Professor	Ph.D.	FBIT	Cryptography and Network Security	Teaching and Supervising	One
Khalil El-Khatib, Professor	Ph.D.	FBIT	Privacy and Security	Teaching and Supervising	Two Cour
Salma Karray, Professor	Ph.D.	FBIT	Operational Research, Game Theory	Supervising	
Stephen Marsh, Professor	Ph.D.	FBIT	Information Trust and Privacy	Teaching and Supervising	Two Cour
Julie Thorpe, Professor	Ph.D.	FBIT	Privacy and Security	Teaching and Supervising	One Cour
Andrea Slane, Professor	Ph.D., J.D.	FSSH	Legal and policy; privacy; intellectual Property	Teaching and Supervising	One Cour
Isabel Pedersen, Professor	Ph.D.	FSSH	Digital Life and Digital Media	Teaching and Supervising	One Cour
Shahram S. Heydari, Associate Professor	Ph.D.	FBIT	Communication networks and security	Teaching and Supervising	One Cour

Richard Pazzi, Associate Professor	Ph.D.	FBIT	Multimedia communication, Cloud networks	Supervising	
Amirali S. Abari, Associate Professor	Ph.D.	FBIT	Artificial Intelligence; IT Forensics	Teaching and Supervising	One
Peter Lewis, Associate Professor	Ph.D.	FBIT	Trustworthy Artificial Intelligence	Teaching and Supervising	One
Rajen Akalu, Associate Professor	Ph.D.	FBIT	Privacy and Artificial Intelligence; Information Privacy Law	Teaching and Supervising	One
Fletcher Lu, Associate Professor	Ph.D.	FBIT	Cybercrime and online Fraud	Teaching and Supervising	One
Hui Zhu, Associate Professor	Ph.D.	FBIT	Securities; Corporate Social responsibility; International Finance	Teaching and Supervising	One Cour
Pooria Madani, Assistant Professor	Ph.D.	FBIT	Adversarial Machine Learning; Cybersecurity	Teaching and Supervising	One Cour
Li Yang, Assistant Professor	Ph.D.	FBIT	AI and data analytics; Cybersecurity	Teaching and Supervising	One

Graduate Thesis supervisory records/experience by faculty member

Name	Completed (last 5 years)			Current	
	Master's	Ph.D.	PDF	Master's	Ph.D.
Miguel Vargas Martin	6	2		1	4
Khalil El-Khatib	7	3			3
Salma Karray		2		1	2
Stephen Marsh	1	2		2	
Julie Thorpe	6	2		1	2
Andrea Slane	5				1
Isabel Pedersen	1	1			
Shahram S. Heydari	3	1	1	1	2
Richard Pazzi	5	2			
Amirali S. Abari	7	1		3	
Peter Lewis		4	10	3	1
Pooria Madani				1	

Publication records at Ontario Tech by year and outlet (current and last 5 years)

Year	Faculty Members	Articles	Books	Book Chapters	Reports	Conference Presentation
2023	17	20	1			28
2022	16	22	1	1	1	20
2021	15	34	1	2	4	25
2020	14	13	1	4	4	15
2019	14	23		1	2	28
2018	14	17	1			28

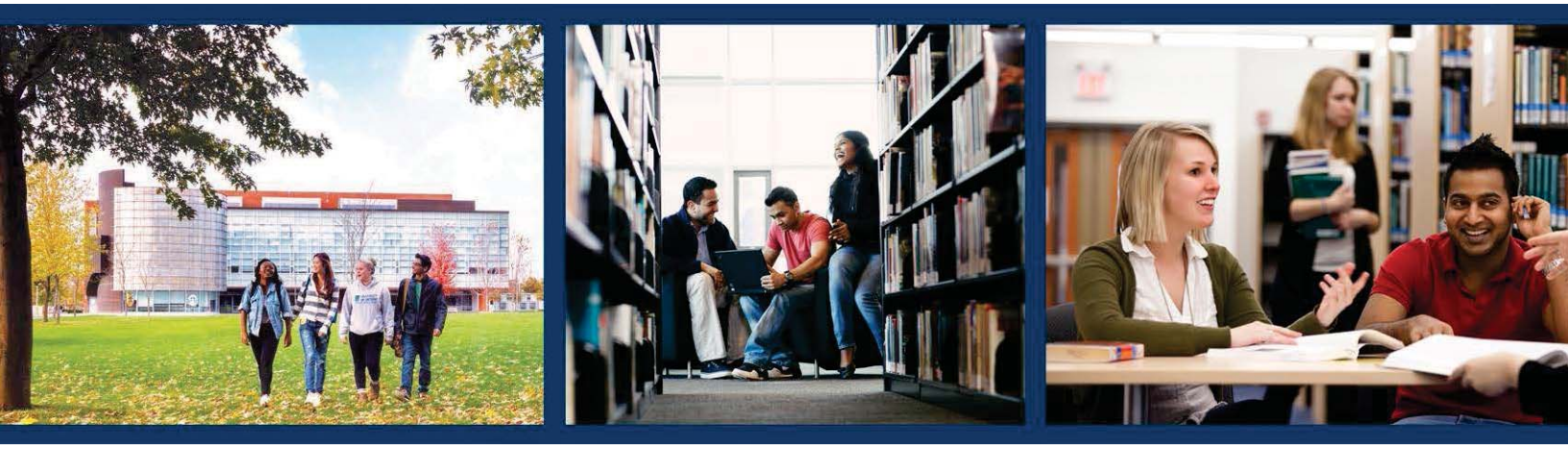
Research funding at Ontario Tech by source and year

Year	Faculty Members	Canadian Granting Councils	Canadian Government	International Government	Others
2023	17	$567000			$31000
2022	16	$611000	$95000		$24000
2021	15	$765000	$16000		$24000
2020	14	$483000	$16000		
2019	14	$406000	$5500		$80000
2018	14	$330000			$110000

Appendix E

Library Statement of Support for Proposed Doctor of Philosophy in Cybersecurity

Prepared by: Catie Sahadath, Associate University Librarian, Scholarly Resources, April 2024



OntarioTech Library

Contents

Summary

Ontario Tech University Library's holdings in Business and Information Technology are strong.

The PhD in Cybersecurity program is a socio-technical, multidisciplinary research-intensive program that covers a broad range of themes related to cybersecurity; including technology, policy and governance, AI and human behaviour.

The Library's research holdings, as well as archives and special collections total more than 98, 000 print volumes and 167,892 journal subscriptions. In addition, our holdings include more than 1.3 million e-books, and primary source materials. Collection strengths support the research and instructional programs at Ontario Tech University.

Opportunities exist to incorporate information literacy directly into the PhD, Cybersecurity program. Student feedback from information literacy sessions overwhelmingly shows that students find the skills to be useful and that information literacy instruction should ideally be incorporated into foundational and methods courses. The following courses have been identified as ideal candidates for incorporating elements of library-delivered information, digital and data literacy instruction:

- INFR5010G: Fundamentals of IT Security
- CSCI 5010G: Survey of Computer Science Research Topics and Methods

Resource Requirements

Include a summary of any resource requirements to support the program, indicating one time startup or ongoing funding requests:

Resource	Rationale	Budget Requirement	OTO or Ongoing
Data Breach Chronology Database	This resource was identified by a faculty member as an important resource for the newly proposed course "Financial Implications of Cyber Risk."	$1 000	Ongoing
Total		$1000	

Introduction

The Library supports the teaching, learning and research missions of Ontario Tech University and Durham College. Ontario Tech students have access to a joint collection of more than 98, 000 print books. Additionally, our collections include extensive online resources such as e-books and online databases that are selected to meet curricular needs. Students and faculty are supported by a team of subject specialist librarians and trained library technicians who provide an array of research and teaching support services including information literacy instruction, workshops, research help and reference service.

Library Collections

The Library's collections support the PhD, Cybersecurity program. The existing collections that support similar and related programs, such as the BA, Information Technology, the MA and PhD in Computer Science, and the MA in IT Security, create a strong foundation of resources pertinent to the PhD, Cybersecurity program.

The Library's collections budget for 2023-24 was just under $2 M . Approximately 95% of this budget is directed to online resources, while the remainder is allocated to acquisition of other formats, including journals, print books, multimedia and other specialized material.

With respect to programs in the Faculty of Business and Information Technology, including the PhD, Cybersecurity program, our existing collection spans technology, policy, information, governance, IT security, AI, and human behaviour. Further, the collection covers topics of interdisciplinary relevance such as criminology and justice studies, social sciences, and business.

Suggestions for new resources are welcome and faculty and students are encouraged to contact their subject specialist. All recommended purchases are evaluated according to the Collection Development Policy and with consideration to budget constraints.

Consortial Licensing

Thanks to our participation in two consortia – the Ontario Council of University Libraries (OCUL) and the Canada Research Knowledge Network (CRKN) – Ontario Tech benefits from optimal pricing through licensing content as a collective, providing access to research published both open access and commercially through publishers such as Elsevier, Wiley, ACS, Taylor and Francis etc.

Journals

Our journal holdings in disciplines related to Cybersecurity is strong, including coverage related to engineering, computer science, criminology, critical policy studies, and artificial intelligence.

We provide access, through subscription, to most of the relevant journals with the highest impact factors, according to Clarivate's Journal Citation Reports (JCR) database and Google Scholar metrics.

By subject category:

JCR Subject Category	Ontario Tech Access	Select Titles
Computer Science, Interdisciplinary Applications	10/10	• Journal of Cybersecurity • Cybersecurity • Computers & Education
Criminology and Penology	10/10	• Annual Review of Criminology • Criminology & Public Policy
Political Science	10/10	• Policy Review • Social Science Quarterly
Law	10/10	• Internet Policy Review

Books & E-Books

As noted, we provide access to over 98,000 print books and over 1.3 million e-books that support teaching, learning and research across all programs and disciplines. Students and faculty have access to collections of books and e-books from major academic publishers.

Through our Omni Search, students and faculty have seamless access to holdings not just from Ontario Tech, but all Omni member libraries across Ontario universities. Articles and books that are not available through Omni Libraries can be requested through our interlibrary loan service.

The following table highlights Library holdings by subject heading for print books and e-books that encompass the Library's collections in Cybersecurity

Subject	# Print Books	# E-Books
Cybersecurity	186	3,332
Forensic Computing	74	5
Information Policy	32	5,293
Criminology	270	3,591

Search Tools

The Library subscribes to many research databases and indexes that provide access to the literature in Cybersecurity. Systematic searching of these resources enables students and faculty to access journals and other academic resources such as conference proceedings, theses and dissertations, trade publications and reports.

Highly Relevant Databases: Computer Science	Relevant Databases: Multidisciplinary	Relevant Databases: Related Disciplines
• IEEE Xplore Digital Library • ACM Digital Library • Computers and Applied Science Complete • McGraw Hill Access Engineering	• Web of Science • Scopus • SpringerLINK Journals • CBCA: Science and Technology	Forensic Science • FORENSICnetBASE Criminology and Law • Martin's Online Criminal Code • National Criminal Justice Reference Service • Proquest Criminal Justice

Standards and Codes

The Library provides access to Standards and Codes in print and online from the following sources:

- Canadian Standards Association (CSA)
- International Standards Organization (ISO)
- ASME
- ASTM
- IEEE
- Techstreet

Standards relating to Cybersecurity are available to faculty and students, as provisioned in the Library's Collection Development policy, for use in teaching, learning, and research. Faculty and students are encouraged to contact their subject specialist Librarian with suggestions for purchase.

Data Resources

To support research that requires statistics and datasets, the Library subscribes to three main resources:

- **Data Liberation Initiative (DLI):** Access to datasets from Statistics Canada surveys including public use microdata files (PUMF).
- **odesi**: A web-based data exploration, extraction and analysis tool that enables researchers to search for variables across thousands of datasets including Statistics Canada datasets and polling data.
- **Interuniversity Consortium for Political and Social Research (ICPSR):** Access to a data archive of more than 250,000 files of research in the social and behavioral sciences. Includes specialized collections of data in education, aging, criminal justice, substance abuse, terrorism, and other fields. Resources for teaching and learning include classroom exercises and materials to support

data literacy in the classroom.

In addition, we provide access to Borealis: The Canadian Dataverse Repository, which supports research data management and open access data requirements for Tri-Agency research funding compliance.

Multimedia Resources

The Library acquires DVD and streaming video resources that are relevant to the disciplines in the Cybersecurity program. Multimedia resources are selected individually or as part of standing subscriptions.

Omni retrieves over 350 results for videos available through the Library's streaming video subscriptions on the topic of cybersecurity.

Library Services

A range of library services support teaching, learning and research at the University. Students and faculty in the PhD, Cybersecurity program have access to services in-person, online and via email or telephone.

Research Support

The Library plays a vital role in supporting student and faculty research at Ontario Tech.

Reference Service & Research Consultations

Students and faculty have access to research support in-person and online, via telephone, email and through online chat help.

Librarians provide individualized research consultations with students and faculty, in person or online. These consultations are tailored to meet the needs of individual researchers and can cover a range of topics from basic introductions to more advanced search techniques and support for literature reviews.

Open Access & Research Data Management

We provide support to faculty and students in complying with the Tri-Agency Open Access Policy (SSHRC, NSERC, CIHR). Faculty and students can make their work open by publishing in an open access or hybrid journal, by depositing their work in a subject repository, or by depositing their work in Ontario Tech's institutional repository, eScholar (https://ir.library.ontariotechu.ca).

We also provide direct support to Faculties through dedicated subject specialist/liaison librarians and online guidance with the Library's Open Access Guide (http://guides.library.ontariotechu.ca/openaccess). The Library has a Research Data Management guide (http://guides.library.ontariotechu.ca/rdm) to support faculty and students in creating data management plans and sharing research data.

Research Metrics & Impact

The Library supports various departments on campus by fielding requests for reports on author, article, journal and institutional metrics. Subscribed tools include: Web of Science, Scopus and Journal Citation Reports (JCR).

Our Research Metrics guide (http://guides.library.ontariotechu.ca/researchmetrics) provides background information and support for these tools.

Theses & Dissertations

To ensure that the Ontario Tech community has access to national and international thesis and dissertation databases, we provide access to PQDT (ProQuest Dissertations and Theses) and the Theses Canada Portal. The Library plays a key role in the dissemination and preservation of Ontario Tech theses, managing copies in the institutional open-access digital repository, E-Scholar, as well as maintaining print copies in the Library archives.

Teaching & Learning Support

As partners in teaching and learning at Ontario Tech, we provide a range of instructional and curriculum supports, both in person and online.

Information Literacy Instruction

In collaboration with teaching faculty, Librarians deliver customized information literacy instruction that support the development of students' 21st century skills to successfully search, evaluate and ethically use scholarly resources in their course requirements. These library services are aligned with the Association of College and Research Libraries (ACRL) Framework for Information Literacy for Higher Education. Information literacy sessions are tailored to the specific requirements of the course or assignment. Information literacy may be delivered synchronously or asynchronously to classes, in person or online. Library information literacy modules are available in the Canvas Learning Management System and can be adapted and added direct into courses, or instructors can opt for asynchronous recordings.

Students may also receive Information Literacy instruction from a Librarian in their elective or communications courses.

Ideally, Information Literacy instruction is scaffolded across the required curriculum, enabling students to build increasingly sophisticated research skills throughout their program of study. Student feedback from information literacy sessions indicates that 78% of students felt more confident using the library after receiving library instruction, 84% if students felt that they learned something new, and that students often wish they would have received this training earlier in their program. Some comments include:

- "Definitely could have used this tutorial in prior classes for research"
- "I wish I had known about this stuff in first year"
- "I wish I had learned about this 3 years ago"
- "I wish this was mandatory for all first year students"
- "I think this course would be great for all first year students"

The following courses have been identified as potential Information Literacy touchpoints, due to the research skills outcomes built into the curriculum:

- INFR5010G: Fundamentals of IT Security
- CSCI 5010G: Survey of Computer Science Research Topics and Methods

Co-curricular Workshops

In addition to Information Literacy instruction that is integrated into the curriculum, the library offers a number of co-curricular workshops that help develop student and faculty skills. Some examples of workshops offered to Ontario Tech students in the past include:

- 3D Printing
- Managing Your Research Identity
- Citation Management
- Finding and Using Open Educational Resources
- Research Data management and Data Management Plans

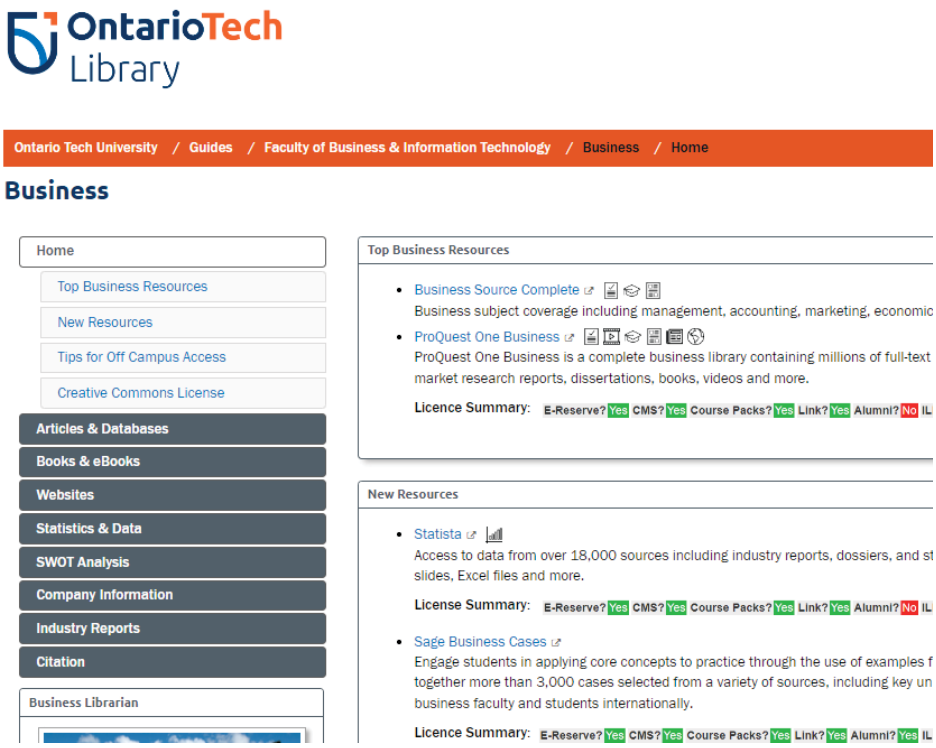
Workshop offerings are regularly updated in response to the changing needs of the community.

We also are regular contributors to the University's Grad Pro Skills offerings.

Online Research Guides

Subject specialist librarians create custom Research Guides for each subject area that are available from the Library website. Research Guides include program and course guides that are directly related to the program and course curriculum, as well as topic guides that have cross-disciplinary relevance. Research Guides of particular importance to students in the PhD, Cybersecurity program include:

- Business: https://guides.library.ontariotechu.ca/business
- Network & IT Security: https://guides.library.ontariotechu.ca/networkingITsecurity
- Citation Guide: https://guides.library.ontariotechu.ca/citation



Copyright & Academic Integrity

The Library provides copyright guidance for faculty and students. Library staff advise on license terms and the integration of content into the Learning Management System (LMS). We also help faculty find, evaluate and integrate Open Educational Resources into their courses.

Our research support services including our citation guides help students avoid plagiarism and comply with the University's Academic Conduct policy.

Course Reserves

Instructors can place materials on course reserve in the library, or make course materials available online through our electronic course reserves system. Online course reserves can include the library's print holdings, as well as digitized chapters, and links to journals, e-book chapters, videos and more. We are dedicated to providing equitable access to resources, and our online reserves are subject to copyright compliance and licensing restrictions.

3D Printing & Equipment Loans

Students have access to 3D printers and 3D printing workshops and can borrow equipment such as laptops and device chargers.

Library Staffing

The anticipated enrollment for students in the PhD, Cybersecurity program for years 1-5 is as follows:

2024-2025:	4
2025-2026:	9
2026-2027:	14
2027-2028:	19
2028-2029:	20

We anticipate that there will be additional staffing requirements associated with growth in graduate and undergraduate degree programs across the University. These requests will be part of the regular budget planning process, following a fulsome and strategic analysis of our staffing needs.

Conclusion

Supports for Graduate Students

Graduate students are encouraged to take advantage of all of the Library supports that are available to them. Their subject specialist librarian can help them identify the best databases for their research questions, as well as to define effective search strategies to make the best use of their time in locating articles, books, datasets etc. We can also assist in understanding the current publishing landscape, open access, open educational resources as well as managing research profiles, depositing research into eScholar, our institutional repository and determining research impact.

To conclude, the Library is very well-positioned to support the Faculty of Business and IT's proposed PhD in Cybersecurity and we look forward to a positive outcome and future launch of the program.

REVIEWERS' REPORT FOR NEW PROGRAMS

Reviewers' Report on the Proposed PhD-Cybersecurity Program at Ontario Tech University

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1. OUTLINE OF THE REVIEW

Please indicate whether this review was conducted by desk audit or site visit. For those reviews that included a site visit, please indicate the following:

- Who was interviewed
- What facilities were seen
- Any other activities relevant to the appraisal

The program review was initially intended to be hosted in-person, but due to unforeseen circumstance, it was rescheduled to happen virtually in the form of desk audit and adjusted to avoid any substantial delay.

This report is based on the findings from the desk audit and an intensive review of the following documents that were made accessible to the review team (Professor Dehghantanha and Professor Woungang) via a Google drive folder:

- New Program Proposal
- Template for External Reviewers' Report
- Ontario Tech University's Institutional Quality Assurance Process Policy (IQAP)
- Information about Ontario Tech University
- Faculty and full curriculum information
- Strategic Research Plan
- Integrated Academic-Research Plan Summary
- Graduate Viewbook

During the desk audit online, we met with the following people:

- Deputy Provost
- Associate Dean, Graduate and Postdoctoral Studies
- Dean, Faculty of Business and IT
- Associate Dean, Academic Strategy
- Chair of Internal Assessment Team
- Graduate Program Assistant
- Director of Ontario Tech's Institute for Cyber Security and Resilient Systems
- Program and Curriculum Analyst-Centre for Institutional Quality Enhancement
- Manager, Graduate and Postdoctoral Studies
- Graduate Academic Affairs Specialist
- Graduate Admissions and Registration Coordinator
- Graduate Program Assistant
- Faculty Program Assistant
- Executive Assistant
- Faculty members & Staff
- A sampling of students
- Representatives from Student Life & School of Graduate and Postdoctoral Studies (SGPS)
- Faculty of Business and Information Technology Networking and IT Security Laboratory Managers

We also had Labs Virtual Tour, https://ontariotechu.ca/virtualtour/ of the following:

- *Networking lab (for teaching)* - which has leading-edge equipment (such as routers, switches, IP phones, wireless access points, and more, including remotely accessible ones) to teach concepts from fundamental networking skills to enterprise-level network engineering.
- *Biometric Access Control Lab* - for students to gain an understanding of biometric security concepts.
- *Hackers Research Lab* - for students to gain hands-on training in IT security
- *Security Operation Centre (SOC) Lab* - with appraise infrastructure and relevant applications.
- *Faculty of Business and Information* Technology *(FBIT) Cybersecurity and Resilience Testing Infrastructure (CRTI)* - currently under construction thanks to the recently obtained CFI/JELF grants. This will host the relevant equipment such as Spirent CyberFlood Security and Performance Testing Platform, ufiSpace programmable P4 switches, to support the envisaged research projects.
- *FBIT Research Labs/Groups* - which make use of the Cybersecurity-Related Research Facilities of the Institute for Cybersecurity and Resilient Systems (ICRS). These labs are:
  - Advanced Networking and Security (ANTS) Lab
  - Human Machine Lab
  - Security, Artificial Intelligence and Networks (SAIN) Lab
  - Trustworthy AI Lab
  - Business Analytics and AI Group
  - Interactive Media and Virtual Reality Research Group

2. EVALUATION CRITERIA

NOTE: Reviewers are asked to provide feedback on each of the following Evaluation Criteria (Quality Assurance Framework 2021, Section 2.1.2).

2.1 Program Objectives

- Clarity of the program's objectives
- Appropriateness of degree nomenclature given the program's objectives
- Consistency of the program's objectives with the institution's mission and academic plans

The objectives of the proposed PhD in Cybersecurity program at Ontario Tech University are consistent with the institution's mission and academic plans. Here are the key points that illustrate this alignment:
Institution's Mission and Vision: Ontario Tech's mission includes advancing the application of knowledge to address societal needs, fostering innovation, and nurturing a technology-enriched learning environment. The proposed PhD program, being multidisciplinary and research-intensive, focuses on technology, policy, and human behavior within cybersecurity, aiming to develop specialized socio-technical academics. This aligns well with the university's goals of advancing scientific and technical knowledge and addressing complex societal issues through a "Tech with a Conscience" approach.

- *Strategic and Academic Plans*: The program supports Ontario Tech's strategic priorities, including partnership and intellectual resilience. The affiliation with the Institute for Cybersecurity and Resilient Systems (ICRS) facilitates connections with industry, government, and research institutes, promoting interdisciplinary research and collaboration. These elements align with the university's emphasis on partnership and innovation as stated in its strategic plans.
- *Integrated Academic and Research Plan*: The PhD program contributes to areas identified as strengths or growth within the university's strategic mandate, such as digital technologies and artificial intelligence. By building on the successful Master of IT Security program and expanding into cybersecurity, the program supports the university's focus on developing programs that meet market demands and enhance its research capacity in emerging, impactful areas.

Thus, the proposed PhD program in Cybersecurity is well-aligned with the Ontario Tech University's mission, stated strategic priorities, and academic plans, reflecting a commitment to excellence and innovation in

education and research in the field of cybersecurity. It is also consistent with the Graduate Degree Level Expectations (GDLEs).

2.2 Program requirements

- Appropriateness of the program's structure and the requirements to meet its objectives and program-level learning outcomes
- Appropriateness of the program's structure, requirements and program-level learning outcomes in meeting the undergraduate or graduate Degree Level Expectations
- Appropriateness of the proposed mode(s) of delivery to facilitate students' successful completion of the program-level learning outcomes
- Ways in which the curriculum addresses the current state of the discipline or area of study

The structure of the proposed PhD in Cybersecurity program at Ontario Tech University and the requirements to meet program objectives and program-level learning outcomes are appropriately designed. Here's a detailed look at how the program structure and requirements align with and support the achievement of its objectives and learning outcomes:

- *Coursework:* The program includes a combination of prerequisite and specialized courses, ensuring a comprehensive understanding of both fundamental and advanced topics in cybersecurity. This includes courses on IT security, law and ethics, AI in cybersecurity, and more.
- *Research Components*: The PhD program emphasizes research with components like a seminar course, thesis proposal, candidacy exam, and a final dissertation. This structure supports deep research engagement and innovation, critical for a doctoral level program.
- *Interdisciplinary Approach:* The program's affiliation with the Institute for Cybersecurity and Resilient Systems (ICRS) promotes interdisciplinary research, enhancing the breadth and depth of students' academic and professional development.
- *Admission Requirements:* Admission criteria are stringent, requiring a thesis-based Master's degree and a strong academic record, ensuring that incoming students are well-prepared and capable of high-level research. The multidisciplinary nature of the program suggests that some students may come to the program with more or less Science, Technology, Engineering, and Mathematics (STEM) in their background, the program is designed to move these students to an equal footing in the same way as any other graduate programs in cybersecurity.
- *Learning Outcomes:* The program defines clear learning outcomes related to knowledge of cybersecurity threats, risk management practices, the application of AI in cybersecurity, and the social, economic, and business aspects of the field. These outcomes are assessed through exams, defense presentations, and the thesis, ensuring that students achieve a deep and practical understanding of the field.
- *Supporting Activities:* The program includes activities like seminars and workshops that are critical for developing communication skills and professional capabilities, further supporting the learning outcomes aimed at preparing students for academia, industry, and policy-making roles.

The structure and requirements are designed to ensure that graduates:

- Have a deep and broad understanding of cybersecurity, from technical aspects to policy implications.
- Are capable of conducting independent, impactful research.
- Can effectively communicate complex ideas and research findings to a variety of audiences, crucial for roles in academia, industry, and government.

In summary, the program's structure and the requirements are well-tailored to meet its stated objectives and learning outcomes, preparing students for high-level careers in cybersecurity and related fields. This alignment supports Ontario Tech University's mission to foster knowledge and innovation in areas of societal importance.

2.3 Program requirements for graduate programs only

- Clear rationale for program length that ensures that students can complete the program level learning outcomes and requirements within the proposed time
- Evidence that each graduate student in the program is required to take a minimum of two-thirds of the course requirements from among graduate-level courses
- For research-focused graduate programs, clear indication of the nature and suitability of the major research requirements for degree completion

Yes, the structure, requirements, and program-level learning outcomes of the proposed PhD in Cybersecurity at Ontario Tech University are designed to meet the institution's Graduate Degree Level Expectations (GDLEs). Here's how the program aligns with these expectations:

Alignment with Graduate Degree Level Expectations

- *Depth and Breadth of Knowledge*: The program offers specialized coursework and interdisciplinary research opportunities that provide comprehensive knowledge in cybersecurity. Courses like "Fundamentals of IT Security" and "AI in Cybersecurity" ensure depth and breadth of knowledge in the field.
- *Research and Scholarship*: A strong emphasis on research is evident in the structure of the program, which includes a research thesis, candidacy exam, and dissertation defense. These components aim to foster the ability to generate new knowledge and satisfy peer review, key aspects of the GDLEs.
- *Level of Application of Knowledge*: The program is designed to train students to apply their knowledge in practical settings, addressing complex cybersecurity issues. This application is supported through specialized courses and the research thesis, where students tackle real-world problems.
- *Professional Capacity and Autonomy*: The PhD program encourages intellectual independence and ethical behavior in research. Program requirements such as the development of a personal research statement and the need for a faculty supervisor support the development of professional skills and autonomy.
- *Communication Skills*: Students are expected to communicate their research findings effectively, a requirement that is directly assessed during the thesis and candidacy defenses. Additionally, the program includes seminars where students can refine their presentation and communication skills.
- *Awareness of Limits of Knowledge*: The curriculum and research components of the program are designed to cultivate an appreciation of the complexity and limits of knowledge within the cybersecurity domain. This is achieved through critical analysis tasks and discussions on the ethical, social, and legal implications of cybersecurity technologies and practices.

Supporting Activities and Outcomes

- *Interdisciplinary Learning*: The program's affiliation with the Institute for Cybersecurity and Resilient Systems promotes interdisciplinary collaboration, enhancing students' ability to integrate knowledge from various fields into their cybersecurity research.
- *Practical and Ethical Training*: Courses on law, ethics, and governance in IT security ensure that students are well-versed in the practical and ethical aspects of cybersecurity, aligning with professional capacity expectations.
- *Research Opportunities and Innovation*: Opportunities for innovative research are supported by the program's structure, which encourages collaboration with industry and government agencies, fostering real-world impact and innovation.

In conclusion, the PhD in Cybersecurity program at Ontario Tech University is well-structured to meet the Graduate Degree Level Expectations by ensuring that graduates are knowledgeable, capable researchers, effective communicators, and ethically aware professionals prepared to contribute significantly to the field of cybersecurity and beyond.

2.4 Assessment of teaching and learning

- Appropriateness of the methods for assessing student achievement of the program-level learning outcomes and degree level expectations

- Appropriateness of the plans to monitor and assess:
  i. The overall quality of the program
  ii. Whether the program is achieving in practice its proposed objectives
  iii. Whether its students are achieving the program-level learning outcomes
  iv. How the resulting information will be documented and subsequently used to inform continuous program improvement

The methods used to assess student achievement of the program-level learning outcomes and degree level expectations. These methods also aim to monitor and assess the overall quality of the program, its achievement of proposed objectives, and whether students are meeting the program-level learning outcomes. Here's how the program plans to achieve these assessments:

Assessment of Learning Outcomes:

- *Examinations and Coursework*: Courses within the program utilize exams, projects, and presentations to assess students' understanding and application of knowledge. These assessments directly relate to specific learning outcomes outlined in the course syllabi.
- *Thesis Proposal and Defense*: The research proposal and final thesis defense are critical components where students must demonstrate their depth of knowledge, research skills, and the ability to contribute original insights to the field of cybersecurity.
- *Candidacy Exam*: This serves as a formal assessment of students' preparedness to conduct doctoral-level research, testing their knowledge and research plans against program objectives and learning outcomes.

Monitoring Program Quality and Objectives:

- *Annual Reviews*: The program plans to conduct annual reviews involving faculty assessments, student feedback, and program outcome analyses. These reviews help evaluate the effectiveness of the teaching methods and curriculum structure.
- *External Reviews*: Regular external assessments by academic peers and industry stakeholders provide objective insights into the program's relevance and effectiveness in meeting current cybersecurity challenges.

Assessing Achievement of Program Objectives:

- *Alumni Surveys and Employment Data*: By tracking graduates' career progress and obtaining feedback on their professional achievements, the program can assess how effectively it prepares students for roles in academia, industry, or policy-making.
- *Research Output and Impact*: Evaluations of students' research contributions to peer-reviewed journals and conferences provide measurable outcomes that reflect the program's success in achieving its academic objectives.

Documentation and Use of Assessment Information:

- *Continuous Improvement Process*: Assessment results are documented systematically and reviewed by the program committee to identify areas for improvement. This ongoing process ensures that the curriculum remains current and aligned with industry and academic advancements.
- *Strategic Adjustments*: Findings from these assessments inform curriculum revisions, teaching methods, and student support services, enhancing the program's overall effectiveness and its alignment with Degree Level Expectations.

The proposed PhD in Cybersecurity program at Ontario Tech University utilizes a comprehensive and structured approach to assess and monitor student achievements and the program's overall quality. The use of varied and rigorous assessment tools, combined with a clear mechanism for using the resulting data to drive continuous improvement, ensures that the program remains effective in meeting its objectives and adapting to the evolving field of cybersecurity. These measures are aligned with the standards set by the Quality Assurance Framework, ensuring that the program not only meets academic and industry standards but also prepares graduates to effectively contribute to and lead in the cybersecurity domain.

2.5 Admission requirements

- Appropriateness of the program's admission requirements given the program's objectives and program-level learning outcomes
- Sufficient explanation of alternative requirements, if applicable, for admission into a graduate, second-entry or undergraduate program, e.g., minimum grade point average, additional languages or portfolios, and how the program recognizes prior work or learning experience

The admission requirements for the PhD in Cybersecurity program at Ontario Tech University are well-structured and appropriately aligned with the program's objectives and program-level learning outcomes. The requirements ensure that incoming students possess the necessary academic background and research potential to succeed in this multidisciplinary, research-intensive program.

- *Educational Background*: Applicants are expected to have completed a four-year undergraduate degree and a thesis-based Master's degree in a relevant field. This ensures that students have a strong foundational knowledge and research experience in fields pertinent to cybersecurity. The requirement of an overall academic standing of at least 3.5 on a 4.0/4.3 scale underscores the program's commitment to academic excellence and ensures that students are well-prepared for the rigors of doctoral-level study.
- *Letters of Reference*: A minimum of two letters of reference from individuals who have direct knowledge of the applicant's academic competence is required. This allows the admissions committee to assess the applicant's suitability for the program based on feedback from credible sources who can attest to their research abilities and academic performance.
- *English Proficiency*: Proof of English proficiency for applicants whose first language is not English ensures that all students can effectively communicate and engage with the program's content, facilitating a productive learning environment.
- *Prospective Supervisor*: Applicants must find a prospective faculty supervisor from the list of graduate faculty members and receive formal acceptance from the supervisor. This requirement ensures that students have a clear research direction and mentorship from the outset, which is crucial for success in a research-intensive program.
- *Personal Research Statement*: The requirement of a minimum 3000-word personal research statement allows applicants to articulate their research interests and proposed academic research plan. This helps in assessing the applicant's alignment with the program's research objectives and their preparedness for undertaking significant research projects.
- *Sufficient Explanation of Alternative Requirements*: Graduates of Ontario Tech University's Master of IT Security (MITS) program can apply to the PhD program if they have an overall academic standing of at least 3.5/4.3. This provides a clear and accessible pathway for students from a related master's program to advance to doctoral studies.
- *Waiver Requests for Prerequisites*: Students who demonstrate sufficient proficiency through prior graduate-level coursework or extensive related work experience can request a waiver for certain prerequisite courses. This flexibility recognizes prior learning and professional experience, ensuring that students are not required to repeat content they have already mastered.

The admission requirements for the PhD in Cybersecurity program are comprehensive and appropriately tailored to the program's objectives and learning outcomes. They ensure that students have the requisite academic preparation, research potential, and language proficiency to succeed in the program. The inclusion of alternative requirements and pathways, such as the MITS pathway and waiver requests, demonstrates a thoughtful and inclusive approach to recognizing diverse educational backgrounds and professional experiences. Overall, these admission criteria are well-designed to attract and admit highly qualified candidates who are well-prepared to contribute to the field of cybersecurity research.

2.6 Resources for all programs

Given the program's planned /anticipated class sizes and cohorts as well as its program-level learning outcomes:

- Participation of a sufficient number and quality of core faculty who are competent to teach and/or supervise in and achieve the goals of the program and foster the appropriate academic environment
- If applicable, discussion/explanation of the role and approximate percentage of adjunct and part-time faculty/limited term appointments used in the delivery of the program and the associated plans to ensure the sustainability of the program and quality of the student experience
- If required, provision of supervision of experiential learning opportunities
- Adequacy of the administrative unit's planned utilization of existing human, physical and financial resources, including implications for the impact on other existing programs at the university
- Evidence that there are adequate resources to sustain the quality of scholarship and research activities produced by students, including library support, information technology support, and laboratory access
- If necessary, additional institutional resource commitments to support the program in step with its ongoing implementation

The resources available to sustain the quality of scholarship and research activities for the proposed PhD in Cybersecurity at Ontario Tech University are adequately provided, covering aspects such as library support, information technology support, and laboratory access:

- *Library Support*: The Library Report details a robust collection of resources that support the cybersecurity field, including over 98,000 print volumes and 167,892 journal subscriptions. Additionally, there are more than 1.3 million e-books and substantial electronic resources accessed through consortia licensing with major academic publishers. This provides a strong foundation for research and scholarship needs of PhD students.
- *Information Technology Support*: The university has committed resources to ensure that IT support is sufficiently robust to handle the specialized needs of cybersecurity research. This includes access to high-performance computing resources and secure data storage solutions, which are essential for handling the large datasets and complex simulations often required in cybersecurity research.
- *Laboratory Access*: The program proposal outlines access to specialized laboratories and research facilities that are part of the Institute for Cybersecurity and Resilient Systems. These facilities are designed to support advanced research in cybersecurity, including practical experiments and simulations, providing a crucial resource for doctoral research activities.

These resources collectively ensure that students have access to the necessary tools and environments to conduct high-level research, fostering innovation and maintaining a high standard of academic rigor within the program.

2.7 Resources for graduate programs only

Given the program's planned /anticipated class sizes and cohorts as well as its program-level learning outcomes:

- Evidence that faculty have the recent research or professional/clinical expertise needed to sustain the program, promote innovation, and foster an appropriate intellectual climate
- Where appropriate to the program, evidence that financial assistance for students will be sufficient to ensure adequate quality and numbers of students
- Evidence of how supervisory loads will be distributed, in light of qualifications and appointment status of the faculty

The faculty associated with the proposed PhD in Cybersecurity program at Ontario Tech University have the requisite recent research expertise and professional credentials to sustain the program, foster innovation, and

maintain an appropriate intellectual climate. The Faculty CVs highlight diverse research activities and professional experience in areas critical to cybersecurity, including but not limited to, network security, AI, information trust, ethical hacking, and data privacy. Moreover, many faculty members have active research projects and collaborations that not only align with the program's focus but also ensure ongoing contributions to cutting-edge developments in the field. This active engagement in current research ensures that the program remains at the forefront of technological and academic advancements, which is essential for promoting innovation and fostering an intellectual climate conducive to advanced study and research in cybersecurity. The faculty's alignment with the program's multidisciplinary approach also supports a robust intellectual climate, where knowledge from different sub-fields of cybersecurity is integrated, offering students a comprehensive and nuanced understanding of the subject. This approach not only enriches the students' learning experience but also prepares them to tackle complex challenges in the cybersecurity landscape.

The financial assistance provided to students in the proposed PhD in Cybersecurity at Ontario Tech University appears sufficient to ensure the quality and numbers of students are maintained. The self-study document outlines various scholarships, awards, and funding opportunities that are available to graduate students. Specifically, students have access to scholarships like the Ontario Graduate Scholarship and Canada Graduate Scholarships, along with various internal awards provided by the university. Additionally, research assistantships funded by faculty grants can also provide financial support to students. The document also mentions the university's commitment to ensuring competitive funding packages to attract high-quality students. It acknowledges that the ability to offer competitive funding is crucial for attracting and retaining the best students, which directly impacts the program's quality and success.

The supervisory loads for the proposed PhD in Cybersecurity at Ontario Tech University are adequately distributed, considering the qualifications and appointment status of the faculty involved. The document details that faculty members from various departments and specializations will contribute to supervising students, ensuring a broad base of expertise and support. Furthermore, the faculty's qualifications, including their academic backgrounds, research accomplishments, and practical cybersecurity experience, align with the program's multidisciplinary approach. This diversity allows for a more enriching supervisory experience for students and ensures that supervisory duties are not concentrated among a few faculty members, thus preventing overloading. Additionally, the program plans to leverage industry partnerships and external collaborations, which could further distribute supervisory responsibilities and enhance the learning experience by integrating real-world perspectives and expertise into student supervision.

2.8 Quality and other indicators

- Evidence of quality of the faculty (*e.g.*, qualifications, funding, honours, awards, research, innovation and scholarly record; appropriateness of collective faculty expertise to contribute substantively to the program and commitment to student mentoring)
- Any other evidence that the program and faculty will ensure the intellectual quality of the student experience

NOTE: Reviewers are urged to avoid using references to individuals. Rather, they are asked to assess the ability of the faculty as a whole to deliver the program and to comment on the appropriateness of each of the areas of the program (fields) that the university has chosen to emphasize, in view of the expertise and scholarly productivity of the faculty.

The faculty involved in the proposed PhD program in Cybersecurity at Ontario Tech University appears well-equipped to deliver a comprehensive and research-intensive program based on their qualifications, research achievements, and commitment to mentoring students.

- *Qualifications and Expertise*: The faculty members hold advanced degrees in relevant fields, including computer science, cybersecurity, and information technology, among others. This educational background is essential for delivering the multidisciplinary aspects of the cybersecurity

program which includes technology, policy and governance, artificial intelligence, and human behavior.

- *Research and Scholarly Record*: The faculty members are, as expected, diverse in their research interests and have a range of expertise from deep specialization through to tangential interests, but they are actively involved in cutting-edge research, contributing to areas critical to the program such as cyber-physical systems security, data privacy, and the applications of AI in cybersecurity. Their work is well-circulated in reputable academic journals, indicating a strong scholarly output which is critical for a PhD-level program. The faculty members are qualified to deliver various aspects of the proposed program and provide a solid foundation to initiate the program.
- *Funding, Honours, and Awards*: Many faculty members have secured significant research grants and awards from national and international bodies, enhancing the program's profile and providing ample research opportunities for students. Such funding is crucial for sustaining high-level research activities and for students to engage in funded projects.
- *Commitment to Student Mentoring*: The faculty have a demonstrated commitment to mentoring, with several members having received accolades for their teaching and student guidance. This mentorship is vital in a PhD program for fostering a supportive and productive learning environment.
- *Program Delivery and Teaching Methods*: The program uses a diverse set of delivery methods, including traditional lectures, seminars, and hybrid formats, which cater to different learning preferences and enhance student engagement. This variety helps in addressing complex cybersecurity topics comprehensively. The delivery modality is consistent with most modern graduate programs in cybersecurity.
- *Research Opportunities*: The program provides extensive research opportunities that are integrated into the curriculum through thesis work, specialized courses, and direct involvement with the Institute for Cybersecurity and Resilient Systems (ICRS). This exposure to active research projects under the guidance of experienced faculty ensures that students are at the cutting edge of cybersecurity developments.
- *Student Support and Resources*: The university ensures that cybersecurity PhD students have access to substantial academic resources, including a robust library system with specialized journals and databases in cybersecurity, and support for data management and open access publishing. These resources are critical for supporting high-level academic work and innovation in the field.
- *Mentorship and Professional Development*: The program emphasizes mentorship and the development of professional skills through seminars and personalized guidance from faculty. This approach not only enhances the academic rigor of student projects but also prepares them for future roles in academia, industry, or government.
- *Interdisciplinary Collaboration*: The program's structure encourages interdisciplinary collaboration, which is crucial for addressing the multifaceted challenges in cybersecurity. This interdisciplinary approach is supported by collaborations between faculties and departments, enriching the student learning experience by integrating diverse perspectives and expertise.
- The PhD program in Cybersecurity at Ontario Tech University has established strong criteria and support systems for student success, which are evident in several key areas.
- *Grade-Level for Admission*: Students applying to the program are expected to have a strong academic background, typically requiring a minimum GPA of 3.5 on a 4.0/4.3 scale in their last two years of a thesis-based master's degree in a relevant field. This high standard ensures that incoming students can engage deeply with the program's advanced content.
- *Scholarly Output and Awards*: The program is designed to enhance students' research capabilities, which is reflected in their scholarly output. While specific data on publications and conference presentations by current students were not detailed, the program's structure and faculty support are oriented towards producing high-quality research, which likely contributes to student success in these areas.

- *Success Rates in Scholarships and Competitions*: The students in the program are encouraged and supported in applying for provincial and national scholarships, with the structured mentorship and resources aimed at improving their competitiveness in these arenas.
- *Commitment to Professional and Transferable Skills*: The program incorporates professional development through seminars and workshops that focus on both the specific skills needed for cybersecurity and transferable skills such as communication, project management, and ethical considerations in technology. This commitment is critical for preparing students for diverse career paths in academia, industry, or government.
- *Times-to-Completion and Retention Rates*: The program aims for a completion time of around four to five years for full-time students, reflecting a structured and efficient pathway through coursework, research, and thesis completion. Retention rates are supported by comprehensive academic and personal support systems, although specific statistics on retention were not provided.

3. EQUITY, DIVERSITY, INCLUSION, AND DECOLONIZATION

Please comment on any consideration of the principles of equity, diversity, inclusion, and decolonization in the new program.

The proposed PhD program in Cybersecurity at Ontario Tech University demonstrates a commitment to the principles of equity, diversity, inclusion, and decolonization (EDID). These principles are integrated into various aspects of the program to ensure a supportive, inclusive, and equitable environment for all students. Here are some key points highlighting how these principles are considered in the new program:

- *Admissions Process*: The program has clear, transparent admission criteria that consider diverse academic backgrounds and professional experiences. By allowing waiver requests for certain prerequisite courses, the program recognizes prior learning and work experience, ensuring equitable access for students from various educational pathways.
- *Support for Underrepresented Groups*: The program encourages applications from underrepresented groups in the field of cybersecurity. This includes specific outreach efforts to attract a diverse applicant pool, ensuring that all students have equal opportunities to access the program.
- *Inclusive Curriculum*: The program covers a broad range of themes related to cybersecurity, including technology, business, policy, governance, AI, and human behavior. This multidisciplinary approach ensures that diverse perspectives are integrated into the curriculum, enriching the learning experience for all students.
- *Diverse Faculty*: The program is affiliated with the Institute for Cybersecurity and Resilient Systems (ICSR), which brings together a multidisciplinary team of researchers and faculty members. This diversity in expertise and background provides students with a wide range of perspectives and mentorship opportunities.
- *Support Services*: The program offers various support services to ensure an inclusive learning environment. This includes access to academic support, counseling services, and mentorship programs designed to help all students succeed, regardless of their background.
- *Library Resources*: The library provides extensive resources, including e-books, journals, and databases that cover diverse topics and perspectives in cybersecurity. Additionally, the library offers information literacy instruction tailored to the needs of students, ensuring they can effectively utilize these resources.
- *Curriculum Content*: The program includes a critical examination of the social and ethical implications of technology, which encompasses discussions on decolonization and the impact of cybersecurity on indigenous communities. This ensures that students are aware of and can critically engage with these important issues.
- *Research Opportunities*: Students are encouraged to undertake research that addresses the needs and concerns of marginalized and indigenous communities. This approach not only contributes to decolonization efforts but also broadens the scope and impact of cybersecurity research.

The PhD program in Cybersecurity at Ontario Tech University incorporates the principles of equity, diversity, inclusion, and decolonization in a comprehensive manner. From the admissions process to

curriculum content and support services, the program is designed to provide an inclusive and equitable educational environment. These efforts ensure that students from diverse backgrounds can thrive and contribute to the field of cybersecurity, ultimately enriching the academic community and the society.

4. OTHER ISSUES

- Please highlight any unique curriculum or program innovation, creative components, or significant high-impact practices
- Please identify any other issues that may not be covered above

The PhD program in Cybersecurity at Ontario Tech University offers several unique and innovative elements that distinguish it from other programs in the field. These innovations and high-impact practices are designed to enhance the educational experience and ensure that graduates are well-prepared for both academic and industry roles in cybersecurity. One of the standout features of the PhD in Cybersecurity program is its multidisciplinary approach. The program integrates themes from technology, business, policy, governance, artificial intelligence, and human behavior. This broad perspective ensures that students gain a comprehensive understanding of cybersecurity, which is essential for addressing the complex and interconnected challenges in this field. By covering a wide range of topics, the program prepares students to tackle issues from various angles, fostering innovation and critical thinking.

Another innovative aspect of the program is its affiliation with the Institute for Cybersecurity and Resilient Systems (ICSR). This affiliation provides students with access to a multidisciplinary, global center for cybersecurity research, innovation, teaching, and outreach. The ICSR's resources and networks offer students unparalleled opportunities to engage in cutting-edge research and collaborate with leading experts in the field. This connection enhances the program's academic rigor and provides students with valuable industry connections and practical experience.

The program also includes a strong emphasis on real-world applications and high-impact practices. For example, the curriculum incorporates specialized courses that address current and emerging topics in cybersecurity, such as artificial intelligence in cybersecurity, usable security, information trust, and blockchain technologies. These courses ensure that students are not only learning the theoretical foundations but also gaining practical skills that are directly applicable to contemporary cybersecurity challenges. Moreover, the program's structure includes seminars, a thesis proposal, and a final thesis, which are designed to foster research skills and academic excellence. The requirement for students to present seminars and defend their thesis proposals and final dissertations in oral examinations ensures that they develop strong communication and presentation skills, which are crucial for both academic and professional success.

One of the key strengths of the PhD in Cybersecurity program is its flexibility in recognizing prior learning and professional experience. The program allows students to request waivers for certain prerequisite courses if they can demonstrate sufficient proficiency through prior graduate-level coursework or extensive related work experience. This flexibility is important for accommodating students from diverse educational and professional backgrounds, ensuring that the program is accessible to a wider range of applicants. The program's admission requirements, which include finding a prospective faculty supervisor and submitting a detailed personal research statement, ensure that students have a clear research direction and are well-prepared for the demands of the program. However, it is crucial to ensure that prospective students receive adequate guidance and support in identifying potential supervisors and developing their research proposals, as this can be a challenging process for applicants. Additionally, while the program's multidisciplinary approach and broad range of topics are strengths, it is important to ensure that the curriculum remains coherent and focused. Maintaining a balance between breadth and depth in the curriculum is essential to ensure that students gain a comprehensive yet detailed understanding of cybersecurity.

Overall, the PhD program in Cybersecurity at Ontario Tech University is well-designed, innovative, and aligned with current trends and challenges in the field. Its multidisciplinary approach, strong industry connections, and emphasis on practical skills and high-impact practices make it a standout program that is well-equipped to prepare students for successful careers in cybersecurity. By continuing to support students throughout the

admission process and maintaining a balanced curriculum, the program can ensure that it remains at the forefront of cybersecurity education and research.

5. SUMMARY AND RECOMMENDATIONS

Please provide a summary of your conclusions and include a numbered list of each of your recommendations.

The proposed PhD program in cybersecurity at Ontario Tech University is designed to meet the growing global demand for advanced research and practical skills in the cybersecurity field. This program is expected to provide a robust curriculum that equips students with both theoretical and practical knowledge needed to address and mitigate modern cybersecurity challenges effectively. Key aspects of the program likely include a strong focus on interdisciplinary learning, which integrates insights from fields such as artificial intelligence, law, ethics, and business with core cybersecurity principles. This approach not only broadens the students' understanding, but also enhances their ability to innovate and solve complex problems across different sectors. Hands-on learning experiences are anticipated to be a cornerstone of the program, with students gaining practical skills through labs, simulations, and real-world projects. These activities are crucial for translating theoretical knowledge into practical, actionable skills in a real-world context. Collaboration with industry is expected to play a significant role in the program, providing students with exposure to the latest challenges and innovations in the field. These collaborations are also vital for networking, job placement, and practical insights into the cybersecurity industry. The program aims to continuously evolve by incorporating cutting-edge research, technology, and teaching methods. This ensures that graduates are not only well-prepared to enter the workforce but are also capable of leading the way in innovation and best practices in cybersecurity.
To further improve the program, in the long-term, following actions can be taken:

- *Funding for Research Chairs in the field*: Seek external funding to establish research chairs in cybersecurity including industry chairs, Canada Research Chairs, Canada Excellence Research Chairs to attract top-tier faculty and researchers.
- *Enhance Interdisciplinary Opportunities*: The program should further integrate interdisciplinary courses and projects that involve fields such as AI, law, and business ethics. This can be achieved by developing new courses or modifying existing ones to include interdisciplinary perspectives and problem-solving experiences.
- *Industry Collaboration and Partnerships*: Strengthen ties with the cybersecurity industry to facilitate ongoing student engagement through internships, guest lectures, and live project collaborations. This requires reaching out to potential industry partners and setting up agreements that benefit both the students and the companies involved.

Overall, the proposed PhD program at Ontario Tech University represents a significant step forward in cybersecurity education, aligning academic rigor with industry needs and future technological advancements. The program's success will rely on its ability to adapt, innovate, and maintain relevance in the rapidly changing landscape of global cybersecurity challenges.

NOTE: The responsibility for arriving at a recommendation on the final classification of the program belongs to the Appraisal Committee. Individual reviewers are asked to refrain from making recommendations in this respect.

Signature:

Date: July 3, 2024

Signature:

Date: July 3, 2024

Faculty Response to the External Review for the

_____

Ph.D. in CyberSecurity

Submitted By:

Shahram Heydari

Date 13 August, 2024

Carolyn McGregor, FBIT Dean

13 August, 2024

Introduction

We thank the external reviewers Dr. Ali Dehghantanha (University of Guelph) and Dr. Isaac Woungang (Toronto Metropolitan University) for their positive and constructive comments. Dr. Dehghantanha and Dr. Woungang have prior experience in directing relevant graduate programs at their respective institutions. They conducted a thorough analysis of the program, identified our strengths, and concluded that the proposed program "is well-designed, innovative, and aligned with current trends and challenges in the field. Its multidisciplinary approach, strong industry connections, and emphasis on practical skills and high-impact practices make it a standout program that is well-equipped to prepare students for successful careers in cybersecurity. By continuing to support students throughout the admission process and maintaining a balanced curriculum, the program can ensure that it remains at the forefront of cybersecurity education and research."

They also note that the proposed program "represents a significant step forward in cybersecurity education, aligning academic rigor with industry needs and future technological advancements. The program's success will rely on its ability to adapt, innovate, and maintain relevance in the rapidly changing landscape of global cybersecurity challenges."

They have also kindly pointed out the areas to be considered for improvement and long term success of the program. We greatly appreciate their vote of confidence and recommendations and will address them to improve the program.

Summary of Recommendations and Faculty Responses

- *Restate the recommendations summarized in the external reviewers' report and provide the Program's comments and responses*
- *The Dean should then provide summative comments/responses from an overarching Faculty perspective for each recommendation and program response*

Recommendation 1
Funding for Research Chairs in the field: Seek external funding to establish research chairs in cybersecurity including industry chairs, Canada Research Chairs, Canada Excellence Research Chairs to attract top-tier faculty and researchers.

Program's Response
This is an excellent idea and will certainly bring expertise and recognition to the program. The proposal will be updated to recommend prioritizing research chair positions in the field of cybersecurity.

Dean's response
Within Ontario Tech University, allocation of Canada Research Chairs (CRC)s is managed centrally by the Office of Research Services and faculties have the option to bid for CRC. Cybersecurity is one of the four key research priority areas within FBIT and we will work to ensure we bid for a CRC in Cybersecurity (or related area) position within our faculty at any opportunity in the coming years.

In addition, I am currently working with Advancement to create opportunities for donor funds to support a research chair position in Cybersecurity (or related area).

Recommendation 2

Enhance Interdisciplinary Opportunities: The program should further integrate interdisciplinary courses and projects that involve fields such as AI, law, and business ethics. This can be achieved by developing new courses or modifying existing ones to include interdisciplinary perspectives and problem-solving experiences.

Program's Response
We agree that including of interdisciplinary courses are essential to the success of the program. In addition to the existing courses in these areas, several new courses have been proposed by the affiliated faculty members in the program and will be sent for approval to FBIT faculty council.

Dean's response
This recommendation is well received and we will work to ensure that new courses are proposed and receive Faculty Council so they can then continue through the remaining governance structure of approvals. Actual course offerings year on year will be managed within the context of the overall budget of courses offered within the faculty and specifically for this program based on enrolment.

Recommendation 3
Industry Collaboration and Partnerships: Strengthen ties with the cybersecurity industry to facilitate ongoing student engagement through internships, guest lectures, and live project collaborations. This requires reaching out to potential industry partners and setting up agreements that benefit both the students and the companies involved.

Program's Response
We agree. Our initial plan includes accelerating such partnerships through the Institute for CyberSecurity and Resilient Systems (ICRS) and the National Cybersecurity Consortium (NCC). Once the program is approved, an industry advisory board will be established to provide further directions and contacts for FBIT cybersecurity programs

Dean's response
We will capitalise on our partnerships through the Institute for CyberSecurity and Resilient Systems (ICRS) and the National Cybersecurity Consortium (NCC) to create such student engagement opportunities.

Suggested Revisions for the Proposal following External Review

- *Program to list all suggested revisions to the proposal*
- *For each suggested revision, the Dean should include a comment indicating whether the revision will proceed. If the revision will not proceed, please indicate a rationale*

Added in Section 4.b:

"As recommended in the external reviewers report, it is recommended that the university prioritize hiring or appointing research chairs (NSERC CRC, Industry chairs or university research chairs) in cybersecurity, particularly in areas related to social and business aspects of cybersecurity. This is an important area of growth in the faculty and a differentiating factor that would enhance the multidisciplinary nature of the program."

COMMITTEE REPORT

SESSION:		ACTION REQUESTED:	
Public	☒	Decision	☐
Non-Public	☐	Discussion/Direction	☒
		Information	☐

TO: **Audit and Finance Committee**

DATE: **November 21, 2024**

PRESENTED BY: **Brad MacIsaac, Vice-President, Administration**
Lori Livingston, Provost and Vice-President, Academic
Sarah Thrush, AVP, Planning & Strategic Analysis

SUBJECT: **2025-2026 Budget Assumptions**

BACKGROUND/CONTEXT & RATIONALE:

As we start to plan for the next three years, we will focus on 2025-2026 with assumptions based on this year's information to date. In the past few years, we have provided a Fiscal Blueprint that outlined items such as the provincial landscape, revenue estimates and link funding priorities with the Integrated Academic-Research Plan. With the ongoing funding plus geo-political uncertainty, in addition to stakeholder feedback that the paper was repetitive with the April report, a decision has been made to create a more comprehensive final Budget Paper.

The November information sessions will include the key revenue and expense assumptions for stakeholders to comment on. Leadership has created many scenarios from conservative to aspirational growth plan. The budget will be set with the conservative estimates in mind; however, as in past years, leadership will have a listing of priority spends should extra funds be in place when students register in September. Looking at the conservative scenario the main assumptions to be considered are:

a) Enrolment Revenue: The preparation of the operating budget involves the use of projections and estimates. This major revenue driver assumes enrolment going up over 800 Full-time Equivalents compared to last budget. This is not unrealistic as the number includes an extra 500 that registered September 2024. The risk is related to the international intake due to the federal policy that was implemented in summer 2024 and the revision added in fall 2024.

b) Tuition Revenue: The assumptions include the provincial government continued freeze on domestic rates as announced for at least 2 years. For international we do not have tuition setting restrictions in place; however, based on a review of system comparators both regionally and internationally we are applying a 3% increase to the model. A full program by program review will occur before February.

c) Expenses: We must first manage the mandated salary increases and prioritized hiring plans which will be explained further in the final budget proposal. The first draw on the budget is an investment of $12M more in personnel costs compared to 2023-2024.

d) Reserves: Although there are many competing short-term demands in budget planning we must continue to set aside funds for future years. At the November 2021 Board meeting leadership discussed the Financial Sustainability and Reserves and outlined a need to set aside at least $3M for planned future investments in large-scale repairs/replacements, new priorities/equipment/infrastructure, and contingencies to offset unplanned external budget impacts.

With the current assumptions we are estimating about $260M in revenues and have already committed $252M in expenses. This increased revenue has come from our Differentiated Growth strategy. Maintaining current operating ratios will be a challenge, however we are committed to investing in our people. We are continuing to invest in technology platforms including the new enterprise system plan, and use of AI in reducing effort on high volume tasks. Additionally, the University is undertaking, with funding provided by the government, efficiencies and effectiveness review of key administrative processes.

There are two major unknowns in the revenue scenario. With the international caps we could see intake held at 2023 levels, which could reduce our revenues by over $3M. We also have not heard about the provincial governments efficiency fund which could include an extra $3M one time only support if we receive similar to 2024. As we get closer to setting the budget in March, we will have more clarity on student application numbers and government funding. Like previous years we will work to set a balanced budget along with a list of unfunded priorities that we can act upon should we see more positive numbers.

In every year there is a level of overall risk of not achieving the desired enrolment results (e,g, a 1% deviation in enrolment will lead to ~$1M variance, positive or negative, from tuition fee revenues). Note that the university is normally within $\pm$2% when predicting enrolment totals. The bigger risk may be what is not included in the budget framework. We recognize that inflation and supply issues continue to wreak havoc on some operating expenses. Currently, we have not placed an inflationary increase into the budget. Instead, we are asking for units to put in an ask for us to prioritize or reallocate from within their existing budgets.

DISCUSSIONS:

We are asking if stakeholders are comfortable with the assumption and the balanced approach leadership is taken in setting the budget in these complex times. It is important to note the investments being made to move forward the strategic priorities while balancing the long-term sustainability of the institution.

While this budget continues to move us forward on our mission and priorities there are number of areas that will not be funded to the levels we would like. A desired outcome of the budget presentations is to ensure members are aware of the risks and risk mitigation strategies related most specifically to enrolment, capital renewal and future reserves.

NEXT STEPS:

- Information Sessions will be held over November.
- Budget holders are to complete and submit their budget by December 20th.
- The leadership team will review the formal winter count data and finalize the budget submission.
- This will then be presented to Academic Council in March 2025 and the Audit & Finance Committee in April 2025.

SUPPORTING REFERENCE MATERIALS:

2025-2028 Budget Assumptions, November 2024

2025-2028 Budget Assumptions

- Lori Livingston, Provost and Vice-President, Academic
- Sarah Thrush, AVP Planning and Strategic Analysis
- Brad MacIsaac, Vice-President Administration

Nov 2024

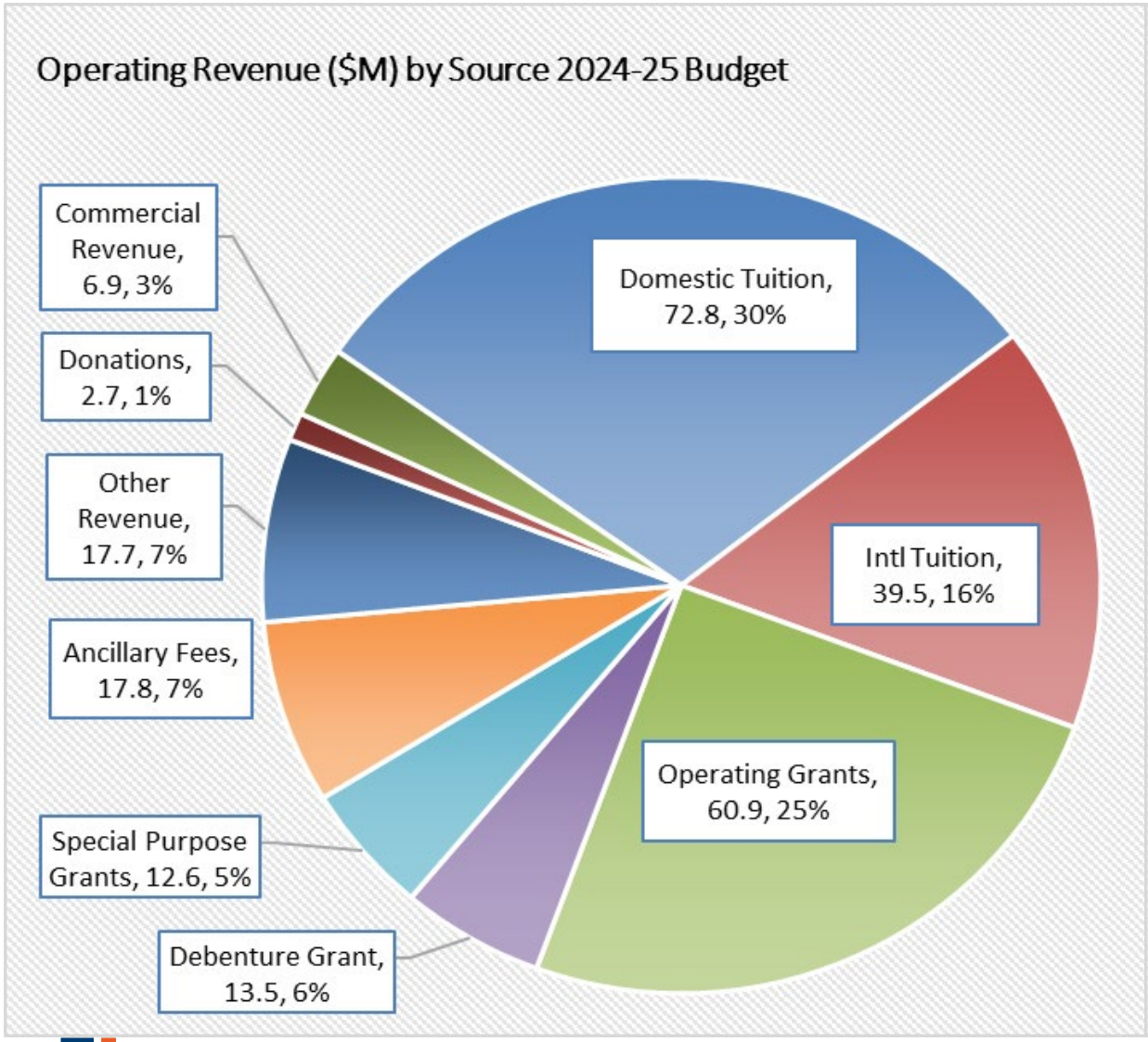
Ontario Tech Budget Process

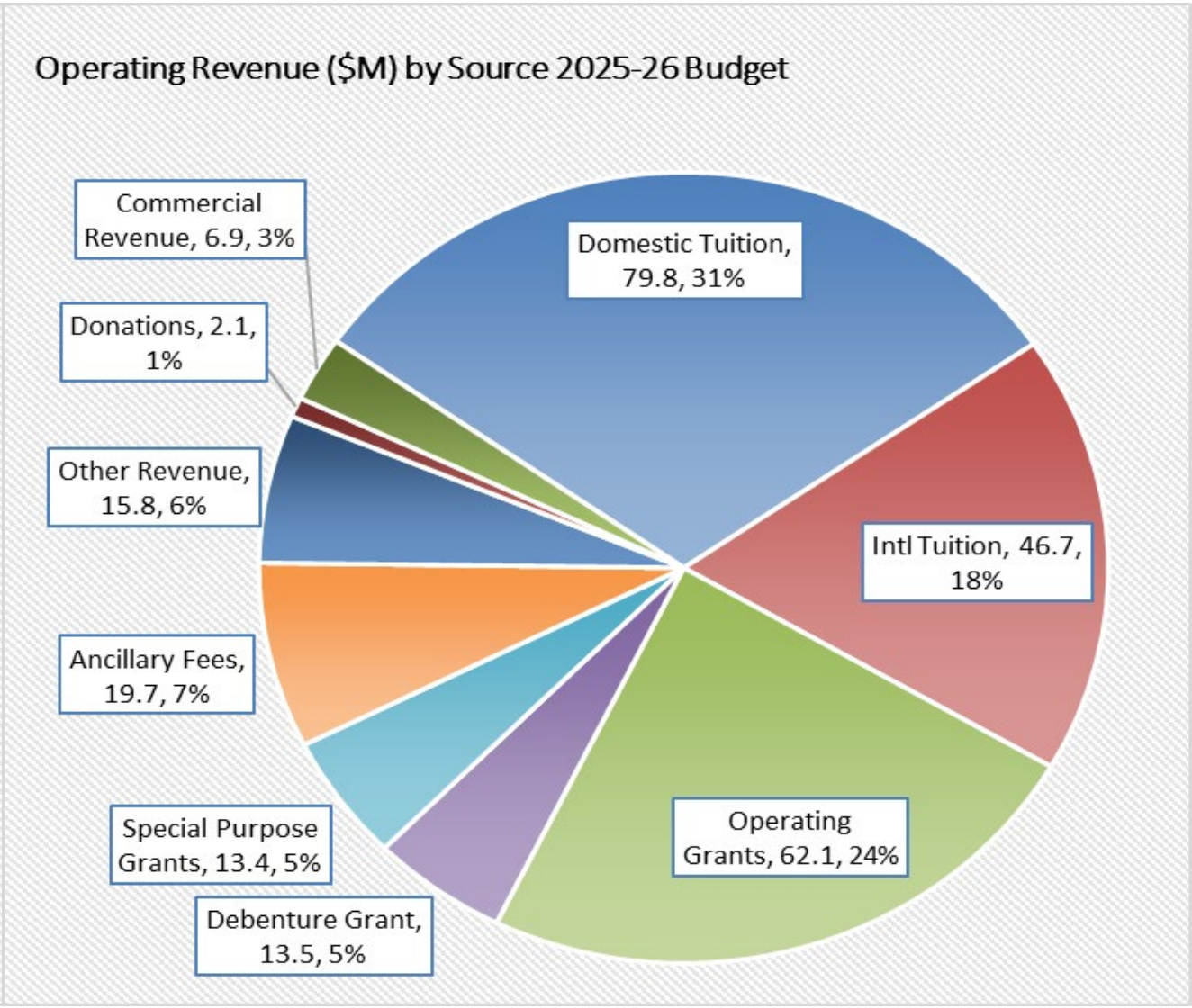
- November present Revenue & Expense assumptions and hold conversation on key priorities

- April present next Budget year plus two out years

  - https://sites.ontariotechu.ca/finance/index.php
  - https://sites.ontariotechu.ca/finance/planning-reporting/financial-statements/multi-year-rolling-budget-2024-2027/index.php

Operating Revenue by Source – FY26 ~$260M

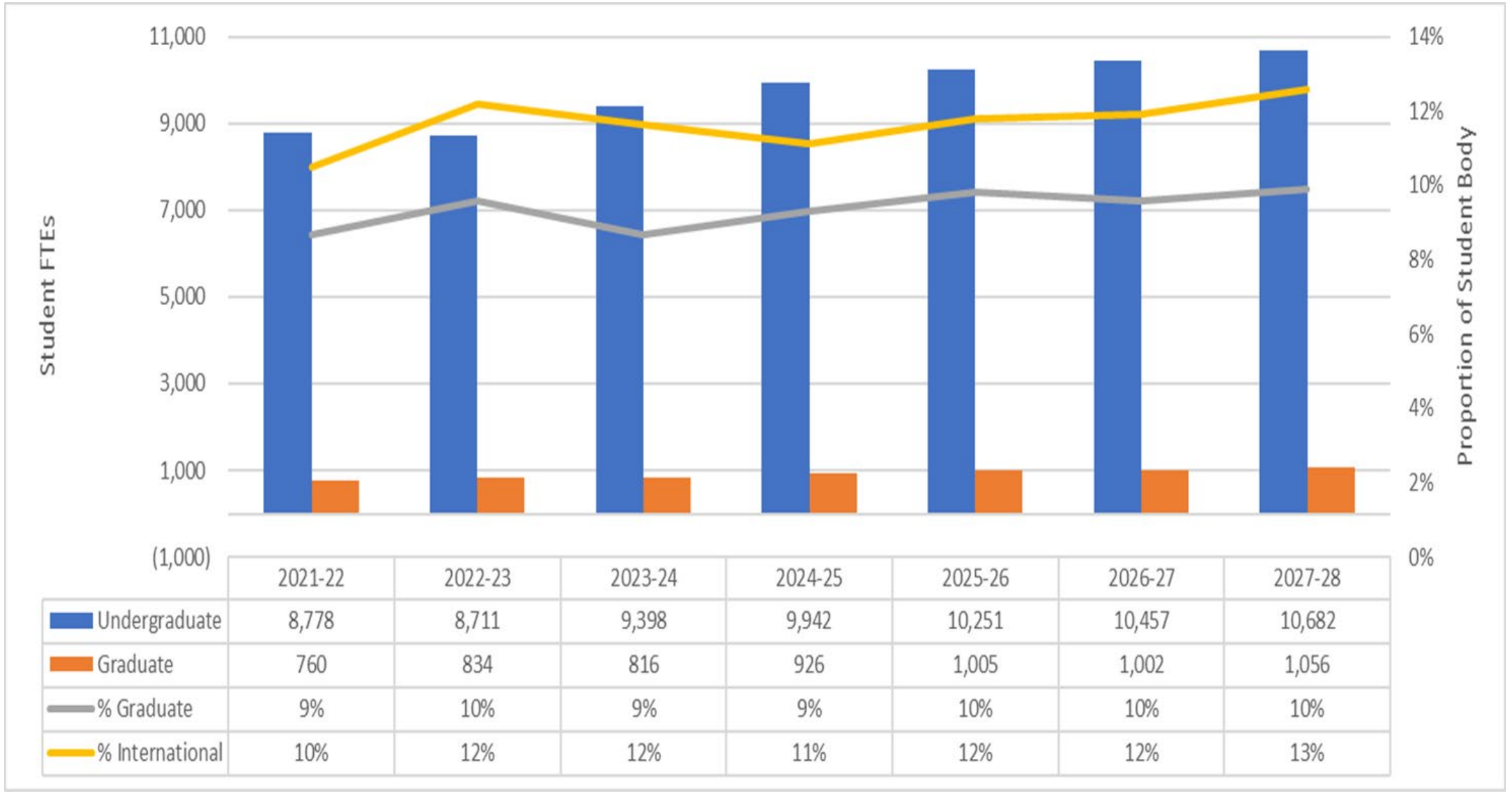




Revenues

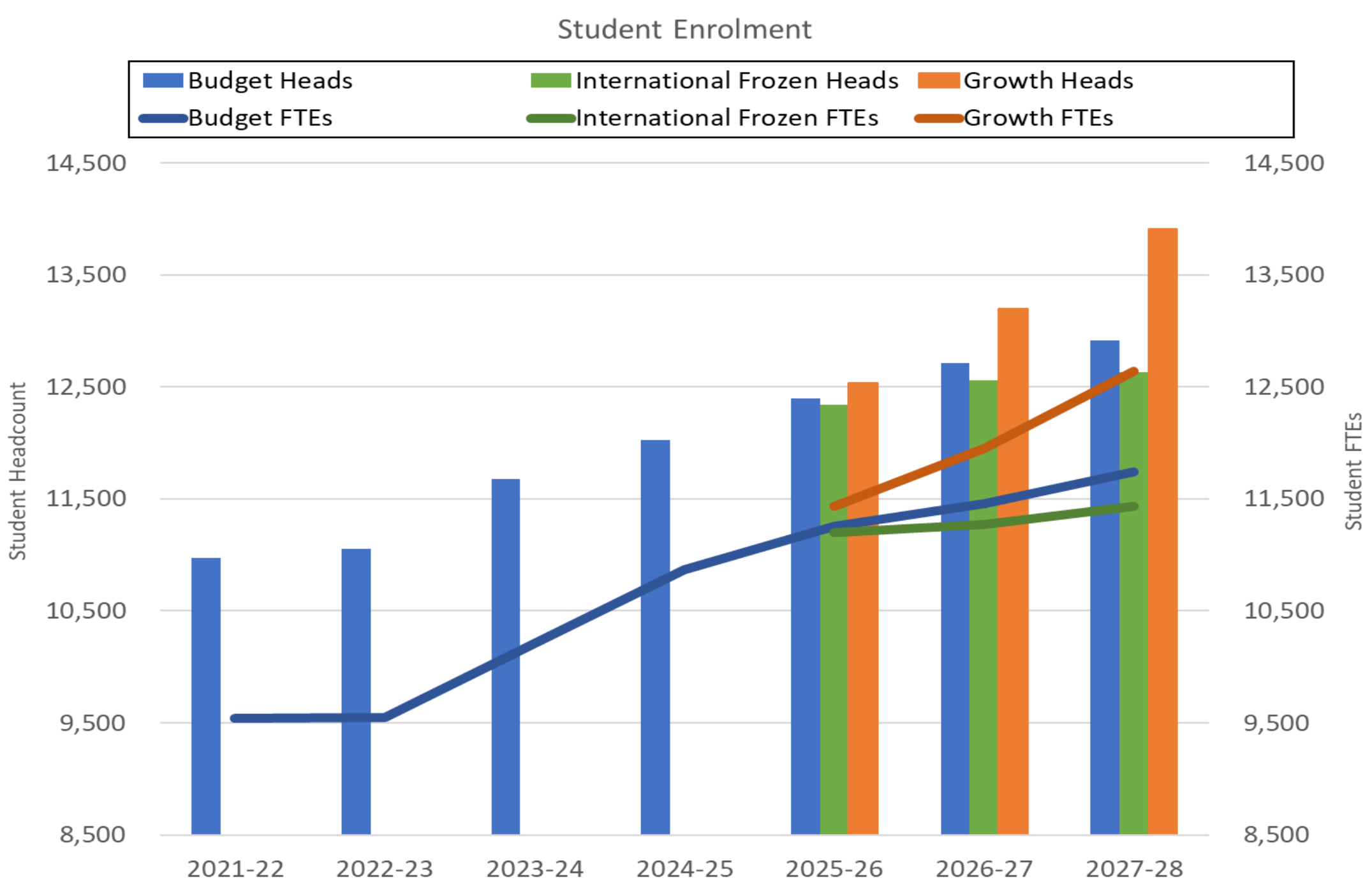
- Government Grants
  - ➢ While modifications have been made over the years, essentially frozen at 2012.
  - ➢ Operating vs Performance
  - ➢ Directed Increases (ie Facilities Renewal, Mental Health, etc)
- Tuition
  - Domestic (grant eligible) freeze
  - International 3%
- Ancillary
  - Fees are collected for specific purposes … so if $2M more basically all allocated

Enrolment Plan - BUDGET

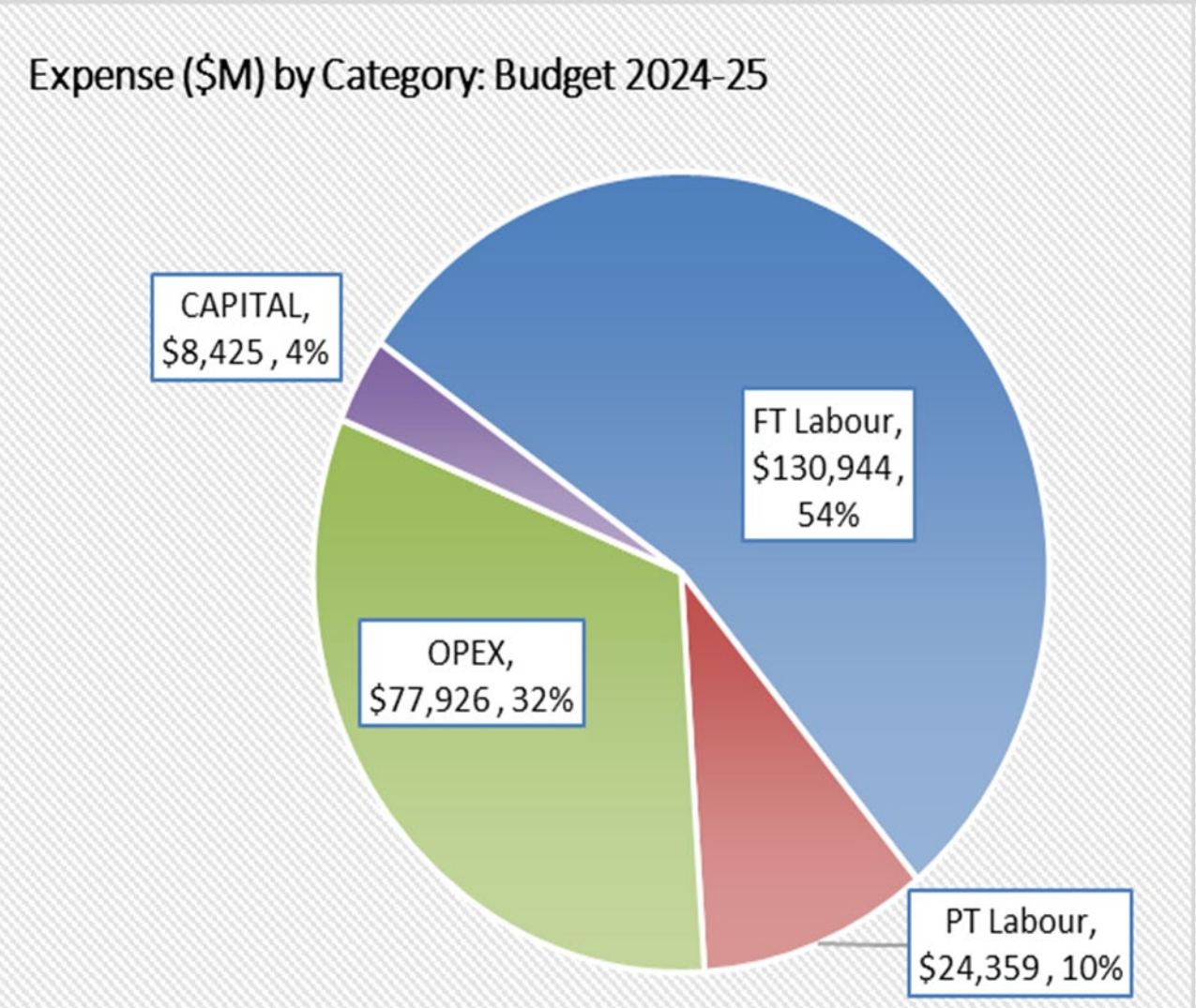


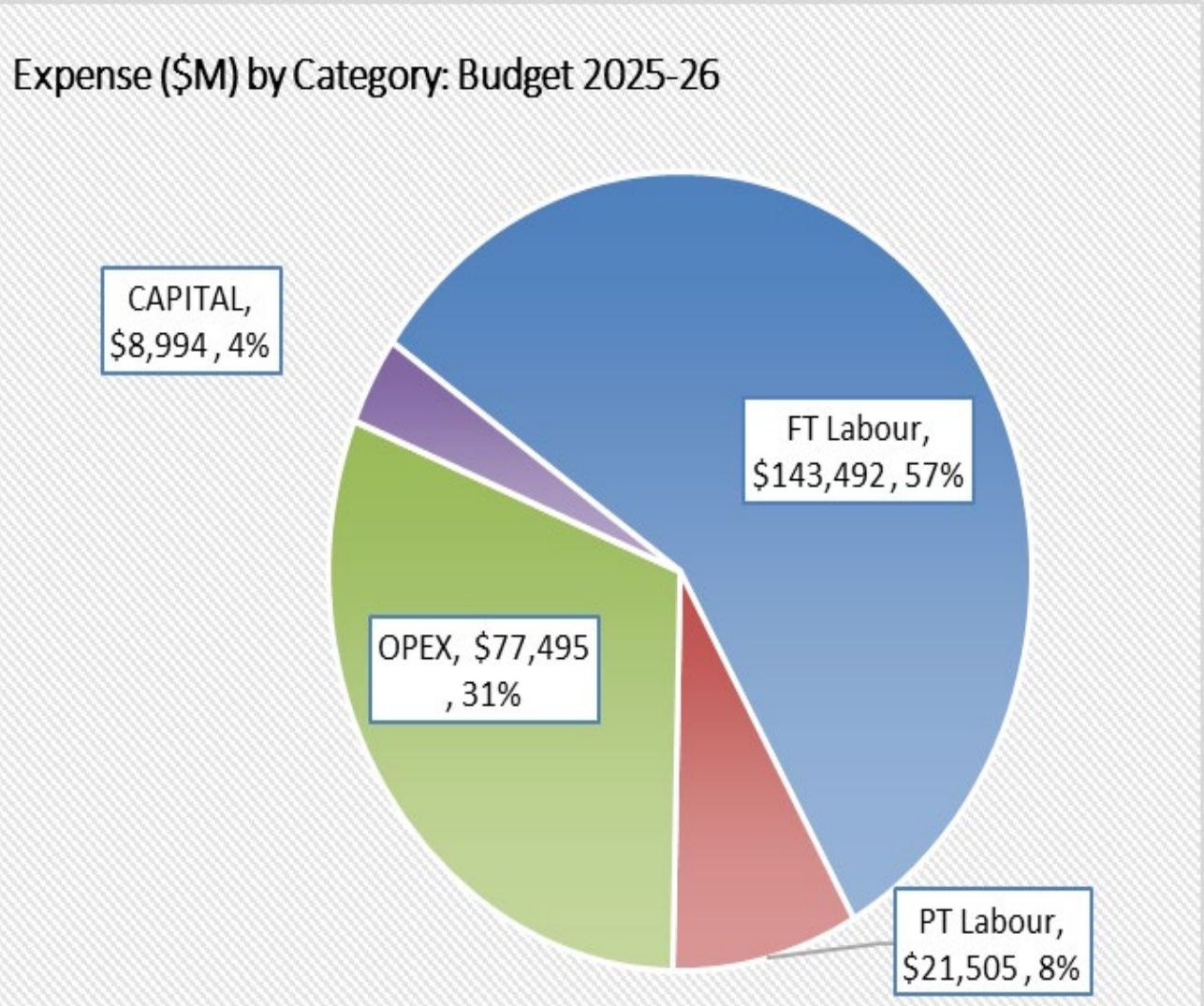
	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Undergraduate	8,778	8,711	9,398	9,942	10,251	10,457	10,682
Graduate	760	834	816	926	1,005	1,002	1,056
% Graduate	9%	10%	9%	9%	10%	10%	10%
% International	10%	12%	12%	11%	12%	12%	13%

Scenarios


Student Enrolment
Budget Heads
International Frozen Heads
Growth Heads
Budget FTEs
International Frozen FTEs
Growth FTEs
14,500
13,500
12,500
11,500
10,500
9,500
8,500
Student Headcount
Student FTEs
2021-22
2022-23
2023-24
2024-25
2025-26
2026-27
2027-28

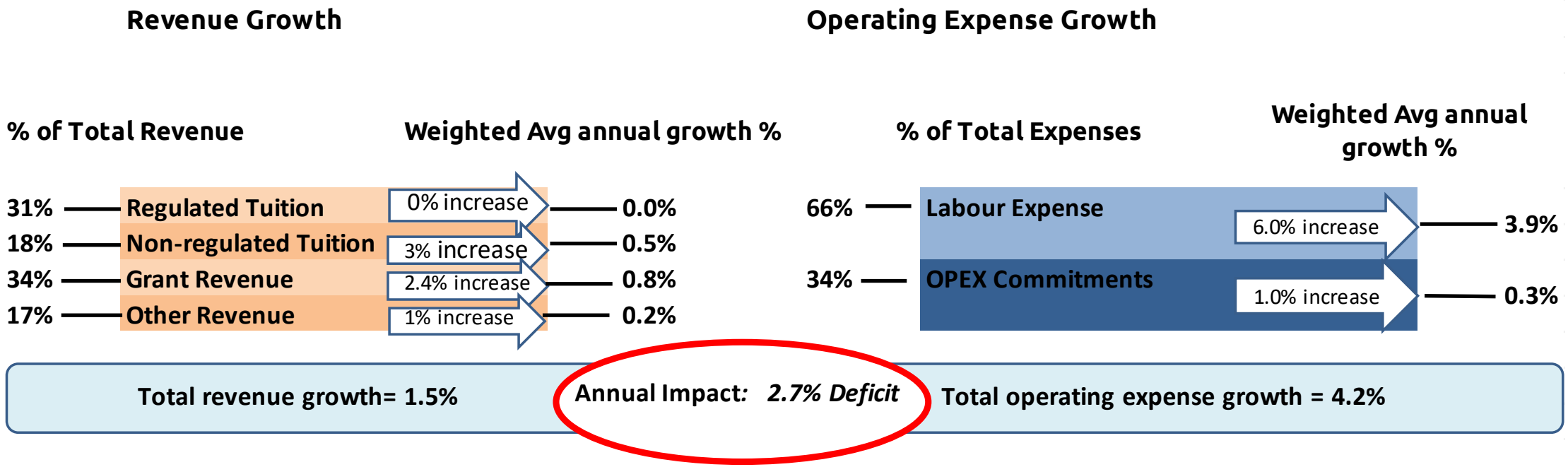
Total Expenses by Category – FT 26 ~252M allocated





Expenses

- Revenue: If UG international went up 3% on average the weighted impact on budget is less than 0.5%.
- Expenses: Looking at current salaries alone when we include ATB and PTR they are going up 6% a year for a weighted average of 3.9%
- Starting base budget DOES NOT include inflationary increase for OPEX. Most units will need to reallocate from within



Expenses: Examples of Potential Investments by Strategic Priority

- Continued focus on our “Differentiated growth” strategy, other forms of revenue generation (e.g., philanthropy)

- Create reserves to deal with the uncertainty of our fiscal future

Next Steps

- Nov 14 – 27th: Information Sessions (budget managers, Joint Faculty Association, Academic Council, Board Audit & Finance).
- Nov 14th Budget Module Opens
- Dec 20th Budget Submission
- Jan 20th Senior Leaders Budget Retreat
- Late March: Information Sessions
- April 10th Budget presented to Audit & Finance

Questions??

BOARD REPORT

SESSION:	**ACTION REQUESTED:**
Public ☒	**Decision** ☐
Non-Public ☐	**Discussion/Direction** ☐
	Information ☒

TO: **Board of Governors**

DATE: **November 28, 2024**

PRESENTED BY: **Pamela Onsiong**

SLT LEAD: **Brad MacIsaac**

SUBJECT: **2nd Quarter - Operating Forecast for year ending March 31, 2025**

BOARD/COMMITTEE MANDATE:
The Committee is responsible for overseeing the financial affairs of the University, including approval of the annual budget and financial reporting to ensure that appropriate financial controls, reporting processes and accountabilities are in place at the University.

BACKGROUND/CONTEXT & RATIONALE:

In February 2024, and in response to the Blue-Ribbon Panel recommendations, the Ontario government announced a **$903.0M investment over 3 years** through the new Postsecondary Education Sustainability Fund ("PESF") starting in 2024-25. At the time the 2024/25 budget was finalized in March 2024, the University had no indication from the Ministry as to the amount of PESF fund it will receive for the current year.

In April 2024, the Board approved a **balanced budget for 2024/25** based on estimated revenue and expense assumptions. This budget included **an estimated $2.0M PESF in revenue** and a **net surplus contingency of $5.4M** that will be released for future capital renovations and new investments in IT, academic and student-related space, should the budget assumptions be met or exceeded.

This report provides the Committee with an overview of the projected year-end results against the approved budget (Appendix 1).

Technical point only: The operating budget is based on a projection of cash receipts and expenditures for the year. This contrasts with the audited financial statements which are prepared in accordance with generally accepted accounting principles ("GAAP") for non-for-profit organizations in Canada. In arriving at the year-end results on a GAAP basis, adjustments are required to be made to the management report, e.g.

- The management report includes cash outlays for capital investment in the budget year while the GAAP financial statements include an expense that reflects the amortization of capital assets over their useful lives.
- Conversely, the GAAP financial statements include the non-cash unrealized gain/loss on endowed investments while these are not budgeted and therefore not included in the management report.

HIGHLIGHTS

Based on Fall 2024, Day 10 enrolment count and expense forecasts from budget holders the **net operating surplus for the year projected at $5.9M**, is ~ $0.5M above the $5.4M planned surplus to be set aside for reserves, albeit with **forecast variances to budget** across several revenue and expense lines.

Revenue

Total revenue is favourable $9.3M (or 4%) against original budget. Approximately 60% of the increase in revenues have offsetting expenses or were for planned reserves, and these are included in this forecast under the Expense and Capital sections. Revenue increase is largely driven by:

1) **Grant** increase of $5.8M (or 7%), comprised of higher than expected provincial grants, including $3.6M of one-time PSEF grant, $0.5M of a new one-time Efficiency and Accountability Fund ("EAF") and $0.5M higher than expected facilities renewal grant, and other increases, none of which exceeds $0.5M.

2) **Tuition revenues** increase of $3.5M (or 3%) against budget primarily attributable to a higher than budgeted domestic enrolment (see Table 2). Total enrolment projection is favourable ~ 482 FTE (or 4.6%) against an approved budget of 10,387 FTE.

   Domestic enrolment remains strong with a net forecast increase of 401 FTE (additional $3.5M in revenues) with the most significant increases in Education and Health Sciences. Total international enrolment increased net 81 FTE against budget with minimal increase in tuition revenues as international students registered in lower fee programs than outlined in the budget assumptions.

Revenue (contd)

As a result of the increase in projected enrolment and revenues, Management has allocated funds to support academic growth and invested in strategic initiatives in support of student experience and the future of technology at the University. These additional costs are included in the forecast expenses.

Expenses

Operating expenses are unfavourable net $2.8M (or 1%) against budget, and is attributable to:

1) **Full-time labour** savings of $1.4M from open positions are offset by $2.7M increase in limited term contracts attributable to back-fill for full-time open positions, increase in teaching assistants and sessionals due to increased enrolment, and increase in administrative contracts related to workload.

2) **General operating expenses** are unfavourable $1.4M against budget and include:

a) $1.0M of higher than budgeted **consulting services**, including costs associated with the new student residence, the purchase of Campus Corners, and IT consulting services.

b) $0.4M increase in **entrance scholarships** due to more students meeting the eligibility criteria for these scholarships.

Capital Expenses are unfavourable $3.4M (or 40%) against budget, of which:

1) approximately 50% are funded by higher than expected provincial facilities & equipment renewal grants and expendable donations.

2) remaining 50% funded from Operations, including a forecast **$0.5M investment in the University's AI strategy**, and $1.3M representing the portion of the purchase of the **Campus Corners location which is not funded by external financing** (see under "Other disclosures").

Other disclosures

On September 17, 2024, and in alignment with its Campus Master Plan, the University acquired **50% of an administrative building and its surrounding locations (**"Campus Corners" valued at $35.4M) for a net cash consideration of $12.9M. The University is in the final stages of negotiation with a financial institution **for up to $12.0M external financing** to fund for this acquisition.

FINANCIAL IMPLICATIONS:

The primary purpose of this financial update is to report on the projected year-end results of the operating budget. Maintaining a balanced (or surplus) budget is critical to Ontario Tech University's short-term financial health and long-term financial sustainability.

SUPPORTING REFERENCE MATERIALS:

- Appendix 1: Management Reporting: Operating Forecast Summary for the year ending March 31, 2025
- Appendix 2: Enrolment Table

Ontario Tech University

Management Reporting: Operating Forecast Summary
For the year ending March 31, 2025 (in $ 000's)

The table below shows the variance of the year-end forecast vs the approved 2024/25 budget

	April 1, 2024 - March 31, 2025			
	Total Annual Budget	Y/E Forecast	Fav. (Unfav.) Forecast vs Budget $ / %	
Revenue				
Grants	86,974	92,761	5,787	7%
Tuition	112,234	115,693	3,459	3%
Student Ancillary	18,261	18,090	(170)	-1%
Other	26,785	27,011	226	1%
Total Revenue	**$ 244,254**	**$ 253,555**	**$ 9,301**	**4%**
Expenditures				
Academic	97,473	98,088	(615)	-1%
Academic Support	55,055	55,988	(933)	-2%
Administrative	33,345	35,509	(2,164)	-6%
Sub-total	**$ 185,873**	**$ 189,585**	**$ (3,712)**	**-2%**
Purchased Services	**16,323**	**16,236**	87	**1%**
Total Ancillary/Commercial	**11,981**	**11,287**	693	**6%**
Debt Interest Expense	**8,474**	**8,391**	83	**1%**
Total Operating Expenses	**$ 222,650**	**$ 225,498**	**$ (2,849)**	**-1%**
Net Contribution from Operations	**$ 21,605**	**$ 28,057**	**$ 6,452**	**30%**
Capital Expenses funded from Operations	**8,424**	**11,781**	**(3,356)**	**-40%**
Principal Repayments - debt & capital leases	**10,567**	**10,411**	**156**	**1%**
	2,613	**5,865**	**3,252**	**124%**
Funded through PY restricted reserves	**373**	**0**	**(373)**	**-100%**
Contingency Fund	**2,443**	**0**	**(2,443)**	**-100%**
Total Operating Surplus	**$ 5,429**	**$ 5,865**	**$ 436**	**8%**
Other disclosures:				
Purchase of 50% of Campus Corners, funded by external financing	**$ -**	**$ 12,059**	**$ (12,059)**	**N/A**

APPENDIX 2

Ontario Tech University

Management Reporting: Enrolment Table

FTE's	2023/24 Actual	2024/25 Budget	Q2 Forecast *	Variance to Budget
Undergraduate				
Domestic	**8,717**	**8,783**	**9,185**	**402**
International	**753**	**776**	**757**	**-19**
Graduate				
Domestic	**462**	**477**	**476**	**-1**
International	**354**	**351**	**451**	**100**
Total FTE's	**10,286**	**10,387**	**10,869**	**482**

** Q2 Forecast reflects Fall 2024, Day 10 enrolment count. With four enrolment count dates over the year, this is currently an estimate until final winter count in February 2025.

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

BOARD REPORT

SESSION:	**ACTION REQUESTED:**
Public ☒	**Decision** ☐
Non-Public ☐	**Discussion/Direction** ☐
	Information ☒

TO: **Board of Directors**

DATE: **November 28, 2024**

PRESENTED BY: **Pamela Onsiong**

SLT LEAD: **Brad MacIsaac**

SUBJECT: **Financial Statements (unaudited) for the 6 months ending September 30, 2024**

COMMITTEE MANDATE:
The Committee is responsible for overseeing the financial affairs of the University, including approval of the annual financial statements and financial reporting to ensure that appropriate financial controls, reporting processes and accountabilities are in place at the University.

BACKGROUND/CONTEXT & RATIONALE:

This report provides the Committee with an overview of the statements of financial position, operations and cash flow as at September 30, 2024, together with a year-over-year comparison (Appendix 1).

These financial statements are prepared on a consolidated basis in accordance with Canadian Accounting Standards for Non-for-Profit Organizations and include the results of its fully-owned subsidiaries, Regent Square Property Corporation accounted for on a consolidation basis and Ontario Tech Talent ("TALENT") accounted for on an equity basis. TALENT is a for profit entity, controlled by the University and it follows Canadian Accounting Standards for Private Enterprises, with no significant differences in accounting policies from those followed by the University.

HIGHLIGHTS:

In addition to normal operating activities, these Consolidated financial statements reflect the purchase of 50% of an administrative building and its surrounding locations ("Campus Corners" valued at $35.4M) on September 17, 2024 for net cash consideration of $12.8M. This purchase is being funded by a loan of up to $12.0M, currently under negotiation with a financial institution.

The University continues to operate within a fiscally-constrained environment, given the significant impacts of the provincially mandated 2019 tuition fee cut and the subsequent freeze for Ontario students, the cap of provincial funding at the 2016-17 level for domestic students along with inflationary cost pressures on its operations.

Statement of Operations

The statement of operations shows **a net deficit of $13.8M** at the end of the reporting quarter. Total revenue increased $10.6M (or 10.2%) and expenses increased $12.4M (or 10.7%) over the prior year.

The University follows Canadian Accounting Standards for Non-for-Profit Organizations, Part lll of the Chartered Professional Accountants of Canada ("CPA") Handbook. In compliance with these standards, student tuition fees are recognized as revenue in the statement of operations when courses are provided, resulting i**n the deferral of $73.1M in tuition fees** at the end of the reporting quarter. This deferred revenue will be taken into income by the end of the fiscal year, thus bridging the gap in the operating deficit.

Revenue increase of $10.6M increase is mainly driven by:

(1) $5.4M increase in **student fees**, mainly attributable to the increase in domestic (469 FTE), and international (118 FTE) undergraduate enrolment over the prior year.

(2) $3.0M increase in **non-cash unrealized gain on endowed investments** due to more favourable global market conditions in the current year, driven by strong earnings in tech companies.

(3) $1.1M increase in **Other income** primarily due to the change in accounting and the resulting recognition of surplus revenues from the University's revenue generating units. These revenues were deferred in the prior year.

Expenses increase of $12.4M is driven by:

(1) $5.0M increase in **salaries and benefits** for faculty and staff, including $3.4M for annual salary increases, $0.8M for new full-time hires, and $0.8M in limited term contracts for teaching assistants, sessionals and administrative staff.

Salaries and benefits which comprise over half of the total expenses of the University and are mostly tied to collective agreements, have consumed ~ 50% of the year-over-year increase in total revenue.

(2) $3.4M increase in **unrealized non-cash loss on swap** due to the less favourable prevailing swap rate in the current year.

Statement of financial position

Despite the ongoing financial pressures, the **statement of financial position** remains stable with stable liquidity and net asset increase of $5.9M (or 5.5%) versus last year. Net Assets increased in line with the net increase in assets and liabilities, and are supported by cash and restricted investments.

Total Assets increased $13.3M (or 2.3%) over the prior year is due to:

(1) $3.3M increase in **accounts receivable** which includes $5.0M of student account receivable attributable to year-over enrolment growth, offset by other variances none of which exceeds $0.5M.

Other accounts receivable balance of $55.1M consists of net $50.6M of student receivable ($40.0M for the future winter semester, $10.6M for the current fall and prior receivable), $4.2M of trade, research and ACE receivable and other immaterial variances.

(2) $6.1M increase in **endowed investments** held at PH&N and consisting of $4.9M of mark-to-market unrealized gains due to better market conditions in the current year, net $1.2M investment income, $0.6M new endowed donations, offset by $0.6M of award disbursements to students.

(3) $5.7M increase in **capital assets** which comprises of net asset additions of $27.6M (includes $18.0M Campus Corners location, $4.5M major equipment, $2.2M building renovations) vs net impact of accumulated amortization of $21.9M.

Total liabilities increased $7.4M (or 1.5%) and includes:

(1) $10.3M increase in **accounts payable and accrued liabilities** including $3.2M of trade payables due to timing of recording and payment of invoices, $2.8M of student funds received in advance and to be applied against tuition charges for future semesters, $1.3M of payroll deductions paid in Oct, and other variances none exceeding $0.5M

(2) $7.6M in total **debt repayment**.

FINANCIAL IMPLICATIONS:
The primary purpose of this financial update is to report on the statement of financial position of the University for the period ending September 30, 2024. Maintaining a stable financial position is critical to Ontario Tech University's long-term financial sustainability.

COMPLIANCE WITH POLICY/LEGISLATION:
These audited financial statements are prepared in compliance with generally accepted accounting principles for not-for-profit organizations.

SUPPORTING REFERENCE MATERIALS:

- Appendix 1: Consolidated (unaudited) Financial Statements for the 6 months ending September 30, 2024.

Appendix 1

Consolidated Financial Statements of

ONTARIO TECH UNIVERSITY

For 6 months ending September 30, 2024

ONTARIO TECH UNIVERSITY
Consolidated Statement of Financial Position
As at September 30, 2024 (in '000s)

	Sep 30, 2024	Sep 30, 2023	YOY Variance	Mar 31, 2024
ASSETS				
Current Assets				
Cash and cash equivalents	**$ 71,706**	$ 73,381	$ (1,675)	$ 82,502
Short-Term Investments	**17,000**	17,000	-	-
Grant receivable	**11,423**	11,299	124	9,859
Other accounts receivable	**53,284**	49,981	3,303	9,876
Prepaid expenses, deposits and inventories	**3,128**	3,187	(59)	2,655
	156,541	154,848	1,693	104,892
Endowed investments	**39,277**	33,122	6,155	36,442
Other assets	**4,278**	4,533	(255)	1,763
Capital assets	**397,748**	392,063	5,685	387,177
Intangible asset - goodwill	**973**	973	-	973
TOTAL ASSETS	**$ 598,818**	$ 585,539	$ 13,279	$ 531,247
LIABILITIES				
Current Liabilities				
Accounts payable and accrued liabilities	**44,985**	34,693	10,292	34,363
Deferred revenue	**103,601**	101,638	1,962	32,800
	148,586	136,332	12,254	67,163
Other debt	**5,617**	6,565	(948)	5,939
Obligations under capital leases	**26,595**	27,065	(469)	26,841
Debenture Debt	**125,058**	133,225	(8,168)	129,205
Fair value of interest rate swap	**21,240**	19,214	2,026	20,263
Deficiency in other investments	**2,553**	1,780	773	1,811
Deferred capital contributions	**155,890**	153,953	1,937	153,400
	$ 485,539	$ 478,134	$ 7,406	$ 404,622
NET ASSETS				
Net assets, excluding current year surplus	**99,604**	93,171	6,433	93,160
Endowments	**27,508**	26,283	1,225	27,022
Current year deficit	**(13,833)**	(12,048)	(1,785)	6,443
	113,279	107,405	5,872	126,625
TOTAL LIABILITIES AND NET ASSETS	**$ 598,818**	$ 585,539	$ 13,279	$ 531,247

ONTARIO TECH UNIVERSITY
Consolidated Statement of Operations
For the 6 months ending September 2024 (in '000s)

		Sep 2024		Sep 2023		Variance
REVENUE						
Grants - operating and research	**$**	**40,990**	$	41,425	$	(435)
Grants - debenture		**6,750**		6,750		0
Donations		**753**		155		599
Student tuition fees		**40,350**		34,923		5,427
Student ancillary fees		**8,219**		8,032		188
Revenues from purchased services		**638**		593		45
Other income		**7,977**		6,862		1,115
Amortization of deferred capital contributions		**4,169**		4,069		100
Interest revenue		**2,121**		1,429		692
Gain on disposal of assets		**0**		94		(94)
Unrealized gain on investments		**2,299**		(675)		2,974
		114,266		103,656		10,610
EXPENSES						
Salaries and benefits	**$**	**72,317**	$	67,334	$	4,983
Student aid, financial assistance and awards		**9,535**		8,692		843
Supplies and expenses		**18,781**		16,987		1,794
Purchased Services		**7,384**		6,144		1,240
Professional fees		**990**		650		341
Interest expense - Long Term Debt		**5,402**		6,081		(680)
Interest expense - Other		**152**		129		23
Amortization of capital assets		**11,453**		11,019		435
Unrealized loss/(gain) on interest rate swap		**1,341**		(2,103)		3,444
Loss on other investments		**743**		772		(29)
		128,098		115,704		12,394
Excess of expenses over revenue	**$**	**(13,833)**	$	(12,048)	$	(1,785)

UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY
Consolidated Statement of Cash Flows
As at September 30, 2024 (in '000s)

	Sep 30, 2024	Sep 30, 2023
NET INFLOW (OUTFLOW) OF CASH RELATED TO THE FOLLOWING ACTIVITIES		
OPERATING		
Excess of expenses over revenue	**(13,833)**	(12,048)
Items not affecting cash:		
Amortization of capital assets	**11,453**	11,019
Amortization of deferred capital contributions	**(4,169)**	(4,069)
Unrealized loss/(gain) on interest rate swap	**1,341**	(2,103)
Unrealized (gain)/loss on investments	**(2,299)**	675
(Gain) / loss on disposal of assets	**-**	(94)
Loss on other investments	**743**	772
	(6,763)	(5,848)
Working Capital		
Grant and other accounts receivable	**(44,973)**	(43,890)
Prepaid expenses, deposits and inventories	**(473)**	(468)
Accounts payable and accrued liabilities	**10,622**	4,634
Deferred revenue	**70,801**	66,312
	29,213	20,739
INVESTING		
Purchase of capital assets	**(22,025)**	(4,765)
Investments	**(17,535)**	(361)
Other Assets	**(2,515)**	(1,558)
Endowment contributions	**486**	351
	(41,589)	(6,334)
FINANCING		
Repayment of interest rate swap	**(364)**	(353)
Repayment of long term debt	**(4,469)**	(4,266)
Repayment of obligations under capital leases	**(246)**	(211)
Deferred capital contributions	**6,659**	1,630
	1,580	(3,201)
NET CASH (OUTFLOW)/INFLOW	**(10,796)**	11,204
CASH BALANCE, BEGINNING OF YEAR	**82,502**	62,176
CASH BALANCE, END OF PERIOD	**$ 71,706**	$ 73,381

COMMITTEE REPORT

SESSION:		**ACTION REQUESTED:**	
Public	☒	**Decision**	☐
Non-Public	☐	**Discussion/Direction**	☐
		Information	☒

TO: **Audit & Finance Committee**

DATE: **November 21, 2024**

FROM: **Brad MacIsaac, Vice President Administration**

SUBJECT: **Quarterly Risk and Insurance Report**

COMMITTEE MANDATE:
The Audit and Finance Committee is responsible for overseeing risk management and other financial systems and control functions at the University. This oversight includes approving the risk management process and ensuring the adequacy of the insurance portfolio, as well as ensuring appropriate mitigative actions are taken or planned in areas where material risk is identified.

BACKGROUND/CONTEXT & RATIONALE:
The University provides a quarterly update to the Board on risk management initiatives since the last report, culminating in a comprehensive annual review each April. This past quarter, Risk Management's primary objective was to identify areas where enhancements could further strengthen our risk management culture. This involved both assessing new opportunities to support our strategic objectives and refining existing resources to enhance the experience for University members. These improvements will promote more informed decision-making and operational consistency that aligns with the University's risk appetite and overarching vision.

This quarterly report highlights key developments in four primary areas: Insurance, Risk Management, Thematic Risk Buckets, and Audit and Compliance.

<u>Insurance</u>

Operational Efficiencies:
The Office of Risk Management (ORM) has optimized its operational processes by centralizing functions, such as certificate of insurance (COI) requests and contract collection/review resulting in streamlined transaction handling and enhanced reporting capabilities. This centralization has improved the accuracy and timeliness of data collection and has reduced response times for service requests across the University.

Financial Exposures:
Through our insurance reciprocal, CURIE, the University has expanded its coverage to include physical damage and financial loss from equipment breakdown, addressing prior coverage gaps. This enhanced policy, effective January 1, 2025, will reduce premium costs and provide comprehensive protection for previously excluded areas of the University.

Risk Management

Newly Developed Risk Resources:
The ORM introduced several new resources, including an Event Guideline, Field Trip Awareness Guideline, and A Practical Guide to Risk Management. These resources promote operational consistency, enhance decision-making, support training and onboarding, and promote compliance across the University. Additionally, over 20 risk bulletins were created to provide standardized methods for addressing specific risks, aligning actions with the University's risk tolerance. These resources can be found on the risk management website.

Enhancements to Existing Resources:
The ORM has refined various existing risk forms, including the campus event forms, drone application, international travel and the Risk Management Policy, to improve user experience and foster collaboration with other departments. These updates align with ORM's ongoing commitment to support University-wide risk management objectives.

Business Continuity Planning:
A comprehensive Business Continuity Plan (BCP) toolkit was developed to enhance operational resilience. This toolkit includes communication protocols and response frameworks to support incident management and recovery. Next steps will include collaborating with business functions to ensure these strategies are robust and aligned with organizational needs. The ultimate objective is to establish a comprehensive response plan to ensure operational continuity in the event of a technology system outage or a full-scale operational disruption.

Thematic Risk Buckets

Risk Register Integration:
The ORM has incorporated thematic risk buckets into the University's risk register. During the annual risk review that occurs over fall/ winter, these thematic risks will be discussed with risk owners to facilitate alignment across departments.

As thematic risk management is in its early stages, further development will continue over the next two years. Appendix A, attached, includes a summary of the approved enterprise risks currently under active management.

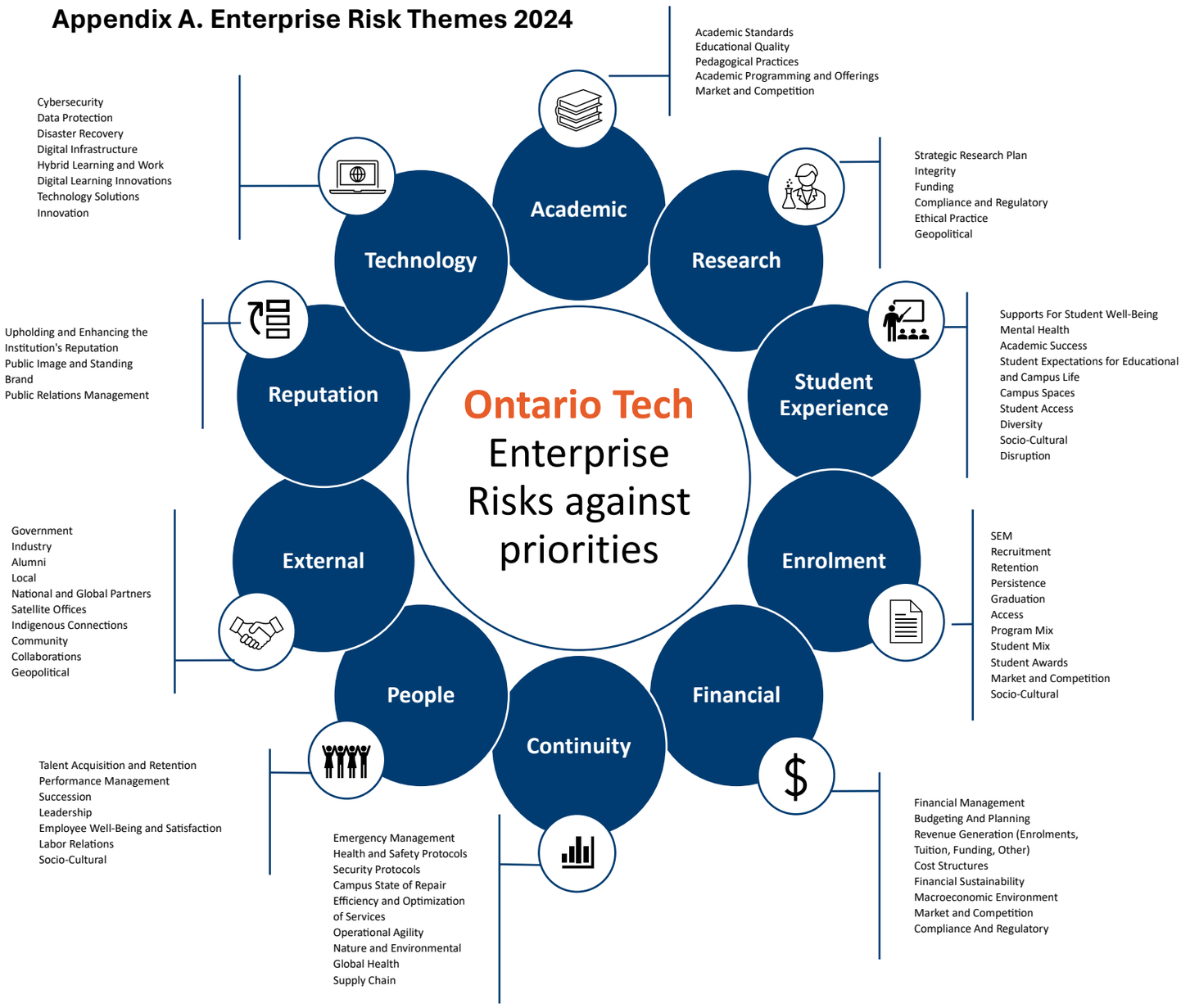
Audit and Compliance

Collaborative Digitization of Inspection Forms:
In collaboration with the Biosafety & Radiation Office and the Health & Safety Office, ORM is transitioning inspection forms to digital platforms, enhancing accuracy, accessibility, and environmental sustainability. This initiative also includes integrating these digital forms with the Audit Reporting tool to automate data transfer, streamline workflows, and minimize manual data entry.

Next Steps
Looking ahead, the Office of Risk Management will continue to advance the University's risk management portfolio, remaining agile to external changes and emerging risks. Over the coming year, Senior Leadership will collaborate closely with ORM to drive continuous improvement in established practices while also progressing the thematic risk management framework.

Attachments:
Enterprise Risk Thematic Buckets

Appendix A. Enterprise Risk Themes 2024



Academic

- **Key Indicators**: University rankings, entering GPA, quality assurance, development of new programs, experiential learning, learning outcomes, program mix
- **Consequence of not Managing this Risk**: The erosion of credibility and competitiveness within the institution from compromised academic standards.
- **Risk Owner**: Provost

Research

- **Key Indicators**: Ethical standards, data protection, research funding, research publications, citations, health and safety, partnerships, research standing and reward
- **Consequence of not Managing this Risk**: Standing and advancements in the field are compromised, impeding the ability to advance knowledge and attract top researchers.
- **Risk Owner**: VPRI

Student Experience

- **Key Indicators**: Student satisfaction survey, student retention and persistence, student/faculty ratios, participation in work-integrated learning, campus space metrics
- **Consequence of not Managing this Risk**: Negative student experience, impacting the university's reputation, revenue and sustainability.
- **Risk Owner**: Provost

Enrolment

- **Key Indicators**: Applications, conversion, enrolments, retention, graduation rates (tracked against targets and the system)
- **Consequence of not Managing this Risk**: Reduced access to education and diversity, impacting the university's revenue and sustainability.
- **Risk Owner**: Provost

Financial

- **Key Indicators**: MCU financial health indicators, economic indicators, enrolment, market share
- **Consequence of not Managing this Risk**: Compromised ability to operate robustly, efficiently, and to make the necessary investments for ongoing and future success.
- **Risk Owner**: VP-Admin

Continuity

- **Key Indicators**: Facilities condition metrics, health and safety metrics, security metrics, emergency response metrics, cost of service delivery
- **Consequence of not Managing this Risk**: Campus safety and operational disruptions, impacting various university functions.
- **Risk Owner**: VP-Admin

People

- **Key Indicators**: Applications per academic appointment, offer success rates, failed searches, number of vacant leader positions, employee surveys, voluntary turnover rates, grievances
- **Consequence of not Managing this Risk**: Difficulties in acquiring and retaining top talent talent and strained labor relations, impacting the institution's ability to deliver on its priorities.
- **Risk Owner**: VP-People and Transformation

External

- **Key Indicators**: Government metrics (e.g. proportion of the University's revenue from the province, proportion of government funding going to higher education), fundraising metrics, number of partnerships
- **Consequence of not Managing this Risk**: Limited opportunities for growth and innovation, impeding the advancement of academic, research and student success priorities.
- **Risk Owner**: President

Reputation

- **Key Indicators**: Reputation rankings, brand tracking surveys
- **Consequence of not Managing this Risk**: Damage to the institution's public image, diminishing its ability to attract students, faculty,partnerships, and funding.
- **Risk Owner**: President

Technology

- **Key Indicators**: Information security incidents, investment in cybersecurity, development of hybrid programs, utilization rates of technological platforms
- **Consequence of not Managing this Risk**: Data security compromises and operational disruptions, affecting the institution's competitiveness, innovation and brand.
- **Risk Owner**: VP-Admin

BOARD REPORT

SESSION:		**ACTION REQUESTED:**	
Public:	☒	**Decision:**	☒
Non-public:	☐	**Discussion/Direction:**	☐
		Information:	☐

TO: **Board of Governors**

DATE: **November 28, 2024**

PRESENTED BY: **Carla Carmichael, A&F Chair**

SLT LEAD: **Brad MacIsaac, Vice-President, Administration**

SUBJECT: **Risk Management Policy**

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 to control the manner in which they are implemented. Under the Policy Framework, the Board of Governors is the approval authority for the Risk Management Policy, on the recommendation of the Audit and Finance Committee.

BACKGROUND/CONTEXT AND RATIONALE:

The Risk Management Policy establishes the foundation for a University Risk Management program which ensures that risk management is an integral part of the university's core strategy and integrated into all key activities and/or functions at Ontario Tech University. The policy instruments last had editorial amendments in 2019 and are being amended to make important clarifications, update practices, and integrate content from the Compliance Policy. As compliance has rolled into the Office of Risk Management, this will allow us to retire and supersede the Compliance Policy with a robust Risk Management Policy.

SUMMARY OF CHANGES:

A short summary of revisions to date are as follows:

<u>Risk Management Policy</u>

- Added an objective which provides information on compliance risk assessment.
- Added definitions of compliance risk, financial risk, operational risk, reputational risk,

and strategic risk.
- Throughout the policy the department was updated to Office of Risk Management.
- Removed the Risk Management Committee from Risk Owners. As the Risk Management program has matured, the need for a formal committee to support implementation has reduced. Stakeholder consultation remains an important aspect of the risk management program, and the Director of Risk Management will continue to establish ad hoc working groups as needed.
- Added the responsibility of the Director of Risk Management and all members of the university to the Risk Owners.
- Added a section on training and education for the institution to reinforce the importance of Risk Management.
- Stated under the relevant legislation section that all legislations applicable to university activities under compliance risk. The Compliance Officer remains responsible for maintaining a comprehensive list of legislation applicable to university activities.
- Added more policies and procedures to the related policies, procedures, and documents section.

CONSULTATION:
The consultation and approval path for the Policy will be as follows:

- ✔ Policy Advisory Committee
- ✔ Online Consultation
- ✔ Academic Council (consultation)
- ✔ Senior Leadership Team (consultation)
- ✔ Audit & Finance (deliberation)
- Board of Governors (approval)

The Policy was posted for online consultation, and received community comments. The Policy was also reviewed by Academic Council.

<u>Online Consultation Comments</u>

A community member sent comments in the form of a marked-up draft of the Policy. Those comments were helpful in improving the drafting of the policy, and enhancing its clarity and were adopted in part, as set out in Appendix A. The community member also expressed concern about the top-down approach of the Risk Management Policy and lacking references to consultation and inclusion of the University community in identification, assessment and management of Risk. Because the same concern was raised at Academic Council, those comments will be addressed as part of the Academic Council Comments below.

<u>Academic Council Comments</u>

Comment: Academic Council members were concerned that University Members were listed as Risk Owners in the Policy. The view expressed by AC members is that responsibility and accountability for Risk at the university should fall to members of management, not to employees.
Response: We concur. Risk Owners are intended to be members of the senior administration of the university (Vice-Presidents, Assistant/Associate Vice-Presidents and

other positions of equivalent responsibility) who are accountable for a portfolio of risks. Specific Risk Owners and their portfolio are set out in the Risk Register, not in the Policy. We have clarified the section on Risk Owners and added a separate section to list the roles and responsibilities of other University Members in an effort to make this distinction more clear.

Comment: The reporting pathway contemplated in section 8.3 should be clarified so that University Members know who to contact with any concerns related to risk.
Response: We have clarified the language in this section to give more detail on reporting pathways. The lack of clarity around Risk Owners (as set out in the previous comment) may have contributed to the confusion here. Any Risk Owner (a member of the senior administration of the university) should be a valid recipient of risk-related concerns. Another valid pathway would be to raise risk concerns to a direct supervisor, or to raise them to the Office of Risk Management at orm@ontariotechu.ca.

Comment: AC Members stated that a more consultative and "bottom up" approach to Risk Management would be valuable. The Policy as written gives a great deal of authority and responsibility to Risk Owners (members of the senior administration of the university) to identify risks and develop strategies for mitigating those risks. A consultative approach would ensure that more voices are heard, and would be a more collegial approach. This echoes comments received in online consultation.
Response: A top-down approach is prudent for effective Risk Management. Risk Owners have accountability for ensuring that the risks within their portfolio are properly mitigated, and to do so, they need commensurate authority to enact mitigation strategies. This does not mean that university members with knowledge about risks are not consulted, however. The Risk Register process entails consultation with units across the university, and Risk Owners are encouraged to involve employees in these discussions. The detailed risk register process is not set out in the policy, as it is procedural in nature. The policy was also amended to clarify that members are encouraged to raise concerns related to risk, and that Risk Owners are responsible for appropriately addressing these concerns through risk mitigation strategies.

Comment: This amendment to the Risk Management Policy represents a shift from simply managing health and safety risks to managing risks in ever greater areas of the university.
Response: The scope of the Risk management program has been enterprise wide since its inception, and encompassed Financial, Operational, Reputational, and Strategic Risks. These Risk categories have long been used to catalog and define risks at the university, and Risk Management has been involved in many activities and programs to mitigate these types of risks. The major change to the scope of the Risk Management Policy is the formal addition of responsibilities for risks associated with legislative compliance. This flows from changes in organizational structure and reporting, and allows the consolidation of compliance processes into the existing risk register processes, creating efficiencies.

MOTION FOR CONSIDERATION:
Pursuant to the recommendation of the A&F Committee, the Board of Governors hereby approves the revisions to the Risk Management Policy as presented.

SUPPORTING MATERIALS:

- Appendix A – Community Comments
- Risk Management Policy – Redline
- Risk Management Policy – Clean

Appendix A – Community Comments and Response

s. 2 Risk Definitions (Compliance Risk, Financial Risk, Operational Risk, Reputational Risk)	**Comment:** Risk should be defined based upon potential negative impacts only. **Response:** Risk should not be limited to only negative impacts. Risk may include the potential of positive impact as well.
s. 2 Definition of Strategic Risk	**Comment:** Definition is unclear. **Response:** Amended definition of Strategic Risk.
s. 6.2 “significant and material Risks”	**Comment:** Is this "significant material Risks" or are "significant Risk" and "material Risk" separate entities? If latter, what does each refer to? **Response:** Amended to remove the term “material risk”. Both terms are synonymous.
s. 6.2 “better management and understanding of risk”	**Comment:** Understanding should come before management. **Response:** Adopted amendment.
s. 6.3 “improved Risk Management communication”	**Comment:** Improved in relation to what? **Response:** Amended to “Robust Risk management communication”.
s. 7.2 “ensure”	**Comment:** “ensure that” **Response:** Adopted amendment.
s. 7.3 “President, Vice-Chancellor”	**Comment:** Removal of “and” suggests these are two separate positions. **Response:** Removal of “and” was an error. The Correct title is “President and Vice-Chancellor”.
s. 7.4 b) Senior Leadership Team	**Comment:** Requires definition. Who are the members of the SLT? **Response:** This policy does not create the SLT, it merely refers to an existing body, and therefore this policy does not define SLT or set out the membership of SLT. The President controls the composition and responsibilities of the Senior Leadership Team.
s. 7.4 b) “AVP”	**Comment:** What does AVP refer to? **Response:** We have amended the policy to refer to the titles of “Assistant/Associate Vice-President”.
s. 7.4 b) “regardless of title, guided”	**Comment:** “regardless of title and guided” **Response:** Adopted amendment.
s. 7.4 b) “Administrative Leadership Team”	**Comment:** Requires definition. Who falls under ALT? **Response:** This body has since been replaced in this policy by the Integrated All Managers Team (“IAM”). IAM will act in an advisory role concerning various aspects of the URM program. IAM will work to ensure that the URM program is integrated into the planning work of the University. A Terms of Reference and membership list for IAM is maintained by the

	President's Office and will not be duplicated in this Policy.
s. 7.4 c) "The Office of Risk Management is committed to fostering a culture of risk ownership throughout the University. Providing strategic leadership[…]"	**Comment:** "throughout the university by providing strategic leadership". The sentence starting with Providing has no subject or verb. **Response:** Adopted amendment.
s. 8 Statements of Principle	**Comment:** A key principle missing: consultation with and inclusion of the University community in identification and assessment of Risk. Right now it reads as: thou shall do as we tell you to (we - SLT). **Response:** A top-down approach is prudent for effective Risk Management. Risk Owners have accountability for ensuring that the risks within their portfolio are properly mitigated, and to do so, they need commensurate authority to enact mitigation strategies. This does not mean that university members with knowledge about risks are not consulted, however. The Risk Register process entails consultation with units across the university, and Risk Owners are encouraged to involve employees in these discussions. The detailed risk register process is not set out in the policy, as it is procedural in nature. The policy was also amended to clarify that members are encouraged to raise concerns related to risk, and that Risk Owners are responsible for appropriately addressing these concerns through risk mitigation strategies.
s. 8.2 Communication	**Comment:** This addresses or perhaps enshrines the principle of one-way communication, top-down, which is a great concern. **Response:** Again, a top-down approach is prudent for effective Risk Management.

Classification	LCG 1116
Framework Category	Legal, Compliance and Governance
Approving Authority	Board of Governors
Policy Owner	~~University Secretary~~Vice-President Administration~~The Office of Risk Management~~
Approval Date	~~June 18, 2014; Editorial amendment January 17, 2019~~DRAFT FOR APPROVAL
Review Date	~~January 2022~~ XXXX
Supersedes	

RISK MANAGEMENT POLICY

PURPOSE

1. ~~The purpose of this Policy is~~This policy aims to establish the foundation for a University Risk Management ("URM") program ~~which~~that ensures that Risk ~~management~~Management is an integral part of the University's core strategy and integrated into all key activities and~~/or~~ functions. The URM program establishes a Risk management framework ~~which~~that will provide a proactive and consistent approach to ensuring that Risk is considered when decisions are made at all levels of the organization and, in turn, assists the University in operating~~to operate~~ within its capacity and willingness to take Risk. The URM program further establishes a commitment to raise awareness surrounding Risk management and provide guidance to all levels of the University.

2. **Objectives:** The overall objectives of the Risk Management Policy are to:

2.1. Formalize a consistent approach to identifying, assessing, measuring, managing, communicating, and mitigating Risks to the University's strategic plan and priorities and to the University's operations ~~in an effort~~ to reduce uncertainty~~;~~ and

2.2. Assist the University ~~to make~~ in making better-~~-~~informed decisions and promote accountability for Risk management with stakeholders and University Members at all levels.

2.3. Assess all applicable laws through compliance risk assessment and ensure clear roles, responsibilities, and processes are in place.

DEFINITIONS

3. For ~~the purposes of~~ this Policy, the following definitions apply:

"University Risk Management ("URM")" means a consistent, coordinated, integrated approach to identify, assess, measure, manage, communicate, and mitigate significant and material Risks to the University in achieving its strategic objectives.

"**Risk**" means the uncertainty of outcomes against the achievement of planned objectives. This concept can be applied to strategic objectives as well as all operational activities within the University. While the application of the definition may change with different University Members, the concept should not change.

"Risk Assessment" means a formalized, systematic ranking and prioritizing of identified Risks~~,~~ using a likelihood/consequence framework.

"Risk Appetite" means the University's willingness to accept Risk. Risk Appetite may also be viewed as the acceptable deviation from expected outcomes.

"University Member" means any individual who is:

- Employed by the University;
- Registered as a student~~, in accordance with~~ following the academic regulations of the University;
- Holding an appointment with the University, including paid, unpaid, and/or honorific appointments; and/or
- Otherwise subject to University policies by virtue of the requirements of a specific policy (e.g., Booking and Use of University Space) and/or the terms of an agreement or contract.

"Compliance Risk" means potential exposure to penalties, fines, damages, and loss caused by not adhering to applicable laws, regulations, and policies mandated under federal, provincial, or municipal laws, regulations, University policies, procedures, directives, or by-laws.

"Financial Risk" means exposures that arise from the University's financial operations and/or external market forces, with the potential to impact funding level, investment performance, liquidity, budget, premium revenue/rates, and other key financial indicators.

"Operational Risk" means exposures that arise from people or a failure of internal processes, systems~~,~~ or controls and may impact the University's ability to sustain immediate or future business operations.

"Reputational Risk" means exposures that arise from stakeholders' perception of the University with the potential to impact public trust in the University as a result of direct or indirect actions of the University, its employees, partners, or suppliers.

"Strategic Risk" means risk that arises from the university's ability to identify and execute strategic objectives and/or from internal and external trends and events that might impact the University's ability to achieve its mandate.~~means risk that arises from internal and external~~

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~~trends and events that might impact the University's ability to achieve its mandate or that arise from its ability to identify and execute objectives and to establish and implement strategies to achieve them.~~

SCOPE AND AUTHORITY

4. This Policy applies to all University Members and extends to all functions and activities.

5. The ~~University Secretary~~Office of Risk Management, or successor thereof, is the Policy Owner and is responsible for overseeing the implementation, administration, and interpretation of this Policy.

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POLICY

~~This Policy and the associated documents will describe the specific responsibilities for~~of ~~those groups and individuals expected to support the implementation and maintenance of the URM program. In addition, all University Members are expected to support the~~Risk ~~management of Risk and the success of the URM program at the University.~~

6. Risk Framework

6.1. Effective Risk management across the institution will ~~result in increased~~increase stability, safety ~~and~~, security, and prosperity for University Members. This Policy and the associated documents create the Risk management framework developed specifically to fit the governance structure and culture of the University. The framework is aligned~~aligned~~ with the strategic priorities of the University and incorporates leading practices, tailored to the University's needs and culture.

6.2. The framework is intended to support the University in identifying, assessing, measuring, managing, reporting, and mitigating ~~significant and material~~ Risks. The ultimate goal of the framework is to assist the University in achieving its strategic priorities and operational objectives through better ~~management~~ understanding and ~~understanding~~ management of Risk.

6.3. The framework provides:

- Formalized process and approach to executing URM;
- Clearly defined accountabilities for execution of URM;
- ~~Improved~~ Robust Risk management communication; and
- Consistency in Risk management.

7. Risk Governance Structure

7.1. **Oversight:** The responsibility to oversee the University's URM program resides with the University's Board of Governors ("Board"). The Audit and Finance Committee is delegated to carry out this oversight responsibility on the part of the Board and to report ~~annually~~quarterly to the Board on the status of the URM.

7.2. **Direction:** The University's President ~~and Vice-Chancellor~~ is responsible ~~to provide~~for providing direction to ensure that the University's strategic priorities remain the ultimate focus of all University Members.

7.3. **Risk ~~Parameters~~Appetite:** The Risk Appetite will be determined by the University's President ~~and~~, ~~Vice-Chancellor along with~~ and the Senior Leadership Team ("SLT") and ultimately approved by the Board. The Risk Appetite will be reviewed no less frequently than ~~once annually.~~every eighteen to twenty-four months.

7.4. **Risk Owners:**

a) **Chief Risk Officer:** The University's President will designate a member of SLT to serve as Chief Risk Officer. The Chief Risk Officer will, among the members of the SLT, have responsibility for ~~the coordination of~~coordinating SLT's Risk management activities. The Chief Risk Officer will ~~act as~~be the primary advisor on Risk to the Board and ~~to~~ the President and Vice-

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Chancellor. ~~The Chief Risk Officer will serve as Chair of the University's Risk Management Committee ("RMC") and will have accountability for that Committee's work.~~

b) **Senior Leadership Team ("SLT"):** SLT as a group is responsible for the management of all institutional and operational Risks, the overall success of URM, and the integration of the URM program into the core operational and strategic decision framework of the University. Individual members of the SLT will act as the primary owners of Risks and Risk management at the University. Each SLT member will delegate responsibility for Risk management to functional leaders within that SLT member's area of ~~responsibility.~~responsibility. Delegates must hold a position of Director, Executive Director, ~~AVP~~Assistant/Associate Vice President, Registrar, Dean or equivalent.*

*equivalency of positions will be determined based on the level of authority of a position within the university, regardless of title~~,~~ and guided by the assessed job evaluation of a given position. A determination will be made by the Policy Owner, or delegate, in consultation with Human Resources.

7.5. Responsibilities:

~~c)~~**a)** ~~**Administrative Leadership Team (("ALT");")**~~**Integrated All Managers Team ("IAM"):** ~~ALT~~ IAM will act in an advisory role ~~in respect of~~ concerning various aspects of the URM program. ~~ALT~~ IAM will work to ensure that the URM program is integrated into the planning work of the University.

~~7.~~ **Office of Risk Management**: ~~Committee ("RMC")~~

~~7.7.~~**b)** The Office of Risk Management ~~Committee will hold responsibility~~ is responsible for the successful integration and execution of the URM framework~~. Operational~~ and supports the strategic planning process by working to raise awareness of risks that may adversely affect its successful implementation ~~and maintenance of the URM program will be conducted with oversight and guidance from SLT.~~ . The ~~Committee will also be responsible for facilitating the~~Office of Risk ~~identification and Risk Assessment process at~~Management is committed to fostering a culture of risk ownership throughout the University by ~~.~~ Pproviding strategic leadership and direction in the ~~Senior Leadership Team~~evolution and implementation of enterprise risk management ensures a consistent and ~~functional leadership levels, consolidating that information and finalizing the institutional Risk profile for the Board. This committee will be a skills-based committee comprised of individuals who are best able to help the University fulfil its URM objectives.~~proactive approach.

~~a)~~**c)** **All members of the University:** All members of the University are expected to read, understand, and apply this policy.

8. Statements of Principle

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The University adopts the following statements of principle for application in the implementation of this Policy:

8.1. **Risk Culture:** The University is committed to fostering a culture of Risk ownership throughout the University. This does not mean that we avoid engaging in activities that have Risk or that we avoid Risk in our teaching ~~and~~ , research, and other activities we undertake for the University. It is recognized that both strategic and operational decisions and the work ~~undertaken~~conducted by University Members ~~,~~ all inherently involve Risk.

To the University, having a culture of Risk ownership means that:

a) Strategic and operational decisions are made with full awareness of the Risks relevant to those decisions;

b) All University Members are aware of the organization's emphasis on URM and incorporate a proactive approach and awareness to managing Risk in their individual roles.

~~b)~~c) Risk Owners will establish a processes for seeking feedback from knowledgeable individuals in their areas of responsibility.

8.2. **Communication:** A key principle of a successful URM program is regular communication. The Board and Senior Leadership Team are committed to developing a communication plan to ensure that those who require information to support the URM program receive it. The University's Risk Management Policy, goals and objectives will be made available to all University Members ~~and it~~. Each member will be expected ~~that each member reads~~to read and understand~~understands~~ the Risk management philosophy and outlined framework.

8.3. **Reporting**: University Members are encouraged to raise concerns related to risk to their supervisor or ORM@ontariotechu.ca, and Risk Owners will ensure that these concerns are appropriately considered in the development of risk mitigation strategies.

~~8.3.~~8.4. **No Reprisal:** The University will not discharge, discipline, demote, suspend, threaten, or in any manner discriminate against any officer, ~~or~~ employee or student based on any good faith and lawful actions of such employee to responsibly and carefully report Risk issues using the channels provided by the University.

~~8.4.~~8.5. The University is committed to academic freedom.

9. Training and Education

The Office of Risk Management will support the development and implementation of institutional Risk management training and education programs needed to reinforce the importance of Risk management. The type of training and education will be developed and conducted as appropriate.

MONITORING AND REVIEW

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~~9.~~10. ~~This Policy will be reviewed as necessary and at least every three years.~~ The Director of Risk Management ~~Committee~~, or successor thereof, is responsible ~~to monitor~~for monitoring and ~~review~~reviewing this Policy at least every three years.

RELEVANT LEGISLATION

~~10. This section intentionally left blank.~~

11. *All legislation applicable to University activities under Compliance Risk.*

RELATED POLICIES, PROCEDURES & DOCUMENTS

12. Field Trip Risk Management and Approval Directive

~~11.~~ University-Hosted Event Risk Management and Approval Directive

Aircraft Approval Directive

High-Risk International Travel Policy

Student International Travel Policy

Booking and Use of University Space Policy

Booking and Use of University Space Procedures

Directives for the Appropriate Use of Space

University Continuity Management Framework Policy

Safe Disclosure Policy

Ethical Conduct Policy

~~1. *All University policies applicable to Compliance Risk*~~Field Trip Risk Management and Approval Directive

~~Risk Management Committee Terms of Reference~~

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Classification	LCG 1116
Framework Category	Legal, Compliance and Governance
Approving Authority	Board of Governors
Policy Owner	Vice-President Administration
Approval Date	DRAFT FOR APPROVAL
Review Date	XXXX
Supersedes	

RISK MANAGEMENT POLICY

PURPOSE

1. This policy aims to establish the foundation for a University Risk Management ("URM") program that ensures that Risk Management is an integral part of the University's core strategy and integrated into all key activities and functions. The URM program establishes a Risk management framework that will provide a proactive and consistent approach to ensuring that Risk is considered when decisions are made at all levels of the organization and, in turn, assists the University in operating within its capacity and willingness to take Risk. The URM program further establishes a commitment to raise awareness surrounding Risk management and provide guidance to all levels of the University.

2. **Objectives:** The overall objectives of the Risk Management Policy are to:

2.1. Formalize a consistent approach to identifying, assessing, measuring, managing, communicating, and mitigating Risks to the University's strategic plan and priorities and to the University's operations to reduce uncertainty and

2.2. Assist the University in making better-informed decisions and promote accountability for Risk management with stakeholders and University Members at all levels.

2.3. Assess all applicable laws through compliance risk assessment and ensure clear roles, responsibilities, and processes are in place.

DEFINITIONS

3. For this Policy, the following definitions apply:

"University Risk Management ("URM")" means a consistent, coordinated, integrated approach to identify, assess, measure, manage, communicate, and mitigate significant and material Risks to the University in achieving its strategic objectives.

"**Risk**" means the uncertainty of outcomes against the achievement of planned objectives. This concept can be applied to strategic objectives as well as all operational activities within the University. While the application of the definition may change with different University Members, the concept should not change.

"Risk Assessment" means a formalized, systematic ranking and prioritizing of identified Risks using a likelihood/consequence framework.

"Risk Appetite" means the University's willingness to accept Risk. Risk Appetite may also be viewed as the acceptable deviation from expected outcomes.

"University Member" means any individual who is:

- Employed by the University;
- Registered as a student following the academic regulations of the University;
- Holding an appointment with the University, including paid, unpaid, and/or honorific appointments; and/or
- Otherwise subject to University policies by virtue of the requirements of a specific policy (e.g., Booking and Use of University Space) and/or the terms of an agreement or contract.

"Compliance Risk" means potential exposure to penalties, fines, damages, and loss caused by not adhering to applicable laws, regulations, and policies mandated under federal, provincial, or municipal laws, regulations, University policies, procedures, directives, or by-laws.

"Financial Risk" means exposures that arise from the University's financial operations and/or external market forces, with the potential to impact funding level, investment performance, liquidity, budget, premium revenue/rates, and other key financial indicators.

"Operational Risk" means exposures that arise from people or a failure of internal processes, systems or controls and may impact the University's ability to sustain immediate or future business operations.

"Reputational Risk" means exposures that arise from stakeholders' perception of the University with the potential to impact public trust in the University as a result of direct or indirect actions of the University, its employees, partners, or suppliers.

"Strategic Risk" means risk that arises from the university's ability to identify and execute strategic objectives and/or from internal and external trends and events that might impact the University's ability to achieve its mandate.

SCOPE AND AUTHORITY

4. This Policy applies to all University Members and extends to all functions and activities.

5. The Office of Risk Management, or successor thereof, is the Policy Owner and is responsible for overseeing the implementation, administration, and interpretation of this Policy.

POLICY

6. Risk Framework

6.1. Effective Risk management across the institution will increase stability, safety, security, and prosperity for University Members. This Policy and the associated documents create the Risk management framework developed specifically to fit the governance structure and culture of the University. The framework is aligned with the strategic priorities of the University and incorporates leading practices tailored to the University's needs and culture.

6.2. The framework is intended to support the University in identifying, assessing, measuring, managing, reporting, and mitigating Risks. The ultimate goal of the framework is to assist the University in achieving its strategic priorities and operational objectives through better understanding and management of Risk.

6.3. The framework provides:

- Formalized process and approach to executing URM;
- Clearly defined accountabilities for execution of URM;
- Robust Risk management communication; and
- Consistency in Risk management.

7. Risk Governance Structure

7.1. **Oversight:** The responsibility to oversee the University's URM program resides with the University's Board of Governors ("Board"). The Audit and Finance Committee is delegated to carry out this oversight responsibility on the part of the Board and to report quarterly to the Board on the status of the URM.

7.2. **Direction:** The University's President is responsible for providing direction to ensure that the University's strategic priorities remain the ultimate focus of all University Members.

7.3. **Risk Appetite:** The Risk Appetite will be determined by the University's President, and the Senior Leadership Team ("SLT") and ultimately approved by the Board. The Risk Appetite will be reviewed no less frequently than every eighteen to twenty-four months.

7.4. **Risk Owners:**

a) **Chief Risk Officer:** The University's President will designate a member of SLT to serve as Chief Risk Officer. The Chief Risk Officer will, among the members of the SLT, have responsibility for coordinating SLT's Risk management activities. The Chief Risk Officer will be the primary advisor on Risk to the Board and the President and Vice-Chancellor.

b) **Senior Leadership Team ("SLT"):** SLT as a group is responsible for the management of all institutional and operational Risks, the overall success of URM, and the integration of the URM program into the core operational and strategic decision framework of the University. Individual members of

the SLT will act as the primary owners of Risks and Risk management at the University. Each SLT member will delegate responsibility for Risk management to functional leaders within that SLT member's area of responsibility. Delegates must hold a position of Director, Executive Director, Assistant/Associate Vice President, Registrar, Dean or equivalent.*

*equivalency of positions will be determined based on the level of authority of a position within the university, regardless of title and guided by the assessed job evaluation of a given position. A determination will be made by the Policy Owner, or delegate, in consultation with Human Resources.

7.5. Responsibilities:

a) Integrated All Managers Team ("IAM"): IAM will act in an advisory role concerning various aspects of the URM program. IAM will work to ensure that the URM program is integrated into the planning work of the University.

b) Office of Risk Management: The Office of Risk Management is responsible for the successful integration and execution of the URM framework and supports the strategic planning process by working to raise awareness of risks that may adversely affect its successful implementation. The Office of Risk Management is committed to fostering a culture of risk ownership throughout the University by providing strategic leadership and direction in the evolution and implementation of enterprise risk management ensures a consistent and proactive approach.

c) All members of the University: All members of the University are expected to read, understand, and apply this policy.

8. Statements of Principle

The University adopts the following statements of principle for application in the implementation of this Policy:

8.1. Risk Culture: The University is committed to fostering a culture of Risk ownership throughout the University. This does not mean that we avoid engaging in activities that have Risk or that we avoid Risk in our teaching, research, and other activities we undertake for the University. It is recognized that both strategic and operational decisions and the work conducted by University Members all inherently involve Risk.

To the University, having a culture of Risk ownership means that:

a) Strategic and operational decisions are made with full awareness of the Risks relevant to those decisions;

b) All University Members are aware of the organization's emphasis on URM and incorporate a proactive approach and awareness to managing Risk in their individual roles.

c) Risk Owners will establish a processes for seeking feedback from knowledgeable individuals in their areas of responsibility.

8.2. **Communication:** A key principle of a successful URM program is regular communication. The Board and Senior Leadership Team are committed to developing a communication plan to ensure that those who require information to support the URM program receive it. The University's Risk Management Policy, goals and objectives will be made available to all University Members. Each member will be expected to read and understand the Risk management philosophy and outlined framework.

8.3. **Reporting**: University Members are encouraged to raise concerns related to risk to their supervisor or ORM@ontariotechu.ca, and Risk Owners will ensure that these concerns are appropriately considered in the development of risk mitigation strategies.

8.4. **No Reprisal:** The University will not discharge, discipline, demote, suspend, threaten, or in any manner discriminate against any officer, employee or student based on any good faith and lawful actions of such employee to responsibly and carefully report Risk issues using the channels provided by the University.

8.5. The University is committed to academic freedom.

9. Training and Education

The Office of Risk Management will support the development and implementation of institutional Risk management training and education programs needed to reinforce the importance of Risk management. The type of training and education will be developed and conducted as appropriate.

MONITORING AND REVIEW

10. The Director of Risk Management, or successor thereof, is responsible for monitoring and reviewing this Policy at least every three years.

RELEVANT LEGISLATION

11. *All legislation applicable to University activities under Compliance Risk.*

RELATED POLICIES, PROCEDURES & DOCUMENTS

12. Field Trip Risk Management and Approval Directive

University-Hosted Event Risk Management and Approval Directive

Aircraft Approval Directive

High-Risk International Travel Policy

Student International Travel Policy

Booking and Use of University Space Policy

Booking and Use of University Space Procedures

Directives for the Appropriate Use of Space

University Continuity Management Framework Policy

Safe Disclosure Policy

Ethical Conduct Policy

All University policies applicable to Compliance Risk

BOARD REPORT

SESSION:		**ACTION REQUESTED:**	
Public	☒	**Decision**	☐
Non-Public	☐	**Discussion/Direction**	☐
		Information	☒

TO: **Board**

DATE: **November 28, 2024**

PRESENTED BY: **Eric Agius, Chair Strategy and Planning Committee**

SUBJECT: **Integrated Planning Process Update**

COMMITTEE/BOARD MANDATE:
The Strategy and Planning Committee is responsible for overseeing all aspects of the university's strategic planning efforts, including the implementation and assessment of these plans in the context of the university's vision, mission and values. Today's update is a summary of the Integrated Planning cycle and the Strategic Mandate Agreement (SMA3) key milestones for 2024-2025 as presented at the November 14, 2024 Strategy and Planning Committee.

BACKGROUND/CONTEXT & RATIONALE:
The 2023-2028 Integrated Academic-Research Plan (IARP) was approved by the Board in June 2023. The Integrated Planning process engages planners from across the institution in developing and executing strategies to achieve our goals and ensures that we have aligned our planning and reporting cycles to demonstrate progress towards our goals on an annual basis. The purpose of this report is to highlight for the Board the Integrated Planning process and timelines for the 2024-2025 year and highlight potential implications of the final year of SMA3 and the negotiation of our new SMA4 with the government.

CONSULTATION:
This summary has been previously provided to Strategy and Planning at its November 14, 2024 meeting, Academic Council at its October 2024 meeting and discussed with SLT (Senior Leadership Team).

Feedback will be used to inform 2024-2025 annual reporting on IARP and SMA4 process.

SUPPORTING REFERENCE MATERIALS:

Strategy and Planning Committee Update November 14 2024

Board Strategy and Planning

2024-25 Planning Update

LORI LIVINGSTON – PROVOST AND VP ACADEMIC
SARAH THRUSH - AVP, PLANNING AND STRATEGIC ANALYSIS
November 14, 2024

Planning Update
Actioning the 2023-2028 Integrated Academic-Research Plan

TECH WITH A CONSCIENCE

Innovation, impact and the social and ethical implications of technology

LEARNING RE-IMAGINED

Learner-centred educational options

STICKY CAMPUS

A place to make lasting connections

PARTNERSHIPS

Meaningful connections with our local and global communities

ACTIONING OUR PLANS – EVALUATING OUR PERFORMANCE

ACCOUNTABILITY/MEASURING SUCCESS
- Institutional Metrics
- SMA3 Metrics Year 5
- SRP Metrics
- Institutional Risks

DOCUMENTING OUR PLANS
- IA-RP 2023-2028
- SRP 2020-2025 (New SRPP will be developed for next 5 years lead by VPRI)
- SMA3 (SMA4 2025/26 – 2029/30 being negotiated)

MONITORING PLANS
- Assess Progress towards plan
- Planning Retreats, Planning Meetings
- Using IA-RP Templates to monitor progress

ACTIONING OUR PLANS
- Annual Integrated Plan Templates
- Resourcing plans
- Enabling plans

Integrated Planning Timelines: Actioning our IARP Aligning Our Cycles

2024-2025 CYCLE:

SUMMER/FALL 2024:

- *Integrated Planning templates and material/data distributed to Units and Faculties*
- *Faculty and unit planning retreats and meetings (engaging Faculty members and staff)*
- *Integrated Planning Templates Submitted and reviewed*

FALL/WINTER 2024:

- *Faculties/Unit action strategies and monitor performance*

WINTER/SPRING 2025:

- *Integrated Planning Report Back/Evaluations due*

SPRING 2025:

- *June 2025 – Summary of Integrated Planning Evaluations reported to AC and Board*
  - ❖*Summary of Integrated Planning Evaluations (Qualitative)*
  - ❖*Institutional Metrics Dashboard(Quantitative)*
  - ❖*SMA3 year 5 Dashboard (final year in SMA3) Report*
  - ❖*Research Metrics*

BOARD OF GOVERNORS' 134th REGULAR MEETING

Minutes of the Public Session of the Meeting of September 26, 2024
12:03 p.m. to 2:04 p.m. Virtual

GOVERNORS IN ATTENDANCE:
Laura Elliott, Board Chair
Eric Agius, Vice-Chair and Chair of Strategy & Planning Committee
Nolan Bederman
Carla Carmichael, Chair of Audit & Finance Committee
Frank Carnevale
Mitch Frazer, Chancellor
Matthew Mackenzie
Peter Marchut
Lisa McBride
Laura Money
Steven Murphy, President and Vice-Chancellor
Gaurav Singh, Chair of Governance, Nominations & Human Resources
Hannah Scott
Kim Slade
Dwight Thompson
Emily Whetung-MacInnes
Susanna Zagar

REGRETS:
Ahmad Barari
Neeraj Grotra
Mike Rencheck

BOARD SECRETARY:
Nicola Crow, University Secretary

STAFF:
Kirstie Ayotte, *Assistant University Secretary*
James Barnett, *Vice-President, Advancement*
Jamie Bruno, *Vice-President, People and Transformation*
Barb Hamilton, *Legal Executive Assistant*

Krista Hester, *Chief of Staff*
Les Jacobs, *Vice-President Research and Innovation*
Lori Livingston, *Provost and Vice-President, Academic*
Jennifer MacInnes, *General Counsel*
Brad MacIsaac, *Vice-President, Administration*
Joe Stokes, *University Registrar and AVP International*
Sarah Thrush, *Associate Vice-President, Planning and Strategic Analysis*

GUESTS:
Chelsea Bauer
Kathleen Cho
Mikael Eklund
Karla Gomez
Christine McLaughlin
Joanne Nickle

1. Call to Order

The Chair called the public session to order at 12:03 p.m. and began with a thoughtful Land Acknowledgement, first sharing her personal reflection.

2. Agenda

Upon a motion duly made by F. Carnevale and seconded by E. Agius the Agenda was approved as presented.

3. Conflict of Interest Declaration

None Declared

4. Chair's Remarks

The Chair welcomed attendees to the first Board meeting of the year and introduced the new Governors. After a round of introductions, she noted that one incoming Governor joining the Board would be deferred for a year. She highlighted the success of the Chancellor's Challenge on September 24th, which raised over $125,000 for students, and expressed gratitude to the President, Chancellor, and the team for their efforts. She also congratulated L. Livingston's team for leading in financial contributions, while her own team, Govs for Grads, placed third.

The Chair encouraged participation in the upcoming National Day for Truth and Reconciliation, inviting Board members to offer personal land acknowledgments at future meetings. She then shared her experience attending the Council of Chairs of Ontario Universities, where discussions centered on the SMA4 mandate, University funding, and financial challenges. While many universities are concerned about

financial stability due to government grants and frozen tuition, Ontario Tech's differentiated growth strategy was recognized as a proactive approach.

5. President's Report

S. Murphy thanked the Chair for her leadership and welcomed new and returning Board members. He provided updates on summer events and the academic year's energetic start, noting the largest incoming class as part of the University's growth strategy. He praised the Provost's team for a successful orientation and the Ontario Tech Student Union (OTSU) for engaging activities.

He discussed ongoing challenges with International student enrolment, emphasizing uncertainties due to documentation delays and the critical November count date for funding. He expressed frustration over the lack of collaboration between Federal and Provincial governments on education and credited Joe Stokes and his team for managing these issues. Despite potential declines in International student numbers, he remains optimistic that Ontario Tech will handle these challenges well, avoiding significant losses compared to other institutions.

6. Consent Agenda

The Chair confirmed that the Consent Agenda and its contents were received/adopted/approved under Agenda Item #2.

6.1 Minutes of Public Session of Board Meeting on June 27, 2024

7. Adjournment

Upon a motion duly made by F. Carnevale, the public session adjourned at 12:38 p.m.

Nicola Crow, University Secretary

BOARD OF GOVERNORS

Audit & Finance Committee

Minutes of the Public Session of the Meeting of June 13, 2024
1:00 – 2:29 p.m., videoconference

Members: Dale MacMillan (Acting Chair), Frank Carnevale, Laura Elliott, Steven Murphy, Gaurav Singh

Regrets: Carla Carmichael, Mitch Frazer, Kim Slade,

Staff: Kirstie Ayotte, Jamie Bruno, Jacquelyn Dupuis, Barbara Hamilton, Krista Hester, Lori Livingston, Brad MacIsaac, Pamela Onsiong, Sarah Thrush,

Guests: Dwight Thompson (guest governor), Chelsea Bauer, Mikael Eklund, Matthew Mackenzie, Bobbi White (KPMG)

1. Call to Order

The Chair called the meeting to order at 1:00 p.m. and read aloud the land acknowledgment.

2. Agenda

Upon a motion duly made by F. Carnevale 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 final Audit & Finance (A&F) meeting for this academic year and thanked Frank Carnevale and Gaurav Singh for joining the A&F committee for the June 2024 (approved by Executive Committee) meeting to help maintain quorum. She reviewed the agenda, highlighting key topics like audited financial statements, a proposal, and a new building model.

5. President's Remarks

The President reflected on the peaceful resolution for the recent encampment, acknowledging it as a learning experience and emphasizing the commitment to safety and respectful engagement within the campus community. He mentioned ongoing efforts to implement the agreement that was reached, particularly the committee on responsible investing and noted that this committee will advise to him directly, with recommendations moving through A&F and the Board. He then highlighted the recent successful convocation ceremonies, noting we now have over 30,000 alumni.

In response to a question regarding summer activities at the University, the President noted that the University's Spring/Summer programming is in full swing, aiming to make summer as robust as other semesters; this supports growing co-op programs and provides opportunities for students to catch up or advance. The campus will also welcome new Ontario Tech students and host STEM camps for children from preschool to high school.

6. Finance

6.1. Draft Audited Financial Statements 2023-2024 (Includes internally restricted funds)

The Committee Chair invited Pamela Onsiong to provide the draft audited financial statements for 2023-2024.

P. Onsiong addressed an error in the Collective Agreement duration in the note disclosure, clarifying it was negotiated for 4 years instead of 3, noting the report would be corrected before the presentation to Board. She presented draft financial statements highlighting a 12% increase in salaries, an 18% rise in supplies & expenses, and a $6.4 million net surplus from increased tuition and investment returns. Despite revenue challenges, net expendable assets rose by 8%. She recommended allocating $5.7 million in reserves: $3.6 million for revenue-generating units and $2.1 million for academics, student aid, and capital projects. The University's financial health ratios, including a 70-day reserve ratio, were discussed, with liquidity and performance ratios being stable and the reserve ratio falling into the medium-risk category due to the utilization of prior year reserves for infrastructure investments over the last 5 years. Comparatively, the University lags slightly behind sector averages in reserve days. High-risk sustainability ratios reflect substantial debt, including $129 million of outstanding debenture debt at the end of the fiscal year. She noted that the University receives $13.5 million in provincial funding annually, covering 80% of its debenture payments which significantly improves adjusted debt ratios, most falling outside of risk categories except for the 2.3% adjusted burden ratio, which still pose as a medium risk. Once the debenture debt is fully repaid by 2034, debt ratios are expected to align more closely with Ontario sector averages.
P. Onsiong clarified that provincial grant funding for the base operating grant has remained fixed at the 2016-2017 level, except for the fully funded collaborative nursing program. She emphasized the importance of financial health ratios in managing

university operations and adhering to governance and debt policies. The Ministry reviews these ratios and requires the university to disclose improvement plans if thresholds are not met.

B. MacIsaac added that the Ministry sends letters to medium and high-risk institutions, allowing a three-month period for action plans. He highlighted the University's focus on addressing the impact of debt repayment in their response. Additionally, while the base operating grant has not changed, a new funding initiative of one billion dollars over three years could provide extra support to medium or high-risk institutions. The University has budgeted to receive at least $2 million from this initiative.

Upon a motion duly made by L. Elliott and seconded by F. Carnevale, the Audit & Finance Committee hereby recommends to the Board of Governors the approval of the 2023/24 audited financial statements and the 2023/24 internally restricted reserves, as presented.

6.2. Fourth Quarter Financial Reports

P. Onsiong presented the fourth quarter financial reports which reported a surplus of $5.7 million for the fiscal year, exceeding the forecasted $3.1 million. This was driven by a $4.7 million increase in other revenues, including surplus from revenue generating units being recognized as revenue in the fiscal year as a result of a change in accounting. However, expenses saw a $1 million negative variance primarily due to underestimated faculty and staff benefits. She explained that the variance between the Q3 forecast and year-end results is influenced by several factors that include additional expenses like the significant variance in benefits, which were not fully captured in the Q3 estimate due to anomalies. She acknowledged that the discrepancy is a result of both management estimates and timing differences in expenses paid throughout the year. Continuous improvement efforts are ongoing to refine these processes annually.

B. MacIsaac reiterated the commitment made in 2021 regarding reserves, emphasizing that any amount less than $4 million should be reviewed by Board. He highlighted that this fiscal year reserves were diminished, primarily allocated to operational needs rather than capital investments and reaffirmed ongoing discussions with the president on strategies aimed at restoring reserves to the $4 million target.

B. MacIsaac acknowledged the question regarding the $4 million reserve target, recognizing the need to reassess its appropriateness given changing circumstances and agreed to revisit the target Fall semester. He noted the importance of balancing immediate needs with long-term planning for infrastructure repairs and replacements.

6.3. Auditor General Updates

B. MacIsaac reported that the university underwent a value-for-money audit in 2022, which produced twelve overarching recommendations. Ten of these recommendations have been completed. The remaining areas of focus include

improving data collection on international students' post-graduation outcomes, with plans to enhance current surveys by Fall 2024. Additionally, there is an ongoing review of the university's board size and term durations, requiring careful consideration due to legislative implications and comparisons with public sector board practices.

B. MacIsaac addressed questions about the University's audit process and follow-up. He acknowledged the challenge of low response rates for international student surveys but expressed confidence for improvement. He clarified that there is a five-year report-back period for audits, with annual updates required and emphasized the importance of having a rationale for any unimplemented recommendations.

6.4. Internal Audit Update

B. MacIsaac discussed a recommendation from the Auditor General to enhance the University's internal audit process. He explained that the University currently has a decentralized audit approach, with various departments like the Research office, Human Resources, and the Provost's office conducting specialized audits. The Auditor General noted the absence of a dedicated internal audit manager. To address this, the University has hired Deloitte to conduct at least one review per year for the next three years. The first audit will focus on the research grant process. Higher-priority areas like cybersecurity will be reviewed later, allowing recent policy changes to take effect.

In response to questions and concerns made, B. MacIsaac acknowledged the value of considering different audit-related products, such as assurance pieces and reviews, rather than traditional audits. He emphasized the importance of flexibility, especially when an in-progress external review might be needed and noted that managing the audit process will be coordinated by J. Dupuis, ensuring that relevant expertise is utilized. He highlighted the choice of Deloitte for their collaborative approach, focusing on improvement rather than fault-finding and agreed that this perspective should be communicated more clearly to the board, underscoring the constructive nature of these audits.

6.5. Campus Master Plan Update – New Residence

B. MacIsaac updated on the University's plan to add new residence beds to accommodate growth from 11,000 to 18,000 students, reminding members that in February 2024 it was decided to outsource the project to a third party to design, build, finance, operate, and maintain the residence. This strategy allows the University to focus its financial resources on core academic and support services, avoiding the need to invest in or take on debt for residence construction. The Request for Proposal (RFP) process attracted seven submissions, narrowed down to three, and a preferred vendor was selected. The University is now in detailed discussions to finalize the agreements. He advised that the goal is to complete the agreements before the next A&F meeting and emphasized that today's motion seeks approval for the Executive Committee to review and make decisions on these agreements over the summer, ensuring transparency and proper authorization from A&F and the Board.

He explained the University's commitments towards a new residence project by noting that the University will provide a 79 to 99-year ground lease to the third-party vendor and advised that discussions are ongoing regarding financial arrangements and potential profit-sharing. He stressed the importance of selecting a reliable partner, as the residence will feature Ontario Tech's branding, impacting the university's reputation despite being managed by a third party.

In response to a question regarding affordability and accessibility, B. MacIsaac explained that by selecting the residence partner, the University prioritized affordability for students over university profit. Proposal requests had to specify their pricing for students and inflation rates, with more points awarded for affordable pricing. The University also emphasized accessibility, ensuring the residence accommodates students with diverse needs, including those with disabilities, in compliance with AODA standards. He highlighted the University's goal is to ensure no student misses out on higher education due to financial or accessibility issues.

Responding to concerns raised regarding sustainability, particularly regarding the possibility of Ontario Tech becoming its own energy provider, a member inquired whether the new residence partner would be required to source energy from the University if it were able to provide it. B. MacIsaac responded that the University has some control over the design and annual rent adjustments for the residence. He mentioned minimal energy efficiency targets and discussed the potential for integrating geothermal or other innovative energy solutions, which will be explored further in the upcoming strategy and planning meeting.

Upon a motion duly made by F. Carnevale and seconded by L. Elliott, the Audit & Finance Committee hereby recommends to the Board of Governors for approval:
WHEREAS the university is in the process of completing a Request for Services on Purpose-Built Student Residence;

WHEREAS having received and considered the report entitled "Campus Master Plan – Update and Discussion" on February 8, 2024, the Strategy and Planning Committee:

(a) discussed the need for the building, the general location as it relates to the overall campus master plan and the strategy of using a private/ public partnership. The committee provided direction to continue to move forward with the RFS process.

WHEREAS having received and consider the "Campus Master Plan – Update and Discussion" on February 15, 2024, the Audit and Finance Committee:

(a) discussed the need for the building and different funding models from borrowing to build to fully outsourcing the design, build, finance, operate, maintain. With a focus on university funding being saved for core academic / research mission the committee provided direction to continue to move forward with the RFS process.

WHEREAS pursuant to section 8 of Bylaw 1 of the University of Ontario Institute of Technology Act, *the Executive Committee of the Board of Governors has the following role:*

- to exercise on behalf of the Board, between regular meetings of the Board, in circumstances where a matter cannot be delayed until the next regular meeting, and where a special meeting of the Board cannot be called, all the powers of the Board. The power of the Executive Committee to act for the Board is subject to prior delegation of powers from the Board to any other committee of the Board and to any specific directions given by the Board to the Executive Committee from time to time;

WHEREAS it is anticipated that the negotiation and agreement with respect to the terms governing the term sheet(s) and agreement(s) required to select a proponent of the Project will occur over the summer 2024 and will be time sensitive;

NOW THEREFORE, having received and considered "Campus Master Plan – New Residence Update and Award Process" dated June 13, 2024, the Audit and Finance Committee:

i) *Authorizes and delegate to the Executive Committee the execution and delivery (under the corporate seal or otherwise) all such other documents and do all such other acts as may be necessary or desirable to finalize the Project transaction.*

7. Investment Oversight – Semi-Annual Investment Report

B. MacIsaac provided an investment update emphasizing the focus on long-term funds that can consistently exceed a 6% return rate over 20 years. He addressed a previous inquiry regarding ethical investing, noting that Phillips, Hager & North Investment Funds Limited (PH&N) has a responsible investing strategy aligned with United Nations principles. Responsible investing for PH&N includes financial sustainability alongside environmental, social, and governance (ESG) factors. Future discussions will explore these topics further, potentially including board training sessions in the upcoming months.

8. Risk – Annual Report

J. Dupuis began by updating on climate change, noting minimal past claims primarily from third-party vendors, while cautioning future risks due to aging infrastructure and university expansion. Emphasizing proactive maintenance and insurance adjustments, she then highlighted accessibility compliance efforts, including faculty training and initiatives like National Accessibility Week and Disability Awareness Month, part of a multi-year plan aligning with government guidelines.

She discussed advancements in data-driven decision-making and risk management, emphasizing data cleanup for accuracy using a new Power BI dashboard. Mentioning substantial contributions from the Faculty of Business and Information Technology (FBIT) Capstone teams, she noted ongoing insurance reviews and plans for a more financially viable intellectual property policy. Updates on Fine Arts and nuclear policies were shared. Key measurements shared demonstrated the university's commitment to risk management, including a detailed seven-year data history on meetings, assessments, and emerging risks. New risks like crisis management and geopolitical

factors influencing risk assessment were highlighted. She concluded with enhancements in risk management through expanded controls and causes analysis, showcasing a draft dashboard with improved risk heat maps and ratings. Progress in business continuity, cybersecurity, mental health support, and contract management training was noted, alongside ongoing efforts in thematic bucket refinement, key risk indicators development, and advancing risk tolerances.

In response to a question J. Dupuis explained that risk appetite is set using a risk management framework based on likelihood and consequence, organized in a matrix. Residual risks are assessed after controls and mitigation strategies are applied. B. MacIsaac added that risk updates are approved by subcommittees or the board. Unit leads provide initial assessments, which are then reviewed by senior leadership for consistency. High or extreme risks are report to the Board. The new strategic framework discussed will start reporting in the Fall.

9. Consent Agenda

9.1. Minutes of Public Session of A&F Meeting of April 11, 2024
9.2. A&F Annual Report
9.3. Annual Policy Review
9.4. Privacy Report 2024

Upon a motion duly made by F. Carnevale and seconded by G. Singh, the Consent Agenda was approved as presented.

10. Adjournment

There being no other business, upon a motion duly made, by G. Singh the meeting adjourned at 2:29 p.m.

Krista Hester, Interim University Secretary

BOARD OF GOVERNORS
Governance, Nominations and Human Resources Committee (GNHR)

Minutes of the Public Session of the Meeting of May 30, 2024
2:00 p.m. to 2:17 p.m. Videoconference

Attendees: Maria Saros (Chair), Frank Carnevale, Laura Elliott, Steven Murphy, Gaurav Singh, Dwight Thompson, Emily Whetung

Regrets: Mitch Frazer

Staff: Kirstie Ayotte, Jamie Bruno, Barb Hamilton, Krista Hester, Lori Livingston, Beth Partlow, Andrew Sunstrum

Guests: Chelsea Bauer, Mike Eklund

1. Call to Order

The Chair called the meeting to order at 2:00 p.m. and read aloud the land acknowledgement.

2. Agenda

Upon a motion duly made by D. Thompson and seconded by F. Carnevale, the Agenda, including the contents of the consent agenda, was approved as presented.

3. Conflict of Interest Declaration

There was none.

4. Chair's Remarks

The Chair welcomed everyone to the final Committee meeting of the academic year and thanked them for their commitment, hard work, and engagement. She noted that this would be her last meeting as Chair and reflected on her six years of service at the University, stating that it has been an honor and a pleasure. She expressed her heartfelt thanks to the team for their dedication and commitment over the years.

5. President’s Remarks

The President began by thanking M. Saros for her dedicated leadership and provided an update regarding the encampment. He underscored the University's dedication to both freedom of expression and community well-being, placing a priority on campus safety and support, with resources accessible to all. Additionally, the University will be actively working to implement the recently reached agreement.

He informed attendees about the upcoming Convocation, stating that ceremonies will take place in the gym this year, with receptions held in Shawenjigewining Hall. Additionally, he brought attention to the release of the 2024 Times Higher Education compilation, which ranked Ontario Tech as #2 among Canada’s young universities and #144 out of 1200 international universities.

6. Governance

6.1 Sexual Violence Policy

A. Sunstrum presented the Sexual Violence policy and procedures update advising that it has been under review since 2022. He noted the main changes include centralizing dispute handling to the Human Rights Office, clarifying access to support services, and removing terms of reference for the Advisory Committee on Student Sexual Violence to allow for potential changes in its makeup without revising the policy. The aim is to streamline support for students experiencing sexual violence and ensure clarity in the reporting process.

In response to a question, A. Sunstrum explained that separating the terms of reference from the policy allows for easier adjustments to the Committee's makeup. While there have not been significant changes since its enactment, the recent update involves centralizing disclosures and reports to the Human Rights Office, necessitating a thorough review. This depth of engagement is seen as positive and necessary for ensuring the policy is effective. Consultations were completed with the Advisory Committee, and the results will be shared with them.

6.2 Respectful Campus Policy and Employee Procedures

A. Sunstrum presented the Respectful Campus Policy and Employee procedures policy, noting requirements that they be reviewed annually. He highlighted that it underwent minor adjustments. Primarily, the definition section update, and processes for addressing disrespectful behavior and formal complaints clarifications. These changes were considered editorial and do not significantly impact the policy or procedure.

7. Consent Agenda

7.1 Minutes of the Public Session of the Meeting of March 21, 2024
7.2 GNHR Annual Board Report
7.3 Annual Pension Plan Report
7.4 Board Practices Assessment Results
7.5 2024-2025 REVISED Board and Committee Schedule

Upon a motion duly made by D. Thompson and seconded by F. Carnevale, the Consent Agenda was approved as presented.

8. Adjournment

There being no other business, upon a motion duly made by F. Carnevale, the public session adjourned at 2:17 p.m.

Krista Hester, Interim University Secretary

BOARD OF GOVERNORS

Strategy & Planning Committee

Minutes of the Public Session of the Meeting of June 20, 2024
2:00 p.m. to 3:24 p.m. via– videoconference

Members: Lynne Zucker (Chair), Ahmad Barari, Frank Carnevale, Laura Elliott, Mitch Frazer, Matthew Mackenzie, Lisa McBride, Steven Murphy, Michael Rencheck, Kim Slade, Michael Watterworth

Regrets: Eric Agius, Hannah Scott

Staff: Kirstie Ayotte, James Barnett, Ken Bright, Jamie Bruno, Barbara Hamilton, Krista Hester, Les Jacobs, Lori Livingston, Brad MacIsaac, Joe Stokes, Sarah Thrush

Guests: Chelsea Bauer, Marc Couture (Blackstone Energy), Bruce Manwaring, Christine McLaughlin, Joanne Nickel, Dwight Thompson

1. Call to Order

The Chair called the meeting to order at 2:00 p.m. and read aloud the land acknowledgment.

2. Agenda

Upon a motion duly made by K. Slade and seconded by M. Mackenzie, the Agenda was approved as presented.

3. Conflict of Interest Declaration

No conflicts were declared.

4. Chair's Remarks

The Chair began her remarks by acknowledging that this was her final S&P meeting as Chair and expressed gratitude for being part of the remarkable transformation during her six-year tenure at the University. She emphasized that this transformation was driven by the vision of the President, the senior leadership team, and the innovative faculty and staff of the institution.

5. President’s Remarks

The President began by expressing gratitude to the Chair for her exemplary leadership not only within the Committee but also as a reliable source of advice over the years. He emphasized how her guidance has been immensely valuable to Ontario Tech's journey. He then highlighted the successful execution of six convocation ceremonies amid challenging global circumstances and extended thanks to all board members expressing appreciation for their presence at the convocations. He also recognized the dedication of faculty, staff, and student volunteers who played crucial roles behind the scenes and on stage, ensuring the ceremonies were memorable and meaningful for the graduating classes.

6. Strategy

6.1. Strategic Discussion: Sustainability and Energy Management

B. MacIsaac highlighted the University’s commitment to sustainability, including targets for a 50% reduction in emissions by 2030 and a move towards low carbon by 2050. He acknowledged ongoing efforts by Facilities Management and introduced Marc Couture from Blackstone Energy Services to outline some strategies to achieve these goals.

M. Couture highlighted current opportunities and initiatives from an interval study, outlining pathways and next steps for consideration. He praised Ontario Tech's legacy as a leader in sustainability, noting the potential to renew campus infrastructure and enhance reputational integrity through holistic decarbonization efforts. The presentation included a path toward achieving decarbonization targets by 2050, emphasizing the importance of proactive measures starting with near-term projects. He continued by outlining three main components of the interval study and decarbonization roadmap: electrification of boiler plants and heating systems, addition of renewable energy sources like solar PV and heat pumps, and conservation measures such as LED lighting and controls upgrades. The estimate in 2024 dollars would be about $25 million worth of investments to achieve this plan. He discussed two pathways identified in the study: self-funding initiatives annually or partnering with Enbridge Sustain and the Canadian Infrastructure Bank to leverage significant capital for decarbonization projects. Enbridge Sustain could potentially provide $10-28 million for Ontario Tech University's initiatives, repaid through utility savings. His presentation concluded with plans for Ontario Tech to develop detailed decarbonization and infrastructure renewal strategies to maintain its leadership position.

B. MacIsaac added that K. Bright, Director of Campus Infrastructure and Sustainability, has worked alongside Blackstone Energy to review equipment upgrades, noting annual investments of approximately $2 million from the government for replacements. He highlighted a boiler replacement costing $1.2 million, essential for advancing low-carbon goals despite higher costs compared to older models. He notes that the presentation emphasized financial commitments to sustainability, including plans to accelerate replacements within budget projections.

Further discussion emphasized collaboration with university researchers to innovate in areas such as electric vehicles and solar energy storage, enhancing both operational efficiency and research capabilities.

In response to inquiries about the pending 30% investment tax credit, K. Bright clarified that the University's tax-exempt status means they are exploring ways to utilize such credits with guidance from Blackstone Energy and emphasized the need for transparent financial breakdowns, given the University's current financial pressures.

M. Rencheck echoed the call for clarity on expenditure allocation and raised concerns about performance guarantees and penalties related to the project's anticipated reductions, emphasizing accountability. B. MacIsaac acknowledged these concerns and committed to working with legal team to clarify financial analyses and performance guarantees prior to final decisions. He also highlighted ongoing efforts to explore various funding programs and encouraged board input on identifying cost-saving opportunities.

B. MacIsaac also noted the advantages and risks of being an early adopter in sustainability initiatives, highlighting potential savings and partnerships with researchers. K. Bright continued by emphasizing the University's history of innovation, citing past projects like Canada's largest geothermal system and ongoing pilot initiatives focused on smart community development. Both stressed the importance of balancing innovation with thorough risk assessment and reassured that there was no immediate rush, noting discussions and realistic implementation plans would take place over the summer and into the fall.

6.2. Integrated Academic Research Plan and SMA 2023-2024 Metrics Annual Report

L. Livingston reminded attendees that last June, the Board endorsed a five-year integrated academic research plan (2023-2028), which is evaluated annually to assess progress. She emphasized that effective integrated planning has relied heavily on these annual evaluations due to the challenges in the higher education sector. This year's evaluation includes a qualitative summary of successes and challenges from September to May, followed by a quantitative assessment using data dashboards. Strategic mandate agreement metrics are also annually reviewed due to their link to performance funding.

She highlighted that the report acknowledges both successes and challenges, with the challenges now being included in response to the Board’s request from the previous year. This eight-month report will transition to a twelve-month cycle, capturing the full year for the board. She highlighted that during this period, 81% of over 300 milestone activities were completed or on track, 18% were behind target or

amended, and only 1% were terminated, demonstrating the dedication of the campus community.

She noted challenges, including positional staffing issues due to a high number of leaves of absence, resulting in the need to backfill positions with short-term contracts. Additionally, IT challenges and space limitations have been noted and are being addressed through new leadership and investments in technology assets, and through increased use of our existing outdoor and online spaces.

S. Thrush presented the 2023-2024 Dashboard and Institutional Metrics report, emphasizing the University's systematic approach to planning and accountability. She highlighted the integration of qualitative elements to validate strategies against data, addressing issues like employee turnover and comparing findings with sector-wide trends for broader insights. As an example, she noted the assessment of key metrics included enrollment targets where PhD and undergraduate enrollments exceeded expectations, while master's enrollments fell short impacting revenue highlighting efforts that are underway to improve community response rates and adjust metrics to better reflect transfer student impacts. As another example, she noted that student retention rates, though positive, are being benchmarked against The National Survey of Student Engagement (NSSE) sector standards and acknowledged challenges such as employee turnover and student-faculty ratios amid early retirements and hiring delays but despite these challenges, the University achieved a highly positive outcome in the SMA3 reporting year, meeting or surpassing all metrics to secure additional funding without penalties and advised that this success was amplified by other institutions' failures in key metrics contributing to funding gains. Looking ahead to the fifth year, which carries increased risk with 25% of performance funding at stake, the University plans to continue implementing robust risk mitigation strategies to minimize potential losses.

In response to whether the SMA metrics will be reset, S. Thrush indicated that there is ongoing discussion but no clear direction from the Ministry of Colleges and Universities as of yet.

Addressing a question about declining student satisfaction in the first year, S. Thrush explained that it was currently being investigated, noting that this has been a sector-wide trend since 2011. Plans are underway to develop surveys to understand possible causes, with a suspicion that the impact of COVID-19 on high school experiences may be a significant contributing factor.

When asked about possible federal funding availability relating to COVID-19, S. Thrush advised she was not aware of any federal COVID funds available for bolstering entry programs. She noted that while the University has transition events for students, the available COVID funding was primarily intended to cover additional expenses incurred by the university during the pandemic, rather than directly supporting students.

6.3. Annual Programs Update

a) 2023-2024 Quality Assurance Process and Programs Annual Report

L. Livingston presented the 2023-2024 Quality Assurance Process and Programs Report reminding attendees that the processes are mandated by both internal standards and expectations of the Quality Council. She highlighted that the Report was also presented to Academic Council this month and the recent approval of the BASc in Sustainability program was finalized in May and therefore would be reported within next year's annual report.

b) 2023-2024 Continuous Learning Annual Report

L. Livingston presented the 2023-2024 Continuous Learning Annual Report, which was also recently reviewed by the Academic Council this month. She emphasized the leadership of Chris Hall (Director, Continuous Learning) and his efforts to boost participation in continuous learning programs. The Report also covers developments in micro-credential activities throughout the year.

6.4. International Strategy Update

L. Livingston discussed the ongoing challenges in recruiting international students due to disruptions caused by Immigration, Refugee, and Citizenship Canada (IRCC). She emphasized the need to stay updated on evolving issues and their impact on our recruitment efforts.

J. Stokes reported a decline in applications and delays in processing due to IRCC backlogs. He highlighted Canada's declining reputation as a top study destination and the sector's struggle to meet provincial targets for attestation letters. He mentioned that government policies, including potential visa reductions and new study permit criteria, pose further enrollment risks, particularly in STEM fields. Despite efforts like pivoting to professional master's programs and strategic program development, ongoing reactionary measures are necessary amid uncertain future impacts on international enrollment.

In response to a question regarding revisiting the international student growth strategy, J. Stokes stated that the international student growth strategy needs a reevaluation due to recent changes noting that markets that were viable before January are no longer feasible due to price sensitivity and disrupted relations with key countries like India and China and efforts to manage the current year's challenges

have delayed the strategic review, but he emphasized the need to reassess and develop new plans.

7. Significant Project and Contract Oversight

7.1. Subcritical Nuclear Assembly

L. Jacobs discussed plans for a research reactor on campus, highlighting the need for a license and ongoing progress indicators. He noted delays with Indigenous consultations and a potential 18-month delay for a public hearing but despite setbacks, he emphasized innovative initiatives with Brookfield Sustainability Institute and anticipated developments in the fall despite the licensing process's slow pace compared to other countries like the United States.

In response to a question as to the reasoning behind the 18-month delay, M. Rencheck offered his assistance to cosign a letter to the Canadian Nuclear Safety Commission (CNSC), highlighting the project’s legitimacy and need for vendor support.

8. Consent Agenda

8.1. Minutes of Public Session of Meeting April 3, 2024
8.2. S&P Annual Report

9. Adjournment

There being no other business, and upon a motion duly made by M. Rencheck, the meeting adjourned at 3:24 p.m.

Krista Hester, Interim University Secretary