

UNDERGRADUATE COUNCIL
Tuesday, December 7, 2021 at 2:30 p.m.
Zoom

AGENDA

1. MINUTES OF PREVIOUS MEETING – SEPTEMBER 28TH, 2021

Approval.

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a. [Minutes - September 28th, 2021](#)

2. BUSINESS ARISING

3. CHAIR'S REMARKS

4. REPORT FROM THE AWARDS COMMITTEE

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[Report from the Awards Committee](#)

a. TERMS OF AWARD

Approval.

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i. Proposed New Awards

ii. Proposed New Bursaries

iii. Changes to Award Terms

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b. 2020-2021 AWARD RECIPIENTS REPORT

Information.

[2020 In-course , Graduands, Travel and Community Contribution Award Recipients](#)

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c. 2020-2021 AWARD DISBURSEMENT SUMMARY

Information.

[2020-2021 Award Disbursement Summary](#)
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d. 2021 MAJOR UNIVERSITY AND EXTERNAL AWARDS SELECTION COMMITTEE

Information.

2021 Major University & External Awards Selection Committee

5. REPORT FROM THE CERTIFICATES AND DIPLOMAS COMMITTEE

Approval/information.

- 76 [Report from the Certificates and Diplomas Committee](#)
- 77 - 78 a. [Closure of the Certificate of Metallurgy of Iron and Steel](#)
- 79 - 82 b. [Health Humanities & Social Science Concurrent Certificate Proposal](#)
- 83 - 92 c. [Continuing Education - Certificate of Attendance Program Proposals](#)

6. FINAL REPORT FROM THE AD HOC COMMITTEE ON MICROCREDENTIALS

Information

- 93 [Report from the Ad Hoc Committee on Micro-credentials](#)
- 94 - 137 a. [Implementing Micro-credentials at McMaster](#)

7. REVISIONS TO THE POLICY ON ACADEMIC PROGRAM DEVELOPMENT AND REVIEW

Approval.

- 138 - 213 a. [Academic Program Development and Review Policy \(Clean\)](#)
[Academic Program Development and Review Policy \(Track Changes\)](#)

8. OTHER BUSINESS

**McMaster University
UNDERGRADUATE COUNCIL**

**Tuesday, September 28, 2021 at 2:30 p.m.
via Videoconference (Zoom)**

PRESENT: Dr. Kim Dej (Chair), Ms. Zaina Ahmad, Ms. Julia Azzi, Dr. Lorraine Carter, Mr. Cameron Churchill, Dr. Sean Corner, Dr. Rosa da Silva, Mr. Matt Gaulton, Dr. Mic Farquharson, Dr. Steve Hranilovic, Mr. Josh Lawrence, Dr. Sue McCracken, Dr. Karen McGarry, Mr. Faris Mecklai, Dr. Peter Miu, Ms. Melissa Pool, Dr. Tracy Prowse, Ms. Stacey Ritz, Dr. Rob Whyte, Ms. Minuki Wickramasuriya, Dr. Jean Wilson, Ms. M. Zheng (Associate University Secretary), Ms. Kelly Snow (Governance Coordinator)

INVITED: Mr. Brad Coburn, Ms. Lynn Giordano, Ms. Amy Gullage, Ms. Rita Mukherjee, Ms. Jackie Osterman, Ms. Sarah Robinson, Mr. Greg Rombough, Ms. Nancy Solano, Mr. Brandon Van Dam, Ms. Maria White.

1. MINUTES OF PREVIOUS MEETING – APRIL 20, 2021

The minutes of the April 20, 2021 meeting were approved as circulated.

2. BUSINESS ARISING

There was no business arising.

3. CHAIR’S REMARKS

Dr. Dej welcomed members to the September meeting of the Undergraduate Council.

a. Undergraduate Council Reference Guide

Members heard that the document was included in the Agenda Package for information purposes and describes the governance and activities of the Undergraduate Council and its related committees, except for the Quality Assurance Committee and the Awards Committee. It will also serve as a reference for staff that prepare curriculum submissions as well as a guide for the governance framework of curriculum.

Dr. Dej also highlighted that the meeting dates for the Undergraduate Council and its Committees are available on the University Secretariat’s website. Dr. Dej noted that the Committee will be discussing a number of matters concerning academic integrity, policy and practises in the coming months and encouraged

Members to connect with herself and Ms. Kelly Snow about any items to be brought forward

4. ELECTION OF UNDERGRADUATE COUNCIL VICE CHAIR

Nominations for the position of Vice-Chair of Undergraduate Council were called for. Dr. Karen McGarry was nominated for a second year. As no additional nominations were put forward, Dr. McGarry was declared elected by acclamation.

5. REPORT FROM THE UNDERGRADUATE COUNCIL EXECUTIVE COMMITTEE

a. 2021-2022 Committee Assignments

Dr. Dej provided an overview of the circulated material, explaining that Undergraduate Council was asked to ratify the Executive Committee's decision to approve the circulated Committee Assignments for the 2021-2022 academic session.

IT WAS DULY MOVED AND SECONDED,

that Undergraduate Council ratify the Executive Committee's decision to approve the 2021-2022 Undergraduate Council Committee Assignments, as set out in the attached.

The motion was *Carried*.

b. Undergraduate Expectations for McMaster Vaccination Policy

Members heard that the Undergraduate Council Executive Committee met on September 7th, 2021 to approve the circulated item on behalf of Undergraduate Council for recommendation to the Senate. Dr. Dej noted that many discussions have been ongoing with the Associate Deans, and she highlighted pieces of the vaccination policy and follow-ups that need to occur. She noted that the Registrar's Office has been on-top of these communications to the student body.

The Committee heard that all faculties, students and staff are expected to submit proof of their second COVID-19 vaccination by October 18, 2021, unless they are in receipt of a valid exemption from the University to be in compliance with McMaster's COVID-19 Vaccination Policy. She noted that a very small number of medical exemptions will likely be approved.

There were questions from Members regarding the activities that students who have received an exemption form the University may or may not participate in. Dr. Dej clarified that exempt students and staff can attend remote and in-person classes with a face shield, and they are required still to socially distance. Their

status on MacCheck will be the same as students who are fully vaccinated, and they must still complete asymptomatic testing. In response to another question, Dr. Dej also clarified that those who are seeking exemptions to mask-use must do so through Student Accessibility Services but that the face-shield will be required and already assumes that the student involved has received an accommodation.

There were additional questions from the members surrounding students who are coming to McMaster from overseas, or who are not expecting to be in Canada for the winter term and what their requirements are as per the vaccination policy. Dr. Dej confirmed that a lot of these pieces are being worked on for January and that programs are expecting students to be available and on campus. In response to a question regarding possible requirements of a third WHO-approved vaccination shot, Dr. Dej clarified they are also working on this for the new year.

c. Ad Hoc Committee on Testing and Invigilation

Dr. Dej explained that the Undergraduate Council Executive Committee approved via electronic vote on June 18, 2021, the creation of an Ad Hoc Committee on Testing and Invigilation and membership list.

The Council also heard that this Committee will likely use a hybrid of both in-person and remote work and that the Committee will begin to take shape in the coming weeks. It was noted that Dr. Dej and Ms. Snow from the University Secretariat will reach out to members to glean insight on interest in this work.

6. REPORT FROM THE AWARDS COMMITTEE

Dr. Miu provided members with an overview of the report from the Awards Committee.

a. Terms of Award

- i. Proposed New Awards**
- ii. Changes to Terms**
- iii. Proposed New Bursaries**
- iv. Awards Removed from the *Undergraduate Calendar***

It was duly moved and seconded,

that the Undergraduate Council approve three new awards, twelve new bursaries, revisions to eight terms, and the removal of two awards from the Undergraduate Calendar, as set out in the attached.

The motion was *Carried*.

7. REPORT FROM THE CERTIFICATES AND DIPLOMAS COMMITTEE

Dr. Corner provided members with an overview of the report from the Certificates and Diplomas Committee.

a. Closure of Web Design Certificate Program

The material was reported for information.

8. OTHER BUSINESS

There being no other business, the meeting was adjourned at 2:58 p.m.

REPORT TO UNDERGRADUATE COUNCIL
from the
UNDERGRADUATE COUNCIL AWARDS COMMITTEE

FOR APPROVAL

a. Terms of Award

At its November 9th, 2021 meeting, the Undergraduate Council Awards Committee approved the following for recommendation to Undergraduate Council. Details of the proposed recommendations are contained within the circulated report.

i. New Awards

The Konrad Group Women in Technology Scholarship
The Mary Di Battista Academic Grant
The Dr. Robert and Andree Rheaume Fitzhenry Academic Grant

ii. New Bursaries

The Nabab Kaur Deshwar Bursary

iii. Changes to Award Terms

The Patricia Ann French Bursary
The William Mackenzie Memorial Prize
The Dr. Ronald V. Joyce Awards for Athletes

It is now recommended,

that Undergraduate Council approve three new awards, one new bursary, and revisions to three terms from the Undergraduate Calendar, as set out in the attached.

FOR INFORMATION

b. 2020-2021 Award Recipients Report

At the same meeting, the Awards Committee also received, for information, the 2020-2021 In-course, Graduated, Travel and Community Contribution Award Recipient.

c. 2020-2021 Award Disbursement Summary

At the same meeting, the Awards Committee also received, for information, the 2020-2021 Award Disbursement Summary and the corresponding summary chart.

d. 2021 Major University and External Awards Selection Committee

At the same meeting, the Awards Committee also received, for information, the membership of the 2021 Major University and External Awards Selection Committee.

Undergraduate Council
December 7, 2021

PROPOSED NEW AWARDS FOR APPROVAL

In-Course and Renewal Awards

The Konrad Group Women in Technology Scholarship

Established in 2021 by Konrad Group, a global digital agency, to support students who have a passion for digital technology.

Requirements: To be awarded to female undergraduate students enrolled in Level 3 or above in an Engineering or Business program who attain high averages and demonstrate an interest pursuing a career in digital technology.

Typically Available: 1 x \$2,500

In-Course and Renewal Academic Grants

The Mary Di Battista Academic Grant

Established in 2021 by Mary Di Battista B. Comm. (Class of '81) to support others in their educational pursuits.

Requirements: To be awarded to undergraduate students enrolled in Level 2 or above in a Commerce program who attain high averages and demonstrate financial need.

Typically Available: 1 x \$1,000

The Dr. Robert and Andree Rheaume Fitzhenry Academic Grant

Established in 2021 by Alyxandra Fitzhenry in memory of her parents, Robert Fitzhenry, B.A.Hons (Class of '54) & LLD. (Class of '09), and Andree Rheaume Fitzhenry.

Requirements: To be awarded to undergraduate students enrolled in the Studio Art program who attain high averages and demonstrate financial need.

Typically Available: 2 x \$10,000

PROPOSED NEW BURSARIES FOR APPROVAL

The Nabab Kaur Deshwar Bursary

Established in 2021 by Davendra Pal Singh Deshwar and Mamta Deshwar, in honour of his mother, Nabab Kaur Deshwar.

Requirements: To be granted to female undergraduate students entering any program who identify as Indigenous students and demonstrate financial need.

CHANGES TO TERMS FOR APPROVAL

The Patricia Ann French Bursary

Established in 2020 by Chris French, B.Sc. Hons. (Class of '94) and his wife Jennifer Prihoda French, B.Com. (Class of '97), in recognition of Patricia and the passion for science that she instilled in her son.

Requirements: To be granted to **female** undergraduate students enrolled in a Biology program who demonstrate financial need.

The William Mackenzie Memorial Prize

Established in 1977 in memory of Professor William MacKenzie by his friends and colleagues.

Requirements: To be awarded to the student who, in the judgment of the Department of Economics, has demonstrated outstanding academic achievement in either ECON 3T03 (Economic Development) or ~~ECON 2F03 (The Political Economy of Development)~~ or, in exceptional circumstances, for work in a related area.

The Dr. Ronald V. Joyce Awards for Athletes

Established in 2003 by Dr. Ronald V. Joyce '98.

Requirements: A variable number to be awarded to students who have completed at least Level 1 of any program who, in the judgment of a selection committee, have demonstrated outstanding athletic ability as members of a McMaster varsity team which competes in the Canadian Interuniversity Sports (CIS) USports. Students must meet the eligibility requirements of the CIS USports and Ontario University Athletics (OUA). ~~Not open to students in their graduating year.~~



OFFICE OF THE REGISTRAR
AID & AWARDS

2020 In-course, Graduand, Travel and Community Contribution Award
Recipients

Award Description	Student Name	Program Description	Level	Value*
The Class of 1966 50th Anniversary Scholarship	Kian Yousefi Kousha	Neuroscience(Honours)	3	1000
The Accenture Inc. Scholarship	Paige Curtis	Bachelor of Commerce(Honours)	4	1000
The Achievement Awards of Excellence	Jake Colautti	Bach. of Health Sciences Hon(Honours)	2	800
The Adi Development Group Bachelor of Technology Scholarship	Bryson Schettler	Manufacturing Eng Tech CO-OP(Co-op Program)	4	1000
The Air Liquide Canada Incorporated Scholarships	Emelyn Kupinski	Mechanical Engineering CO-OP(Co-op Program)	3	1500
	Adam Wilton	Mech Eng & Management CO-OP(Co-op Program)	3	1500
The Henrietta Alderson Scholarship	Charlize Breukelman	Nursing - McMaster(Bachelors)	2	3950
	Leena Elsabagh	Nursing - McMaster(Bachelors)	2	3950
The W. K. Allan Memorial Scholarship	Aleksandar Janackov	Actuarial & Finance Math CO-OP(Honours Co-op)	5	1100
The Cameron D. Allen Book Prize	Jared Chestnut	Geog & Environmental Sciences(Honours)	4	200
The Margaret E. Orr and Edward C. Allen Prize	Joseph Palmeri	English & Cultural Studies(Honours)	4	1000
The Alumni Association Scholarship	Carolyn Marshall	Software EngineeringTech CO-OP(Co-op Program)	3	475
The E. H. Ambrose Gold Medal	Sarah Rotella	Bachelor of Commerce(Honours)	4	
The Anatomy Prize	Amit Nehru	Bach. of Health Sciences Hon(Honours)	4	3500
The Herbert S. Armstrong Memorial Fund Scholarship	Kristen Hop Hing	Earth & Enviro Sciences CO-OP(Honours Co-op)	4	100
The Arts and Science Program Book Award	David Mikhail	Arts & Science(Honours)	2	75
The Edgar R. Ashall Scholarship	Faisal Khaleel	HLth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	200
	Yuying Lai	Computer Engineering CO-OP(Co-op Program)	2	200
	Thomas Sydor	Materials Engineering CO-OP(Co-op Program)	2	200
The Atkinson Charitable Foundation Community Contribution Award	Ivonne Aguirre	Social Work(Honours)	3	
The A. H. Atkinson Prize	Lauren Cope	Civil Engineering(Bachelors)	4	200
	Jamie Yu	Civil Eng & Society CO-OP(Co-op Program)	5	200
The Maqbool Aziz Memorial Scholarship	Julia Griffin	English & Cultural Studies(Bachelors)	3	500

Award Description	Student Name	Program Description	Level	Value*
The Maqbool Aziz Memorial Scholarship	Hayley Vandermaarl	English & Cultural Studies(Honours)	4	500
The Bachelor of Health Sciences (Honours) Program Scholarship	Gabriella Christopher	Bach. of Health Sciences Hon(Honours)	4	2500
The Bain-Peart Award	Sharang Sharma	Arts & Science(Honours)	2	2000
The Laura Baldwin Scholarship	Rebecca DeWael	English & Cultural Studies(Honours)	4	650
	Sophi Kerr	English & Cultural Studies(Honours)	4	650
The Charles Murray Ball Scholarships in Earth Sciences	Alexandra Clark	Earth & Enviro Sciences CO-OP(Honours Co-op)	3	2300
	Grace Horseman	ISCI (Geog & Enviro Sc Conc)(Honours)	3	2300
	Bernadette Mayer	Geog & Environmental Sciences(Honours)	4	2300
	Jonathan Spence	ISCI (Earth & Enviro Sc Conc)(Honours)	3	2300
The Bank of Montreal Humanities Multimedia Scholarships	Adrian De Jesus	Multimedia & Theatre & Film St(Honours)	4	1000
	Khaleel Gandhi	Multimedia & Theatre & Film St(Honours)	4	1000
	Clara Gillingham	Multimedia(Honours)	2	1000
	Sil Hamilton	English/Cultural St&Multimedia(Honours)	4	1000
	Lindsay Harrison	English/Cultural St&Multimedia(Honours)	3	1000
	Alaa Ismail	Comm Studies & Multimedia(Honours)	4	1000
	Ashlynn Labinaz	Comm Studies & Multimedia(Honours)	3	1000
	Erin Raftis	Comm Studies & Multimedia(Honours)	4	1000
	Rachel Taylor	Comm Studies & Multimedia(Honours)	3	1000
The J. Douglas Bankier Memorial Scholarship	Kenneth Matira	Actuarial & Finance Math CO-OP(Honours Co-op)	4	400
The William and Lida Barns Memorial Prize in History	Zoe Bernicchia-Freeman	A&S and History(Honours)	4	150
	Jason Rohfritsch	History(Honours)	4	150
The Rev. Allison M. Barrett Scholarship	Youmna Taychouri	Religious Studies(Honours)	4	1000
The Dr. Chris Bart Scholarship	Matthew Cheung	Mech Eng & Management CO-OP(Co-op Program)	2	6500
	Mark Knez	Electrical Eng & Mgmt CO-OP(Co-op Program)	2	6500
The Scott Bartlett Memorial Prize	Aidan Thornewell	Bachelor of Commerce(Honours)	4	200
The Basu Medal	Vanessa Occhiogrosso	Bachelor of Commerce(Honours)	4	1250
The Marion Bates Book Prize	Calogero Matteliano	History(Honours)	4	85
The Bates Residence Scholarship	Nicholas Lum	Bach. of Health Sciences Hon(Honours)	2	800
The Steve Baxter Memorial Scholarship Award	Haebin Cho	Nursing - McMaster(Bachelors)	3	1000

Award Description	Student Name	Program Description	Level	Value*
The Stanley T. Bayley Scholarship in Biology	Jeniszka Gill	Biology & Pharmacology CO-OP(Honours Co-op)	5	1000
The Barbara and Ronald Bayne Award	Emily Smith	Hlth&Society and Aging&Society(Honours)	4	1000
The Beauty Counselors of Canada Scholarship	Christian Jacobsen-Perez	Biochemistry (Biomed Res Spec)(Honours)	2	350
	Angelina Lam	Biomed Disc & Commercializatn(Honours)	2	350
The Bentall Scholarships	Calvin Armstrong	Kinesiology(Honours)	2	1500
	Caroline Holicka	Biology (Physiology)(Honours)	2	1500
The Louise E. Bettger Scholarships in Music	Katherine D'Agostino	Music(Honours)	2	500
	Sarah Elgersma	Music(Honours)	4	500
The Charu Late Bhaduri Scholarship in Nursing	Lauren McWhinnie	Nursing - McMaster(Bachelors)	4	1000
The J.P. Bickell Foundation Mining Scholarships	Elysia Fuller-Thomson	ISCI (Earth & Enviro Sc Conc)(Honours)	4	10000
	Lingrui Meng	Biology & Enviro Sciences(Honours)	4	10000
The Binkley Medal	Jack Buckley	Computer Science CO-OP(Honours Co-op)	4	350
The Abe Black Memorial Prize	Philopateer Ataalla	Psych., Neurosci. & Behaviour(Honours)	3	475
	Sara Marshall	Psych., Neurosci. & Behaviour(Honours)	4	475
	Thomas Samson-Williams	PNB (Music Cognition Spec.)(Honours)	4	475
	Kokoro Tsuzuki	Psych., Neurosci. & Behaviour(Honours)	3	475
The Leone Betty Blackwell Memorial Book Prize	Kathleen Lawson	Environmental Sciences(Honours)	4	85
	Eshan Merali	Medical & Biological Physics(Honours)	4	85
The Brian Blakey Memorial Scholarship	Yun Qing Yang	Cognitive Science of Language(Honours)	4	500
The Hilda Dorothy Borman Scholarship	Siobhan Mildren	French & Music(Honours)	4	1050
The Dr. Garth Boulter Memorial Award	Sanna Padela	Midwifery(Bachelors)	4	2000
	Laura Runne	Midwifery(Bachelors)	4	2000
	Hanna Stang	Midwifery(Bachelors)	4	2000
The Joan Frances Bowling Scholarships	Natasha Wandel	Music (Music Cognition)(Honours)	3	1650
The Adella Margaret Bragg Scholarships	Angelina Bomberly	Indigenous St & Anthropology(Honours)	2	3000
	Valerie Williams	Social Work(Honours)	4	4000
The Brantford Alumni Branch Community Contribution Awards	Fatima Ahmad	Health, Eng Sci & Entrepreneur(Honours)	4	
	Alexandra Rodriguez	French & Linguistics(Honours)	3	
The Brien Scholarship in Philosophy	Bianca Tarantino	Justice, Political Phil. & Law(Honours)	3	475

Award Description	Student Name	Program Description	Level	Value*
The Dr. and Mrs. F.R. Britton Scholarship in Mathematics	Alexander Kayssi	Mathematics & Physics(Honours)	4	600
	Norah Muqbel	Mathematics & Statistics(Honours)	3	600
The Burke Memorial Ring	Negeen Halabian	Biology & PNB(Honours)	4	
The CAE Scholarship in Computing and Software Engineering	Pesara Amarasekera	Software Engineering CO-OP(Co-op Program)	3	3400
	Jessica Lim	Software & Biomed Eng CO-OP(Co-op Program)	3	3400
The Crispin Calvo Scholarships	Andrew D'Elia	IBEHS Exit Degree(Bachelors)	3	2000
	Tanjot Grewal	Chemistry(Honours)	3	2000
The Betty Taylor Campbell Scholarship	Kaitlyn McLeod	Kinesiology(Honours)	3	1500
	Luke Nguyen	Kinesiology(Honours)	2	1500
The Ella Halstead Campbell Prize	Robin Coloma	Music(Honours)	2	200
The Canadian Italian Business & Professional Association of Hamilt	Kieran Gara	Software Engineering CO-OP(Co-op Program)	2	1000
	Kiara Pannozzo	Biology & Mathematics(Honours)	4	1000
The Canadian Society for Chemical Engineering (CSCHE) Scholarshi	Cecilia Tran	Chemical & Biomed Eng CO-OP(Co-op Program)	2	700
The Donald Oscar Cannon Scholarship	Jake Colautti	Bach. of Health Sciences Hon(Honours)	2	2000
The Nancy Car Memorial Scholarship in Kinesiology	Christina Pizzola	Kinesiology(Honours)	4	500
The Grace Dorothy and William P. Carpenter Award	Declan Young	Software Eng & Mgmt CO-OP(Co-op Program)	2	2500
The Elva Carrol Community Contribution Award	Kokoro Tsuzuki	Psych., Neurosci. & Behaviour(Honours)	3	
The James Robertson Carruthers Memorial Prize	Cecilia Di Benedetto	French(Bachelors)	3	425
	Liam Kishinevsky	History(Honours)	2	425
The William G. Carter Scholarship in Golf	Emily Heming	ISCI (PNB Concentration)(Honours)	4	800
The Casey Family Scholarships	Katelyn Wylie	Civil Eng & Society CO-OP(Co-op Program)	3	1000
The Norman N. Caskey Memorial Prize	Massimo Delle Grazie	Music(Honours)	4	150
	Jared Jones	Music (Music Cognition)(Honours)	4	150
The CFUW - Hamilton Scholarship	Negeen Halabian	Biology & PNB(Honours)	4	2000
The CFUW - Hamilton Past President's Prize	Meijing Li	Computer Science CO-OP(Honours Co-op)	4	1000
The CFUW-Hamilton Memorial Prize in Political Science	Katharine Reichert	Pol Sci Sp Public Law&Judicial(Honours)	4	1000
The Chancellor's Gold Medal	Cassidy Bereskin	Political Science(Honours)	4	
The Chartered Professional Accountants of Ontario Scholarship	Yunming Gu	Bachelor of Commerce(Honours)	3	1000
	Yuyang Gu	Bachelor of Commerce(Honours)	3	1000

Award Description	Student Name	Program Description	Level	Value*
The Chin-Chin Award in Electroacoustic Studies/Sound Art	Drew Simpson	Comm Studies & Multimedia(Honours)	4	800
The City of Hamilton Economic Development Department Scholars	Andrew Cinelli	Bachelor of Commerce(Honours)	3	800
	Eric Jackson	Integrated Business&Humanities(Honours)	4	800
	Alexander Roque	Bachelor of Commerce(Honours)	4	800
The Hugh Clark Scholarship	Cassidy Bereskin	Political Science(Honours)	4	2200
The Class of 1938 Scholarship in Honour of Amelia Hall	Sarah Rodricks	English/Cultural St & Thtr/Film(Honours)	4	5000
The Class of 1943 Golden Anniversary Scholarship	Sarah Rodricks	English/Cultural St & Thtr/Film(Honours)	4	1000
The Class of 1944 Scholarship	Theodor Aoki	Computer Engineering CO-OP(Co-op Program)	3	1500
	Jiaxin Tang	Software Engineering CO-OP(Co-op Program)	3	1500
The Class of 1950 Scholarship in Honours Economics	Ishmam Ahsan	Economics (Specialist)(Honours)	4	1500
The Class of 1953 50th Anniversary Scholarships	Nicolas Belanger	Arts & Science(Honours)	3	1500
	Tory Dockree	A&S and Philosophy(Honours)	4	1500
	Nicole Strader	Arts & Science(Honours)	4	1500
The Class of 1966 Nursing Scholarship	Francesca Berkowitz	Nursing - McMaster(Bachelors)	4	1000
The Cocco Family Scholarship	Brandon Fewer	Bachelor of Commerce(Honours)	4	1000
The Comparative Literature Prize	Lindsay Harrison	English/Cultural St&Multimedia(Honours)	3	250
The Philip F Connell Scholarship	Jessica Kostuch	Economics(Honours)	4	10000
	Kevyn O'Connell	Economics(Honours)	3	10000
The Elizabeth Petra Cooke Memorial Scholarship	Kariz Sisson	Nursing (Post RPN) - Mohawk(Bachelors)	4	1000
The Beatrice Corrigan Memorial Book Prize	Sarah Rotella	Bachelor of Commerce(Honours)	4	125
The Cranston Prizes	Stevie Garnett	English & Cultural Studies(Honours)	3	225
The Dr. Cameron M. Crowe Scholarship	Cecilia Tran	Chemical & Biomed Eng CO-OP(Co-op Program)	2	5000
The CSEP/SCPE Undergraduate Student Award	Matthew Tobis	Kinesiology(Honours)	4	
The Margaret Cudmore Scholarship in Political Science	Alyson Tkachenko	Political Science(Honours)	4	2000
The Edwin Marwin Dalley Memorial Scholarships	Matthew Bacik	Bach. of Health Sciences Hon(Honours)	2	800
	Milen Belanger	Bach. of Health Sciences Hon(Honours)	2	800
	Daivat Bhavsar	Biochemistry(Honours)	2	800
	Cory Byrne	Life Sciences(Honours)	2	800
	Olsen Chan	Bach. of Health Sciences Hon(Honours)	2	800

Award Description	Student Name	Program Description	Level	Value*
The Edwin Marwin Dalley Memorial Scholarships	Nicholas Charters	Molecular Biology & Genetics(Honours)	2	800
	Richard Cheng	Bach. of Health Sciences Hon(Honours)	2	800
	Joanna Deng	Bach. of Health Sciences Hon(Honours)	2	800
	Katherine Dykema	Biochemistry (Biomed Res Spec)(Honours)	2	800
	Mazen Elkhayat	PNB (Mental Health Spec.)(Honours)	2	800
	Henry Gage	ISCI (Earth & Enviro Sc Conc)(Honours)	2	800
	Nishant Garg	Computer Science CO-OP(Honours Co-op)	2	800
	Marzan Hamid	Bach. of Health Sciences Hon(Honours)	2	800
	Muhammad Taaha Hassa	Bach. of Health Sciences Hon(Honours)	2	800
	Keyu Hong	Mathematics & Statistics CO-OP(Honours Co-op)	2	800
	Misha Ishtiaq	Bach. of Health Sciences Hon(Honours)	2	800
	Christian Jacobsen-Perez	Biochemistry (Biomed Res Spec)(Honours)	2	800
	Navneet Kang	ISCI (Chem Biology Conc)(Honours)	2	800
	Grace Lethbridge	Bach. of Health Sciences Hon(Honours)	2	800
	Elizabeth Li	Biomed Disc & Commercializatn(Honours)	2	800
	Junnan Li	Computer Science CO-OP(Honours Co-op)	2	800
	Julia Ma	Bach. of Health Sciences Hon(Honours)	2	800
	Gareth Mann	Biology & PNB(Honours)	2	800
	Misaal Mehboob	Biochemistry (Biomed Res Spec)(Honours)	2	800
	Eashan Monga	Actuarial & Financial Math(Honours)	2	800
	Michal Moshkovich	Bach. of Health Sciences Hon(Honours)	2	800
	Rachel Na	Bach. of Health Sciences Hon(Honours)	2	800
	Nojus Niuklys	Computer Science CO-OP(Honours Co-op)	2	800
	Jay Patel	Life Sciences(Honours)	2	800
	Prem Patel	Chemical Biology(Honours)	2	800
	Ivy Quan	Bach. of Health Sciences Hon(Honours)	2	800
	Nicole Rapallo	Biology & Pharmacology CO-OP(Honours Co-op)	2	800
	Jessica Schneider	Life Sciences(Honours)	2	800
	Hannah Silverman	Bach. of Health Sciences Hon(Honours)	2	800

Award Description	Student Name	Program Description	Level	Value*
The Edwin Marwin Dalley Memorial Scholarships	Rabia Tahir	Bach. of Health Sciences Hon(Honours)	2	800
	Preston Tse	Bach. of Health Sciences Hon(Honours)	2	800
	Qingyang Xiao	Bach. of Health Sciences Hon(Honours)	2	800
	Jia Xu	Bach. of Health Sciences Hon(Honours)	2	800
	Leon Xu	Biochemistry(Honours)	2	800
	Irene Zhao	Bach. of Health Sciences Hon(Honours)	2	800
The Douglas Davidson Scholarship in Genetics	Daniel Saint-Laurent	Molecular Bio & Genetics CO-OP(Honours Co-op)	3	400
The Edward Frank Davis Memorial Community Contribution Award	Pardis Ghaneian	Psych., Neurosci. & Behaviour(Honours)	4	
	Stephanie Wickens	Health Studies & Gerontology(Honours)	4	
The Dawson Prize in Chemistry	Seja Elgadi	Chemistry CO-OP(Honours Co-op)	5	800
The Alice and Walter Day Scholarship	Samridhi Anand	Labour Studies & Pol Sciences(Honours)	4	500
	Jacquelynn Rose-Markowi	Labour Studies(Bachelors)	3	500
	Elizabeth Wong	Labour Studies & Pol Sciences(Honours)	3	500
The Tony Dean Scholarship in Labour Studies	Mahnoor Imran	Labour Studies(Honours)	4	1000
The Dean's Medal for Excellence in the Humanities	William Mukuna-Luamba	French & Music(Honours)	4	10500
	Emma Scapillati	Comm St & Cognitive Sc of Lang(Honours)	4	10500
	Heather Wild	Linguistics(Honours)	4	10500
The Dr. Rudolf De Buda Scholarship	Haoran Liu	Electrical Engineering CO-OP(Co-op Program)	4	2000
The John Deere Limited Scholarship	Verena Guirguis	Bachelor of Commerce(Honours)	4	2000
The Deloitte Scholarships	Sarah Rotella	Bachelor of Commerce(Honours)	4	5000
The Denton Coates Memorial Scholarship	Mitchell Albert	Materials Eng & Mgmt CO-OP(Co-op Program)	5	750
	Alyssa Haas	Materials Eng & Society CO-OP(Co-op Program)	5	750
The Christine Ditta Memorial Award	Tamneet Tiwana	Nursing - McMaster(Bachelors)	4	1000
The Margery E. Dixon Memorial Scholarship	Julius Halkett	English/Cultural St & Philos(Honours)	3	2000
The Laura Dodson Prize	Anna Buhrmann	Arts & Science(Honours)	4	200
The Rosemary Douglas-Mercer Memorial Prize	Samantha Jakubcak	French(Honours)	3	175
The Dubeck Biochemistry Award	Brandon Ly	Biochemistry(Honours)	4	3000
	Veronica Tran	Biochem(Biomed Res Spec CO-OP)(Honours Co-op)	5	3000
The Dubeck Chemistry Award	Elvin Girineza	Chemical & Physical Sciences(Bachelors)	4	3000

Award Description	Student Name	Program Description	Level	Value*
The Dubeck Chemistry Award	Sami Sabbah	Chemical Biology CO-OP(Honours Co-op)	4	3000
The Horace A. Dulmage Prize in Philosophy	Mayson Broccoli-Romano	Indigenous St&Engl/Cultural St(Honours)	2	200
The Edwards Hall Residence Scholarship	Subin Park	Bach. of Health Sciences Hon(Honours)	2	800
The Clara I. Elman Scholarship	Elena Di Carlo	Nursing - McMaster(Bachelors)	3	5000
	Habiba Helmy	Nursing - McMaster(Bachelors)	3	5000
	Nicola Isabel Kay	Nursing - Mohawk(Bachelors)	3	5000
	Madison McPhail	Nursing - McMaster(Bachelors)	3	5000
	Lauren Oreskovich	Nursing - McMaster(Bachelors)	4	5000
	Anya Radulovic	Nursing - McMaster(Bachelors)	4	5000
	Anna Schramp	Nursing - McMaster(Bachelors)	3	5000
	Sara Spanninga	Nursing - McMaster(Bachelors)	4	5000
	Autumn Toningier	Nursing - McMaster(Bachelors)	3	5000
	Deana Voisin	Nursing - McMaster(Bachelors)	4	5000
	Qi Rui Wang	Nursing - McMaster(Bachelors)	4	5000
The Helen Emery Scholarships in Environmental Science	Mahimah Reancy	Biology & Enviro Sciences(Honours)	4	1650
	Yunbing Song	Geog & Environmental Sciences(Honours)	4	1650
	Yunxin Song	Geog & Environmental Sciences(Honours)	4	1650
The Susan Farley and Beth Farley-Groves Scholarship	Sabrije Mitrovica	Hlth&Society and Aging&Society(Honours)	3	1000
The Christine Feaver Scholarship in Economics	Zachary Holdsworth	Economics & PNB(Honours)	4	1000
	Mitchell Lyons	Economics(Honours)	4	1000
The Federation of Chinese Canadian Professionals (Ontario) Educat	Jessica Grondin	Arts & Science(Honours)	4	1000
	Harrison McCann	Chemical Biology(Honours)	4	1000
The Neil Forsyth Prize	Ravdeep Badwal	Materials Engineering CO-OP(Co-op Program)	4	120
The Barbara Francis Scholarship	Julia Menezes	Arts & Science(Honours)	3	400
The Harold and Gertrude Freeman Scholarship in French	Teodora Ristic	French & Linguistics(Honours)	4	1000
	Michaela Tondreau	French(Honours)	4	1000
The French Scholarship	William Mukuna-Luamba	French & Music(Honours)	4	6000
The Klaus Fritze Memorial Prize	Ubaidullah Baryar	Chemical Biology(Honours)	3	350
	Shannon Buck	ISCI (Chem Biology Conc)(Honours)	3	350

Award Description	Student Name	Program Description	Level	Value*
The Klaus Fritze Memorial Prize	Michael Celejewski	ISCI (Chem Biology Conc)(Honours)	3	350
	Rena Chen	Chemical Biology CO-OP(Honours Co-op)	3	350
	Mankaran Dosanjh	Chemical Biology CO-OP(Honours Co-op)	3	350
	Kirsten Entz	Chemistry CO-OP(Honours Co-op)	3	350
	Justin Keung	Chemical Biology CO-OP(Honours Co-op)	4	350
	Harmohit Khaira	Life Sciences(Honours)	3	350
	Griffin Lachapelle	Chemistry CO-OP(Honours Co-op)	3	350
	Yui Sun Lee	Chemical Biology(Honours)	3	350
	Xiang Li	Chemical Biology(Honours)	3	350
	Angela Liang	Chemical Biology CO-OP(Honours Co-op)	3	350
	Roxana Ruiz Arduengo	Chemical Biology CO-OP(Honours Co-op)	3	350
	Na-Yung Seoh	Chemical Biology CO-OP(Honours Co-op)	3	350
	Mya Sharma	ISCI (Chem Biology Conc)(Honours)	3	350
	Luxiga Thanabalachandra	Chemical Biology(Honours)	3	350
	Zheng Fu Zhou	Chemical Biology CO-OP(Honours Co-op)	3	350
The Merrill Francis Gage Scholarships	Mia Joyce	Music (Music Cognition)(Honours)	3	500
	Siobhan Mildren	French & Music(Honours)	4	500
The Samuel Geller Memorial Book Prize	Joseph Mullins	History(Honours)	4	425
	Pawel Sokolowski	History & Political Science(Honours)	4	425
The Gwen George Award	Carla Bang	Bach. of Health Sciences Hon(Honours)	2	1500
	Mathieu Chenier	Eng Physics & Biomed Eng CO-OP(Co-op Program)	2	1500
	Hargun Kaur	Bach. of Health Sciences Hon(Honours)	2	1500
	Toney Lieu	Bach. of Health Sciences Hon(Honours)	2	1500
	Paris Liu	Civil Engineering CO-OP(Co-op Program)	2	1500
	Zeineb Muhsen	Life Sciences(Honours)	2	1500
	Isabella Reis	Bach. of Health Sciences Hon(Honours)	2	1500
	Evangelea Touloupoulos	Bach. of Health Sciences Hon(Honours)	2	1500
	Qingyang Xiao	Bach. of Health Sciences Hon(Honours)	2	1500
	Rajat Sood	Software EngineeringTech CO-OP(Co-op Program)	4	400
The Gwen George Medal				

Award Description	Student Name	Program Description	Level	Value*
The Mahatma Gandhi Scholarship	Tal Septon	Peace Studies & Pol Sci(Honours)	4	1000
The J. L. W. Gill Prizes	Faran Chaudhry	Life Sciences(Honours)	4	350
	Niki Esfahanian	Biochemistry(Honours)	4	350
	Negeen Halabian	Biology & PNB(Honours)	4	350
	Alexander Kayssi	Mathematics & Physics(Honours)	4	350
	Rachel Lam	Biology & PNB(Honours)	4	350
	Piera Rooke	Biology (Physiology)(Honours)	4	350
	Matthew Tobis	Kinesiology(Honours)	4	350
	Peiyao Wang	ISCI (Biochemistry Conc.)(Honours)	4	350
The George P. Gilmour Memorial Scholarship	Paige Guyatt	Arts & Science(Honours)	4	375
The Gilmour Memorial Prize	Oakley Brown	Mechanical Engineering(Bachelors)	4	125
The Governor General's Academic Medal	Kristen Abels	Chemical Eng & BioEng CO-OP(Co-op Program)	5	
	Matthew Tobis	Kinesiology(Honours)	4	
The Daphne Etherington Graham Memorial Scholarship in English	James Do	English & Cultural Studies(Honours)	4	975
The Daphne Etherington Graham Memorial Scholarship in History	Nicole Dragus	History(Honours)	4	1000
	Joseph Mullins	History(Honours)	4	1000
The J. E. L. Graham Medal	Hilary Prince	Comm Studies & Pol Science(Honours)	4	
The H. B. Greening Book Prize	Mia Joyce	Music (Music Cognition)(Honours)	3	100
	Natasha Wandel	Music (Music Cognition)(Honours)	3	100
The James R (Jamie) Greulich Memorial Scholarship	Mayson Broccoli-Romano	Indigenous St&Engl/Cultural St(Honours)	2	5000
The Gupta Family International Scholarships	Zihao Du	Software Engineering CO-OP(Co-op Program)	3	2000
	Ankit Kapoor	Computer Science CO-OP(Honours Co-op)	3	2000
The Fred and Barbara Hacker Scholarship	Sarphina Chui	Music (Music Cognition)(Honours)	4	1000
The Rick D. Hackett Scholarship in Human Resources Management	Emily Ranta	Integrated Business&Humanities(Honours)	4	1300
The Amelia Hall Gold Medal	Nia Langdon	History & Philosophy(Honours)	4	
The Ross Hume Hall Memorial Scholarship	Neeloufar Grami	Life Sciences(Bachelors)	3	600
The Ruth and Jack Hall Prize	Jack Buckley	Computer Science CO-OP(Honours Co-op)	4	225
The Ronald K. Ham Memorial Prize	Ryan Young	Materials Eng & Mgmt CO-OP(Co-op Program)	4	125
The Hamilton Chemical Association Prize	Ubaidullah Baryar	Chemical Biology(Honours)	3	150

Award Description	Student Name	Program Description	Level	Value*
The Hamilton and District Heavy Construction Association Scholars	Mathew Scullion	Civil Engineering & Management(Bachelors)	5	1000
	Brooke VanBuskirk	Civil Eng & Society CO-OP(Co-op Program)	5	1000
The Hamilton Industrial Scholarship	Rowan Ives	Bach. of Health Sciences Hon(Honours)	2	800
The Bill and Ria Hart Scholarship	Amanda Harrison	Biology & Enviro Sciences(Honours)	4	1000
	Saman Rais-Ghasem	Biology & Enviro Sciences(Honours)	4	1000
The Alise Alexanian Hassel Memorial Scholarship	Evelyn Bohn	Studio Art(Honours)	4	1000
	Hannah Essex	Studio Art(Honours)	2	1000
The Hatch Scholarships	Maddison Konway	Materials Eng & Mgmt CO-OP(Co-op Program)	3	8000
	Jared Levy	Materials Engineering CO-OP(Co-op Program)	3	8000
The Hatch Scholarship for Indigenous Students	Ryan McIsaac	Mechanical Engineering CO-OP(Co-op Program)	3	8000
	Margaret Powless-Lynes	Biochemistry(Honours)	4	8000
	Wyatt Wismer	Software Engineering CO-OP(Co-op Program)	4	8000
The Hawkrigg Family Scholarship in Business	Thomas Wikkerink	Bachelor of Commerce(Honours)	3	2500
	Wynette Wong	Bachelor of Commerce(Honours)	2	2500
The Damian Miguel Headley Community Contribution Awards	Megan Lowe	Bach. of Health Sciences Hon(Honours)	4	
	Luke Nguyen	Kinesiology(Honours)	2	
The Hedden Hall Residence Scholarship	Parnia Sadeghzadeh	Bach. of Health Sciences Hon(Honours)	2	800
The Rudy Heinzl Community Contribution Award	Adrian Salopek	Bach. of Health Sciences Hon(Honours)	2	
The Russell and Winifred Hewetson Scholarship	Serena Formenti	ISCI (Earth & Enviro Sc Conc)(Honours)	4	2500
	Lingrui Meng	Biology & Enviro Sciences(Honours)	4	2500
	Sharndeeep Sidhu	Biology & Enviro Sciences(Honours)	4	2500
	Liye Zhu	Earth & Environmental Sciences(Honours)	4	2500
	Caryn Qian	Bach. of Health Sciences Hon(Honours)	2	1500
The Anna Marie Hibbard Scholarship	Kwasi Adu-Poku	Kinesiology(Honours)	4	1200
	Kaitlyn Lee	Kinesiology(Honours)	4	1200
	Allison Williams	Kinesiology Exit Degree(Bachelors)	3	1200
The Dr. Shigeaki Hinohara Scholarship	Sarah Hannelore Uschold	Nursing - Mohawk(Bachelors)	2	800
The Hitachi Capital Canada Corp. Scholarship	Skyler Zwaal	Bachelor of Commerce(Honours)	4	1000
The Dr. Thomas Hobley Prize	Cassidy Bereskin	Political Science(Honours)	4	300

Award Description	Student Name	Program Description	Level	Value*
The Dr. Harry Lyman Hooker Scholarships	Hosam Abdel Hafeez	Bachelor of Health Sciences(Bachelors)	4	1500
	Jamal Al Faraj	Bachelor of Commerce(Honours)	4	1500
	Alisha Badwal	Life Sciences(Honours)	4	1500
	Kyle Barlow	Linguistics(Honours)	4	1500
	Shaina Benjamin	Cognitive Science of Language(Honours)	4	1500
	Richa Bhasin	Life Sciences(Honours)	4	1500
	Mandev Bhullar	Mathematics & Physics(Honours)	4	1500
	Chantelle Boyles	Cognitive Science of Language(Honours)	4	1500
	Claire Brown	Biology(Honours)	4	1500
	Nikhila Butani	Biochemistry(Honours)	4	1500
	Nicole Calovini	Biology(Honours)	4	1500
	Faran Chaudhry	Life Sciences(Honours)	4	1500
	Cameron Collins	Life Sciences(Honours)	4	1500
	Erica Daly	Integrated Business&Humanities(Honours)	4	1500
	Julia Dancey	PNB (Mental Health Spec.)(Honours)	4	1500
	Jessica DeForest	Integrated Business&Humanities(Honours)	4	1500
	Nissa Doal	Social Psychology(Honours)	4	1500
	Sarah Elgersma	Music(Honours)	4	1500
	Oloruntimilehin Fadipe	Economics(Honours)	4	1500
	Balsam Fasih	Biology(Honours)	4	1500
	Daniella Fiorentino	Communication Studies(Honours)	4	1500
	Matthew Fuda	Biology (Physiology)(Honours)	4	1500
	Vanessa Garnett	Cognitive Science of Language(Honours)	4	1500
	Mahsa Gholiof	Life Sciences(Honours)	4	1500
	Parnika Godkhindi	Arts & Science(Honours)	4	1500
	Nicole Graziano	Political Science(Honours)	4	1500
	Keerat Grewal	Biochemistry(Honours)	4	1500
	Sonya Grewal	ISCI (Biology Concentration)(Honours)	4	1500
	Paige Guyatt	Arts & Science(Honours)	4	1500

Award Description	Student Name	Program Description	Level	Value*
The Dr. Harry Lyman Hooker Scholarships	Annemarie Houser	Cognitive Science of Language(Honours)	4	1500
	Ismail Hweija	Life Sciences CO-OP(Honours Co-op)	5	1500
	Manreet Jhaji	Nursing (Accelerated)(Bachelors)	3	1500
	Simrandeep Kalsi	Biology & PNB(Honours)	4	1500
	Alexander Kayssi	Mathematics & Physics(Honours)	4	1500
	Jennifer Kim	Med Rad Sci Radiography(Bachelors)	4	1500
	Jessica Kostuch	Economics(Honours)	4	1500
	Grace Lee	Life Sciences(Honours)	4	1500
	Romi Lifshitz	Arts & Science(Honours)	4	1500
	Yuting Liu	Bachelor of Commerce(Honours)	4	1500
	Jade Mardlin	PNB (Mental Health Spec.)(Honours)	4	1500
	Elizabeth-Anne Marr	Pol Sci Sp Public Law&Judicial(Honours)	4	1500
	Marco Martino-Coons	Bachelor of Commerce(Honours)	4	1500
	Mutahar Mehmood	Life Sciences(Honours)	4	1500
	Maia Milosevic	Nursing (Accelerated)(Bachelors)	4	1500
	Alyssa Minhas	Life Sciences(Honours)	4	1500
	Willa Nie	Biology(Honours)	4	1500
	Valerie Nwaokoro	Pol Sci Sp Public Law&Judicial(Honours)	4	1500
	Kenda Offinga	Social Psychology(Honours)	4	1500
	Neta Pipko	Biochem(Biomed Res Spec CO-OP)(Honours Co-op)	5	1500
	Madelaine Potechin	PNB (Mental Health Spec.)(Honours)	4	1500
	Minyang Pu	Bachelor of Commerce(Honours)	4	1500
	Dana Rajab	Life Sciences(Honours)	4	1500
	Piera Rooke	Biology (Physiology)(Honours)	4	1500
	Sarah Rotella	Bachelor of Commerce(Honours)	4	1500
	Jian Roushani	Bach. of Health Sciences Hon(Honours)	4	1500
	Michael Sakarya	Biochemistry(Honours)	4	1500
	Amanda Sam	Nursing - McMaster(Bachelors)	3	1500
	Emma Scapillati	Comm St & Cognitive Sc of Lang(Honours)	4	1500

Award Description	Student Name	Program Description	Level	Value*
The Dr. Harry Lyman Hooker Scholarships	Shelby Seymour	Pol Sci Sp Public Law&Judicial(Honours)	4	1500
	Matthew Shimoda	ISCI (Math & Stat Conc)(Honours)	4	1500
	William Stephenson	Integrated Business&Humanities(Honours)	4	1500
	Brett Stubbart	Biology & PNB(Honours)	4	1500
	Brendan Tao	Bachelor of Health Sciences(Bachelors)	4	1500
	Harmy Thakar	Biochemistry(Honours)	4	1500
	Victoria Thornton	Bachelor of Commerce(Honours)	4	1500
	Astara Truman	Integrated Business&Humanities(Honours)	4	1500
	Sydney Ung	Med Rad Sci Ultrasonography(Bachelors)	4	1500
	Ling Yang	Bach. of Health Sciences Hon(Honours)	4	1500
	Yun Qing Yang	Cognitive Science of Language(Honours)	4	1500
	Lin Yuan	Bachelor of Commerce(Honours)	4	1500
	Lauren Baerg	Biotechnology CO-OP(Co-op Program)	4	1500
	Adam Best	Chemical Engineering CO-OP(Co-op Program)	4	1500
	Michael Boucher	Eng Physics & Biomed Eng CO-OP(Co-op Program)	4	1500
	Jack Buckley	Computer Science CO-OP(Honours Co-op)	4	1500
	Jeremy Colangelo	Mechanical & Biomed Eng CO-OP(Co-op Program)	4	1500
	Nathan Gomes	Electrical Engineering CO-OP(Co-op Program)	4	1500
	Eric Hillebrand	Mechatronics &Biomed Eng CO-OP(Co-op Program)	4	1500
	Natalie Ifraimov	Chemical Eng & BioEng CO-OP(Co-op Program)	5	1500
	Faaria Khan	Eng Physics & Biomed Eng CO-OP(Co-op Program)	4	1500
	Da Li	Mechanical Engineering CO-OP(Co-op Program)	4	1500
	Harshil Modi	Software & Biomed Eng CO-OP(Co-op Program)	4	1500
	Derek Paylor	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	4	1500
	Jack Poulton	Mechanical Engineering CO-OP(Co-op Program)	4	1500
	Erin Puersten	Mechatronics Engineering CO-OP(Co-op Program)	4	1500
	Teng Shu	Computer Engineering CO-OP(Co-op Program)	4	1500
	Alexander Sotra	Chemical Eng & BioEng CO-OP(Co-op Program)	5	1500
	Carmine Spedaliere	Chemical Eng & BioEng CO-OP(Co-op Program)	4	1500

Award Description	Student Name	Program Description	Level	Value*
The Dr. Harry Lyman Hooker Scholarships	Johnathan Spinelli	Mechatronics Engineering CO-OP(Co-op Program)	4	1500
	Liam Sykes	Civil Engineering CO-OP(Co-op Program)	4	1500
	Skylar Wingfelder	Engineering Physics CO-OP(Co-op Program)	4	1500
	Wyatt Wismer	Software Engineering CO-OP(Co-op Program)	4	1500
The Bertram Osmer Hooper Scholarship	Hannah Pacan	Studio Art(Honours)	3	250
The Nina Louise Hooper Scholarship	Emily Brown	Mathematics & Computer Science(Honours)	2	500
The HOPA Ports Scholarship	Astara Truman	Integrated Business&Humanities(Honours)	4	1500
The Hughes Scholarship	Victoria Bozzo	Music(Honours)	4	200
The Human Rights Award	Elizabeth-Anne Marr	Pol Sci Sp Public Law&Judicial(Honours)	4	275
The Humanities Medals for Special Achievement	Hargun Grewal	Justice, Political Phil. & Law(Honours)	4	
	Nia Langdon	History & Philosophy(Honours)	4	
	Ashar Mobeen	Art History(Honours)	4	
	Michelle Nkansah	Justice, Political Phil. & Law(Honours)	4	
	Erin Raftis	Comm Studies & Multimedia(Honours)	4	
The Josh and Jane Hunter Scholarship	Lingling Zhu	Classics(Honours)	4	1000
The William D. G. Hunter Prize	Siemens Nosa-Ogbeide	Bachelor of Commerce(Honours)	4	500
The Hurd Medal	Oloruntimilehin Fadipe	Economics(Honours)	4	
The Paul Hypher Prize	Thomas Wikkerink	Bachelor of Commerce(Honours)	3	250
The Intermetco Limited Scholarship	Jack Poulton	Mechanical Engineering CO-OP(Co-op Program)	4	625
The Inter-Residence Council Scholarship	Dixon Pinto	Bach. of Health Sciences Hon(Honours)	4	400
The Municipal Chapter of Hamilton, IODE, Muriel E. Skelton Award	Rachel Raakman	Sociology (Specialist Option)(Honours)	2	1000
The H. L. Jackson Memorial Scholarship	Jiayi Cheng	Mathematics & Statistics(Honours)	4	450
The Burton R. James Memorial Prize	Matthew Kranendonk	Integrated Business&Humanities(Honours)	4	250
The W. Norman Jeeves Scholarship	William Mukuna-Luamba	French & Music(Honours)	4	500
The Edward Jenkins Award	Mathieu Chenier	Eng Physics & Biomed Eng CO-OP(Co-op Program)	2	5000
The Herbert M. Jenkins Prize	Parnika Godkhindi	Arts & Science(Honours)	4	150
The Jensen Medal	Holly Crandon	Biology & Pharmacology CO-OP(Honours Co-op)	5	
The A.I. Johnson Scholarship	Ian Currie	Software Eng & Management(Bachelors)	5	1000
	Graham Vanevery	Chemical Eng & Management(Bachelors)	5	1000

Award Description	Student Name	Program Description	Level	Value*
The James A. Johnson Community Contribution Award	Mary Bisada	Sociology(Honours)	4	
The Robert H. Johnston Undergraduate Scholarship in History	Sophia Cornacchia	History & Geography(Honours)	2	800
	Ali Khan	History & PNB(Honours)	2	800
The Frank E. Jones Prize	Nissa Doal	Social Psychology(Honours)	4	100
The Dr. Jean Jones Memorial Scholarship*	Bridget Marsdin	Social Work(Honours)	4	800
The Dr. Ronald V. Joyce "Amazing" Grace Awards	Tiffany Chen	Bach. of Health Sciences Hon(Honours)	4	2500
The Dr. Ronald V. Joyce Awards for Athletes	Dylan Alick	Automotive & Veh Eng Tech CO-OP(Co-op Program)	4	2500
	Kevork Baghdassarian	Chemical Eng & BioEng CO-OP(Co-op Program)	3	2500
	Madison Fisher	Med Rad Sci Ultrasonography(Bachelors)	3	2500
	Morgan McKeown	Bach. of Health Sciences Hon(Honours)	2	2500
	Maxwell Turek	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	4	2500
	Madelyn Warriner	Biology(Honours)	3	2500
	Darshana Seeburruth	Life Sciences(Honours)	2	
The Junior League of Hamilton-Burlington, Inc. Community Contrib	Ryan Bromberg-Barwin	History(Honours)	3	1500
	Christos Pettigrew	History & Political Science(Honours)	3	1500
The Stanford N. Katambala Earth Sciences Prize	Lingrui Meng	Biology & Enviro Sciences(Honours)	4	100
The Ernest Robert Mackenzie Kay Scholarships	Saif Alam	ISCI (Biochemistry Conc.)(Honours)	3	3000
	Christina Brinza	Life Sciences(Bachelors)	3	3000
	Nikhila Butani	Biochemistry(Honours)	4	3000
	Senna Daymond	Chemical Biology CO-OP(Honours Co-op)	5	3000
	Matthew Fuda	Biology (Physiology)(Honours)	4	3000
	Elvin Girineza	Chemical & Physical Sciences(Bachelors)	4	3000
	Manjot Grewal	Chemical Biology CO-OP(Honours Co-op)	4	3000
	Lingrui Meng	Biology & Enviro Sciences(Honours)	4	3000
	Sami Sabbah	Chemical Biology CO-OP(Honours Co-op)	4	3000
	Na-Yung Seoh	Chemical Biology CO-OP(Honours Co-op)	3	3000
	Prakhar Shah	Biochemistry(Honours)	3	3000
	Lisa Shen	Molecular Biology & Genetics(Honours)	3	3000
	Keshikaa Suthaaharan	ISCI (Biochemistry Conc.)(Honours)	3	3000

Award Description	Student Name	Program Description	Level	Value*
The Ernest Robert Mackenzie Kay Scholarships	Veronica Tran	Biochem(Biomed Res Spec CO-OP)(Honours Co-op)	5	3000
	Dadmehr Yaghoubi	Biology(Honours)	4	3000
The Gerald L. Keech Medal	Jack Buckley	Computer Science CO-OP(Honours Co-op)	4	
The Robert Alan Kennedy Scholarship	Yuyang Gu	Bachelor of Commerce(Honours)	3	475
	Manjeet Jandu	Bachelor of Commerce(Honours)	4	475
The Mary E. Keyes Residence Scholarship	Hargun Kaur	Bach. of Health Sciences Hon(Honours)	2	800
The George P. and Leatha M. Keys Scholarship	Xifei Zhang	Actuarial & Financial Math(Honours)	3	750
The Kilpatrick Scholarship in English	Aislinn Huang	English/Cultural St & History(Honours)	2	4000
The Karl Kinanen Alumni Prize in Gerontology	Fiona Teague	Aging & Scty Sp Mntl Hth Addic(Honours)	4	100
The Kinesiology Prizes	Youssef Habib	Kinesiology(Honours)	4	100
	Arad Hashemi	Kinesiology(Honours)	4	100
The Kinesiology Prize	Matthew Tobis	Kinesiology(Honours)	4	100
The Lorna and Alvin Kinnear Scholarship	Brianna Chester	Chem Eng & Management CO-OP(Co-op Program)	2	1000
The Konrad Group Digital Innovation Scholarship	Trevor Ngo	Computer Science CO-OP(Honours Co-op)	4	2500
	Bryson Schettler	Manufacturing Eng Tech CO-OP(Co-op Program)	4	2500
The KPMG Scholarship	Sarah Rotella	Bachelor of Commerce(Honours)	4	3400
The J. Beverly Krugel Scholarships in German Language Studies	Hana Amari	Mechanical Eng & Society CO-OP(Co-op Program)	2	2500
	Katelyn Huh	Linguistics(Honours)	2	2500
	Clara Martin	Nursing - McMaster(Bachelors)	2	2500
	Julie Morenz	Actuarial & Financial Math(Honours)	4	2500
	Heather Wild	Linguistics(Honours)	4	2500
The Kudsia Family Scholarship	Mitchell Cooke	Computer Engineering CO-OP(Co-op Program)	4	2000
The Robert J Kulperger Scholarship	Jonathan Que	Chemical Eng & BioEng CO-OP(Co-op Program)	3	10000
The Latin Prize	Jigish Khamar	Bachelor of Health Sciences(Bachelors)	3	150
The Gary Lautens Memorial Scholarship	Nisha Gill	Arts & Science(Honours)	2	2000
	Nauman Zain	Neuroscience(Honours)	3	2000
The Donald Lavigne Memorial Scholarship	Emily Burke Brisson	Nursing (Post RPN) - Mohawk(Bachelors)	3	800
	Shania Jubinville	Nursing (Post RPN) - Conestoga(Bachelors)	3	800
	Rebecca Krebs	Nursing (Post RPN) - Conestoga(Bachelors)	3	800

Award Description	Student Name	Program Description	Level	Value*
The Donald Lavigne Memorial Scholarship	Megan Masters	Nursing (Post RPN) - Conestoga(Bachelors)	3	800
	Louis Humberto Reyes	Nursing (Post RPN) - Mohawk(Bachelors)	3	800
	Dong Er Kayla Yuan	Nursing (Post RPN) - Mohawk(Bachelors)	3	800
The E. Doris Lawrence Scholarship	Alexandra Rodriguez	French & Linguistics(Honours)	3	2200
The Sam Lawrence Prize	Tianming Huang	Economics(Honours)	4	200
The Ray Lawson Scholarships	Mark Danial	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	5	275
	Derek Paylor	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	4	275
The Linguistics Prize	Kathryn Low	Cognitive Science of Language(Honours)	3	250
The Feliks Litkowski Prize in Political Science	Valerie Nwaokoro	Pol Sci Sp Public Law&Judicial(Honours)	4	950
The Dr. Jason Lo Materials Science and Engineering Scholarship	Maddison Conway	Materials Eng & Mgmt CO-OP(Co-op Program)	3	2500
The John N.A. Lott Scholarship in Biology	Dadmehr Yaghoubi	Biology(Honours)	4	500
The Dr. Voiko Loukanov Engineering Scholarship	Erin Puersten	Mechatronics Engineering CO-OP(Co-op Program)	4	5000
	Johnson Qu	Mechatronics Engineering CO-OP(Co-op Program)	4	5000
	Matthew Ruigrok	Mechatronics Engineering(Bachelors)	3	5000
The MacGibbon Scholarship	Jingjing He	Economics(Honours)	4	500
	Matthew Luxton	Economics(Honours)	4	500
The William Mackenzie Memorial Prize	Jessica Kostuch	Economics(Honours)	4	425
The Bert MacKinnon Memorial Scholarship	Yimeng Wang	A&S and Political Science(Honours)	4	800
The Alec John Royston MacMillan Memorial Community Contributi	Natalie Chen	Bach. of Health Sciences Hon(Honours)	3	
The Betty MacMillan Prize	Nissa Doal	Social Psychology(Honours)	4	200
The Alec John Royston MacMillan Memorial Community Contributi	Eric Jackson	Integrated Business&Humanities(Honours)	4	
	Archana Thurairajah	Biology(Honours)	4	
The Agnes and John MacNeill Memorial Prize	Sophi Kerr	English & Cultural Studies(Honours)	4	200
The Catherine MacNeill Prize	Alyssa Burrows	Biology & Pharmacology CO-OP(Honours Co-op)	5	200
The MAPS Gold Medal	Aaron Shatkosky	Manufacturing Eng Tech CO-OP(Co-op Program)	4	
The Lianne Marks Scholarship	Mary Bisada	Sociology(Honours)	4	800
The Eleanor Dornbush Marples Prize in Art History	Jennifer Kraul	Art History(Bachelors)	3	175
The Matthews Hall Residence Scholarship	Tracy Wang	Bach. of Health Sciences Hon(Honours)	2	800
The John and Helen Maxwell Scholarship	Kirsten Entz	Chemistry CO-OP(Honours Co-op)	3	5000

Award Description	Student Name	Program Description	Level	Value*
The John and Helen Maxwell Scholarship	Griffin Lachapelle	Chemistry CO-OP(Honours Co-op)	3	5000
	Angela Liang	Chemical Biology CO-OP(Honours Co-op)	3	5000
	Roxana Ruiz Arduengo	Chemical Biology CO-OP(Honours Co-op)	3	5000
	Na-Yung Seoh	Chemical Biology CO-OP(Honours Co-op)	3	5000
	Luxiga Thanabalachandra	Chemical Biology(Honours)	3	5000
The John Mayberry Scholarship	Arina Deboer	Materials Engineering CO-OP(Co-op Program)	3	1500
The Charon Burke McCain Memorial Scholarship	Rhea Murti	Arts & Science(Honours)	4	500
	Anand Sergeant	Arts & Science(Honours)	4	500
The William J. McCallion Scholarships	Hilary Prince	Comm Studies & Pol Science(Honours)	4	800
	Aaron Shatkosky	Manufacturing Eng Tech CO-OP(Co-op Program)	4	800
The Esther McCandless Memorial Prize	Dadmehr Yaghoubi	Biology(Honours)	4	300
The John R. McCarthy Scholarship	Rebecca Dewilde	Aging & Society(Honours)	4	800
The H. W. McCready Prize in British History	Brandon Logan	Peace Studies & Sociology(Honours)	3	100
The McGregor-Smith-Burr Memorial Scholarship	Mark Forbes	English/Cultural St & History(Honours)	4	525
The R. C. McIvor Medal	Jade Mardlin	PNB (Mental Health Spec.)(Honours)	4	
The Anne & Allan McKay Scholarship	Athena Li	Bach. of Health Sciences Hon(Honours)	2	1500
	Ariya Shiwram	Molecular Bio & Genetics CO-OP(Honours Co-op)	2	1500
	Bryan Sun	Bach. of Health Sciences Hon(Honours)	2	1500
The Alexander Gordon McKay Scholarship	Gabriel Miles	Classics(Honours)	3	500
	Kate O'Donnell	Classics(Honours)	4	500
The McKay Hall Residence Scholarship	Kevin Tabatabaei	Bach. of Health Sciences Hon(Honours)	2	800
The Janet McKnight Award	Homayra Ahmed	Nursing - McMaster(Bachelors)	4	600
	Margaret Russell	Nursing - McMaster(Bachelors)	4	600
The A. B. McLay Scholarship in Physics	Caitlin McAllister	Midwifery(Bachelors)	1	500
The Boyd McLay Scholarship in Physics	Michelle Nguyen	Astrophysics(Honours)	4	625
The Walter Scott McLay Scholarship	Sil Hamilton	English/Cultural St&Multimedia(Honours)	4	250
	Sophi Kerr	English & Cultural Studies(Honours)	4	250
The Evelyn Ruth McLean Scholarship in Canadian History	Cecilia Di Benedetto	French(Bachelors)	3	1150
The McMaster University Futures Fund Graduand Scholarship	Paige Guyatt	Arts & Science(Honours)	4	1000

Award Description	Student Name	Program Description	Level	Value*
The McMaster University Futures Fund Graduand Scholarship	Peiyao Wang	ISCI (Biochemistry Conc.)(Honours)	4	1000
The McMaster University Future Fund In-Course Award	Jonathan Giordano	Actuarial & Financial Math(Honours)	4	1800
	Justin Giordano	Bach. of Health Sciences Hon(Honours)	3	1800
	Sil Hamilton	English/Cultural St&Multimedia(Honours)	4	1800
	Nuri Song	Bachelor of Health Sciences(Bachelors)	3	1800
The McMaster Nursing Alumni Memorial Prize	Homayra Ahmed	Nursing - McMaster(Bachelors)	4	300
The McMaster University Retirees Association Prize	Julia McDermid Boue	Hlth&Society and Aging&Society(Honours)	4	1000
The McMaster Athletic Council Community Contribution Award	Megh Rathod	ISCI (Biology Concentration)(Honours)	4	
The McMaster University-Hong Kong Foundation International Sch	Soroush Bagheri	Kinesiology(Honours)	3	1000
	Qinglong Liu	Software Engineering CO-OP(Co-op Program)	3	1000
	Xianshu Wan	Mechatronics Engineering CO-OP(Co-op Program)	3	1000
The McMaster University Retirees Association Scholarship	Julia McDermid Boue	Hlth&Society and Aging&Society(Honours)	4	2500
The McMaster Undergraduate Scholarships	Saif Alam	ISCI (Biochemistry Conc.)(Honours)	3	1500
	Emily Brown	Mathematics & Computer Science(Honours)	2	1500
	Zeyu Chen	Bach. of Health Sciences Hon(Honours)	2	1500
	Niki Esfahanian	Biochemistry(Honours)	4	1500
	Lloyd Fan	Hlth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	1500
	Anja Gojic	Bach. of Health Sciences Hon(Honours)	2	1500
	Neeloufar Grami	Life Sciences(Bachelors)	3	1500
	Dominic Haas	Bach. of Health Sciences Hon(Honours)	3	1500
	Adeel Hussain	Med Rad Sci Radiography(Bachelors)	4	1500
	Faisal Khaleel	Hlth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	1500
	Daeun Kim	Hlth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	1500
	Mostafa Koura	Mechanical Engineering CO-OP(Co-op Program)	2	1500
	Yuying Lai	Computer Engineering CO-OP(Co-op Program)	2	1500
	Angelina Lam	Biomed Disc & Commercializatr(Honours)	2	1500
	Rachel Lam	Biology & PNB(Honours)	4	1500
	Nicholas Li	Bach. of Health Sciences Hon(Honours)	2	1500
	Siyuan Li	Hlth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	1500

Award Description	Student Name	Program Description	Level	Value*
The McMaster Undergraduate Scholarships	Caitlin McAllister	Midwifery(Bachelors)	1	1500
	Akaash Ratra	Bach. of Health Sciences Hon(Honours)	2	1500
	Monica Sabbineni	Biomed Disc & Commrciliztn-Exit(Bachelors)	3	1500
	Adrian Salopek	Bach. of Health Sciences Hon(Honours)	2	1500
	Christopher Schankula	Software Eng & Society CO-OP(Co-op Program)	4	1500
	Mihail Serafimovski	Software Engineering CO-OP(Co-op Program)	2	1500
	Thomas Sydor	Materials Engineering CO-OP(Co-op Program)	2	1500
	Aleen Tumi	Bach. of Health Sciences Hon(Honours)	2	1500
	Omar Wehbe	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	2	1500
	Dadmehr Yaghoubi	Biology(Honours)	4	1500
The Donald G. McNabb Scholarship	Elvin Girineza	Chemical & Physical Sciences(Bachelors)	4	925
	Sami Sabbah	Chemical Biology CO-OP(Honours Co-op)	4	925
The Simon McNally Scholarship	Katelyn Wylie	Civil Eng & Society CO-OP(Co-op Program)	3	650
The John D. McNie Achievement Award of Excellence	Kavisha Barran	Social Work(Honours)	1	800
	Emma Naguit	Mathematics & Statistics(Honours)	2	800
	Torin Ong	Cognitive Science of Language(Honours)	3	800
The Peter McPhater Memorial Scholarship	Evelyn Bohn	Studio Art(Honours)	4	450
The Audrey Evelyn Mephram Award	Julia McDermid Boue	Hlth&Society and Aging&Society(Honours)	4	5000
	Emily Smith	Hlth&Society and Aging&Society(Honours)	4	5000
The Merriam School of Music Scholarship	Massimo Delle Grazie	Music(Honours)	4	1000
The Middleton/Walker Prize in Sedimentary Geology	Emma Keefe	Earth & Enviro Sciences CO-OP(Honours Co-op)	5	1350
The J. J. Miller Prize	Daniel Saint-Laurent	Molecular Bio & Genetics CO-OP(Honours Co-op)	3	600
The Dr. F. A. Mirza Scholarship	Anuja Rajkumar	Civil Engineering CO-OP(Co-op Program)	3	300
The Moffat Family Prize	Blake Reason	Geography(Honours)	4	300
	Jacob Woodcroft	Health & Society & Geography(Honours)	4	300
The Molson Scholarship in Environmental Studies	Elysia Fuller-Thomson	ISCI (Earth & Enviro Sc Conc)(Honours)	4	1100
The E. S. Moore Prize	Elysia Fuller-Thomson	ISCI (Earth & Enviro Sc Conc)(Honours)	4	225
The John F. Moore Prize	Ryan Young	Materials Eng & Mgmt CO-OP(Co-op Program)	4	125
The Robert John Morris Community Contribution Awards	Joshua Divito	Eng Physics & Management CO-OP(Co-op Program)	4	

Award Description	Student Name	Program Description	Level	Value*
The Robert John Morris Community Contribution Awards	Michael Kehinde	Mechatronics Eng & Management(Bachelors)	5	
	Maddison Konway	Materials Eng & Mgmt CO-OP(Co-op Program)	3	
	Anna Lopatukhin	Mechanical Engineering CO-OP(Co-op Program)	3	
	Elizabeth Mitchell	Hlth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	
	Christopher Schankula	Software Eng & Society CO-OP(Co-op Program)	4	
The Michael J. Morton Memorial Book Prize	Phillip MacDougall	Chemistry(Honours)	4	175
The Elizabeth Mosgrove Scholarship	Christopher Schankula	Software Eng & Society CO-OP(Co-op Program)	4	1500
The Motorola Software Engineering Scholarship	Chenghao Gong	Software Engineering CO-OP(Co-op Program)	3	1500
	Jessica Lim	Software & Biomed Eng CO-OP(Co-op Program)	3	1500
The Moulton College Scholarship	Isabella Reis	Bach. of Health Sciences Hon(Honours)	2	1000
	Lauren Wong	Bach. of Health Sciences Hon(Honours)	2	1000
The Moulton Hall Residence Scholarship	Alicia Leung	Nursing - McMaster(Bachelors)	2	800
The Helen K. Mussallem Community Contribution Award	Homayra Ahmed	Nursing - McMaster(Bachelors)	4	
	Amy Li	Nursing - McMaster(Bachelors)	2	
The Nikola Tesla Educational Corporation Scholarship	Theodor Aoki	Computer Engineering CO-OP(Co-op Program)	3	3333
	Samuel Cymbaluk	Computer Science CO-OP(Honours Co-op)	4	3333
The P. L. Newbigging Prize	Yuki Lai	Psych., Neurosci. & Behaviour(Honours)	4	100
	Sara Marshall	Psych., Neurosci. & Behaviour(Honours)	4	100
	Thomas Samson-Williams	PNB (Music Cognition Spec.)(Honours)	4	100
	Zoe Thompson	Psych., Neurosci. & Behaviour(Honours)	4	100
The P.L. Newbigging Scholarship	Gareth Mann	Biology & PNB(Honours)	2	375
The Dr. O.W. Niemeier Scholarship	Rachel Lam	Nursing - McMaster(Bachelors)	3	1100
The Robert Nixon Scholarship	Joseph Mullins	History(Honours)	4	575
The Jeanne and Peter Nolan Award	Emunah Woolf	Social Work(Honours)	3	1000
The Derry Novak Prize	Zoe Acuna Gonzalez	French & Political Science(Honours)	3	800
The Nursing Program Community Contribution Awards	Qian Ying Lin	Nursing - McMaster(Bachelors)	2	
The Fred and Dorothy O'Leary Scholarship	Cheng'En Xi	Bach. of Health Sciences Hon(Honours)	2	1000
The Fredric P. Olsen Book Prize	Sami Sabbah	Chemical Biology CO-OP(Honours Co-op)	4	150
The Ontario Professional Engineers Foundation for Education Gold	Kristen Abels	Chemical Eng & BioEng CO-OP(Co-op Program)	5	

Award Description	Student Name	Program Description	Level	Value*
The Ontario Professional Engineers Foundation for Education Undergraduate	Nithin Aaron	Engineering Physics CO-OP(Co-op Program)	3	1500
	Kristen Abels	Chemical Eng & BioEng CO-OP(Co-op Program)	5	1500
	Milan Dave	Electrical Eng & Mgmt CO-OP(Co-op Program)	5	1500
	Lloyd Fan	Hlth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	1500
	Maddison Konway	Materials Eng & Mgmt CO-OP(Co-op Program)	3	1500
	Joshua Lawrence	Automation Eng Tech CO-OP(Co-op Program)	4	1500
	Mihail Serafimovski	Software Engineering CO-OP(Co-op Program)	2	1500
	Graham Vanevery	Chemical Eng & Management(Bachelors)	5	1500
The Connie O'Shaughnessy Memorial Prize	Sara Ouarzazi	Anthro & Political Science(Honours)	4	425
	Victoria Tucci	Bach. of Health Sciences Hon(Honours)	3	425
The Parker Canada Division Engineering Excellence Award	Anna Lopatukhin	Mechanical Engineering CO-OP(Co-op Program)	3	1000
The F. W. Paulin Scholarship	Andrew Pavan	Civil Engineering CO-OP(Co-op Program)	4	1500
The PCL Scholarship in Engineering and Management	Maxwell Turek	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	4	1000
	Laura Yang	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	4	1000
The Irene Pearce Scholarship	Robin Coloma	Music(Honours)	2	1500
	Shadi Rahmatyan	Music(Honours)	2	1500
The Harry L. Penny Prize	Bridget Marsdin	Social Work(Honours)	4	100
The Pevensing Scholarship	Markus Mui	Economics & Political Science(Honours)	4	1000
	Yuzhu Zhang	Economics(Honours)	4	1000
The Tony and Lucy Pickard Scholarship	Mark Knez	Electrical Eng & Mgmt CO-OP(Co-op Program)	2	425
The Pioneer Energy LP Gerontology Prizes	Fiona Teague	Aging & Scty Sp Mntl Hth Addic(Honours)	4	120
The Pioneer Energy LP Prize in Nursing	Margaret Russell	Nursing - McMaster(Bachelors)	4	450
	Therese Zamora	Nursing - McMaster(Bachelors)	4	450
The Pioneer Energy LP Leadership Community Contribution Award	Leon He	Bach. of Health Sciences Hon(Honours)	4	
	Jonathan Monteiro	Biochemistry (Biomed Res Spec)(Honours)	2	
	Lily-Thao Nguyen	Bach. of Health Sciences Hon(Honours)	4	
	Michelle Rianto	Bach. of Health Sciences Hon(Honours)	3	
	Nicole Shen	Bach. of Health Sciences Hon(Honours)	2	
	Sara Tamjidi	Life Sciences(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Pioneer Energy LP Scholarship in Gerontology	Japneet Bedi	HLth&Society and Aging&Society(Honours)	4	4500
The Pioneer Energy LP Prize in Aging and Society	Emily Smith	HLth&Society and Aging&Society(Honours)	4	400
The Brian Pocknell Memorial Scholarship	William Mukuna-Luamba	French & Music(Honours)	4	750
The Political Science Prize	Henrique Fernandes	Political Science(Bachelors)	3	100
	Hilary Prince	Comm Studies & Pol Science(Honours)	4	100
The Political Science Honours Essay Prize	Allison Harper	History & Political Science(Honours)	4	100
The Dr. John Potter Scholarship	Hongyi Ding	Mathematics & Statistics CO-OP(Honours Co-op)	5	1500
	Zachary Vrhovsek	Economics & Mathematics(Honours)	3	1500
	Xifei Zhang	Actuarial & Financial Math(Honours)	3	1500
The Darren Lee Pratt Memorial Award	Emily Wilker	Nursing - McMaster(Bachelors)	4	1000
The Bill Prestwich Scholarship in Medical Physics	Elisabeth Patrascu	Physics(Honours)	2	800
	Penghao Xu	Medical & Biological Phys CO-OP(Honours Co-op)	2	800
The Gordon and Jane Price Community Contribution Awards	Alyssa Burrows	Biology & Pharmacology CO-OP(Honours Co-op)	5	
	Tiffany Chen	Bach. of Health Sciences Hon(Honours)	4	
The Les Prince Residence Scholarship	Hsin Yen Tsai	Bach. of Health Sciences Hon(Honours)	2	800
The Provost's Honour Roll Medal	Zahra Abdallah	Bach. of Health Sciences Hon(Honours)	4	
	Hosam Abdel Hafeez	Bachelor of Health Sciences(Bachelors)	4	
	Suhaila Abdelhalim	Life Sciences(Honours)	4	
	Lyan Abdul Majeed Abdul	Life Sciences(Honours)	4	
	Yuka Abe	Kinesiology(Honours)	3	
	Kristen Abels	Chemical Eng & BioEng CO-OP(Co-op Program)	5	
	Taranah Adli	Kinesiology(Honours)	4	
	Bhuvan Aggarwal	Life Sciences(Honours)	4	
	Abeer Ahmad	Bach. of Health Sciences Hon(Honours)	4	
	Alveena Ahmed	Biochemistry (Biomed Res Spec)(Honours)	4	
	Rahim Ahmed	Bach. of Health Sciences Hon(Honours)	4	
	Yar Mohamed Al Dabagh	Neuroscience(Honours)	3	
	Arzoo Alam	Bach. of Health Sciences Hon(Honours)	4	
	Saif Alam	ISCI (Biochemistry Conc.)(Honours)	3	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Salahaldin Alamleh	Bach. of Health Sciences Hon(Honours)	4	
	Rimsha Amin	Life Sciences(Honours)	4	
	Theodor Aoki	Computer Engineering CO-OP(Co-op Program)	3	
	Oriana Araujo	Biology & PNB(Honours)	4	
	Ana Arezina	Chemical Eng & BioEng CO-OP(Co-op Program)	5	
	Chelsea Aristone	ISCI (Biology Concentration)(Honours)	4	
	Calvin Armstrong	Kinesiology(Honours)	2	
	Erin Artna	Bachelor of Health Sciences(Bachelors)	3	
	Erin Artna	Bachelor of Health Sciences(Bachelors)	3	
	Philopateer Ataalla	Psych., Neurosci. & Behaviour(Honours)	3	
	Amen Awan	Bach. of Health Sciences Hon(Honours)	4	
	Sayed Azher	Biochemistry(Honours)	4	
	Ashlee Azizudin	Bach. of Health Sciences Hon(Honours)	4	
	Matthew Bacik	Bach. of Health Sciences Hon(Honours)	2	
	Maneetpal Badesha	Cognitive Science of Language(Honours)	4	
	Alisha Badwal	Life Sciences(Honours)	4	
	Alisha Badwal	Life Sciences(Honours)	4	
	Nandini Bansal	Bach. of Health Sciences Hon(Honours)	4	
	Rishi Bansal	Arts & Science Exit Degree(Bachelors)	3	
	Owen Baribeau	Bach. of Health Sciences Hon(Honours)	4	
	Kyle Barlow	Linguistics(Honours)	4	
	Kyle Barlow	Linguistics(Honours)	4	
	Alexander Barovier	Engineering Physics CO-OP(Co-op Program)	4	
	Emily Barrett	PNB (Mental Health Spec.)(Honours)	4	
	Kaitlyn Battershill	Psych., Neurosci. & Behaviour(Honours)	4	
	Carine Bekdache	Life Sciences(Honours)	4	
	Milen Belanger	Bach. of Health Sciences Hon(Honours)	2	
	Peter Belesiotis	Bach. of Health Sciences Hon(Honours)	4	
	Manmeet Benepal	Life Sciences(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Cassidy Bereskin	Political Science(Honours)	4	
	Cassidy Bereskin	Political Science(Honours)	4	
	Francesca Berkowitz	Nursing - McMaster(Bachelors)	4	
	Taran Bhartt	Bach. of Health Sciences Hon(Honours)	4	
	Richa Bhasin	Life Sciences(Honours)	4	
	Daivat Bhavsar	Biochemistry(Honours)	2	
	Joshua Bierbrier	Electrical & Biomed Eng CO-OP(Co-op Program)	4	
	Eden Bishop	Biology & PNB(Honours)	4	
	Victor Blaga	Bach. of Health Sciences Hon(Honours)	4	
	Nicole Bodnariuc	Bach. of Health Sciences Hon(Honours)	4	
	Meghan Bogert	Life Sciences(Honours)	4	
	Eleni Boosalis	Kinesiology(Honours)	4	
	Rutvi Brahmbhatt	Bach. of Health Sciences Hon(Honours)	4	
	Alyssa Broeders	Biology(Honours)	4	
	Emily Brown	Mathematics & Computer Science(Honours)	2	
	Grace Bryson	Biology(Honours)	4	
	Jack Buckley	Computer Science CO-OP(Honours Co-op)	4	
	Anna Buhrmann	Arts & Science(Honours)	4	
	Emily Bunda	Kinesiology(Honours)	3	
	Nikhila Butani	Biochemistry(Honours)	4	
	Cory Byrne	Life Sciences(Honours)	2	
	Nicole Calovini	Biology(Honours)	4	
	Noah Carr-Pries	Kinesiology(Honours)	4	
	Hillary Chan	Bach. of Health Sciences Hon(Honours)	4	
	Olsen Chan	Bach. of Health Sciences Hon(Honours)	2	
	Sabrina Chan	Bach. of Health Sciences Hon(Honours)	4	
	Nicholas Charters	Molecular Biology & Genetics(Honours)	2	
	Michelle Chau	Life Sciences(Honours)	4	
	Faran Chaudhry	Life Sciences(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Faran Chaudhry	Life Sciences(Honours)	4	
	Tess Chee	Bach. of Health Sciences Hon(Honours)	2	
	Gracia Chen	Bach. of Health Sciences Hon(Honours)	4	
	Jiaqian Chen	Mathematics & Statistics(Honours)	2	
	Judy Chen	Bach. of Health Sciences Hon(Honours)	4	
	Lu Hsi Chen	Bach. of Health Sciences Hon(Honours)	4	
	Michelle Chen	Bach. of Health Sciences Hon(Honours)	4	
	Tiffany Chen	Bach. of Health Sciences Hon(Honours)	4	
	Yan Lin Chen	Mathematical Science(Bachelors)	4	
	Zejia Chen	Bach. of Health Sciences Hon(Honours)	2	
	Zeyu Chen	Bach. of Health Sciences Hon(Honours)	2	
	Richard Cheng	Bach. of Health Sciences Hon(Honours)	2	
	Emily Cheung	Psych., Neurosci. & Behaviour(Honours)	4	
	Matthew Cheung	Mech Eng & Management CO-OP(Co-op Program)	2	
	Thomas Chin	Bach. of Health Sciences Hon(Honours)	4	
	John Dean Chiong	Bach. of Health Sciences Hon(Honours)	4	
	Peony Choi	Biochemistry(Honours)	4	
	Meera Chopra	Bach. of Health Sciences Hon(Honours)	2	
	Roland Chou	Bach. of Health Sciences Hon(Honours)	4	
	Oliver Chow	Bach. of Health Sciences Hon(Honours)	4	
	Selina Chow	Bachelor of Health Sciences(Bachelors)	3	
	Selina Chow	Bachelor of Health Sciences(Bachelors)	3	
	Samantha Choy	Kinesiology(Honours)	4	
	Gabriella Christopher	Bach. of Health Sciences Hon(Honours)	4	
	Hayton Chui	Bach. of Health Sciences Hon(Honours)	4	
	Milena Cioana	Bach. of Health Sciences Hon(Honours)	4	
	Cameron Collins	Life Sciences(Honours)	4	
	Mitchell Cooke	Computer Engineering CO-OP(Co-op Program)	4	
	Matthew Csordas	Chemical Eng & BioEng(Bachelors)	5	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	John Cyfko	A&S and PNB(Honours)	4	
	Vanessa D'Ambrosio	Life Sciences(Honours)	4	
	Syed Fowad Daud	Life Sciences(Honours)	4	
	Syed Kashif Daud	Life Sciences(Honours)	4	
	Archan Dave	Biomed Disc & Commercializatr(Honours)	4	
	Arianna Davids	PNB (Mental Health Spec.)(Honours)	3	
	Malcolm Davidson	Bach. of Health Sciences Hon(Honours)	4	
	Erin Deacon	Bach. of Health Sciences Hon(Honours)	4	
	Andrew D'Elia	IBEHS Exit Degree(Bachelors)	3	
	Joanna Deng	Bach. of Health Sciences Hon(Honours)	2	
	Stephanie Dephoure	Bach. of Health Sciences Hon(Honours)	4	
	Johnny Der Hovagimian	Electrical & Biomed Eng CO-OP(Co-op Program)	4	
	Veronica DeYoung	Bach. of Health Sciences Hon(Honours)	4	
	Rahim Dhalla	Physics(Honours)	2	
	Asees Dhinsa	PNB (Mental Health Spec.)(Honours)	4	
	Hanna Dias	Bach. of Health Sciences Hon(Honours)	4	
	Genevieve Dietrich	Molecular Biology & Genetics(Honours)	4	
	Nicholas Dietrich	Bach. of Health Sciences Hon(Honours)	4	
	Apurva Dixit	Bachelor of Health Sciences(Bachelors)	3	
	Annamaria Dobrin	Biomed Disc & Commercializatr(Honours)	4	
	Emily Domerchie	Bachelor of Health Sciences(Bachelors)	3	
	Alexander Drover	Bachelor of Health Sciences(Bachelors)	3	
	Alysha D'Souza	Kinesiology(Honours)	4	
	Zihao Du	Software Engineering CO-OP(Co-op Program)	3	
	Katherine Dykema	Biochemistry (Biomed Res Spec)(Honours)	2	
	Karim El Khatib	Civil Engineering CO-OP(Co-op Program)	4	
	Zeyad Elias	Kinesiology Exit Degree(Bachelors)	3	
	Mazen Elkhayat	PNB (Mental Health Spec.)(Honours)	2	
	Youssef El-Sayes	Life Sciences(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Ushwin Emmanuel	Kinesiology(Honours)	4	
	Ioana Ene	Bachelor of Health Sciences(Bachelors)	3	
	Niki Esfahanian	Biochemistry(Honours)	4	
	Niki Esfahanian	Biochemistry(Honours)	4	
	Sarah Eshafi	ISCI (Math & Stat Conc)(Honours)	4	
	Alefiya Eski	Biology(Honours)	4	
	Fadi Esttaifo	Bach. of Health Sciences Hon(Honours)	3	
	Lloyd Fan	HLth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	
	Balsam Fasih	Biology(Honours)	4	
	Hannah Feldman	Arts & Science(Honours)	4	
	Sherry Feldman	Life Sc(Origins of Disease Sp)(Honours)	4	
	Maia Fiorelli	Classics & French(Honours)	4	
	Serena Formenti	ISCI (Earth & Enviro Sc Conc)(Honours)	4	
	Naomi Frazer	Bach. of Health Sciences Hon(Honours)	4	
	Kristiina Frechette	Bach. of Health Sciences Hon(Honours)	4	
	Daniel Friedberg	Bach. of Health Sciences Hon(Honours)	4	
	Anneke Froentjes	Biology & PNB(Honours)	4	
	Matthew Fuda	Biology (Physiology)(Honours)	4	
	Matthew Fuda	Biology (Physiology)(Honours)	4	
	Hamza Furmli	Bach. of Health Sciences Hon(Honours)	4	
	Henry Gage	ISCI (Earth & Enviro Sc Conc)(Honours)	2	
	Evan Gagich	Computer Engineering CO-OP(Co-op Program)	4	
	Khaleel Gandhi	Multimedia & Theatre & Film St(Honours)	4	
	Alexandra Gandza	Kinesiology(Honours)	4	
	Nishant Garg	Computer Science CO-OP(Honours Co-op)	2	
	Pardis Ghaneian	Psych., Neurosci. & Behaviour(Honours)	4	
	Mahsa Gholiof	Life Sciences(Honours)	4	
	Mahsa Gholiof	Life Sciences(Honours)	4	
	Neha Giri	Life Sciences(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Anja Gojic	Bach. of Health Sciences Hon(Honours)	2	
	Neeloufar Grami	Life Sciences(Bachelors)	3	
	Neeloufar Grami	Life Sciences(Bachelors)	3	
	Nickrooz Grami	Bach. of Health Sciences Hon(Honours)	4	
	Gillian Grant-Allen	Bach. of Health Sciences Hon(Honours)	3	
	Keerat Grewal	Biochemistry(Honours)	4	
	Keerat Grewal	Biochemistry(Honours)	4	
	Sonya Grewal	ISCI (Biology Concentration)(Honours)	4	
	Sonya Grewal	ISCI (Biology Concentration)(Honours)	4	
	Sanya Grover	Bachelor of Health Sciences(Bachelors)	3	
	Kitty Guo	Biology & PNB(Honours)	4	
	Gauri Gupta	Bach. of Health Sciences Hon(Honours)	4	
	Dominic Haas	Bach. of Health Sciences Hon(Honours)	3	
	Alison Hacker	Bach. of Health Sciences Hon(Honours)	4	
	Mahmood Haddara	A&S and Economics(Honours)	4	
	Negeen Halabian	Biology & PNB(Honours)	4	
	Negeen Halabian	Biology & PNB(Honours)	4	
	Ahmed Haleem	Bach. of Health Sciences Hon(Honours)	4	
	Sophie Haley	Kinesiology(Honours)	4	
	Marzan Hamid	Bach. of Health Sciences Hon(Honours)	2	
	Jessica Han	Kinesiology(Honours)	4	
	Seoyeon Han	Bach. of Health Sciences Hon(Honours)	4	
	Aditya Harchand	A&S and Religious Studies(Honours)	4	
	Kirti Harish	Life Sciences(Honours)	4	
	Ashlyn Harriott	French(Bachelors)	3	
	Ava Harrison	Bach. of Health Sciences Hon(Honours)	4	
	Muhammad Taaha Hassa	Bach. of Health Sciences Hon(Honours)	2	
	Christina Hassey	Chemical Eng & BioEng CO-OP(Co-op Program)	5	
	Leon He	Bach. of Health Sciences Hon(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Yun He	Bachelor of Health Sciences(Bachelors)	3	
	David Heikoop	Psych., Neurosci. & Behaviour(Honours)	4	
	Christopher Ho	Bach. of Health Sciences Hon(Honours)	4	
	Christopher Ho	Bach. of Health Sciences Hon(Honours)	4	
	Elaine Ho	Bach. of Health Sciences Hon(Honours)	2	
	Lydia Hodgins	Medical & Biological Physics(Honours)	2	
	Caroline Holicka	Biology (Physiology)(Honours)	2	
	Keyu Hong	Mathematics & Statistics CO-OP(Honours Co-op)	2	
	Seyed-Parsa Hosseini-Jahr	Life Sciences(Honours)	4	
	Harneet Hothi	Bach. of Health Sciences Hon(Honours)	4	
	Maggie Hou	Bach. of Health Sciences Hon(Honours)	4	
	Xinye Hu	Bach. of Health Sciences Hon(Honours)	4	
	Xinye Hu	Bach. of Health Sciences Hon(Honours)	4	
	Nelson Huang	Bach. of Health Sciences Hon(Honours)	4	
	Maria Huicochea Munoz	Bach. of Health Sciences Hon(Honours)	4	
	Misha Ishtiaq	Bach. of Health Sciences Hon(Honours)	2	
	Alaa Ismail	Comm Studies & Multimedia(Honours)	4	
	Audrey Ison	Human Behvr (Early Childhd Sp)(Honours)	4	
	Rowan Ives	Bach. of Health Sciences Hon(Honours)	2	
	Christian Jacobsen-Perez	Biochemistry (Biomed Res Spec)(Honours)	2	
	Anisha Jahagirdar	Biology & PNB(Honours)	4	
	Ezza Jalil	Psych., Neurosci. & Behaviour(Honours)	4	
	Reihaneh Jamali-far	PNB (Mental Health Spec.)(Honours)	4	
	Celine Jeong	Studio Art(Honours)	4	
	Geetha Jeyapragasan	ISCI (Math & Stat Conc)(Honours)	4	
	Manreet Jhaji	Nursing (Accelerated)(Bachelors)	3	
	Karen Jiang	Bach. of Health Sciences Hon(Honours)	4	
	Aseera Jivraj	Bach. of Health Sciences Hon(Honours)	4	
	Amine Kaab	Bach. of Health Sciences Hon(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Pegi Kaimi	Biochemistry(Honours)	4	
	Simrandeep Kalsi	Biology & PNB(Honours)	4	
	Nikita Kalwani	PNB (Mental Health Spec.)(Honours)	4	
	Ann Kang	Bachelor of Health Sciences(Bachelors)	3	
	Navneet Kang	ISCI (Chem Biology Conc)(Honours)	2	
	Anton Kanugalawattage	Software Engineering CO-OP(Co-op Program)	3	
	Ankit Kapoor	Computer Science CO-OP(Honours Co-op)	3	
	Raveena Kapoor	Bach. of Health Sciences Hon(Honours)	4	
	Bradley Karat	Psych., Neurosci. & Behaviour(Honours)	4	
	Ahmad Farzam Karimi	Bach. of Health Sciences Hon(Honours)	4	
	Arian Karimi	Bach. of Health Sciences Hon(Honours)	4	
	Saba Karimi	Bach. of Health Sciences Hon(Honours)	2	
	Hargun Kaur	Bach. of Health Sciences Hon(Honours)	2	
	Sameen Kaviani	Kinesiology(Honours)	4	
	Josephine Kearney	Bachelor of Health Sciences(Bachelors)	3	
	Amelia Keenan	Life Sciences(Honours)	4	
	Faisal Khaleel	Hlth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	
	Jigish Khamar	Bachelor of Health Sciences(Bachelors)	3	
	Nura Khattab	Kinesiology(Honours)	3	
	Shahzaib Khattak	Life Sciences(Honours)	4	
	Tina Khordehi	Bach. of Health Sciences Hon(Honours)	4	
	Katrina Kidd	Biology & PNB(Honours)	4	
	Daeun Kim	Hlth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	
	Patrick Kim	Bachelor of Health Sciences(Bachelors)	3	
	Seungmin Kim	Bachelor of Health Sciences(Bachelors)	3	
	Sawmmiya Kirupaharan	Bach. of Health Sciences Hon(Honours)	4	
	Marium Kiwan	Kinesiology(Honours)	4	
	Mark Knez	Electrical Eng & Mgmt CO-OP(Co-op Program)	2	
	Jake Knowles	Environmental Sciences(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Madeline Komar	PNB (Mental Health Spec.)(Honours)	3	
	Andrew Kosmopoulos	Bach. of Health Sciences Hon(Honours)	4	
	Benjamin Kostiuk	Computer Science CO-OP(Honours Co-op)	3	
	Mostafa Koura	Mechanical Engineering CO-OP(Co-op Program)	2	
	Frank Koziarz	Bach. of Health Sciences Hon(Honours)	4	
	Kushal Kshatri	Biomed Disc & Commrciliztn-Exit(Bachelors)	3	
	Hyeok-Yoon Kwon	Bach. of Health Sciences Hon(Honours)	3	
	Griffin Lachapelle	Chemistry CO-OP(Honours Co-op)	3	
	Yuki Lai	Psych., Neurosci. & Behaviour(Honours)	4	
	Yuying Lai	Computer Engineering CO-OP(Co-op Program)	2	
	Alyshia Laidlaw	Biomed Disc & Commercializatn(Honours)	4	
	Angelina Lam	Biomed Disc & Commercializatn(Honours)	2	
	Rachel Lam	Biology & PNB(Honours)	4	
	Rachel Lam	Biology & PNB(Honours)	4	
	Patrick Laskowski	Computer Science CO-OP(Honours Co-op)	4	
	Kyle Lau	Kinesiology(Honours)	3	
	Andrew Leber	Bach. of Health Sciences Hon(Honours)	4	
	Dani Lee	Bach. of Health Sciences Hon(Honours)	4	
	Grace Lee	Bach. of Health Sciences Hon(Honours)	4	
	James Lee	Bach. of Health Sciences Hon(Honours)	4	
	Jung Woo Lee	Computer Engineering(Bachelors)	4	
	Kaitlyn Lee	Kinesiology(Honours)	4	
	Re Lee	Bach. of Health Sciences Hon(Honours)	4	
	Sandra Lee	Bach. of Health Sciences Hon(Honours)	4	
	Tin-Suet Joan Lee	Bach. of Health Sciences Hon(Honours)	2	
	Selvin Leenus	Bach. of Health Sciences Hon(Honours)	4	
	Alexandra Lengyel	Bach. of Health Sciences Hon(Honours)	4	
	Russell Leong	Bach. of Health Sciences Hon(Honours)	2	
	Grace Lethbridge	Bach. of Health Sciences Hon(Honours)	2	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Christine Wai Yan Leung	Kinesiology(Honours)	4	
	Melissa Leung	Bach. of Health Sciences Hon(Honours)	4	
	Tal Levit	Bachelor of Health Sciences(Bachelors)	3	
	Sarah Lewin	Biology & PNB(Honours)	4	
	Grace Lew-Kowal	Biology & Enviro Sciences(Honours)	4	
	Allen Li	Bach. of Health Sciences Hon(Honours)	4	
	Athena Li	Bach. of Health Sciences Hon(Honours)	2	
	Cindy Li	Kinesiology(Honours)	4	
	Elizabeth Li	Biomed Disc & Commercializatn(Honours)	2	
	Fanfan Li	Biology(Honours)	4	
	Joelle Li	Bach. of Health Sciences Hon(Honours)	4	
	Junnan Li	Computer Science CO-OP(Honours Co-op)	2	
	Lianji Li	Civil Engineering CO-OP(Co-op Program)	4	
	Nicholas Li	Bach. of Health Sciences Hon(Honours)	2	
	Pei Li	Bach. of Health Sciences Hon(Honours)	4	
	Siyuan Li	HLth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	
	Sophie Li	Bach. of Health Sciences Hon(Honours)	4	
	Terry Li	Bach. of Health Sciences Hon(Honours)	4	
	Xinyu Li	Bach. of Health Sciences Hon(Honours)	4	
	Brenden Lie	Civil Engineering CO-OP(Co-op Program)	4	
	Han Liu	Bachelor of Health Sciences(Bachelors)	3	
	Han Liu	Bachelor of Health Sciences(Bachelors)	3	
	Qinglong Liu	Software Engineering CO-OP(Co-op Program)	3	
	Sarah Liu	Bach. of Health Sciences Hon(Honours)	4	
	Sophia Liu	Bachelor of Health Sciences(Bachelors)	3	
	Sophia Liu	Bachelor of Health Sciences(Bachelors)	3	
	Ye Liu	Bach. of Health Sciences Hon(Honours)	4	
	Youjia Liu	Civil Engineering CO-OP(Co-op Program)	4	
	Chloe Loblaw	Bach. of Health Sciences Hon(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Jillian Lopes	Bach. of Health Sciences Hon(Honours)	4	
	Jillian Lopes	Bach. of Health Sciences Hon(Honours)	4	
	Jack Lott	Bach. of Health Sciences Hon(Honours)	4	
	Megan Lowe	Bach. of Health Sciences Hon(Honours)	4	
	Nicholas Lum	Bach. of Health Sciences Hon(Honours)	2	
	Lucie Lundenberg	Bach. of Health Sciences Hon(Honours)	4	
	Isis Lunskey	Bach. of Health Sciences Hon(Honours)	4	
	Chanh Nien Luong	Civil Engineering CO-OP(Co-op Program)	4	
	Julia Ma	Bach. of Health Sciences Hon(Honours)	2	
	Harjeevan Maan	Mechatronics Engineering CO-OP(Co-op Program)	4	
	Muhammad Maaz	Bach. of Health Sciences Hon(Honours)	4	
	Susanna MacLeod	Bach. of Health Sciences Hon(Honours)	4	
	Faith Maelzer	Bach. of Health Sciences Hon(Honours)	4	
	Roshan Malhan	Bach. of Health Sciences Hon(Honours)	4	
	Roshan Malhan	Bach. of Health Sciences Hon(Honours)	4	
	Devon Malhotra	Bach. of Health Sciences Hon(Honours)	4	
	Imaad Mallick	Kinesiology(Honours)	4	
	Gareth Mann	Biology & PNB(Honours)	2	
	Ruby Mann	Psych., Neurosci. & Behaviour(Honours)	4	
	Vaibhavi Marathe	Chemical Biology(Honours)	2	
	Maxine Maretzki	Life Sciences(Honours)	4	
	Julianna Marfisi	Kinesiology(Honours)	4	
	Alexandra Marques	Life Sciences(Honours)	4	
	Sara Marshall	Psych., Neurosci. & Behaviour(Honours)	4	
	Elaine Marzec	Biology & Enviro Sciences(Honours)	4	
	Alexander Mastrodonardo	Bach. of Health Sciences Hon(Honours)	4	
	Simran Matharu	Bach. of Health Sciences Hon(Honours)	4	
	Rafi Matin	Neuroscience(Honours)	4	
	Caitlin McAllister	Midwifery(Bachelors)	1	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Joshua McGillivray	Electrical & Biomed Eng CO-OP(Co-op Program)	4	
	Aidan McIntyre	Biology(Honours)	4	
	Sydney McIntyre	Life Sciences(Honours)	4	
	Stuart McKinlay	Bach. of Health Sciences Hon(Honours)	4	
	Jessie Meanwell	Mathematics & Statistics(Honours)	2	
	Mara Medeiros	Bach. of Health Sciences Hon(Honours)	4	
	Misaal Mehboob	Biochemistry (Biomed Res Spec)(Honours)	2	
	Sakshi Mehta	Bach. of Health Sciences Hon(Honours)	4	
	Lingrui Meng	Biology & Enviro Sciences(Honours)	4	
	Yi Meng	Neuroscience(Honours)	4	
	Alexi Michael	Bach. of Health Sciences Hon(Honours)	4	
	Youssef Mikhail	Computer Science CO-OP(Honours Co-op)	3	
	Alyssa Minhas	Life Sciences(Honours)	4	
	Nodhas Misir	Life Sciences(Honours)	4	
	Stefan Mladjenovic	Life Sciences(Honours)	4	
	Helia Mohammadi-Ghaye	Kinesiology(Honours)	4	
	Eashan Monga	Actuarial & Financial Math(Honours)	2	
	Michal Moshkovich	Bach. of Health Sciences Hon(Honours)	2	
	William Mukuna-Luamba	French & Music(Honours)	4	
	Maiura Muralitharan	Life Sciences(Honours)	4	
	Rachel Na	Bach. of Health Sciences Hon(Honours)	2	
	Hannah Nadarajah	Bach. of Health Sciences Hon(Honours)	4	
	Shaheer Nadeem	Bach. of Health Sciences Hon(Honours)	2	
	Yossef Nafea	Biochem(Biomed Res Spec CO-OP)(Honours Co-op)	2	
	Karlo Nesovic	Electrical & Biomed Eng CO-OP(Co-op Program)	4	
	Lily-Thao Nguyen	Bach. of Health Sciences Hon(Honours)	4	
	Michelle Nguyen	Astrophysics(Honours)	4	
	Michelle Nguyen	Astrophysics(Honours)	4	
	Willa Nie	Biology(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Nojus Niuklys	Computer Science CO-OP(Honours Co-op)	2	
	Mara Noesch	Medical & Biological Physics(Honours)	3	
	Julia Nomikos	Life Sciences(Honours)	4	
	Akachukwu Nwakoby	Bach. of Health Sciences Hon(Honours)	4	
	Connor O'Donnell	Neuroscience(Honours)	4	
	Sehyun Oh	Biochemistry (Biomed Res Spec)(Honours)	2	
	Kian O'Neil	Life Sciences(Honours)	4	
	Jasper Ong	Kinesiology(Honours)	4	
	Freeman Paczkowski	Biomed Disc & Commercializatr(Honours)	4	
	George Padeigis	Electrical & Biomed Eng CO-OP(Co-op Program)	4	
	Poojitha Pai	Bach. of Health Sciences Hon(Honours)	4	
	Sasha Palmert	Life Sciences(Bachelors)	3	
	Arjun Pandey	Bachelor of Health Sciences(Bachelors)	3	
	Nishi Parikh	Chemical Biology(Honours)	4	
	Ryan Park	Civil Engineering CO-OP(Co-op Program)	4	
	Subin Park	Bach. of Health Sciences Hon(Honours)	2	
	Jaismeen Parmar	Life Sciences(Honours)	4	
	Parineet Parmar	Life Sc (Sensory Motor Sys Sp)(Honours)	4	
	Ashaka Patel	Bach. of Health Sciences Hon(Honours)	4	
	Jay Patel	Life Sciences(Honours)	2	
	Kashyap Patel	Bach. of Health Sciences Hon(Honours)	4	
	Parth Patel	Kinesiology(Honours)	4	
	Prem Patel	Chemical Biology(Honours)	2	
	Rudra Patel	Biochemistry(Honours)	2	
	Zakaria Patel	Engineering Physics(Bachelors)	3	
	Alexandria Peacock	Pol Sci Sp Public Law&Judicial(Honours)	3	
	Danielle Pearlston	Bach. of Health Sciences Hon(Honours)	4	
	William Pereira	Bach. of Health Sciences Hon(Honours)	2	
	Nikko Pfaff	Neuroscience(Honours)	3	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Zoe Piquette	Bach. of Health Sciences Hon(Honours)	4	
	Christina Pizzola	Kinesiology(Honours)	4	
	Matthew Pocrnic	ISCI (Physics Concentration)(Honours)	4	
	Andrew Poskus	Kinesiology(Honours)	4	
	Pradhariny Prabakaran	Molecular Biology & Genetics(Honours)	4	
	Neha Prajapati	Bach. of Health Sciences Hon(Honours)	4	
	Sharon Pritchard	Biology (Physiology)(Honours)	4	
	Hitansh Purohit	Bach. of Health Sciences Hon(Honours)	4	
	Caryn Qian	Bach. of Health Sciences Hon(Honours)	2	
	Ivy Quan	Bach. of Health Sciences Hon(Honours)	2	
	Rachel Radu	Kinesiology(Honours)	4	
	Sergio Ruez Villanueva	Biology (Physiology)(Honours)	4	
	Sowmithree Ragotheraman	Bach. of Health Sciences Hon(Honours)	4	
	Dana Rajab	Life Sciences(Honours)	4	
	Dana Rajab	Life Sciences(Honours)	4	
	Esra Rakab	Life Sciences(Bachelors)	3	
	Nicole Rapallo	Biology & Pharmacology CO-OP(Honours Co-op)	2	
	Muhammad Rashid	Bach. of Health Sciences Hon(Honours)	2	
	Sana Rashid	Life Sciences(Honours)	4	
	Rani Rassam	Kinesiology(Honours)	4	
	Akaash Ratra	Bach. of Health Sciences Hon(Honours)	2	
	Caitlin Reintjes	ISCI (Biology Concentration)(Honours)	4	
	Pei Rui Ren	Bach. of Health Sciences Hon(Honours)	4	
	Zachary Rezler	Bach. of Health Sciences Hon(Honours)	4	
	Zachary Rezler	Bach. of Health Sciences Hon(Honours)	4	
	Catherine Rinaldi	Kinesiology(Honours)	4	
	Youssef Rizkalla	Computer Science CO-OP(Honours Co-op)	3	
	Amber Robidoux	Justice, Political Phil. & Law(Honours)	4	
	Liza Roik	Bach. of Health Sciences Hon(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Piera Rooke	Biology (Physiology)(Honours)	4	
	Piera Rooke	Biology (Physiology)(Honours)	4	
	Jian Roushani	Bach. of Health Sciences Hon(Honours)	4	
	Jian Roushani	Bach. of Health Sciences Hon(Honours)	4	
	Mohammad Ruheel	Bach. of Health Sciences Hon(Honours)	4	
	Mark Rzepka	Bach. of Health Sciences Hon(Honours)	4	
	Monica Sabbineni	Biomed Disc & Commrciliztn-Exit(Bachelors)	3	
	Monica Sabbineni	Biomed Disc & Commrciliztn-Exit(Bachelors)	3	
	Grahanya Sachidanandan	Bach. of Health Sciences Hon(Honours)	3	
	Parnia Sadeghzadeh	Bach. of Health Sciences Hon(Honours)	2	
	Michael Sakarya	Biochemistry(Honours)	4	
	Michael Sakarya	Biochemistry(Honours)	4	
	Adrian Salopek	Bach. of Health Sciences Hon(Honours)	2	
	Melissa Sam Soon	Bach. of Health Sciences Hon(Honours)	4	
	Yasith Samarasinghe	Bach. of Health Sciences Hon(Honours)	4	
	Danya Sanderson	Biology & PNB(Honours)	4	
	Guneet Sandhu	Bach. of Health Sciences Hon(Honours)	4	
	Adrian Santhakumar	Bach. of Health Sciences Hon(Honours)	4	
	Sara Scampoli	Biology & PNB(Honours)	4	
	Christopher Schankula	Software Eng & Society CO-OP(Co-op Program)	4	
	Jessica Schneider	Life Sciences(Honours)	2	
	Stephanie Scott	Biomed Disc & Commrciliztn-Exit(Bachelors)	3	
	Freddie Seo	Kinesiology(Honours)	4	
	Na-Yung Seoh	Chemical Biology CO-OP(Honours Co-op)	3	
	Mihail Serafimovski	Software Engineering CO-OP(Co-op Program)	2	
	Virtues Dawn Serrano	Bach. of Health Sciences Hon(Honours)	2	
	Heba Shahaed	Bach. of Health Sciences Hon(Honours)	4	
	Kevin Shao	Bach. of Health Sciences Hon(Honours)	4	
	Isabel Shapiro	PNB (Mental Health Spec.)(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Parth Sharma	Bach. of Health Sciences Hon(Honours)	4	
	Zekun Shi	Bach. of Health Sciences Hon(Honours)	4	
	Daniel Shields	Electrical & Biomedical Eng(Bachelors)	4	
	Matthew Shimoda	ISCI (Math & Stat Conc)(Honours)	4	
	Hyunji Shin	Kinesiology(Honours)	4	
	Ariya Shiwram	Molecular Bio & Genetics CO-OP(Honours Co-op)	2	
	Davneet Sihota	Bach. of Health Sciences Hon(Honours)	4	
	Yocheved Silver	Life Sciences(Honours)	4	
	Hannah Silverman	Bach. of Health Sciences Hon(Honours)	2	
	Alexander Simone	Bachelor of Health Sciences(Bachelors)	3	
	Jilian Sing	Bach. of Health Sciences Hon(Honours)	4	
	Angad Singh	Bach. of Health Sciences Hon(Honours)	4	
	Angad Singh	Bach. of Health Sciences Hon(Honours)	4	
	Winnie Situ	Bach. of Health Sciences Hon(Honours)	4	
	Surabhi Sivaratnam	Bachelor of Health Sciences(Bachelors)	3	
	Sahra Siyad	Life Sciences(Honours)	3	
	Calum Slapnicar	Bach. of Health Sciences Hon(Honours)	4	
	Emily Smith	Neuroscience(Honours)	4	
	Matthew So	Bach. of Health Sciences Hon(Honours)	4	
	Hee Won Son	Bach. of Health Sciences Hon(Honours)	4	
	Nuri Song	Bachelor of Health Sciences(Bachelors)	3	
	Tushar Sood	ISCI (Biology Concentration)(Honours)	2	
	Quinlan Stamp	Bach. of Health Sciences Hon(Honours)	4	
	Noah Stancati	Life Sciences(Honours)	4	
	Brett Stubbert	Biology & PNB(Honours)	4	
	Brett Stubbert	Biology & PNB(Honours)	4	
	Bryan Sun	Bach. of Health Sciences Hon(Honours)	2	
	Emmanuel Suntres	Bach. of Health Sciences Hon(Honours)	4	
	Ayush Suri	Life Sciences(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Keshikaa Suthaaharan	ISCI (Biochemistry Conc.)(Honours)	3	
	Nicole Sutton	Civil Eng & Management CO-OP(Co-op Program)	3	
	Sudhanva Suvarna	Psych., Neurosci. & Behaviour(Honours)	4	
	Thomas Sydor	Materials Engineering CO-OP(Co-op Program)	2	
	Kevin Tabatabaei	Bach. of Health Sciences Hon(Honours)	2	
	Rabia Tahir	Bach. of Health Sciences Hon(Honours)	2	
	Umair Tahir	Bach. of Health Sciences Hon(Honours)	2	
	Jiaxin Tang	Software Engineering CO-OP(Co-op Program)	3	
	Brendan Tao	Bachelor of Health Sciences(Bachelors)	4	
	Brendan Tao	Bachelor of Health Sciences(Bachelors)	4	
	Sophia Tao	Software Engineering(Bachelors)	4	
	Natalie Tchakerian	Bach. of Health Sciences Hon(Honours)	4	
	Dennis Tchoudnovski	Bach. of Health Sciences Hon(Honours)	4	
	Tushar Tejpal	Bach. of Health Sciences Hon(Honours)	4	
	Alexandra Tekatch	Biology & Enviro Sciences(Honours)	4	
	Nevart Terzian	Bach. of Health Sciences Hon(Honours)	4	
	Harmy Thakar	Biochemistry(Honours)	4	
	Luxiga Thanabalachandra	Chemical Biology(Honours)	3	
	Abiramy Thayanantha	Life Sciences(Honours)	4	
	Arun Thuraijah	Life Sciences(Honours)	4	
	Talia Tissera	PNB (Mental Health Spec.)(Honours)	4	
	Alyson Tkachenko	Political Science(Honours)	4	
	Matthew Tobis	Kinesiology(Honours)	4	
	Matthew Tobis	Kinesiology(Honours)	4	
	Antoaneta Todorova	Bach. of Health Sciences Hon(Honours)	4	
	Jonathan Tong	Chemical Eng & BioEng CO-OP(Co-op Program)	5	
	Hsin Yen Tsai	Bach. of Health Sciences Hon(Honours)	2	
	Preston Tse	Bach. of Health Sciences Hon(Honours)	2	
	Danielle Tsirulnikov	Bach. of Health Sciences Hon(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Aleen Tumi	Bach. of Health Sciences Hon(Honours)	2	
	David Tyler	Mathematics & Physics(Honours)	2	
	John Vairo	Mechanical Engineering CO-OP(Co-op Program)	4	
	Harshini Vangal Natesa Ra	Bach. of Health Sciences Hon(Honours)	4	
	David Vaz	Bach. of Health Sciences Hon(Honours)	2	
	Courtney Viner	Bach. of Health Sciences Hon(Honours)	4	
	Zarik Virani	Hlth, Eng Sci & Entrepr CO-OP(Co-op Program)	4	
	Harry Wang	Bachelor of Health Sciences(Bachelors)	3	
	Tracy Wang	Bach. of Health Sciences Hon(Honours)	2	
	Omar Wehbe	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	2	
	Curtis Weng	Bach. of Health Sciences Hon(Honours)	4	
	Ella Wiljer	Molecular Biology & Genetics(Honours)	4	
	Ana Wilton	Chemical Eng & BioEng CO-OP(Co-op Program)	5	
	Wyatt Wismer	Software Engineering CO-OP(Co-op Program)	4	
	Wyatt Wismer	Software Engineering CO-OP(Co-op Program)	4	
	Lauren Wong	Bach. of Health Sciences Hon(Honours)	2	
	Melanie Wong	Bach. of Health Sciences Hon(Honours)	4	
	Timothy Wong	Biochemistry(Honours)	4	
	Kingsley Wu	Kinesiology(Honours)	4	
	Lily Wu	Bach. of Health Sciences Hon(Honours)	4	
	Nicole Wu	Bach. of Health Sciences Hon(Honours)	3	
	Vania Wu	PNB (Mental Health Spec.)(Honours)	4	
	Melody Wyslobicky	Bach. of Health Sciences Hon(Honours)	4	
	Cheng'En Xi	Bach. of Health Sciences Hon(Honours)	2	
	Qingyang Xiao	Bach. of Health Sciences Hon(Honours)	2	
	Gang Xu	Bach. of Health Sciences Hon(Honours)	4	
	Jia Xu	Bach. of Health Sciences Hon(Honours)	2	
	Leon Xu	Biochemistry(Honours)	2	
	Yuan Xin Xue	Bach. of Health Sciences Hon(Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Dadmehr Yaghoubi	Biology(Honours)	4	
	Duaa Yahya	Bach. of Health Sciences Hon(Honours)	4	
	Rozi Yakubov	Bach. of Health Sciences Hon(Honours)	2	
	Ling Yang	Bach. of Health Sciences Hon(Honours)	4	
	Ling Yang	Bach. of Health Sciences Hon(Honours)	4	
	Sarah Yang	Bachelor of Health Sciences(Bachelors)	3	
	Xiaozhi Yang	Bach. of Health Sciences Hon(Honours)	4	
	Yun Qing Yang	Cognitive Science of Language(Honours)	4	
	Sezgi Yanikomeroglu	Bach. of Health Sciences Hon(Honours)	2	
	Anabel Yeung	Kinesiology(Honours)	4	
	Alyssa Yip	Bach. of Health Sciences Hon(Honours)	4	
	Kian Yousefi Kousha	Neuroscience(Honours)	3	
	Amos Yu	Mechatronics Engineering CO-OP(Co-op Program)	3	
	Jamie Yu	Cognitive Science of Language(Honours)	4	
	Wenhui Yu	Bachelor of Health Sciences(Bachelors)	3	
	Wenhui Yu	Bachelor of Health Sciences(Bachelors)	3	
	Saad Zabaneh	Civil Engineering(Bachelors)	4	
	Alissa Zhang	Bach. of Health Sciences Hon(Honours)	4	
	Jessie Zhang	Bach. of Health Sciences Hon(Honours)	4	
	Xifei Zhang	Actuarial & Financial Math(Honours)	3	
	George Zhao	Bach. of Health Sciences Hon(Honours)	4	
	Irene Zhao	Bach. of Health Sciences Hon(Honours)	2	
	Jianbo Zhao	Bach. of Health Sciences Hon(Honours)	4	
	Kevin Zhao	Bachelor of Health Sciences(Bachelors)	3	
	Shengjia Zhong	Hlth, Eng Sci & Entrepr CO-OP(Co-op Program)	3	
	Xiao Yan Christina Zhong	Psychology(Bachelors)	3	
	Xingyuan Zou	Life Sciences(Honours)	4	
The Psychology Society Prizes	Sabina Carbajal	Anthropology & PNB(Honours)	4	70
	Yuki Lai	Psych., Neurosci. & Behaviour(Honours)	4	70

Award Description	Student Name	Program Description	Level	Value*
The Psychology Society Prizes	Jade Mardlin	PNB (Mental Health Spec.)(Honours)	4	70
The PricewaterhouseCoopers Canada Scholarships	Jennifer Odenigbo	Bachelor of Commerce(Honours)	3	2500
The Dr. John A. Pylypiuk Scholarship	Ryan Bromberg-Barwin	History(Honours)	3	700
The Sharon Reeves Scholarship	Sarphina Chui	Music (Music Cognition)(Honours)	4	425
The Drs. Jolie Ringash and Glen Bandiera Renaissance Award	Anna Buhrmann	Arts & Science(Honours)	4	9778
	Angelo Grant	Bachelor of Health Sciences(Bachelors)	3	4200
	Vikita Mehta	Arts & Science(Honours)	2	5961
	Inaya Yousaf	Arts & Science(Honours)	2	5961
The Retired Teachers of Ontario Trust Fund - Gerontology	Gabriella Christopher	Bach. of Health Sciences Hon(Honours)	4	250
The Ella Julia Reynolds Scholarships	Ian Kelly	English & Cultural Studies(Honours)	3	1000
	Laurel Richardson	English & Cultural Studies(Honours)	4	1000
The Alma and Wil Rice Memorial Scholarship	Yiannis Spetsakis	Kinesiology(Honours)	3	2000
The Gladys Richards Scholarships	Julia Griffin	English & Cultural Studies(Bachelors)	3	2000
	Sophi Kerr	English & Cultural Studies(Honours)	4	2000
The Jack Richardson Memorial Scholarship	Derrick Miller	Sociology(Honours)	4	400
The Herbert A. Ricker Scholarships	Mark Danial	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	5	2500
	Matthew Tobis	Kinesiology(Honours)	4	2500
	Alex Tsao	Electrical Eng & Mgmt CO-OP(Co-op Program)	5	2500
The Stanley Robertson Scholarship	Christopher Schankula	Software Eng & Society CO-OP(Co-op Program)	4	2500
The Catherine and Albert Roeder Memorial Scholarship	Yu Li	Physics(Honours)	4	1200
The Ronald J. Rolls Scholarship	Mayson Broccoli-Romano	Indigenous St&Engl/Cultural St(Honours)	2	2000
The Rosart Properties Incorporated Scholarship	Benjamin Edwards	Geography & Enviro Studies(Honours)	4	325
The Abraham Isaac Rosenberg Memorial Prize	Amber Robidoux	Justice, Political Phil. & Law(Honours)	4	225
The Rotary Club of Burlington Central Community Contribution Aw	Hitansh Purohit	Bach. of Health Sciences Hon(Honours)	4	
The Rotary Club of Hamilton Scholarship	Mitchell Cooke	Computer Engineering CO-OP(Co-op Program)	4	575
The Rotary Club of Hamilton A.M. Community Contribution Award	Misha Ishtiaq	Bach. of Health Sciences Hon(Honours)	2	
The Rotary Club of Hamilton Community Contribution Award	Joelle Li	Bach. of Health Sciences Hon(Honours)	4	
The Leona Allerston Ryan and Gordon Henry Stevens Memorial Sch	Natasha Wandel	Music (Music Cognition)(Honours)	3	525
The E. Togo Salmon Prize in History	Graham Cade	History & Political Science(Honours)	4	200

Award Description	Student Name	Program Description	Level	Value*
The Noel Sandusky Memorial Book Prize	Damian Angus	History & Political Science(Honours)	3	200
The Saturn of Hamilton East Community Contribution Awards	Oswin Chang	Bach. of Health Sciences Hon(Honours)	3	
	Hargun Kaur	Bach. of Health Sciences Hon(Honours)	2	
	Reza Khorvash	Life Sciences(Honours)	4	
	Vanessa Luk	Bach. of Health Sciences Hon(Honours)	2	
	Stuart McKinlay	Bach. of Health Sciences Hon(Honours)	4	
	Auva Zarandi	Bach. of Health Sciences Hon(Honours)	2	
The Hilda Savage Memorial Scholarship	Daeun Kim	HLth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	500
The Larry Sayers Prize in East Asian History	Salomé Rodríguez Solarte	History & Political Science(Honours)	4	275
The Dr. Sina Sazgar Memorial Scholarship	Nikko Pfaff	Neuroscience(Honours)	3	1000
The Fedor Schneider Scholarship in Italian	Katya Richard	Cognitive Science of Language(Honours)	3	2000
The School of Arts Scholarship in Music	Jared Jones	Music (Music Cognition)(Honours)	4	1000
The Schulich Leader Scholarship	Arielle Ainabe	Engineering Physics CO-OP(Co-op Program)	2	25000
	Julia Azzi	Medical & Biological Phys CO-OP(Honours Co-op)	3	20000
	Shannon Buck	ISCI (Chem Biology Conc)(Honours)	3	20000
	Samuel Crawford	Software Engineering CO-OP(Co-op Program)	4	25000
	Henry Gage	ISCI (Earth & Enviro Sc Conc)(Honours)	2	20000
	Joshua Guinness	Software Eng & Mgmt CO-OP(Co-op Program)	4	25000
	Emelyn Kupinski	Mechanical Engineering CO-OP(Co-op Program)	3	25000
	Kaylie Lau	Electrical & Biomed Eng CO-OP(Co-op Program)	4	20000
	Jessie Meanwell	Mathematics & Statistics(Honours)	2	20000
	Nikola Petrevski	Electrical Eng & Mgmt CO-OP(Co-op Program)	3	25000
	Arjun Snider	Comp Eng & Management CO-OP(Co-op Program)	2	25000
	Nicole Wong	Chemical Biology CO-OP(Honours Co-op)	4	20000
	Saif Alam	ISCI (Biochemistry Conc.)(Honours)	3	500
	Ryan Amini	Biochemistry (Biomed Res Spec)(Honours)	3	500
The Science Alumni Scholarships	Christina Brinza	Life Sciences(Bachelors)	3	500
	Zeyad Elias	Kinesiology Exit Degree(Bachelors)	3	500
	Sara Etehadolhagh	Medical & Biological Physics(Honours)	3	500

Award Description	Student Name	Program Description	Level	Value*
The Science Alumni Scholarships	Nura Khattab	Kinesiology(Honours)	3	500
	Sobia Mahmood	Kinesiology(Honours)	3	500
	Ariana Mitchell	ISCI (Biology Concentration)(Honours)	3	500
	Christed Julian Moreno	Neuroscience(Honours)	3	500
	Robert Rozman	Life Sc(Origins of Disease Sp)(Honours)	3	500
	Kokoro Tsuzuki	Psych., Neurosci. & Behaviour(Honours)	3	500
The Sheila Scott Scholarship for Wallingford Hall	Darleen Ha	Biomed Disc & Commercializatn(Honours)	2	800
The Sheila Scott Scholarship for Brandon Hall	Elaine Ho	Bach. of Health Sciences Hon(Honours)	2	800
The Sheila Scott Scholarship in English	Hayley Vandermaarl	English & Cultural Studies(Honours)	4	800
The Lorie Scott Nursing Scholarship	Alison Head	Nursing (Accelerated)(Bachelors)	4	5000
The Larry Sefton Scholarships	Mahnoor Imran	Labour Studies(Honours)	4	800
	Jacquelynn Rose-Markowi	Labour Studies(Bachelors)	3	800
The Grace Senra-Fontes Memorial Prize	Lauren Oreskovich	Nursing - McMaster(Bachelors)	4	250
The Margaret A. Service Book Prize	Ariya Shiwram	Molecular Bio & Genetics CO-OP(Honours Co-op)	2	120
The Leo Seto Scholarship	Zakaria Patel	Engineering Physics(Bachelors)	3	1000
The Mary C. Shane Scholarship	Mahnoor Imran	Labour Studies(Honours)	4	2000
The Louis J. Shein Scholarship	Zachary Rezler	Bach. of Health Sciences Hon(Honours)	4	375
The Shell Canada Prizes in Engineering and Management	Aly Al Samouly	Civil Eng & Management CO-OP(Co-op Program)	5	300
The Shell Canada Scholarships in Engineering and Management	Ian Currie	Software Eng & Management(Bachelors)	5	1100
The Shell Canada Prizes in Engineering and Management	Reuben Haklander	Mechanical Eng & Management(Bachelors)	5	300
The Shell Canada Scholarships in Engineering and Management	Reuben Haklander	Mechanical Eng & Management(Bachelors)	5	1100
The Shell Canada Prizes in Engineering and Management	Sin Lam Shanon Lo	Electrical Eng & Mgmt CO-OP(Co-op Program)	5	300
The Shell Canada Scholarships in Engineering and Management	Graham Vanevery	Chemical Eng & Management(Bachelors)	5	1100
The Shenstone Prize	Lydia Hodgins	Medical & Biological Physics(Honours)	2	200
The Shahram Shirani & Mehrnoosh Faghih Scholarship	Alvin Lee	Eng Physics & Biomed Eng CO-OP(Co-op Program)	3	1000
The Gerald and Verna Simpson Memorial Scholarship	Catherine Curvelo	Physics CO-OP(Honours Co-op)	3	600
	Jiahe Deng	Mathematics & Statistics CO-OP(Honours Co-op)	3	600
	Danielle Dineen	Astrophysics(Honours)	3	600
The Meena and Naresh Sinha Community Contribution Award	Lloyd Fan	HLth, Eng Sci & Entrepr CO-OP(Co-op Program)	2	

Award Description	Student Name	Program Description	Level	Value*
The Richard Slobodin Prize	Charlotte Buttle	Anthropology & Geography(Honours)	4	100
The Patricia L. Smye Memorial Scholarship	Hope Faso	English & Cultural Studies(Bachelors)	3	400
	Zein Sandouka	Human Behaviour(Honours)	3	400
The Social Work Prize	Lauren Roxborough	Social Work(Honours)	3	100
The Sociology Prize	Tammy Brown	Sociology(Bachelors)	3	100
	Derrick Miller	Sociology(Honours)	4	100
The Somerville Scholarships	Saba Karimi	Bach. of Health Sciences Hon(Honours)	2	800
	Sehyun Oh	Biochemistry (Biomed Res Spec)(Honours)	2	800
	Rozi Yakubov	Bach. of Health Sciences Hon(Honours)	2	800
The South Ontario Economic Development Council Scholarship	Jacob Woodcroft	Health & Society & Geography(Honours)	4	3500
The Robert Sowerby Memorial Scholarship	Jaskaran Dosanjh	Power & Energy Eng Tech CO-OP(Co-op Program)	4	150
The S. L. Squire Scholarships	Jiaqian Chen	Mathematics & Statistics(Honours)	2	950
	Jessie Meanwell	Mathematics & Statistics(Honours)	2	950
The Stantec Consulting Ltd. Engineering Scholarship	Paris Liu	Civil Engineering CO-OP(Co-op Program)	2	3000
The Clarence L. Starr Prize	Charlize Breukelman	Nursing - McMaster(Bachelors)	2	150
The George H Stedman Estate Foundation Scholarship	David Vaz	Bach. of Health Sciences Hon(Honours)	2	1000
The Anne Stein Memorial Prize	Laura Victoria Bedoya	Social Work(Honours)	4	125
	Valerie Williams	Social Work(Honours)	4	125
The Mabel Stoakley Scholarship	Lauren Clarke	Bach. of Health Sciences Hon(Honours)	3	425
The Stobo Scholarship	Matthew Cheung	Mech Eng & Management CO-OP(Co-op Program)	2	400
The Marie L. Stock Scholarship	Coleen Balantac	French(Honours)	4	450
The Mark John Stojcic Scholarship	Larissa Grigat	Materials Engineering CO-OP(Co-op Program)	4	1800
	Jeremy Wilson	Materials Engineering CO-OP(Co-op Program)	3	1800
The Dr. Andrew Szendrovits Memorial Scholarship	Ruolan Lou	Bachelor of Commerce(Honours)	4	450
	Siyuan Zhang	Bachelor of Commerce(Honours)	3	450
The Tax Executives Institute Scholarship	Manjeet Jandu	Bachelor of Commerce(Honours)	4	2000
The Kenneth W. Taylor Book Prize	Oloruntimilehin Fadipe	Economics(Honours)	4	100
The Robert Taylor Scholarship in Commerce	Thomas Wikkerink	Bachelor of Commerce(Honours)	3	1000
The Ten Broeke-Bensen Memorial Scholarship	Amber Robidoux	Justice, Political Phil. & Law(Honours)	4	1000

Award Description	Student Name	Program Description	Level	Value*
The Nikola Tesla Educational Corporation Scholarship	Emma Burdon	Eng Physics & Society CO-OP(Co-op Program)	2	3333
The Hugh R. Thompson Memorial Prize	Jonathan Spence	ISCI (Earth & Enviro Sc Conc)(Honours)	3	250
The Dr. R. A. Thompson Prize in Mathematics	Matthew Shimoda	ISCI (Math & Stat Conc)(Honours)	4	300
The Dr. David Thompson Scholarship	Adrienne Scott	Engineering Physics(Bachelors)	3	5000
The Professor David Thompson Scholarship	Emma Burdon	Eng Physics & Society CO-OP(Co-op Program)	2	5000
The Stephen F. H. Threlkeld Community Contribution Award	Jaimini Patel	Biology & Pharmacology CO-OP(Honours Co-op)	3	
The TKK Inc. Community Contribution Awards	Paris Liu	Civil Engineering CO-OP(Co-op Program)	2	
The Graham Ronald Toop Scholarship	Michelle Nkansah	Justice, Political Phil. & Law(Honours)	4	500
The Corelene Helen Tostevin Scholarships	Regan Russell	Nursing (Accelerated)(Bachelors)	4	1200
The John Toth Memorial Prize	Shaina Benjamin	Cognitive Science of Language(Honours)	4	50
	Cheryl Davies	Classics(Honours)	3	50
The Frank and Carol Tristani Scholarship	Kelsie Macdonald	Med Rad Sci Radiography(Bachelors)	2	2500
	Andre Morin	ISCI (Biology Concentration)(Honours)	2	2500
	Luke Nguyen	Kinesiology(Honours)	2	2500
	Tushar Sood	ISCI (Biology Concentration)(Honours)	2	2500
The John H. Trueman Prize	Zoe Bernicchia-Freeman	A&S and History(Honours)	4	600
The John H. Trueman Scholarship	Ali Khan	History & PNB(Honours)	2	250
The Roger Trull Community Contribution Award	Keshikaa Suthaaharan	ISCI (Biochemistry Conc.)(Honours)	3	
The Thomas Truman Memorial Prize	Valerie Nwaokoro	Pol Sci Sp Public Law&Judicial(Honours)	4	75
The UBS Global Assets Management (Canada) Company Communit	Ethige De Silva	Bach. of Health Sciences Hon(Honours)	3	
	Zil Patel	Biochemistry (Biomed Res Spec)(Honours)	3	
	Joy Xu	Bach. of Health Sciences Hon(Honours)	2	
The University Achievement Award	Michael Chmielewski	Power & Energy Eng Tech CO-OP(Co-op Program)	4	800
	Alison Cowie	Classics(Honours)	2	800
	David Golding	History(Honours)	3	800
	Michelle Mahoney	Indigenous Studies(Honours)	3	800
	Holly McNeill	Earth & Environmental Sciences(Honours)	3	800
	Taylor Wilson	Power & Energy Eng Tech CO-OP(Co-op Program)	4	800
The University Prizes for Special Achievement	Sayed Azher	Biochemistry(Honours)	4	500

Award Description	Student Name	Program Description	Level	Value*
The University Prizes for Special Achievement	Jared Bongard	Biomed Disc & Commercializatn(Honours)	4	500
	Jordan Chin	Bach. of Health Sciences Hon(Honours)	4	500
	Sarah Curtay	Nursing - McMaster(Bachelors)	2	500
	Elise Durie	Arts & Science(Honours)	4	500
	Hannah Feldman	Arts & Science(Honours)	4	500
	Emily Grydziusko	Bach. of Health Sciences Hon(Honours)	4	500
	Sarah Homs	Nursing - McMaster(Bachelors)	4	500
	Aaron Penciner	Biomed Disc & Commercializatn(Honours)	4	500
	William Stephenson	Integrated Business&Humanities(Honours)	4	500
	Peiyao Wang	ISCI (Biochemistry Conc.)(Honours)	4	500
	Sereen Aziz	Multimedia(Honours)	3	500
	Milan Dave	Electrical Eng & Mgmt CO-OP(Co-op Program)	5	500
	Mihail Serafimovski	Software Engineering CO-OP(Co-op Program)	2	500
	Nadia Woodside	Studio Art(Honours)	2	500
The University Scholarships	Vamsidhar Allampati	Software EngineeringTech CO-OP(Co-op Program)	4	800
	Holly Brown	Civil Eng Infrast(BTech)CO-OP(Co-op Program)	4	800
	Tammy Brown	Sociology(Bachelors)	3	800
	Seyed Ali Karimi	Software EngineeringTech CO-OP(Co-op Program)	4	800
	Steven Slager	Civil Eng Infrast(BTech)CO-OP(Co-op Program)	4	800
	Benjamin Zulerons	Power & Energy Eng Tech CO-OP(Co-op Program)	4	800
The University (Senate) Scholarships	Luke Brenton	A&S and PNB(Honours)	4	800
	Anna Buhrmann	Arts & Science(Honours)	4	800
	Mateusz Faltyn	A&S and Mathematics(Honours)	4	800
	Daniella Mikanovsky	Arts & Science(Honours)	4	800
	Mateo Newbery Orrantia	Arts & Science(Honours)	4	800
	Alexandra Toma	Arts & Science(Honours)	4	800
	Daniel Van Veghel	Arts & Science(Honours)	4	800
	Yimeng Wang	A&S and Political Science(Honours)	4	800
	Sarah Williams-Habibi	A&S and PNB(Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Ashley Abraham	Integrated Business&Humanities(Honours)	4	800
	Ahmed Afifi	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	5	800
	Malvika Agarwal	Life Sciences(Honours)	4	800
	Dua Alam	Eng Physics & Biomed Eng CO-OP(Co-op Program)	4	800
	Abdullah Ali	Life Sciences(Honours)	4	800
	Mahdi Alshami	Political Science(Honours)	4	800
	Imogen Ames	Integrated Business&Humanities(Honours)	4	800
	Danial Aminaie	Life Sciences(Honours)	4	800
	Arthy Arumaithurai	Life Sciences CO-OP(Honours Co-op)	5	800
	Aurneen Ashur	Life Sciences(Honours)	4	800
	Sayed Azher	Biochemistry(Honours)	4	800
	Maneetpal Badesha	Cognitive Science of Language(Honours)	4	800
	Natalia Badosz	Nursing - McMaster(Bachelors)	3	800
	Gemma Barber	ISCI (Biochemistry Conc.)(Honours)	4	800
	Katie Barber	Social Work(Honours)	4	800
	Mackenzie Batista	Philosophy(Honours)	4	800
	Ewa Bauer	Mechanical & Biomed Eng CO-OP(Co-op Program)	4	800
	Carine Bekdache	Life Sciences(Honours)	4	800
	Bharti Bhardwaj	Integrated Business&Humanities(Honours)	4	800
	Lindsay Bosveld	Human Behvr(Autism&Bhvr Sc Sp)(Honours)	4	800
	Kassandra Bot	Civil Eng & Management CO-OP(Co-op Program)	5	800
	Alyssa Broeders	Biology(Honours)	4	800
	Abigail Buller	Engineering Physics CO-OP(Co-op Program)	4	800
	Graham Cade	History & Political Science(Honours)	4	800
	Vanessa Catenacci	Biochemistry(Honours)	4	800
	Hillary Chan	Bach. of Health Sciences Hon(Honours)	4	800
	Shawndeep Chania	Life Sciences(Honours)	4	800
	Eric Chen	Electrical & Biomedical Eng(Bachelors)	4	800
	Liang Yu Chen	Mechatronics Engineering CO-OP(Co-op Program)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Kevin Chong	Automation Eng Tech CO-OP(Co-op Program)	4	800
	Gabriella Christopher	Bach. of Health Sciences Hon(Honours)	4	800
	Riley Coleman	Biology & PNB(Honours)	4	800
	Brianna Conn	Eng Physics & Society CO-OP(Co-op Program)	5	800
	Katherine Aina Cornejo	Comm Studies & PNB(Honours)	4	800
	Melissa Darby	Social Work(Honours)	4	800
	Archan Dave	Biomed Disc & Commercializatr(Honours)	4	800
	Milan Dave	Electrical Eng & Mgmt CO-OP(Co-op Program)	5	800
	Naisargi Dave	Life Sciences(Honours)	4	800
	Chloe Dawson	Chemical Eng & BioEng CO-OP(Co-op Program)	5	800
	Celine Della-Quercia	Biology(Honours)	4	800
	Anoop Dhillon	Eng Physics & Biomed Eng CO-OP(Co-op Program)	4	800
	Alessia Di Nardo	Mechanical & Biomedical Eng(Bachelors)	4	800
	Annamaria Dobrin	Biomed Disc & Commercializatr(Honours)	4	800
	Ekaterina Dogadova	Biochemistry(Honours)	4	800
	Ciaran Downie-Cheetham	Bachelor of Commerce(Honours)	4	800
	Jia Hui Du	Bach. of Health Sciences Hon(Honours)	4	800
	Benjamin Edwards	Geography & Enviro Studies(Honours)	4	800
	Dana El Chaer	Pol Sci Sp Public Law&Judicial(Honours)	4	800
	Cailyn Eley	Biochemistry(Honours)	4	800
	Abdulrahman Elgendy	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	5	800
	Amin Eljirby	Electrical Engineering CO-OP(Co-op Program)	4	800
	Berg Ellemers	Civil Engineering CO-OP(Co-op Program)	4	800
	Carl Ellis	Biotechnology CO-OP(Co-op Program)	4	800
	Youssef El-Sayes	Life Sciences(Honours)	4	800
	Alefiya Eski	Biology(Honours)	4	800
	Tony Fan	Electrical & Biomed Eng CO-OP(Co-op Program)	4	800
	Lu Gao	Bachelor of Commerce(Honours)	4	800
	Michelle Gavac	Life Sciences CO-OP(Honours Co-op)	5	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Janna Getty	Justice, Political Phil. & Law(Honours)	4	800
	Labika Ghani	Bachelor of Commerce(Honours)	4	800
	Gurjit Gill	Life Sciences(Honours)	4	800
	Gurratan Gill	Life Sciences(Honours)	4	800
	Prabhdeep Gill	Life Sciences(Honours)	4	800
	Aaron Goetz	Civil Engineering CO-OP(Co-op Program)	4	800
	Anna Green	Mechanical & Biomed Eng CO-OP(Co-op Program)	4	800
	Marieke Groot	Chemical Biology CO-OP(Honours Co-op)	5	800
	Emma Growe	Nursing - McMaster(Bachelors)	3	800
	Sheng Wei Gu	Life Sciences(Honours)	4	800
	Verena Guirguis	Bachelor of Commerce(Honours)	4	800
	Endi Hajdari	Civil Engineering(Bachelors)	4	800
	Syed Naqi Hasan	Bachelor of Commerce(Honours)	4	800
	Joel Haydyn	Mechatronics Engineering CO-OP(Co-op Program)	4	800
	Meerahn Heino	Pol Sci Sp Public Law&Judicial(Honours)	4	800
	Matana Hendrickson	Eng Physics & Biomed Eng CO-OP(Co-op Program)	4	800
	Alison Henstock	Mechanical & Biomed Eng CO-OP(Co-op Program)	4	800
	Christopher Ho	Bach. of Health Sciences Hon(Honours)	4	800
	Miriam Houghton	Justice, Political Phil. & Law(Honours)	4	800
	Xinye Hu	Bach. of Health Sciences Hon(Honours)	4	800
	Jessica Huang	Med Rad Sci Radiography(Bachelors)	4	800
	Xiangyu Huang	Mechatronics Engineering CO-OP(Co-op Program)	4	800
	Andrew Hum	Software Engineering CO-OP(Co-op Program)	4	800
	Dalia Husain	Bachelor of Commerce(Honours)	4	800
	Milky Ibro	Comm Studies & Peace Studies(Honours)	3	800
	Yumna Irfan	Health, Eng Sci & Entrepreneur(Honours)	4	800
	Uzair Irshad	Economics (Specialist)(Honours)	4	800
	Reihaneh Jamali-far	PNB (Mental Health Spec.)(Honours)	4	800
	Benjamin Jarvis-Frain	Engineering Physics CO-OP(Co-op Program)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Sarah Jervis	Sociology(Honours)	4	800
	Omar Jimenez	Biotechnology CO-OP(Co-op Program)	4	800
	Diego Jimenez-Juri	Political Science(Honours)	4	800
	Elaine Jin	Biomed Disc & Commercializatr(Honours)	4	800
	Sarra Jiwa	Biology & PNB(Honours)	4	800
	Gursukhmani Johl	Molecular Biology & Genetics(Honours)	4	800
	Neetu John	Chemical & Biomed Eng CO-OP(Co-op Program)	4	800
	Danielle Joshi	Kinesiology(Honours)	4	800
	Amine Kaab	Bach. of Health Sciences Hon(Honours)	4	800
	Navjot Kalirao	Economics(Honours)	4	800
	Arveen Kang	Psych., Neurosci. & Behaviour(Honours)	4	800
	Damandeep Kapoor	Biology(Honours)	4	800
	Parsa Karimi	Biochemistry(Honours)	4	800
	Simran Kaur	Life Sciences(Honours)	4	800
	Michael Kehinde	Mechatronics Eng & Management(Bachelors)	5	800
	Bilal Khan	Bachelor of Commerce(Honours)	4	800
	Tina Khordehi	Bach. of Health Sciences Hon(Honours)	4	800
	Reza Khorvash	Life Sciences(Honours)	4	800
	Marium Kiwan	Kinesiology(Honours)	4	800
	Jessica Klara	Nursing - McMaster(Bachelors)	3	800
	Alana Kohut	Life Sciences(Honours)	4	800
	Samuel Koo	Biochemistry(Honours)	4	800
	Sinthiha Krishnan	Life Sciences(Honours)	4	800
	Jacob Krone	Psychology-NeuroSc & Behav(Honours)	4	800
	Yuki Lai	Psych., Neurosci. & Behaviour(Honours)	4	800
	Alyshia Laidlaw	Biomed Disc & Commercializatr(Honours)	4	800
	Alexa Laman	Social Psychology(Honours)	4	800
	Jessica LaMantia	PNB (Music Cognition Spec.)(Honours)	4	800
	Priyanka Lamba	Biology(Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Sadie Lantz	Social Work(Honours)	4	800
	Lauren Lavalley	Chemical Engineering CO-OP(Co-op Program)	4	800
	Harvinder Lehal	Electrical Engineering CO-OP(Co-op Program)	4	800
	Joelle Li	Bach. of Health Sciences Hon(Honours)	4	800
	Xinyu Li	Bachelor of Commerce(Honours)	4	800
	Rachel Lieske	Communication Studies(Honours)	4	800
	Benjamin Lindsay	Bachelor of Commerce(Honours)	4	800
	Amy Ling	Chemical & Biomed Eng CO-OP(Co-op Program)	4	800
	Darina Litwina	Communication Studies(Honours)	4	800
	JianMing Liu	Bachelor of Commerce(Honours)	4	800
	Ye Liu	Bach. of Health Sciences Hon(Honours)	4	800
	Hannah Lobb	French & Peace St(Honours)	4	800
	Gabrielle Loebach	Kinesiology(Honours)	4	800
	Jillian Lopes	Bach. of Health Sciences Hon(Honours)	4	800
	Ruolan Lou	Bachelor of Commerce(Honours)	4	800
	Emily Lu	Chemical Biology CO-OP(Honours Co-op)	5	800
	Madeleine Luvisa	Social Work(Honours)	4	800
	Oluwatoni Makanjuola	Life Sciences(Honours)	4	800
	Roshan Malhan	Bach. of Health Sciences Hon(Honours)	4	800
	Kushalmeet Malhotra	Life Sciences(Honours)	4	800
	Hannah Mann	Chemical Eng & BioEng(Bachelors)	4	800
	Baanu Manoharan	Life Sciences CO-OP(Honours Co-op)	5	800
	Marina Manoraj	Chemical Eng & BioEng CO-OP(Co-op Program)	5	800
	Mubariz Maqsood	Life Sciences(Honours)	4	800
	Sara Marshall	Psych., Neurosci. & Behaviour(Honours)	4	800
	Morgan Martin	Life Sciences(Honours)	4	800
	Nicole Martin	Bachelor of Commerce(Honours)	4	800
	Kierra McDougall	Chemical & Biomed Eng CO-OP(Co-op Program)	4	800
	Lara Mcelrea	Anthropology(Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Aidan McIntyre	Biology(Honours)	4	800
	Micaela McNulty	Life Sciences(Honours)	4	800
	Theresa McPhee	Political Science(Honours)	4	800
	Yeimy Mejia-Avelar	Music(Honours)	4	800
	Mebby Mengele	Bachelor of Commerce(Honours)	4	800
	Briann Mensour	Life Sciences(Honours)	4	800
	Stephen Merkel	Automation Eng Tech CO-OP(Co-op Program)	4	800
	Helia Mohammadi-Ghaye	Kinesiology(Honours)	4	800
	Sanam Mojgani	Biology & PNB(Honours)	4	800
	Sevda Montakhaby Nodeh	Biology & PNB(Honours)	4	800
	Allyson Moore	Biochemistry(Honours)	4	800
	Jessica Morency	Music (Music Cognition)(Honours)	4	800
	Yael Morris	Integrated Business&Humanities(Honours)	4	800
	Omar Mouftah	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	5	800
	Neha Naeem	Justice, Political Phil. & Law(Honours)	4	800
	Ayah Nassif	Linguistics(Honours)	4	800
	Breanna Nelson	Psych., Neurosci. & Behaviour(Honours)	4	800
	Erin Nichiporuk	Sociology(Honours)	4	800
	Emilia Nietresta	Civil Eng & Society CO-OP(Co-op Program)	4	800
	Felicity Niles-Williams	Hlth&Society and Aging&Society(Honours)	4	800
	Melanie Ninguem De Mel	Biochemistry(Honours)	4	800
	Sharjana Nirmalathan	Life Sciences CO-OP(Honours Co-op)	5	800
	Julia Nomikos	Life Sciences(Honours)	4	800
	Austin Noonan	History & Philosophy(Honours)	4	800
	Liam O'Brien	Bachelor of Commerce(Honours)	4	800
	Jan Ollers	Computer Science(Honours)	4	800
	Ishita Paliwal	ISCI (Biochemistry Conc.)(Honours)	4	800
	Amanda Paquette	Bachelor of Commerce(Honours)	4	800
	Vivek Parmar	Life Sciences(Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Milothy Parthipan	Life Sciences CO-OP(Honours Co-op)	5	800
	Mila Pastrak	Biochemistry(Honours)	4	800
	Raj Patel	Engineering Physics CO-OP(Co-op Program)	4	800
	Jordan Pereira	Bachelor of Commerce(Honours)	4	800
	Christina Pizzola	Kinesiology(Honours)	4	800
	Riley Pontello	Kinesiology(Honours)	4	800
	Andrew Poskus	Kinesiology(Honours)	4	800
	Katja Preinitsch	Nursing - McMaster(Bachelors)	3	800
	Justin Prez	Software & Biomed Eng CO-OP(Co-op Program)	4	800
	Agnieszka Prymicz	Justice, Political Phil. & Law(Honours)	4	800
	Johnson Qu	Mechatronics Engineering CO-OP(Co-op Program)	4	800
	Rachel Radu	Kinesiology(Honours)	4	800
	Jatheeshan Raveenthiran	Electrical & Biomed Eng CO-OP(Co-op Program)	4	800
	Eric Redmond	Chemical & Biomed Eng CO-OP(Co-op Program)	4	800
	Zachary Rezler	Bach. of Health Sciences Hon(Honours)	4	800
	Liza Roik	Bach. of Health Sciences Hon(Honours)	4	800
	Mark Rzepka	Bach. of Health Sciences Hon(Honours)	4	800
	Kamal Saad	Life Sciences(Honours)	4	800
	Nathalie Sa'Adeh	Mechanical Engineering CO-OP(Co-op Program)	4	800
	Simran Saini	Life Sciences(Honours)	4	800
	Seaher Sakha	Life Sciences(Honours)	4	800
	Corrina Santucci	Bachelor of Commerce(Honours)	4	800
	Inza Saqib	Integrated Business&Humanities(Honours)	4	800
	Armin Sariaslani	Life Sc (Sensory Motor Sys Sp)(Honours)	4	800
	Alexandra Saunders	Sociology(Honours)	4	800
	Alessandra Scalisi	Actuarial & Finance Math CO-OP(Honours Co-op)	5	800
	Sara Scampoli	Biology & PNB(Honours)	4	800
	Stephen Scott	Mechatronics Eng & Mgmt CO-OP(Co-op Program)	4	800
	Michelle Seto	Bachelor of Commerce(Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Jeremy Sewnauth	Life Sciences(Honours)	4	800
	Jhanvi Shah	Cognitive Science of Language(Honours)	4	800
	Maheen Shahid	Sociology (Specialist Option)(Honours)	4	800
	Isabel Shapiro	PNB (Mental Health Spec.)(Honours)	4	800
	Rebekah Sheppard	IBEHS Exit Degree(Bachelors)	4	800
	Laela Shibli	Social Work(Honours)	4	800
	Mariam Sidawi	Chemical Eng & BioEng CO-OP(Co-op Program)	5	800
	Gurwinder Sidhu	Political Science(Honours)	4	800
	Gaurev Singh	Life Sciences(Honours)	4	800
	Ishmanjeet Singh	Life Sciences(Honours)	4	800
	Jalen Singh	ISCI (Biochemistry Conc.)(Honours)	4	800
	Seraj Singh	Mechanical Eng & Management(Bachelors)	5	800
	Sophie Skillen	PNB (Mental Health Spec.)(Honours)	4	800
	Victor Skvortsov	Automation Eng Tech CO-OP(Co-op Program)	4	800
	Allyson Smith	Communication Studies & French(Honours)	4	800
	Emily Smith	Hlth&Society and Aging&Society(Honours)	4	800
	Jade Smith	Bachelor of Commerce(Honours)	4	800
	Jasper Smith	Bachelor of Commerce(Honours)	4	800
	Noah Smith	Justice, Political Phil. & Law(Honours)	4	800
	Aidan Sneyd	Justice, Political Phil. & Law(Honours)	4	800
	Pawel Sokolowski	History & Political Science(Honours)	4	800
	Kelsey Stapleton	Cognitive Science of Language(Honours)	4	800
	Adrian Stathoukos	Anthro & Society Cult and Rel(Honours)	4	800
	Bailey Stegenga	Social Psychology(Honours)	4	800
	Bradley Stephen	Civil Eng & Society CO-OP(Co-op Program)	5	800
	Ciera Stiller	Justice, Political Phil. & Law(Honours)	4	800
	Hannah Stoesz	Bachelor of Commerce(Honours)	4	800
	Shilpa Tandon	Life Sciences(Honours)	4	800
	Haoxiang Tang	Bachelor of Commerce(Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Younna Taychouri	Religious Studies(Honours)	4	800
	Abiramy Thayanantha	Life Sciences(Honours)	4	800
	David Thompson	Software Engineering CO-OP(Co-op Program)	4	800
	Zachary Thorne	Computer Eng & Society CO-OP(Co-op Program)	4	800
	Nhi Tran	Psychology-NeuroSc & Behav(Honours)	4	800
	Megan Tu	ISCI (Biology Concentration)(Honours)	4	800
	Rola Tuffaha	Bachelor of Commerce(Honours)	4	800
	Laura Victoria Bedoya	Social Work(Honours)	4	800
	Zarik Virani	HLth, Eng Sci & Entrepr CO-OP(Co-op Program)	4	800
	Christopher Vishnu	Software Engineering CO-OP(Co-op Program)	4	800
	Laura Walters	Civil Eng & Management CO-OP(Co-op Program)	4	800
	Stacey Warner	Bachelor of Commerce(Honours)	4	800
	Lauren Weir	Chemical Eng & BioEng(Bachelors)	5	800
	Emma-Joy White	Bachelor of Commerce(Honours)	4	800
	Maggie Wilberforce	ISCI (Biology Concentration)(Honours)	4	800
	Jan Wolos	Electrical & Biomed Eng CO-OP(Co-op Program)	4	800
	Melanie Yang	Life Sciences(Honours)	4	800
	Elan Yaphe	Mechanical Engineering CO-OP(Co-op Program)	4	800
	Annika Yardy	Chemical Eng & BioEng CO-OP(Co-op Program)	5	800
	Xi Ya Yi	Bachelor of Commerce(Honours)	4	800
	Michelle Yip	Chemical Engineering CO-OP(Co-op Program)	2	800
	Jamie Yu	Cognitive Science of Language(Honours)	4	800
	Jamie Yu	Civil Eng & Society CO-OP(Co-op Program)	5	800
	Ruoyu Yu	Bachelor of Commerce(Honours)	4	800
	Yifan Zhang	Nursing - McMaster(Bachelors)	3	800
	Zijie Zhao	Mathematics & Statistics CO-OP(Honours Co-op)	5	800
	Edward Zhu	Engineering Physics CO-OP(Co-op Program)	4	800
	Andrea Zito	Medical & Biological Physics(Honours)	4	800
	Wenyi Zou	Bachelor of Commerce(Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Xingyuan Zou	Life Sciences(Honours)	4	800
The Vale Canada Ltd. Scholarship in Environmental Science	Kristen Hop Hing	Earth & Enviro Sciences CO-OP(Honours Co-op)	4	2500
The Valley City Manufacturing Co. Ltd. Scholarships	Lydia Hodgins	Medical & Biological Physics(Honours)	2	1600
The Varey Scholarship	Lingling Zhu	Classics(Honours)	4	300
The Allan R. Veall Scholarship in Environmental Economics	Dwayne Fernandes	Economics (Specialist)(Honours)	4	1000
	Tianming Huang	Economics(Honours)	4	1000
	Joshua Luckett	Economics(Honours)	4	1000
The Jim Waddington Prize in Physics & Astronomy	Rahim Dhalla	Physics(Honours)	2	1500
	David Tyler	Mathematics & Physics(Honours)	2	1500
The Harry Waisglass Book Prize	Samridhi Anand	Labour Studies & Pol Sciences(Honours)	4	50
The Walker / Middleton Fieldwork Scholarship	Lelia Weiland	ISCI (Earth & Enviro Sc Conc)(Honours)	4	500
The Waller Family Music Cognition Scholarship	Thomas Samson-Williams	PNB (Music Cognition Spec.)(Honours)	4	2000
The Waller Family Music Scholarship	Katherine D'Agostino	Music(Honours)	2	2000
The WalterFedy Engineering Scholarship	Anna Lopatukhin	Mechanical Engineering CO-OP(Co-op Program)	3	2500
The Walters Inc. Scholarship	Connor Nikel	Civil Eng & Management CO-OP(Co-op Program)	5	5000
The Melinda Wapshaw Achievement Award	Samridhi Anand	Labour Studies & Pol Sciences(Honours)	4	375
The F. W. Waters Scholarship in Philosophy	Amber Robidoux	Justice, Political Phil. & Law(Honours)	4	750
The Sam Watson Memorial Community Contribution Award	Maanvi Dhillon	Arts & Science(Honours)	4	
	Vikita Mehta	Arts & Science(Honours)	2	
The Jervis B. Webb Company of Canada (Daifuku) Scholarship	Lauren Baerg	Biotechnology CO-OP(Co-op Program)	4	2500
The Ralph Weekes Scholarship	David Kelly	Economics(Honours)	4	800
The Alvina Marie Werner Scholarship	Alyssa Tisson	Social Work(Honours)	4	3500
The Wescast Industries Continuous Learning Community Contributi	Sophie Mansfield	Materials & Biomed Eng CO-OP(Co-op Program)	3	
The Whidden Hall Residence Scholarship	Hannah Lee	Bach. of Health Sciences Hon(Honours)	2	800
The R. M. Wiles Memorial Book Prize	Lukas Spencer	English & Cultural Studies(Honours)	4	250
The Marjorie and Charles Wilkinson Scholarship	Victoria Collins	Indigenous St & Religious St(Honours)	4	450
	Daryl Janssen	Society, Culture and Religion(Bachelors)	4	450
The Thomas E. Willey Scholarship	Ciera Stiller	Justice, Political Phil. & Law(Honours)	4	400
	Bridget Timmins	Justice, Political Phil. & Law(Honours)	4	400

Award Description	Student Name	Program Description	Level	Value*
The Allan and Joy Williams Community Contribution Award	Clare-Marie De Souza	English/Cultural St & Sociol(Honours)	3	
The Emanuel Williams Scholarship in Physics	Catherine Curvelo	Physics CO-OP(Honours Co-op)	3	1200
The David Winch Memorial Scholarship	Adam Gleason	Social Work(Honours)	3	500
The Woodstock Hall Residence Scholarship	Meera Chopra	Bach. of Health Sciences Hon(Honours)	2	800
The Wouters Family Scholarship	Allison Gervais	Health & Society(Honours)	4	1000
The Ivor Wynne Memorial Prize	Riley Pontello	Kinesiology(Honours)	4	300
The Yates Scholarships	Erin Artna	Bachelor of Health Sciences(Bachelors)	3	800
	Tess Chee	Bach. of Health Sciences Hon(Honours)	2	800
	Selina Chow	Bachelor of Health Sciences(Bachelors)	3	800
	Benjamin Kostiuk	Computer Science CO-OP(Honours Co-op)	3	800
	Han Liu	Bachelor of Health Sciences(Bachelors)	3	800
	Sophia Liu	Bachelor of Health Sciences(Bachelors)	3	800
	Vaibhavi Marathe	Chemical Biology(Honours)	2	800
	Shaheer Nadeem	Bach. of Health Sciences Hon(Honours)	2	800
	Yossef Nafea	Biochem(Biomed Res Spec CO-OP)(Honours Co-op)	2	800
	William Pereira	Bach. of Health Sciences Hon(Honours)	2	800
	Virtues Dawn Serrano	Bach. of Health Sciences Hon(Honours)	2	800
	Tushar Sood	ISCI (Biology Concentration)(Honours)	2	800
	Umair Tahir	Bach. of Health Sciences Hon(Honours)	2	800
	Mostafa Koura	Mechanical Engineering CO-OP(Co-op Program)	2	225
	Michelle Nguyen	Astrophysics(Honours)	4	1600
	Isla Turcke	ISCI (Physics Concentration)(Honours)	4	1600
The Manuel and Lillian Zack Scholarship	Cassidy Trainor	Nursing - Conestoga(Bachelors)	4	1800
	Therese Zamora	Nursing - McMaster(Bachelors)	4	1800
The Zenon Environmental Community Contribution Awards	Pesara Amarasekera	Software Engineering CO-OP(Co-op Program)	3	
The Zoom Media Community Contribution Awards	Lu Hsi Chen	Bach. of Health Sciences Hon(Honours)	4	
	John Dean Chiong	Bach. of Health Sciences Hon(Honours)	4	
	Toney Lieu	Bach. of Health Sciences Hon(Honours)	2	
	Daniel Majik	Justice, Political Phil. & Law(Honours)	2	

Award Description	Student Name	Program Description	Level	Value*
The Zoom Media Community Contribution Awards	Isabella Reis	Bach. of Health Sciences Hon(Honours)	2	
	Riya Trivedi		2	

* blank award values indicate non-monetary awards or transcript notation only

Wednesday, November 3, 2021

OFFICE OF THE REGISTRAR
AID & AWARDS
2020/21 AWARD DISBURSEMENT SUMMARY

Aid & Awards Summary		
Type of Award	Awards Disbursed	Funding Disbursed
Entrance	4553	\$6,489,289
In-Course	1050	\$1,604,232
Travel & Exchange*	4	\$25,900
Graduand	71	\$76,475
Academic Grants	128	\$402,350
Total	5806	\$8,598,246

*Travel disrupted in 2020/21 due to COVID

Aid & Awards by Application Summary				
Type of Award	Awards requiring an application	Funding Available	Total Awarded	Funding Disbursed
In-Course	98	\$483,424	181	\$377,408
Travel & Exchange	25	\$265,612	4	\$25,900
Graduand	16	\$33,256	18	\$23,170

Bursary Summary		
Type of Award	Students Awarded	Funding Disbursed
Bursary	6113	\$8,029,986

Work Program Summary	
Program Type	Students Hired
Fall/Winter Work	299
Fall/Winter Archway	170
Fall/Winter Total	469
Summer Work (Archway included)	419

MED Awards Summary		
Type of Award	Awards Disbursed	Funding Disbursed
All	32 ¹	\$53,650

MED Bursary Summary		
Type of Award	Students Awarded	Funding Disbursed
Bursary	841	\$1,977,270

As at Oct. 29, 2021.

¹ Does not include OMA Stipend.

*All above summaries exclude non-monetary awards.

*All payments disbursed during 2020-21 academic year

OFFICE OF THE REGISTRAR
AID & AWARDS
AWARD DISBURSEMENT SUMMARY
at November 1, 2021

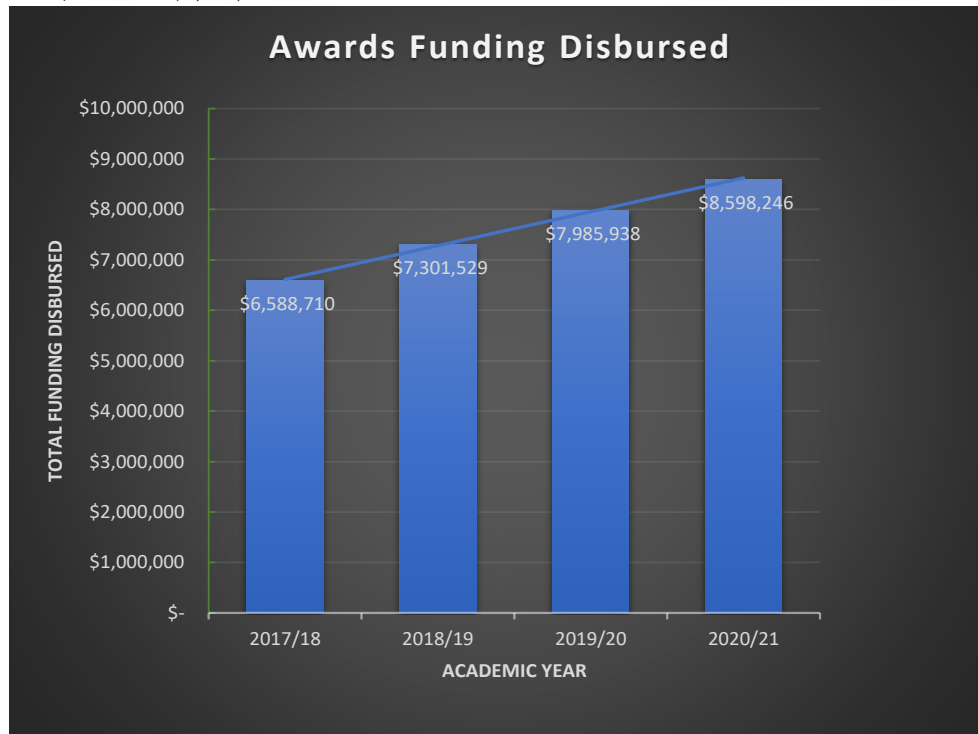
2017/18	Awards Disbursed	Funding Disbursed
Entrance	4875	\$4,968,050
In-Course, Travel & Exchange	1069	\$1,244,045
Graduand	113	\$62,615
Academic Grants	122	\$314,000
Total	6179	\$6,588,710
2018/19	Awards Disbursed	Funding Disbursed
Entrance	5226	\$5,433,135
In-Course, Travel & Exchange	1020	\$1,399,164
Graduand	72	\$81,830
Academic Grants	131	\$387,400
Total	6449	\$7,301,529
2019/20	Awards Disbursed	Funding Disbursed
Entrance	5429	\$5,816,316
In-Course, Travel & Exchange	1075	\$1,704,784
Graduand	72	\$76,140
Academic Grants	116	\$388,698
Total	6692	\$7,985,938
2020/21	Awards Disbursed	Funding Disbursed
Entrance	4552	\$6,489,289
In-Course, Travel & Exchange	1054	\$1,630,132
Graduand	71	\$76,475
Academic Grants	128	\$402,350
Total	5805	\$8,598,246

2017/18 \$6,588,710

2018/19 \$7,301,529

2019/20 \$7,985,938

2020/21 \$8,598,246





**OFFICE OF THE REGISTRAR
AID & AWARDS**

2021 Major University & External Awards Selection Committee

The Major University & External Awards Selection Committee is responsible for the selection of the recipients for the following scholarships.

- The Rhodes Scholarship
- The Drs. Jolie Ringash and Glen Bandiera Renaissance Award
- The Killam Fellowship Exchange Program
- University-wide Travel Scholarships by application
- University-wide Entrance Awards by application
- University-wide Graduatand & In-course Scholarships by application

2020/21 - Chair: Dr. Cameron Churchill, Director Engineering and Society, Assistant Professor (Teaching Professor)
Department of Civil Engineering, Associate Chair- Undergraduate

MEMBERSHIP

Nicole Agyei-Odame
Leanna Aref
Clair Arsenault
Luc Bernier
Lindsay Bolan
Alaine Coschi
Rebecca Collins-Nelsen
Tim Davidson
Victoria Doidge
Shylo Elmayan
Bhagwati Gupta
Muad Issa
Alicia Jack
Matthew Jordan
Zahra Keshavarz-Motamed
Siobhan Koch
John MacLachlan
Judy Major Girardin
Lynn Martin
Peter Mascher
Helen McDonald
Karen McGarry
Andrew Mitchell
Selina Mudavanhu
Caitlin Mullarkey
Jennifer Nash
Bridget O'Shaughnessy
Tracy L. Prowse
Jennifer Richardson
Shaiya Robinson
Veronica Rodriguez Moncalvo
Constantine Samaan
Kalai Saravanamuttu
Anne Savage
Visanou Saythavy

DEPT.

Office of the Associate Dean
Recruitment
Athletics and Recreation
School of Earth, Environment & Society
Strategic Recruitment and Enrolment
University Advancement
School of Interdisciplinary Studies
Electrical and Computer Engineering
Admissions & Recruitment
Indigenous Student Services
Associate Dean of Grad Studies
Athletics and Recreation
Aid & Awards
Arts & Science
Mechanical Engineering
Engineering
Geog. & Earth Science
School of Arts
School of Nursing
Vice-Provost, International Affairs
Education Services
Anthropology
School of Arts
Comm.Studies & Media Arts
Biochemistry and Biomedical Sciences
Education Services
Economics
Associate Dean
Academic Advising
School of Interdisciplinary Science
Interdisciplinary Science
Pediatrics
Chemistry
English & Cultural Stud.
Aid & Awards

FACULTY

Social Sciences
Humanities

Science
Engineering
Engineering
Art & Science
Engineering
Business

Graduate Studies

Arts & Science
Engineering
Engineering
Science
Humanities
Health Sciences
Office of International Affairs
Health Sciences
Humanities
Humanities
Humanities
Science
Health Sciences
Social Sciences
Social Sciences
Humanities
Science
Science
Health Sciences
Science
Humanities



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AID & AWARDS**

2021 Major University & External Awards Selection Committee

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Ricki Wellstead	Aid & Awards	
Michael Wong	Psychiatry and Behavioural Neurosciences	Health Sciences

REPORT TO UNDERGRADUATE COUNCIL
from the
CERTIFICATES AND DIPLOMAS COMMITTEE

FOR APPROVAL

a. Closure of the Certificate in Metallurgy of Iron and Steel

At its October 5th, 2021 meeting, the Certificates & Diplomas Committee received, for approval, the Committee of Continuing Education's plan to close the Certificate in Metallurgy of Iron and Steel. Details of the closure are contained within the circulated report.

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, the closure of the Certificate in Metallurgy of Iron and Steel, effective November 2021, as set out in the attached.

b. Health Humanities & Social Sciences Concurrent Certificate Proposal

At its November 9th, 2021 meeting, the Certificates & Diplomas Committee received, for approval, the Health Humanities & Social Science Concurrent Certificate Proposal. Details of the proposal are contained within the circulated report.

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, the creation of the Health Humanities & Social Science Concurrent Certificate, as set out in the attached.

FOR INFORMATION

c. New Certificate of Attendance Program

At the same meeting, the Certificates & Diplomas Committee received, for information, the Centre for Continuing Education's overview of the attached Certificate of Attendance Program Proposals. Details are contained within the circulated report.

Undergraduate Council
December 7, 2021



Centre for
Continuing
Education

One James North
3rd Floor
Hamilton, Ontario
L8S 4L8 Canada

Phone 905.525.9140
Ext. 24321
Fax 905.546.1690
www.mcmastercce.ca

Date: September 16, 2021

To: Dr. Sean Corner, Chair, Certificates and Diplomas Committee

From: Dr. Lorraine Carter, Director, McMaster Continuing Education

Cc: Dr. Kim Dej, Associate Vice Provost (Faculty)
Dan Piedra, Assistant Director, McMaster Continuing Education
Anne Dwyer, Program Manager, McMaster Continuing Education

Re: Closure of the Certificate in Metallurgy of Iron and Steel

I am writing to share information about the closure of the Certificate in Metallurgy of Iron and Steel offered through McMaster Continuing Education (MCE).

History

The Certificate in the Metallurgy of Iron and Steel originated in 1954 as a partnership between the Department of Extension (McMaster Continuing Education) and the Ontario chapter of the American Society of Metals. The program consisted of a lecture series that ran once a year. The official certificate began in 1955 and was designed as a 3-year program offering five courses once yearly. From 1959 – 1968, the program evolved to consist of 3 courses offered once a year. In 1997, the Faculty of Engineering and Continuing Education partnered to revise the program to a 6 course, in-person certificate. Finally, in 2012/13 the program was reduced to 5 courses and delivered fully online with the intent to broaden the audience to international pockets of the steel industry.

Current Situation

Enrolment in the metallurgy program has been slowly declining since before the 2012 decision to move to an online format. Reasons for this are multiple and include:

- Students complete a limited number of courses rather than complete the full program.
- The program struggles to find an audience, as the program is too technical for individuals working in the steel industry in administrative roles (i.e. data analysts, finance, sales). The steel industry recruits engineers from Material Science programs for positions in quality control, supervisors, metallurgists, etc. This will continue to reduce the number of engineering graduates attending the program as content will overlap with undergraduate studies.
- Active students are predominately from Ontario. The recruitment of international students from India, China, and Europe has not increased.
- There are limited opportunities for contract training in metallurgy. Past inquiries do not proceed as representatives from the steel industry have difficulty determining the specific training needs of employees. Furthermore, increased training programs offered by industry associations and online resources provide more direct education and training for employees in the steel industry.

Communication and Program Wind Down Plan

Every effort will be made to ensure that students, who are currently enrolled, have the opportunity to complete the certificate. The following steps will be taken to communicate the closure of the program and manage the wind-down phase:

- A program closure wind-down plan, including course offerings schedule will be prepared.
- Instructors will be informed about the closure and the wind-down plan.
- An email will be sent to all students who have enrolled in a metallurgy course in the last 8 years to inform them of the closure, as well as MCE's commitment to ensure that students enrolled in the program will have the opportunity to complete the certificate.
- The last intake to the Metallurgy program, as well as the last offering of the foundation course (Met 450 Physical Metallurgy) will be Spring 2022. No new intakes to the program will be permitted beyond Spring 2022.
- Those interested in completing individual courses, without qualifying for the certificate will be permitted to do so.
- Scheduling will be aligned with the requirements of current students to complete the program.
- Students wishing to complete the program requirements will have 18 months to do so (May 2022-December 2023), with a final offering of courses scheduled during the Fall 2023 semester.
- A closure message will be posted on the MCE website.

MCE is committed to helping all current students complete the present program should they wish to do so.

Sincerely,



Dr. Lorraine Carter, Centre for Continuing Education
McMaster University

Proposal for a Concurrent Certificate in Health Humanities & Social Sciences

1. Certificate Overview

The Concurrent Certificate in Health Humanities & Social Sciences (HHSS Certificate) is designed to provide students from many disciplines with an interest in the health humanities and social sciences with an opportunity to develop an academic focus in this area, with the HHSS Certificate serving to recognize that they have gained core knowledge in this area through their coursework. For these purposes, HHSS is understood as the application of creative or fine arts (art, music, performing arts) and humanities and social sciences disciplines (eg. literary studies, languages, law, history, philosophy, religion, sociology, anthropology, etc.) to discuss, express, understand, or promote human health and well-being.

- a. **Rationale**: Undergraduate students interested in pursuing careers in health and medicine are often enrolled in science programs, and often have only limited exposure to humanities and social sciences scholarship that can help to broaden their perspectives and insights in ways that would make them more effective health practitioners, researchers, and policy-makers. The creation of a Concurrent Certificate in HHSS would incentivize students to enroll in these types of courses in order to earn the credential, and support robust enrollment in these courses.
- b. **Structure**: The HHSS Concurrent Certificate will require students to complete a total of 18 units of course work. Existing courses in the HHSS are currently offered through the Faculties of Health Sciences, Humanities, and Social Sciences, and the Arts & Science Program, providing an opportunity for cross-faculty and cross-program collaboration, and interdisciplinary learning amongst students in these programs. Of these 18 units, at least 9 units must be elective to the student's degree, and at least 9 units must be taken from outside the student's home faculty.

2. Academic Merit

- a. **Learning Outcomes**: By completing the courses required for the HHSS Certificate, all students will be able to:
 - Demonstrate an appreciation for health as a complex human phenomenon that goes beyond bioscientific perspectives;
 - Become familiar with a range of disciplinary approaches and scholarly perspectives and methods of relevance to health beyond the strictly biomedical, including narratives of health, arts-based representations and

interventions in health, discourses and language of health, politics and cultures of health, among others;

- Provide an analysis of the cultural, social, historical, political, and philosophical understandings of health and illness.

b. **Certificate Requirements:** Any student in an undergraduate program at McMaster may declare the HHSS Certificate at the time of graduation provided that they satisfy the following requirements:

- Completion of 18 units from the following list; at least 9 units must be elective to the student's degree, and at least 9 units must be taken from outside the student's home faculty.

Courses in the Arts & Science Program

- ARTSSCI 4CT3 – Medical Humanities Inquiry
- ARTSSCI 4HS3 – History of Science Inquiry

Courses in the Faculty of Health Sciences

- HTHSCI 3CC3 – Theatre for Development
- HTHSCI 3EE3 – Biomedical Graphics
- HTHSCI 3HL3 – Health Law: Current & Emerging Issues
- HTHSCI 3L03 – Introduction to Bioethics
- HTHSCI 3MU3 – Music, Health & the Community
- HTHSCI 3N03 – Written Communication in Health Sciences 1
- HTHSCI 4DN3 – Dance in Health & Wellness
- HTHSCI 4MS3 – The Social Lives of Molecules
- HTHSCI 4NN3 – Written Communication in Health Sciences 2
- HTHSCI 4TE3 – The Teaching Hospital
- HTHSCI 4Y03 – Science, Culture & Identity

Courses in the Faculty of Humanities

- ARTHIST 2AA3 – Introduction to the Practice of Art Therapy
- CLASSICS 2MT3 – Ancient Roots of Medical Terminology
- CLASSICS 3MT3 – Advanced Ancient Roots of Medical Terminology
- ENGLISH 2NH3 – Narratives of Health

- ENGLISH 2S03 – Spectacular Bodies
- ENGLISH 4AR3 – Rhetoric, Culture, Catastrophe: AIDS and its Representations
- GENDERST 4A03 - Stories, bodies, archives: un/Learning in Movements
- HISTORY 1Q03 - History of Medicine
- HISTORY 4FF3 – History of Health and Medicine
- LINGUIST 3AS3 - Language and Communication in Autism Spectrum Disorder
- LINGUIST 3DS3 - ASL & Deaf Studies
- MUSIC 2MT3 – Music Therapy
- MUSIC 2MU3 – Introduction to Music Therapy Research
- PEACJUST 2XX3 - Social and Structural Determinants of Health
- PEACEST 3B03 – Peace-Building and Health Initiatives
- PEACEST 4G03 -Peace Through Health: Praxis
- PEACEST 4L03 – Peace, Environment & Health
- PHILOS 2D03 – Bioethics
- PHILOS 2U03 – Philosophy of Health & Medicine
- PHILOS 3C03 – Advanced Bioethics
- PHILOS 3D03 – Philosophy of Science
- PHILOS 3GH3 - Global Health Ethics

Courses in the Faculty of Social Science

- ANTHROP 2U03 – Plagues and People
- ANTHROP 3BD3 – The Black Death
- ANTHROP 3FA3 – Forensic Anthropology
- ANTHROP 2HI3 – Medical Anthropology (previously 3HI3)
- HLTHAGE 2C03 – Health Economics and Its Application to Health Policy
- INDIGST 3H03 – Indigenous Medicine I – Philosophy

- INDIGST 4HH3 – Indigenous Health and Interdisciplinary Approaches
- LABRST 3D03 – Work: Dangerous to your Health?
- SCAR 2ER3 – Religion, the Body, and the Machine
- SCAR 2M03 – Death and Dying: Comparative Views
- SCAR 2N03 – Death and Dying: The Western Experience
- SCAR 2WW3 – Health, Healing & Religion: Western Perspectives
- SCAR 2WX3 – Health, Healing & Religion: Comparative Views
- SOCIOL 3G03 – Sociology of Health Care
- SOCIOL 3HH3 – Sociology of Health
- SOCIOL 4G03 – Advanced Topics in the Sociology of Health & Illness
- Transfer credits or substitutions may be considered for credit toward the HHSS Certificate by submitting a request to the Assistant Dean – BHSc (Hons) Program.

c. **Access to Courses:** The participating Faculties and Programs have reviewed the courses to be included in the HHSS Certificate and to ensure that students can have appropriate access to the courses from various programs:

- Of the 46 courses listed, 22 are open or are restricted by level only; 14 are available with one or more prerequisite courses or are available by permission; only 10 are highly restricted to students in certain programs only. Thus, we do not anticipate that students would have difficulty meeting the certificate requirement to take 6 3-unit courses due to prerequisites.

3. **Resources**

- a. All of the courses to be offered in the HHSS Certificate are already being offered in the participating programs/faculties; no new courses or teaching resources are required.
- b. The Certificate will be administered through the BHSc (Hons) Program Office.



CONTINUING
EDUCATION

DATE: October-22-21

TO: Certificate & Diploma Committee

FROM: Lorraine Carter, Director, Continuing Education

RE: For Information Purposes: Program credential change (MCE – NIHI ePrivacy Certificate of Completion)

In 2017, McMaster Continuing Education and the National Institutes of Health Informatics (NIHI) collaborated to offer a Certificate of Completion program in ePrivacy. Based on feedback from course facilitators, NIHI staff and participants, this version of the ePrivacy program will be closed and the content will be restructured into two Certificate of Attendance programs. The date of the closure will be March 1, 2022.

MCE and NIHI have submitted two documents for information purposes outlining the new ePrivacy courses. Each course will offer a co-branded Certificate of Attendance for participants who attend all sessions and complete all required content activities.

New Certificate of Attendance submission:

- ePrivacy Fundamentals
- ePrivacy: Privacy by Design & Risk Management

Sincerely,

Lorraine Carter
Director, Continuing Education

Continuing Education – Certificate of Attendance Program Proposal for Information Purposes

Department & Program Information	
Program Name:	ePrivacy Fundamentals
Credential:	Certificate of Attendance (co-branded with National Institutes of Health Informatics (NIHI) and Continuing Education)
Name of Representative:	Nancy McQuigge
Effective Date:	November 9, 2021
Date of Submission:	November 9, 2021
Academic Merit	
Program Overview	<p>The program is offered in partnership with McMaster Continuing Education (MCE) and the National Institutes of Health Informatics (NIHI). NIHI provides professional development training for health care professionals across Canada. This program adds to the existing partner programs with MCE and NIHI.</p> <p>In 2017, MCE and NIHI collaborated to offer a Certificate of Completion program in ePrivacy. Based on feedback by course facilitators, NIHI staff and participants, the ePrivacy program will be divided into two courses. Each course will offer a Certificate of Attendance.</p> <p>This course is the first course in the ePrivacy series offered by MCE and NIHI. This session is designed for anyone responsible for managing the privacy function in their organization, App developers, consultants and service providers of products for health care. Organized into two modules, the course provides an introduction to privacy principles, rights and responsibilities and progresses to the essentials of building a privacy program.</p> <p>Participants will complete their training with NIHI, and, upon finishing a specified number of hours and coursework, MCE will issue a co-branded Certificate of Attendance.</p>
Learning Objectives	<p>Learning objectives for the program are established by NIHI.</p> <p>Identified competencies involve:</p> <ol style="list-style-type: none"> 1. Identifying relevant privacy legislation applicable to an organization and/or its clients.

	<p>2. Establishing a comprehensive privacy program for an organization and its clients.</p> <p>3. Responding effectively to a privacy breach.</p>
Meeting Learning Objectives	The program will use a series of online sessions to achieve the program objectives. Individual modules/session objectives are mapped to the program objectives and competencies. The delivery format and teaching methods are structured to have a maximum effect on achieving the learning objectives.
Program Completion Requirements	To receive a Certificate of Attendance, participants must complete a minimum of 8-10 hours of program content offered by NIHI. Participants will submit a series of evaluative components upon the completion of the modules/sessions.
Program Delivery Format	Sessions will be delivered online using a combination of synchronous and asynchronous activities.
Student Evaluations (Grading Process)	The final grade for participants will be “pass/fail”.
Course Evaluation	NIHI will distribute a post-course evaluation for participants to assess content, delivery, materials, and facilitation.
Course Instruction	Facilitators are selected by NIHI from a pool of qualified professionals. Selection is based on academic background and/or experience within the program area.
Listing of Session Topics:	
Introduction to Privacy: Privacy Principles	Privacy introduction; definition of key terms; technological, social and business trends impacting privacy; detailed review of each of the 10 principles of the CSA Model Code for the Protection of Personal Information.
Privacy and Information Governance	Overview of the multidisciplinary structures, policies, procedures, processes and controls needed to manage information at an enterprise level that supports an organization’s immediate and future regulatory, legal, risk, environmental and operational requirements.
Canadian Privacy Laws	Privacy as a basic human right; Canadian privacy laws impacting the public, private and health sectors; Opportunities and challenges for organizations operating across multiple jurisdictions.
International Privacy Laws	International privacy laws impacting the Canadian environment; emphasis is placed on US privacy laws including those managed by the Federal Trade Commission and Health and Human Services (HIPAA) and the European General Data Protection Regulation (GDPR).
Individual Privacy Rights	Overview of the privacy rights of individuals enshrined in privacy laws including individual access to personal information, correction of personal information, choice and consent, control over the

	collection, use and disclosure of personal information, redress and challenging compliance.
Privacy and Security Policies and Procedures	The importance of enterprise-wide privacy and security policies and procedures to ensure the consistent application of privacy rights and obligations across the organization. Review of a minimum set of policies and procedures derived from privacy laws, standards and guidelines.
Agreements and Contracts	The importance of agreements and contracts to address privacy roles and responsibilities in complex multi-stakeholder environments, including business associates, customers and consumers; agreements mandated by privacy legislation; end-user licensing agreements, terms and conditions, privacy policies and other consumer-oriented agreements.
Building a Privacy Program	This session will define the essential components of an integrated information privacy program for small and large organizations. This session will consolidate and build on information from previous sessions on privacy management, policies and procedures, agreements with business partners, monitoring and audit and other elements of a comprehensive program.
Privacy Monitoring and Audit	How to proactively detect and contain privacy and security incidents, enable audit logging capabilities in information systems, establish criteria for monitoring and audit.
Managing Privacy Breaches and Complaints	How to establish policies and procedures for managing privacy and security breaches and incidents. Focus on prevention, detection, containment and response privacy and security breaches. Mandatory notification and reporting of privacy breaches to affected individuals, regulators in professional colleges.

**Continuing Education – Certificate of Attendance Program Proposal for
Information Purposes**

Department & Program Information	
Program Name:	ePrivacy: Privacy by Design and Risk Management
Credential:	Certificate of Attendance (co-branded with National Institutes of Health Informatics (NIHI) and Continuing Education)
Name of Representative:	Nancy McQuigge
Effective Date:	November 9, 2021
Date of Submission:	November 9, 2021
Academic Merit	
Program Overview	<p>The program is offered in partnership with McMaster Continuing Education (MCE) and the National Institutes of Health Informatics (NIHI). NIHI provides professional development training for health care professionals across Canada. This program adds to the existing partner programs with MCE and NIHI.</p> <p>This course is the second course in the ePrivacy series offered by MCE and NIHI. This session is designed for anyone responsible for managing the privacy function in their organization, App developers, consultants and service providers of products for health care. Organized into two modules, the course builds on content introduced in the ePrivacy Fundamentals course. This course focusses on privacy by design principles, risk assessment, monitoring and auditing and privacy training.</p> <p>Participants will complete their training with NIHI, and, upon finishing a specified number of hours and coursework, MCE will issue a co-branded Certificate of Attendance.</p>
Learning Objectives	<p>Learning objectives for the program are established by NIHI.</p> <p>Identified competencies involve:</p> <ol style="list-style-type: none"> 1. Establish a Privacy by Design framework for an organization's products or services. 2. Complete a privacy impact assessment for a new system. 3. Complete a threat and risk assessment for an organization. 4. Implement a privacy and security testing program.
Meeting Learning Objectives	The program will use a series of online sessions of approximately 1-hour duration to achieve the program objectives. Individual

	modules/session objectives are mapped to the program objectives and competencies. The delivery format and teaching methods are structured to have a maximum effect on achieving the learning objectives.
Program Completion Requirements	To receive a Certificate of Attendance, participants must attend all sessions and complete all content hours delivered by NIHI. Participants will submit a series of evaluative components upon the completion of the modules/sessions.
Program Delivery Format	Sessions will be delivered online using a combination of synchronous and asynchronous activities.
Student Evaluations (Grading Process)	The final grade for participants will be “pass/fail”.
Course Evaluation	NIHI will distribute a post-course evaluation for participants to assess content, delivery, materials, and facilitation.
Course Instruction	Facilitators are selected by NIHI from a pool of qualified professionals. Selection is based on academic background and/or experience within the program area.
Listing of Session Topics:	
Privacy by Design Principles	Introduction to Privacy by Design (PbD); foundational principles of PbD;
Privacy and Security Standards and Guidelines	Review of privacy and security standards and guidelines that can be used to support PbD, including standards published by ISO, National Institute of Standards and Technology (NIST), and Canada Health Infoway.
PbD and Agile Development	How to apply PbD principles as part of an agile development methodology. Build privacy and security into user stories, releases and sprints.
PbD and Emerging Technologies	Application of PbD principles to emerging technologies including cloud, Internet of things, mobile, big data analytics, and social media. This session will address opportunities and challenges to privacy posed by emerging technologies.
Building End-to-End Security	How to ensure that personal information is protected throughout the entire information lifecycle from the collection or creation of data through to its final disposal or destruction. The session will address the application of security best practices to system development and the establishment of an information security management program in the organization.
Privacy and Security Certification	Many organizations are turning to privacy and security certification programs for evidence that Business partners and suppliers are applying best practices to privacy and security management. This session will review the certification and audit programs established by Canada Health Infoway, HITRUST, CPA Canada and PCI DSS.

Risk Management Principles	Introduction to risk management principles and methods including establishing the context, risk assessment, and risk treatment. Discussion of privacy and security in the context of enterprise risk management. Day-to-day management of risk using the risk register and the risk treatment plans
Privacy Impact Assessment	How to assess privacy risk using privacy impact assessment (PIA). Review of PIA methodologies. Review major PIA components including readiness assessment, legislative analysis, organizational analysis, solution analysis, and risk assessment. Presenting findings and recommendations to senior management and stakeholders.
Threat and Risk Assessment	How to assess security risk using threat and risk assessment (TRA). Review of TRA methodologies. Review of major TRA components including readiness assessment, system description, asset inventory, asset valuation, threat assessment, vulnerability assessment, and risk assessment. Presenting findings and recommendations to senior management and stakeholders.
Privacy Monitoring and Audit	How to proactively detect and contain privacy and security incidents, enable audit logging capabilities in information systems, establishing criteria for monitoring and audit.
Privacy Training	How to establish a comprehensive privacy and security awareness training program; tailoring content to specific audiences; modes of delivery; tracking progress; specialty training for privacy officer and senior management.

Continuing Education – Certificate of Attendance Program Proposal for Information Purposes

Department & Program Information	
Program Name:	ROI Thinking in Healthcare
Credential:	Certificate of Attendance (co-branded with National Institutes of Health Informatics (NIHI) and Continuing Education)
Name of Representative:	Nancy McQuigge
Effective Date:	November 9, 2021
Date of Submission:	November 9, 2021
Academic Merit	
Program Overview	<p>The program is offered in partnership with McMaster Continuing Education (MCE) and the National Institutes of Health Informatics (NIHI). NIHI provides professional development training for health care professionals across Canada. This program adds to the existing partner programs with MCE and NIHI.</p> <p>The ability to connect the dots and show bottom-line accountability while maintaining quality and efficiencies is the key to survival in the healthcare industry. To meet this challenge healthcare organizations must be more efficient (cost), more effective (better patient outcomes) and provide better patient satisfaction. This requires investments in improvement initiatives and the ROI Methodology is the best process to ensure those investments add value to all stakeholders.</p> <p>This 6-session course demonstrates the significance of bottom-line accountability. The course focuses on competencies to ensure an initiative, program or project is successful and its value, impact and ROI are proven.</p> <p>Participants will complete their training with NIHI, and, upon finishing a specified number of hours and coursework, MCE will issue a Certificate of Attendance.</p>
Learning Objectives	<p>Learning objectives for the program are established by NIHI.</p> <p>Learners will be able to:</p> <ul style="list-style-type: none"> Comprehend the significance of proving value, impact and ROI of programs/initiatives

	<ul style="list-style-type: none"> • Define ROI and determine how it is calculated • Comprehend the types of impact measures that can be converted to monetary values <p>Competencies: Participants will be able to:</p> <ul style="list-style-type: none"> • Imbed ROI Thinking into programs and initiatives • Demonstrate alignment of programs and initiatives to the organizational strategy • Develop objectives at all 5 levels of data – setting the program/initiative up for success • Analyze an impact or ROI study to determine how to improve the program/initiative • Develop a credible ROI Forecast
Meeting Learning Objectives	The program will use a series of six sessions to achieve the program objectives. Individual modules/session objectives are mapped to the overall program objectives. The delivery format and teaching methods are structured to have a maximum effect on achieving the learning objectives.
Program Completion Requirements	To receive a Certificate of Attendance, participants must attend all sessions and content hours offered by NIHI. Participants will submit a series of evaluative components upon the completion of the modules/sessions.
Program Delivery Format	Sessions will be delivered online using a combination of synchronous and asynchronous activities.
Student Evaluations (Grading Process)	The final grade for participants will be “pass/fail”.
Course Evaluation	NIHI will distribute a post-course evaluation for participants to assess content, delivery, materials, and facilitation.
Course Instruction	Facilitators are selected by NIHI from a pool of qualified professionals. Selection is based on academic background and/or experience within the program area.
Listing of Session Topics:	
<p>Session 1 – ROI Thinking – Critical to Success Return on Investment (ROI) thinking provides executives, program owners, funders and all involved in initiatives a platform to ensure accountability and ROI is embedded. As initiatives, programs or projects are developed and implemented a critical component must be how to determine the value, impact and ROI. This session also includes a review of the ROI Methodology (it is not all about ROI) and the true definition of ROI.</p> <p>Session 2 – Start with Why – Align the Program with the Organization Discussion and examples to present an initial opportunity to ensure a program is aligned with the needs of the organization.</p> <ul style="list-style-type: none"> • Is this program, initiative worth doing? 	

- Is this a problem worth solving?
- Is this an opportunity worth pursuing?

Session 3 – Design for Results – What does Success Look Like?

Several issues are involved in expecting the success of an initiative, program or project: define success, set objectives at multiple levels, define responsibilities of all stakeholders to achieve success. This session looks at all components in defining the success of programs, initiatives or projects.

Session 4 – Avoid Demolition and Renovate – Black Box Thinking

What happens to a program that is not delivering the results that were expected? There are choices and sometimes the choice is to terminate or demolish the program. With good data and Black Box Thinking the program can be improved or renovated.

Black Box Thinking:

- What went wrong?
- A systemic breakdown?
- Technical mistakes, individual mistakes?
- Can anything be done to enhance it and make it better?

Session 5 – Will it be Worth It - Forecasting ROI – A Tool to Present a Business Case

Sometimes it is important to know the forecasted ROI before the program is initiated. This has become an issue in the healthcare industry, the requirement to provide a forecast of the ROI. Having a credible forecast might be the best method to attract the funder's attention. This session will demonstrate how to apply a credible methodology for forecasting.

Session 6 – Making it Work - Applying ROI to Your Programs

This session will be participant interactive as learners will share how the concepts will be implemented in a workplace program or initiative. A review of content from sessions 1-5 will be presented.

- Overview of the 5 sessions – bringing it all together
- Participant presentation detailing how the ROI concepts will be implemented in participant's program/initiative or organization
- Live feedback will be provided on the presentation from the instructor and participants
- Q & A

REPORT TO UNDERGRADUATE COUNCIL
from the
Ad Hoc Committee on Micro Credentials

FOR INFORMATION

I Final Report on Implementing Micro-Credentials at McMaster University

An ad hoc committee, governed by McMaster's Undergraduate and Graduate Councils, with the participation of McMaster's Centre for Continuing Education and overseen by the University Secretariat was tasked with considering how micro credentials should be used on campus and to make recommendations for changes to the Senate Policy on Diplomas and Certificates and other policies as required to facilitate implementation.

The final report on 'Implementing Micro-Credentials at McMaster University' is being reported to Undergraduate Council for information.

Undergraduate Council: December 7, 2021



Implementing Micro-credentials at McMaster University

Key findings and recommendations prepared by
McMaster's Ad-Hoc Committee on Micro-credentials

JULY 2021

BRIGHTER WORLD | mcmaster.ca



Executive Summary

While micro-credentials are new to the university post-secondary landscape, some of the largest global companies are using them to train current and future employees. The Province of Ontario has identified the development of micro-credentials as a priority, investing millions of dollars to increase the number and types of micro-credentials available in the province. Their goal is for micro-credentials to respond to regional labour market needs and dynamic career trajectories while increasing collaboration between the private and public sectors through formal partnerships among postsecondary institutions and employers.

Considering these developments, an Ad Hoc Committee was established by McMaster's Undergraduate and Graduate Councils with representation from McMaster Continuing Education and the University Secretariat. The Ad Hoc Committee was charged with defining and considering how micro-credentials should be used on campus. Micro-credentials could be leveraged at McMaster to:

- Create a new pathway to certificate or degree programs for a learner.
- Support students and non-traditional learners.
- Develop connections with industry and provide support for skills they need to succeed.
- Communicate and verify skills and competencies that students are gaining/learning outside of traditional modes.
- Create more flexibility/nimbleness in our learning environment while maintaining standards of rigor and quality.

This report outlines the Committee's key findings and recommendations for implementing micro-credentials at McMaster. They include:

- A proposed definition for micro-credentials at McMaster.
- Proposed revisions to the Certificates and Diplomas policy for micro-credentials to be considered Fall 2021, involving a subset of the committee to draft a new version for review, discussion and possible acceptance by Undergraduate Council and Graduate Council.
- Administration and oversight of micro-credentials should initially be handled by the new INSPIRE Office for Flexible Learning.
- A Director of Micro-credentials position should be created, reporting to the Vice-Provost (Faculty).
- Recommendations regarding the assignment, approval and administration of fees.
- Recommendations regarding the appeals process for micro-credential offerings.

Membership of the Ad-Hoc Committee on Micro-Credentials

Appointment	Title	Name
Members		
Co-Chair	Acting Vice-Provost (Faculty)	Dr. Kim Dej
Co-Chair	Vice-Provost and Dean of Graduate Studies	Dr. Doug Welch
UGC Appointed Member	Associate Dean (Academic), Faculty of Social Sciences	Dr. Tracy Prowse
UGC Appointed Member	Associate Dean (Academic), Faculty of Business	Dr. Sue McCracken
GC Appointed Member	Associate Dean of Graduate Studies (Engineering)	Dr. Michael Thompson
GC Appointed Member	Associate Dean of Graduate Studies (Health Sciences)	Dr. Steve Hanna
MCE Director	Assistant Director, Centre for Continuing Education	Mr. Dan Piedra
Undergraduate Student	Arts & Science Program	Mr. Faris Mechlai
Graduate Student	PhD Student, Medical Sciences: Physiology and Pharmacology	Ms. Caroline Seiler
University Registrar	University Registrar	Ms. Melissa Pool
MCE Adult Learner/Appointed Member	Adult Learner (MCE Appointed)	Mr. Adam Smoluk
Consultants		
	Assistant Dean (Academic), Faculty of Engineering	Ms. Maria White
	Associate Professor & Assistant Dean, Bachelor of Health Sciences (Honours) Program	Dr. Stacey Ritz
	Associate Registrar and Graduate Secretary	Ms. Stephanie Baschiera
	Associate Dean of Graduate Studies	Dr. Bhagwati Gupta
	Associate Dean (Graduate Studies and Research), Faculty of Humanities	Dr. Martin Horn
University Secretariat		
	Policy Advisor and Projects Officer	Mr. Mark Downard

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Introduction

With new credentialing approaches gaining acceptance in academic and public spaces, McMaster has an opportunity to help its students demonstrate the different forms of knowledge and skills that they are acquiring as undergraduate students, graduate students and adult learners. A more modular learning approach has emerged known as micro-credentials, sometimes referred to as open digital badges, which some of the largest global companies are using to train potential and current employees. We are also seeing an increase in micro-credential offerings at post-secondary institutions around the world.

Micro-credentials offer McMaster the ability to provide competency based, skills-focused training that aligns with the priorities of the Provincial Government and prepares our students for diverse careers. As labour markets and industries evolve, there is a need for short-duration educational offerings that promote life-long learning and skill re-development. By building and developing high-quality micro-credentials, McMaster also has the capacity to develop stronger connections with industry partners and communicate the skills that such offerings provide to learners.

An Ad Hoc Committee was established by McMaster's Undergraduate and Graduate Councils with representation from McMaster Continuing Education, the Registrar's Office and the University Secretariat. The Ad Hoc Committee was tasked with defining and considering how micro-credentials should be deployed on campus. Within this mandate, it was also asked to make recommendations on administrative structures, policy, and the impact of these different credentials on institutional quality assurance, accreditation, and governmental regulations, including financial aid implications.

Post-secondary institutions around the world, including colleges, have begun developing micro-credential offerings to meet the growing demand for competency-based training. It should be noted that the micro-credential environment is still developing, and there are distinct differences across institutions and geographies in their attributes, delivery, and terminology. In this context, the Ad Hoc Committee on Micro-credentials has undertaken to make a number of recommendations related the administrative structures and processes to develop a nimble, robust and rigorous micro-credential landscape at McMaster. As the micro-credential landscape evolves, McMaster will further refine its processes and governance.

This report outlines the key findings and recommendations from the Committee for the future of micro-credentials at McMaster.

Definition

The following definitions of micro-credentials drawn from eCampusOntario and the Higher Education Quality Council of Ontario (HEQCO) were considered by the committee:

eCampusOntario definition: A micro-credential is a certification of assessed learning associated with a specific and relevant skill or competency. Micro-credentials enable rapid retraining and augment traditional education through pathways into regular postsecondary programming.

HEQCO definition: A micro-credential is a representation of learning, awarded for completion of a short program that is focused on a discrete set of competencies (i.e., skills, knowledge, attributes), and is sometimes related to other credentials.

Following a review and discussion, the Committee's proposed definition is:

A micro-credential is a designation of achievement of a coherent set of skills, competencies, or knowledge, specified by a statement of purpose, learning outcomes, and potential need by employers and/or in the community.

A micro-credential may be academic and/or non-academic. All micro-credentials must involve an evaluation of learning. Academic micro-credentials must also meet the standards for academic coursework, but there are no minimum number of credit hours to complete the work. Micro-credentials may be within a program, separate from a program, or they could sit simultaneously in both places.

A micro-credential has fewer requirements and credit hours than traditional academic qualifications and focuses on competencies that are: (1) not defined in existing programs (for non-academic micro-credentials only), (2) not accessible outside of limited enrolment programs, (3) complementary to existing programs, and/or (4) available as optionally stackable modules.

Policy Modifications

The focus of this section is concerned with the policy to accommodate the introduction of micro-credentials into McMaster's learning framework. New learning elements, such as micro-credentials, rely upon McMaster's reputation to demonstrate their value to the public. It is necessary to introduce policy that differentiates micro-credentials from other credentials. Furthermore, minimum institutional expectations for their scope, content and evaluation, and means of recognizing the final developed competency of the learner should be defined for knowledge creators. The McMaster Act limits our issuing of credentials to degrees, diplomas and certificates. Therefore, the Senate Policy on Certificates and Diplomas is the most appropriate home for micro-credentials. Below, we outline proposed modifications to this policy necessary to integrate micro-credentials into McMaster's requirements and procedures, ultimately providing oversight of these new learning activities.

Revision of Certificates and Diplomas Policy (July 8, 2020)

The committee believes that the evaluation, approval and monitoring of micro-credentials, similar to certificates and diplomas, should be the responsibility of the University's governing councils, namely Graduate Council and Undergraduate Council. Academic micro-credentials should be subject to normal academic regulations as outlined in the Undergraduate Calendar or Graduate Calendar, but both academic and non-academic micro-credentials are recommended to be approved and administered by a separate office from the Registrar. This administrative home would provide the nimbleness sought by Faculties and MCE to create micro-credentials and would be in a better position to handle these learning activities that will encompass undergraduate, graduate or general university level comprehension. The modifications to the policy for micro-credentials should describe the minimum expectations in admissions, breadth of content, and standards in evaluation. The committee was unified in its belief that any micro-credential must include an evaluation of competency with sufficient rigor corresponding to university level scholarly content.

We recommend that revisions to the Certificates and Diplomas policy for micro-credentials occur during Fall 2021, involving a subset of the committee to draft a new version for review and discussion by the two Councils. Guided by the Vice-Provost and Dean of Graduate Studies and Vice-Provost (Faculty), a small group of writers should adopt the vision of the committee. The revised policy should go to Senate for approval by December 2021.

Corresponding to the sections and layout of the Policy, the following modifications are recommended:

- Section II: *Procedural Requirements – Management of Academic Certificate and Diploma Programs* - Clarification that academic and non-academic micro-credentials will not be maintained by the Registrar but rather by a new administrative home. Micro-credentials that count towards degree completion will need to be maintained by the Registrar's Office. Subsequent sections of this

report will clarify the function of this newly-conceived home. On the academic side, this will develop akin to how MCE manages certificates and diplomas (non-degree) academic programming; the office as the administrative home but Point 7 of the current policy still applies to those students. This means the university will keep these records and attest to the issuance of credentials. At this point in time, unless it is a degree requirement, we recommend that micro-credentials do not appear on the transcript managed by the Registrar's Office but rather be recorded and available in a digital wallet. The availability of the digital infrastructure to implement this is a key condition for the success of micro-credential initiatives at McMaster.

- Section II: *Transfer between Credentials* –Stackability of academic credit for academic micro-credentials should be discussed specifically in a new section of the policy for micro-credentials (the [My OWN](#) degree might be used as a model). The learning activity for a micro-credential may generate its own credential (unlike certificates and diplomas which require multiple courses) and it may be combined with a corresponding diploma or certificate, as described in the appropriate section of this policy. Outside of the allowances for certificates and diplomas, academic micro-credentials may also be counted towards a degree, but should be specifically approved passing through the usual curriculum change procedures.
- Sections III to VI - Modify certificate and diploma sections, for academic credentials, to include the counting of academic micro-credentials. Typical limitations should be highlighted where an academic micro-credential may be used towards a degree and certificate simultaneously, or diploma and certificate simultaneously, but may not be counted towards two diplomas, or a degree and diploma simultaneously.
- Section VII: *Other Certificates* - Inclusion of non-academic micro-credentials into a stackable Certificate of Completion. There is no equivalency with Certificates of Attendance since micro-credentials will require an evaluation.
- New Section VIII (moving old section down to Section IX) - Include the definition for micro-credentials, as above. Academic micro-credentials should be declared as undergraduate or graduate, while non-academic micro-credentials should have no distinction, but normally involve competencies corresponding to university level studies. A description of stackability for micro-credentials towards another credential (both academic and non-academic) should be re-iterated in this section. Additional information in this section should include:
 - Setting admission requirements, ensuring it encompasses the university and MCE.
 - Defining credit units based on contact hours for academic micro-credentials. The definition should consider lower and upper limits on the duration of micro-credentials so that they are meaningful in scope but also well-differentiated from courses.
 - Inserting digital credentialing since it is not presently discussed in the policy. There should be consideration of credential mobility and the ability to give students and learners access to proof of completed requirements for specific micro-credentials (i.e., to be consistent with the

idea that micro-credentials are 'portable', and that students and learners can show them to potential employers to demonstrate skills and abilities). All micro-credentials should have a corresponding digital credential but only academic micro-credentials corresponding with degree requirements may appear on a university transcript. The Section II.8 clause may be expanded for micro-credentials to reflect the administrative home duty, with examples of the suggested credential appended at the end of the policy.

- New Section IX (old Section VIII): *Procedures for Approval* - Academic micro-credentials should be approved by their corresponding council, undergraduate or graduate. Non-academic micro-credentials should be approved by a Faculty standing committee, documented by the new administrative home, and should be reported to Undergraduate and Graduate Councils on an annual basis. Procedure for setting new fees may require deviation from the procedures for certificates.

Ceremonials

There is no current policy associated with digital credentials (confirmed by the Secretariat). A few universities have standardized appearances for micro-credentials but we were unable to identify an existing ceremonials policy at another institution that would provide guidance. This may be an opportunity to state some minimum expectations concerning the appearance of digital credentials so that Faculties can engage creatively in this area. We recommend that the Senate Committee on University Ceremonials and Insignia be tasked with recommending requirements for "visual" aspects of digital credentials.

Administrative “Home”

The idea of an administrative home is meant to provide a sustainable entity to oversee all micro-credential activity at McMaster. The creation of micro-credentials can happen organically in many areas of the university: within Faculties, Schools or program areas, by McMaster Continuing Education (MCE), Executive Education, the University Library, etc. Providing an administrative framework for micro-credentials facilitates program launches, supports micro-credential students and learners, and provides a strategic advantage to McMaster. Micro-credentials may be non-academic or academic, but do not generally count toward degrees or graduate diplomas. If specific micro-credentials become approved components of other credentials, the administrative oversight of such will need to be outlined more specifically as it will involve program-specific parameters. Learners will include currently enrolled undergraduate and graduate students, non-traditional learners registering through MCE, alumni engaging in up-skilling or re-skilling, and non-McMaster enrolled students and learners from other universities.

The issuance of micro-credentials requires a substantial administrative infrastructure - one capable of performing logistical functions such as:

- Setting-up and issuing micro-credentials;
- Maintaining a record of micro-credentials created and issued;
- Engaging in marketing and advocacy including recruiting individuals and employers for micro-credential service; and
- Registration of and collection of fees for all students and learners into all micro-credential offerings.

Key to the success of the micro-credential infrastructure is the choice of a single source for the creation and maintenance of the repository of micro-credentials issued so that individual micro-credential holders can claim the micro-credentials and post them where they want. This decision may be adjusted over time, but the University should reach a decision on a common platform within its first year of operation to avoid a variety of platforms issuing McMaster micro-credentials.

While McMaster may decide to develop its own infrastructure in the future, at present the issuance of micro-credentials may depend on using commercially available utilities such as BCdiploma (currently funded through eCampus Ontario). McMaster Continuing Education has already leveraged the use of BCdiploma in rolling out its Data Analytics program – an eCampus Ontario micro-credential pilot which involved a collaboration with the National Institutes of Health Informatics (NIHI). It is recommended that this platform be used in the interim.

McMaster, as part of its mission, will establish the McMaster INSPIRE Office of Flexible Learning. We recommend that the INSPIRE Office advocate, create, issue, maintain, market and promote the responsible issuance of micro-credentials certifying competencies in the short-term in coordination with MCE.

Logistical Functions

These functions are associated with the actual creation and issuance of a credential through a vendor platform (such as BCdiploma) that performs the essential functions of creating a credential in a secure repository. They include:

- Designing the credential on the vendor platform (including helping digital credential issuers fulfill the requirements for initiating a credential).
- Issuing a credential to the repository and to the recipient.
- Reviewing the credential design and metadata for compliance with published criteria.
- Referring issues or questions to a micro-credentials advisory committee.
- Responding to questions and concerns of students, learners and employers.
- Reviewing submitted credentials for duplication or confusion with other McMaster credentials.

Administrative Functions

These functions are those business operations associated with the logistical nature of any centre, but also include special record keeping and reporting tasks:

- Managing financial aspects of the centre, including paying for costs and receiving and accounting for income and financial support.
- Maintaining records of approval and supporting documentation regarding the establishment of individual credentials.
- Maintaining a central record of credentials issued.
- Maintaining relations with the vendor platform including contracts and payments.
- Generating and distributing reports on credential issuance, sharing, and other aspects of the operations of the center.
- Hiring the Director/Manager and support staff to assist in the operations of the INSPIRE Office of Flexible Learning (<https://intersession.mcmaster.ca>).
- Responding to student and learner inquiries.

Marketing and Advocacy Functions

Communicating the competitive advantage of micro-credentials to individuals as they seek jobs and promotions and the benefits of talent access to employers should be prominent features of a multi-pronged marketing approach. Marketing and advocacy functions will include:

- Publicizing McMaster's capacity for digital credentialing.
- Marketing specific digital credentials.
- Creating and responding to media coverage opportunities.
- Engaging in information campaigns to increase the general use and recognition of McMaster credentials.

Development Functions

These functions include the development of clients for digital credentials such as regional businesses that want industry-specific credentials to be created and issued, internal McMaster departments and units that see opportunities for their students and learners to gain a competitive advantage in the marketplace, and professional associations seeking to advance professional competencies. Among the activities that the centre would provide are:

- Networking and consultation to identify internal and external clients for the services of the centre.
- Responding to requests for services.
- Identifying internal McMaster units that can respond to external requests for micro-credentials.
- Seeking external funding for deserving micro-credentialing projects.

Registration of Students and Learners into all Micro-credential Offerings

These functions encompass the aspect of registering undergraduate and graduate students and learners into the various micro-credential offerings at the University:

- Enabling registration of all micro-credential courses (credit and non-credit) through a single self-serve system; currently, MCE's registration system is best positioned to provide this service with additional technical and human resources required; as MCE explores and plans to implement a new registration system in 2021-2022, how the new system can/will support registration and payment for micro-credentials will be an important consideration; costs incurred by MCE for micro-credential activity related to the larger university will require appropriate resourcing. As such, we recommend that micro-credentials appear in the student record in the new student administration and registration system.
- Collecting fees for all registrations into any micro-credential offering.
- Coordinating the production of T2202 slips with Financial Affairs, where applicable.
- Coordinating with the Aid and Awards Office for OSAP-eligible programming.

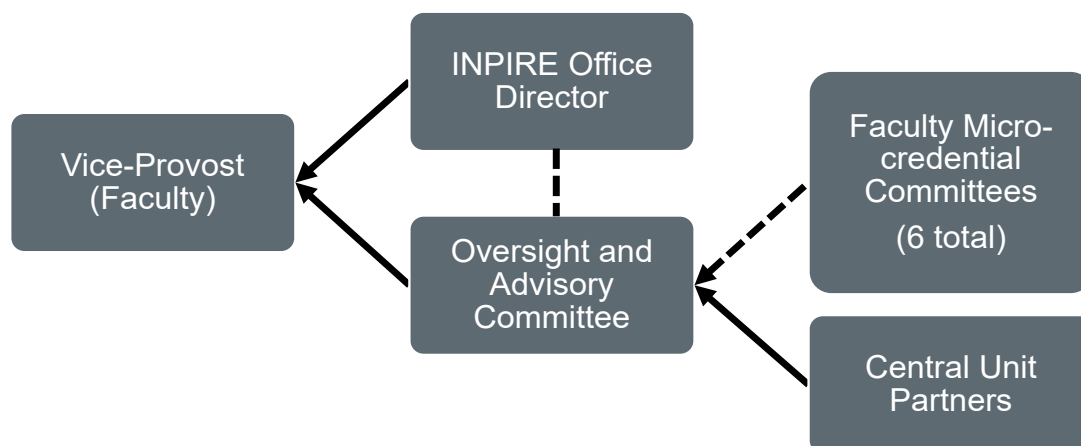
Quality Assurance

There are on-going conversations on the role of external and internal bodies in quality assurance processes in Ontario. We would like to make the following recommendations:

- That McMaster commit to internal quality oversight in partnership with the IQAP team (Educational Developer and IQAP Team at the MacPherson Institute) that provides guidelines on micro-credential delivery and assessment.
- That the Oversight and Advisory Committee is informed by the internal IQAP team and that the team lead (Educational Developer) is a consulting member.
- That the Quality Council (QC) does not oversee quality assurance processes of micro-credentials. This would run contrary to the nimbleness and market responsiveness that micro-credential development requires.
- That where Quality Council (QC) sees a role, it is in providing guidelines for internal quality assurance processes.
- In instances where there are external constraints from Quality Council that these apply only to OSAP-eligible micro-credentials.

Reporting Structure

The recommended reporting structure for micro-credentials at McMaster is outlined in the figure below. All implementation committees and roles will ultimately fall under the Vice-Provost (Faculty) portfolio.



The roles and responsibilities for the implementation of micro-credentials are outlined in the table below.

Role/Committee	Description of Responsibilities
INSPIRE Office Director (short-term)	As mentioned in the Administrative “Home” section of this report, we recommend that the administration of micro-credentials occurs within the mandate of the new INSPIRE Office for Flexible Learning for the short-term. The Director of the Office will be responsible for managing the implementation of micro-credentials at McMaster. We imagine this occurring in collaboration with an Implementation Team, and with advisement from an Oversight and Advisory Committee. This role may transition out of the INSPIRE Office Director role in the future, but in either case, this person will report to the Vice-Provost (Faculty).
Faculty Micro-credential Committees	Similar to how curriculum is currently developed at McMaster, we recommend that the design and development of individual micro-credential offerings take place within each of the Faculties through a Micro-credential Committee. How these groups operate may vary across Faculties and will be determined internally. One representative from each Faculty’s Committee (i.e., the Chair) will be a member of the Oversight and Advisory Committee.
Oversight and Advisory Committee	The mandate of the Oversight and Advisory Committee will be to set the strategic direction for micro-credentials at McMaster and align or complement micro-credential offerings across the University. The Committee will be comprised of key stakeholders and senior leadership who will be informed of the evolving landscape of micro-credentials and offer advice on the strategic direction for McMaster University. This Committee will oversee the institutional implementation of micro-credentials at the University. It is recommended that this group is established in the Winter of 2022, meeting 2-3 times per year.
Central Unit Partners	Those involved in the day-to-day implementation and management of micro-credentials at McMaster, outside of the faculties that will inform the Oversight Committee. (i.e. Secretariat, Registrar’s Office, INSPIRE Office, School of Graduate Studies, Provost’s Office, etc.). The role of this group is to provide consultation to avoid duplication and pass along lessons learned and best practices.

Fees

It is understood that, for the purpose of setting fees, micro-credentials are not “courses”. *Academic* micro-credentials may be “stackable”, meaning that they are designed according to academic standards that make them suitable to be combined as requirements for academic courses, diplomas, or certificates, but neither *academic* nor *non-academic* micro-credentials are themselves courses whether or not they are so bundled. This section outlines the committee’s recommendations regarding the assignment, approval and administration of fees.

- As non-course learning elements, fees for micro-credentials are to be charged without regard to the participant's undergraduate, graduate, or non-student status.
- Fees for *standalone academic* micro-credentials will be approved in accordance with the standard governance of university tuition and fees. A Faculty will recommend micro-credential fees to the University Student Fees Committee (USFC), and the USFC recommendation for approval is subsequently considered by Budget Committee, Planning and Resource Committee and the Board of Governors.
- Where micro-credentials are part of an undergraduate or graduate degree program, fees are charged on a per unit basis, so that micro-credentials must be assigned a unit weight and charged the appropriate per unit cost.
- Fees for *non-academic* micro-credentials are approved by each Faculty. No further approval is required. Certain micro-credentials may be approved for OSAP funding by MCU. The management of OSAP eligibility at McMaster currently resides in the Registrar's Office. The extent to which another office (i.e. the INSPIRE office or MCE) can participate in managing micro-credential OSAP issues is currently unknown.
- Once fees are paid for participation in a micro-credential, no further course tuition is charged for a subsequent academic course composed entirely of bundled micro-credentials. An incidental fee may be charged for transferring micro-credentials to program courses from the Registrar's Office.
- If a student or learner who is not already enrolled at McMaster wished to enrol in *academic* micro-credentials, they shall be charged McMaster Association of Part-time Students (MAPS) ancillary fees. Consistent with the practices at McMaster Continuing Education, other incidental fees may be charged as approved by USFC, for example, application or transfer fees. This will be an ongoing discussion for the implementation team.

Appeals

The following recommendations pertain to how appeals will be administered and managed as part of micro-credential offerings at McMaster:

- Students and learners registered in a degree, diploma or certificate program at McMaster who are enrolled in academic and non-academic micro-credentials will have access to existing student appeal procedures as well as relevant University policies.
- Students and learners who are not registered in a degree, diploma or certificate program at McMaster (termed 'Non-McMaster' students) but enrolled in academic micro-credentials will also have access to existing student appeal procedures as well as relevant University policies.
- Non-McMaster students and learners enrolled in non-academic micro-credentials may appeal their evaluation to the Faculty Standing Committee on Micro-credentials within 4 weeks of the submission of their final grade. Students and learners in this category will not have access to existing student appeal

procedures beyond the Faculty Standing Committee. The student or learner must be informed of the decision within 3 weeks from the date of the appeal. The decision made by the Faculty Standing Committee will be final without right of appeal.

- In all cases, the first step for a student or learner who alleges error, injustice, or unfair treatment in a micro-credential is to attempt to resolve the issue on an informal basis, by reaching out the instructor, coordinator, or Unit offering the micro-credential.

Next Steps

The management of micro-credentials at McMaster will evolve over time. We are grateful for the existing experience brought to us in this area by the Faculty of Engineering. The recommendations outlined in this report will serve as a foundation to extend that exploratory work. Nonetheless, we expect that the implementation will evolve with time as greater clarity emerges from MCU and our counterparts at other institutions.

In the short term, we recommend the following next steps for action:

- Striking a writing group guided by the Dean of Graduate Studies and Vice-Provost (Faculty) to revise the Certificates and Diplomas policy for micro-credentials occur over the Fall of 2021, involving a subset of the committee to draft a new version for review and discussion by the two Councils.
- Bringing the proposed revisions to the Certificates and Diplomas policy to Senate for approval by December 2021.
- Establishing the INSPIRE Office for Flexible Learning.
- Establishing an Implementation Committee tasked with defining terms of reference for the Director, Oversight and Advisory Committee structure, and division of roles and responsibilities between the INSPIRE Office of Flexible Learning and MCE.
 - The Implementation Committee will be comprised of key stakeholders across campus, including but not limited to representatives from each Faculty, the Secretariat, Registrar's Office, Continuing Education and the Vice-Provost (Faculty) and Dean of Graduate Studies. This Committee will collaborate with the INSPIRE Office Director to implement of micro-credentials. It is recommended that this group is established in the summer of 2021 and meets monthly for the 2021-2022 academic year.
- Establishing a handover date for existing micro-credential management to the new structure.
- Considering operational aspects of appeal mechanisms for micro-credentials.

Additional items that still need to be resolved prior to the implementation of micro-credentials at McMaster include (this list is not exhaustive):

- Reviewing the definitions of “undergraduate student”, “graduate student”, and “student” at McMaster to ensure they account for all types of learners enrolled in micro-credentials.
- Determining a management approach to provide flexibility for the completion of micro-credentials.
- Further determining/defining the differences between academic and non-academic micro-credentials.
- Exploring how micro-credentials may be transferred between post-secondary institutions, when appropriate.
- Drafting and proposing a financial model for the administration of micro-credentials that fits into the university budget model.
- Consulting with Faculties and MCE to avoid duplication.
- Determining how T2202 slips will be issued.

The situation in Ontario with respect to micro-credential policy remains dynamic. It is likely that a number of announcements will be made over the implementation period which will require reflection on our planning recommendations and will clarify our next steps.

Appendix A

Ad-Hoc Committee Terms of Reference

AD HOC COMMITTEE ON CERTIFICATES, DIPLOMAS AND MICROCREDENTIALS
(Undergraduate Council/Graduate Council)

TERMS OF REFERENCE

Mandate

With new credentialing approaches gaining acceptance in academic and public spaces, McMaster has an opportunity to help its students effectively demonstrate the different forms of knowledge they are acquiring as undergraduate students, graduate students and adult learners.

A more modular learning approach has emerged in the digital space known as micro credentials, sometimes referred to as badges, which some of the largest global companies are using to train potential employees. Various universities such as the University of Calgary and Université de Montréal are also involved in the development, delivery and recognition of micro-credentials. The current Senate Policy on Diplomas and Certificates provides some unique modes of acknowledging and packaging academic and non-academic learning activities in ways that help our students verify their knowledge, skills and competencies to an employer. But it lacks adequate modularity, stackability and portability to fully cover all the learning offered through McMaster University, which a badging strategy could help.

Based on the above, an ad hoc committee, governed by McMaster's Undergraduate and Graduate Councils, with the participation of McMaster's Centre for Continuing Education and overseen by the University Secretariat is tasked with considering how micro credentials should be used on campus and to make recommendations for changes to the Senate Policy on Diplomas and Certificates and other policies as required to facilitate implementation.

Requirements of the committee

The Ad Hoc Committee formed will be asked to:

- Undertake an environmental scan to identify practices by other universities and consult relevant literature on badging and micro credentials
- Make recommendations as to whether McMaster should offer micro credentials as a form of recognition for learning activities that alone are insufficient to merit the issuance of a certificate or diploma as currently defined
- Define a micro credential(or credentials) in terms of academic and non-academic learning activities, and recommend how it may be considered to be modular, stackable, and portable.
- Consider the impact of these different credentials on institutional quality assurance, accreditation, and MTCU regulations including financial aid implications
- Recommend the appropriate level of records administration and the responsibility for credential production and verification.

- Define the scope and measure of academic and non-academic learning constituting a micro credential
- Recommend revisions to the appropriate sections of the current Policy on Certificates and Diplomas
- Recommend regulations on the appearance of McMaster's name and logo/crest in relation to micro credentials for consideration by the Senate Committee on University Ceremonials and Insignia

Proposed Membership

- Vice-Provost (Faculty) or designate (Co-chair)
- Vice-Provost and Dean of Graduate Studies or designate (Co-chair)
- Two members appointed by and from Undergraduate Council
- Two members appointed by and from Graduate Council
- Director, CCE, or designate
- University Registrar or designate
- One undergraduate student
- One graduate student
- One adult learner
- University Secretary or designate (non-voting, consultant)

The Committee has the authority to appoint consultants when required.

Appendix B

eCampusOntario Micro Credentials OCGS Briefing
Presentation

MICRO-CREDENTIALS

OCGS Briefing + Discussion

Robert Luke, CEO

Lena Patterson, Senior Director,
Programs and Stakeholder Relations



MICRO-CREDENTIALS

Thank you for having us!

→ Overview of eCampusOntario Work

→ Micro-credentials, Research and Graduate Learning

→ Questions and Discussion

For more information, visit:

<https://micro.ecampusontario.ca>

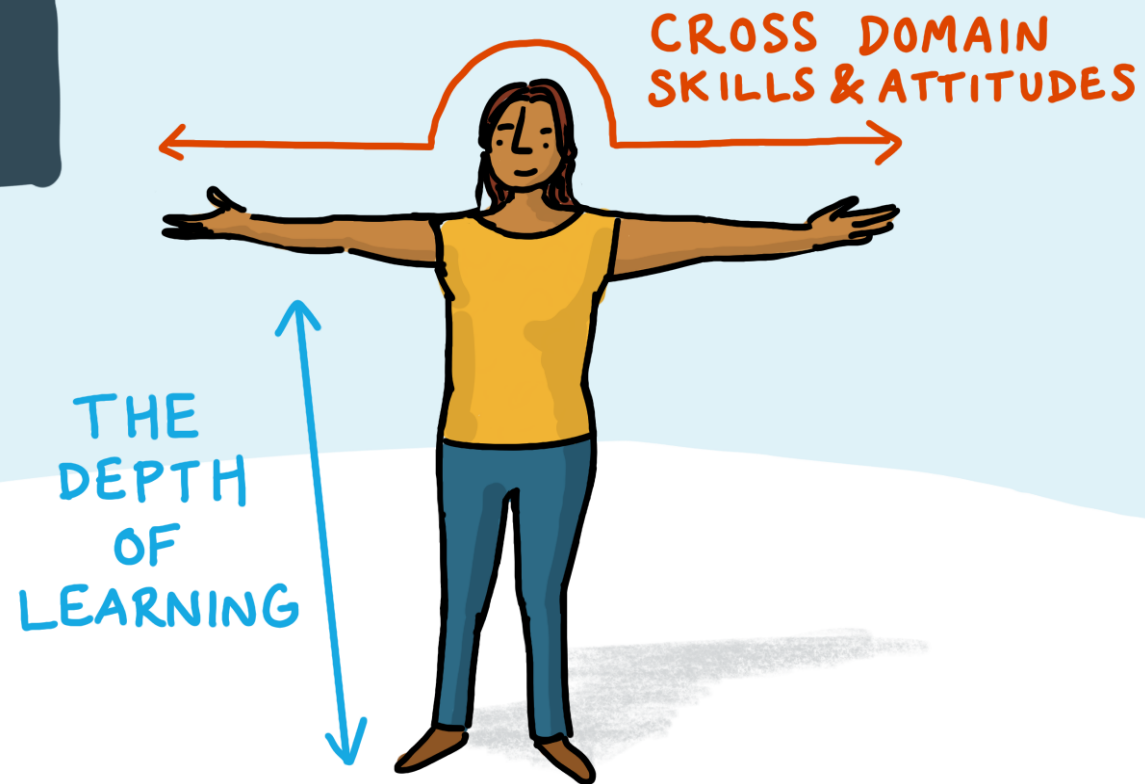
Overview of eCampusOntario Work

- > **Working definition**
- > **Framework**
- > **Pilot Project Funding**
- > **Research**

Working Definition

A micro-credential is a certification of **assessed learning** associated with a **specific and relevant skill or competency**. Micro-credentials enable rapid retraining and augment traditional education through pathways into regular postsecondary programming.

THE T-SHAPED GRADUATE



@bryanMMathers



MICRO-CREDENTIALS

Framework

---> Issuing Body

---> Competency / Skills Targeted

---> Outcomes

---> Summative Assessment

---> Transcriptable

---> Partner Endorsement



Issuing Body

Micro-credentials will be issued by an established agency, organization, institution, or employer.



Competency/Skills targeted

Micro-credentials will adhere to harmonized skills and competency language and will be aligned with a common competency framework such as ESCO1.



Outcomes

Micro-credentials will recognize performance competencies explicitly aligned to underlying knowledge, attitudes and skills.



Summative Assessment

Micro-credentials will require evidence of achievement of outcomes. Evidence will be embedded and visible to employers.



Transcriptable

Micro-credentials will be compatible with traditional transcripts, where possible.



Partner Endorsement

Micro-credentials will be validated by industry partners/external bodies, where possible. This validation will confirm 1) the competency is in demand by industry and; 2) the established assessment is reflective of job performance in that industry.

MICRO-CREDENTIALS

Pilot Project Funding

2

Years of pilot project funding to date

36

Total pilots funded

18

University pilots funded.

18

College pilots funded.

5

Focus areas

- Human Skills; Technology; Health and Human Services; Manufacturing; Natural Resources

6

More pilot information:

<https://micro.ecampusontario.ca>

MICRO-CREDENTIALS

Publications

- Is the Future Micro? Unbundling Learning for Flexibility and Access
- Micro-credential Business Models in Higher Education
- Micro-credentials: Policy and Regulatory Context in Ontario

All reports are available in both English and French: <https://micro.ecampusontario.ca>

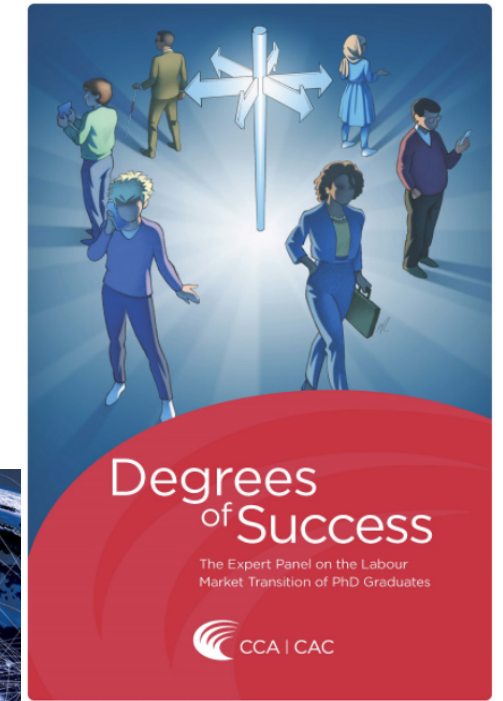
Areas of Future Inquiry?

Micro-credentials, Research, and Graduate Learning

MICRO-CREDENTIALS

Skills and Competencies for Graduate Students

- Recent CCA reports outline the need for increasing industry receptivity for PhD graduates, ensuring graduates understand the skills and competencies they acquire in their programs and can articulate these to potential employers
- This is key to increasing innovation and productivity in Canada



COMPETING IN A GLOBAL INNOVATION ECONOMY: THE CURRENT STATE OF R&D IN CANADA

Expert Panel on the State of Science and
Technology and Industrial Research
and Development in Canada



Council of Canadian Academies
Conseil des académies canadiennes

Science Advice in the Public Interest

The Ontario Collaborative Innovation Platform (OCIP)

- + Projects sourced from the private or public sector to leverage consortium for coordinated R&D
- + Will use common tools and templates for scoping projects at any SRL/TRL
- + Turn key support: standard NDAs, Contracts, IP agreements, Project Plans and Statements of Work
- + Conducting partnered R&D activities to support IP mobilization and industry R&D partnerships
- + Students receive micro-credentials for project work



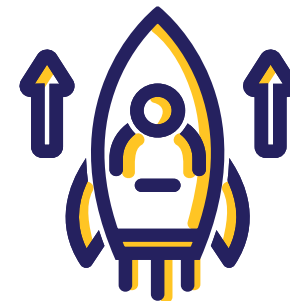
Projects/ideas are posted to the system



Academics from across institutions identify interests, expertise and equipment

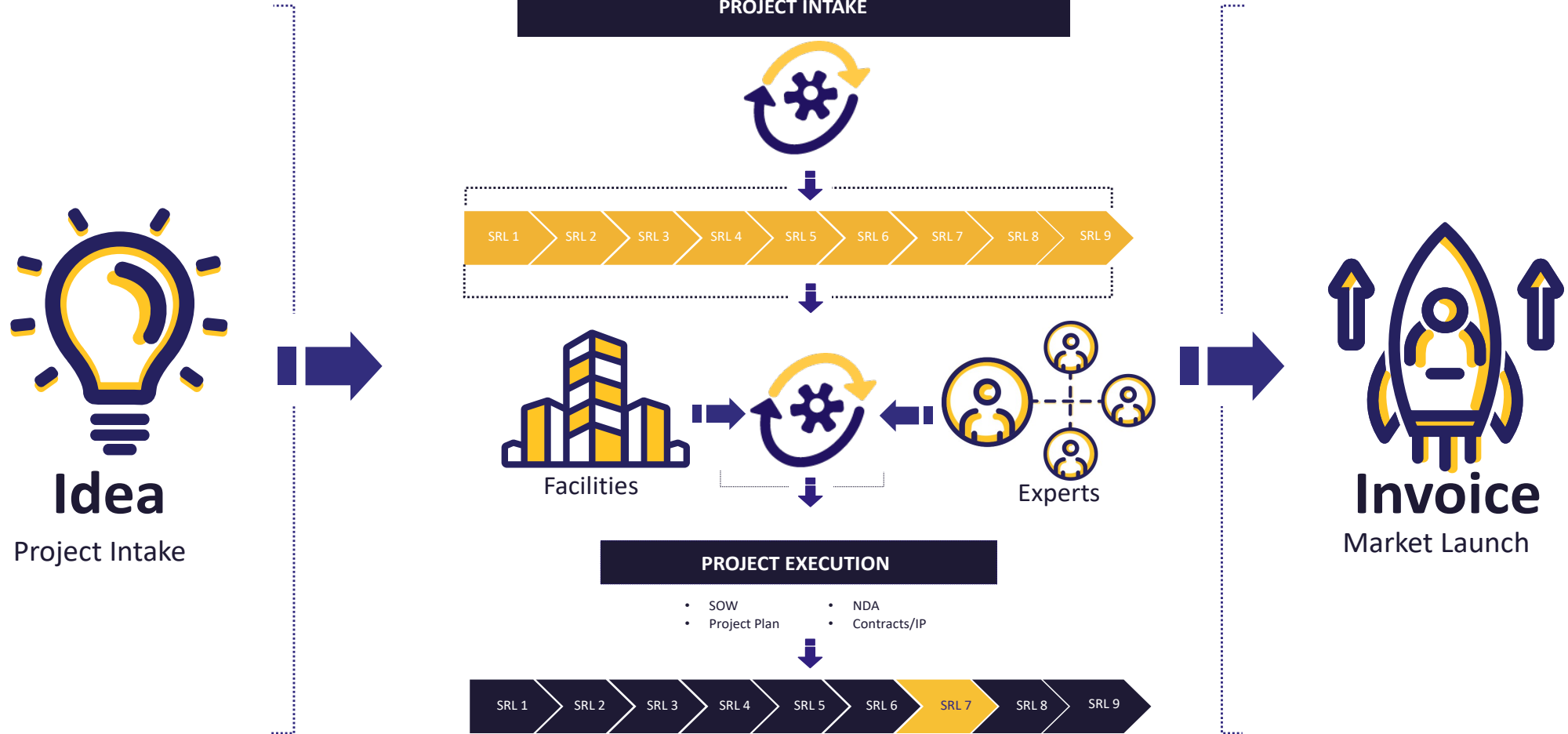


Matching projects and partners, with turn key support:



Market Launch

THE OCIP ENGINE



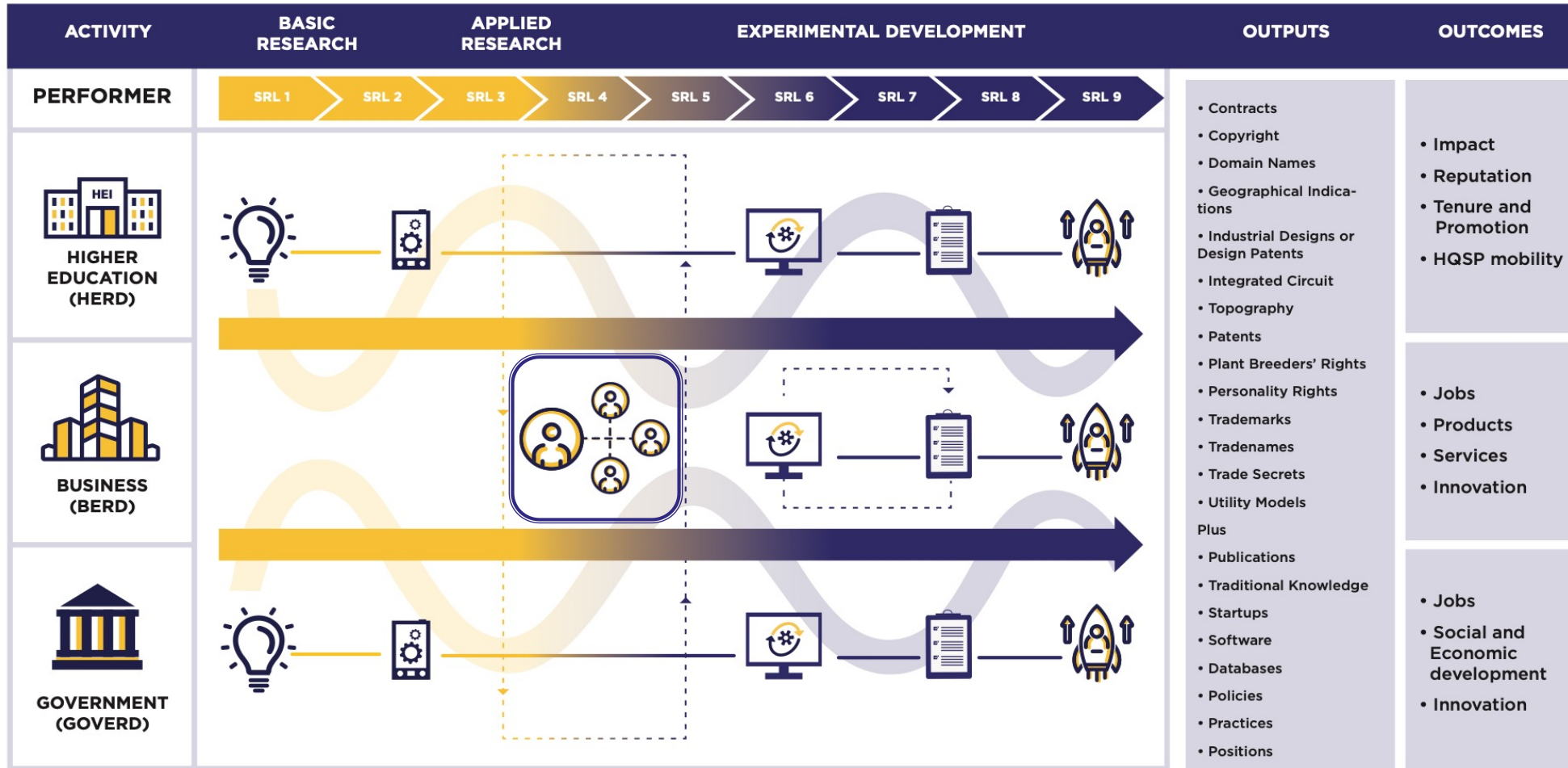
Innovation Skills

- Students
 - Participate in all aspects of projects as paid research assistants
 - Perform a range of duties, from conducting the R&D activities under the supervision of expert faculty, to project management, teamwork and communications
 - Gain valuable innovation literacy skills, work experience and jobs
- Micro-credentials validate activities and skills
 - Innovation Literacy micro-credentials in OCIP come from project participation, coupled with access to just-in-time online learning about Intellectual Property (IP)
 - Personal portfolios to document project work
 - Project sponsors to co-brand badges and micro-credentials



Team-based Innovation: We find the right people, for the right project at the right time

Integrated approach to innovation

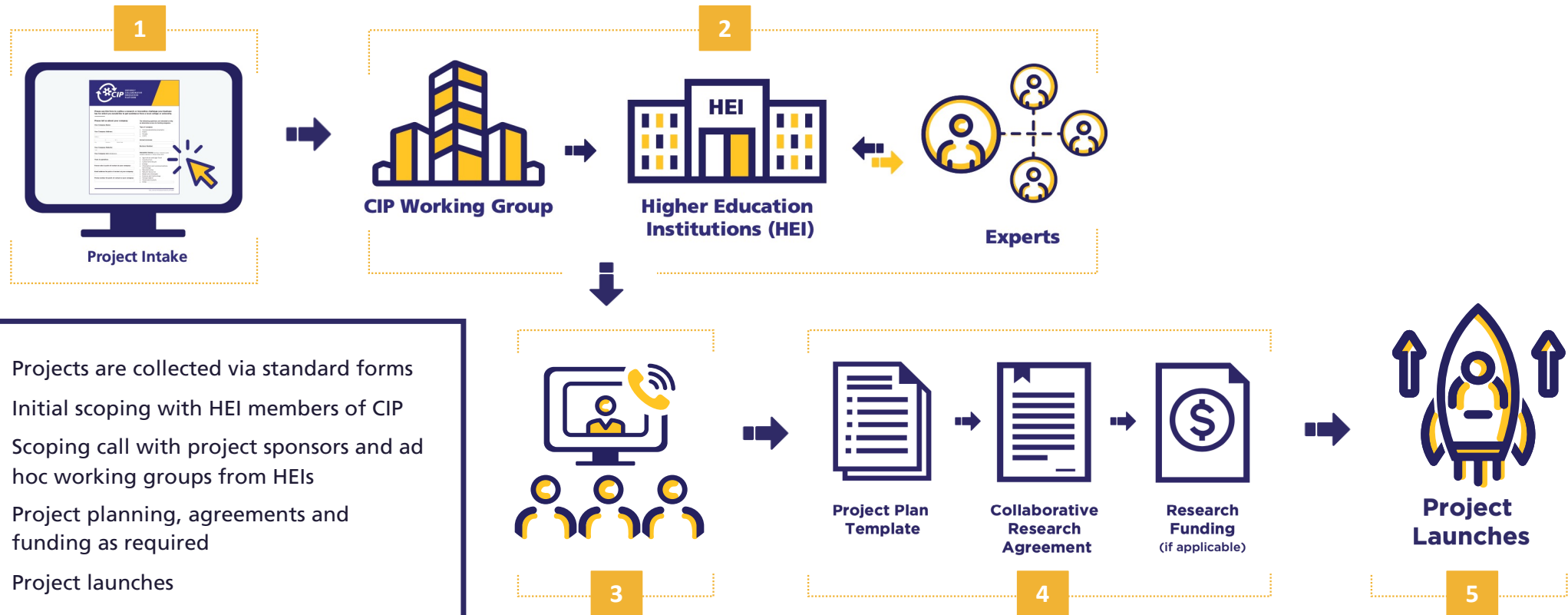


GTA COVID-19

Collaboration Innovation Platform

Pilot Implementation

CITY OF TORONTO RESEARCH PROJECTS

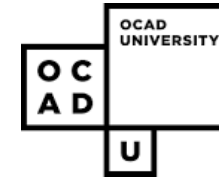




GTA COVID-19

Collaboration Innovation Platform

- **Pilot Partners and Collaborators**



Appendix C

HEQCO Making Sense of Microcredentials: Summary of
Research Findings Presentation

Making sense of Microcredentials

**Summary of research findings
March, 2021**

[Read the full report here.](#)

Higher Education
Quality Council
of Ontario

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Conseil ontarien
de la qualité de
l'enseignement supérieur

Un organisme du gouvernement de l'Ontario

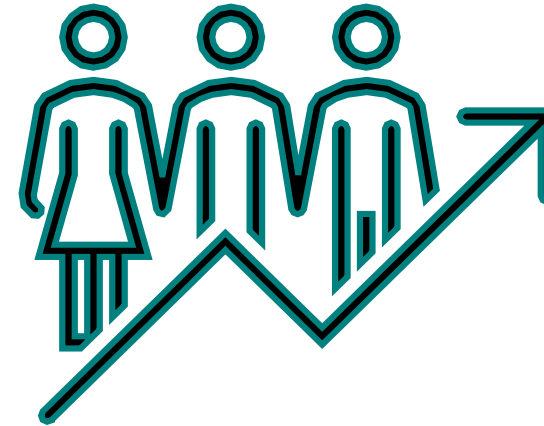
Project Goals



1. Facilitate a common understanding



2. Provide evidence / insights in perceptions of end-users



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HEQCO's definition

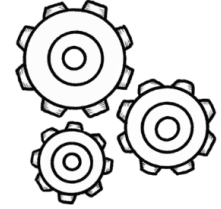


“A microcredential is a representation of learning, awarded for completion of a short program that is focused on a discrete set of competencies (i.e., skills, knowledge, attributes), and is sometimes related to other credentials.”



Purpose	Pathway to a formal qualification  <i>e.g., a bridging program</i>	Update previous qualifications  <i>i.e., incorporating emerging research/best practice</i>	Gain technical skills  <i>e.g., learn a software program</i>	Develop transferable skills  <i>e.g., critical thinking</i>
Mode of Delivery	In-person 	Hybrid <i>A microcredential could be a hybrid of online and in-person delivery.</i>	Online 	
Flexibility	Fixed pace 	Hybrid <i>A microcredential could be a hybrid of fixed pace and self-paced learning.</i>	Self-paced 	
Student/Instructor Interaction	Cohort learning 	Both <i>A microcredential could include both cohort learning and independent learning.</i>	Independent learning 	
Credential Form	Paper credential 	Both <i>A microcredential could be issued as both paper and digital credentials</i>	Digital credential 	
Indicator of Achievement	Participation 	Demonstrated competence 	Demonstrated mastery 	

Quality Markers



Relevant



Consulted or involved
industry/community

Accredited



Recognized or issued
by a professional
accrediting body

Standardized



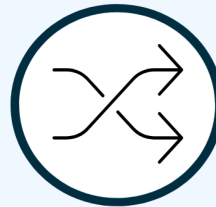
Meets a government-
set quality standard

Assessed



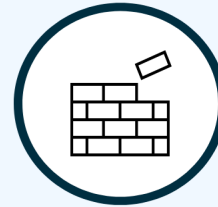
The learner must
demonstrate
skills/knowledge to
earn the credential

Flexible



The pace and/or
structure of learning
can be personalized

Stackable

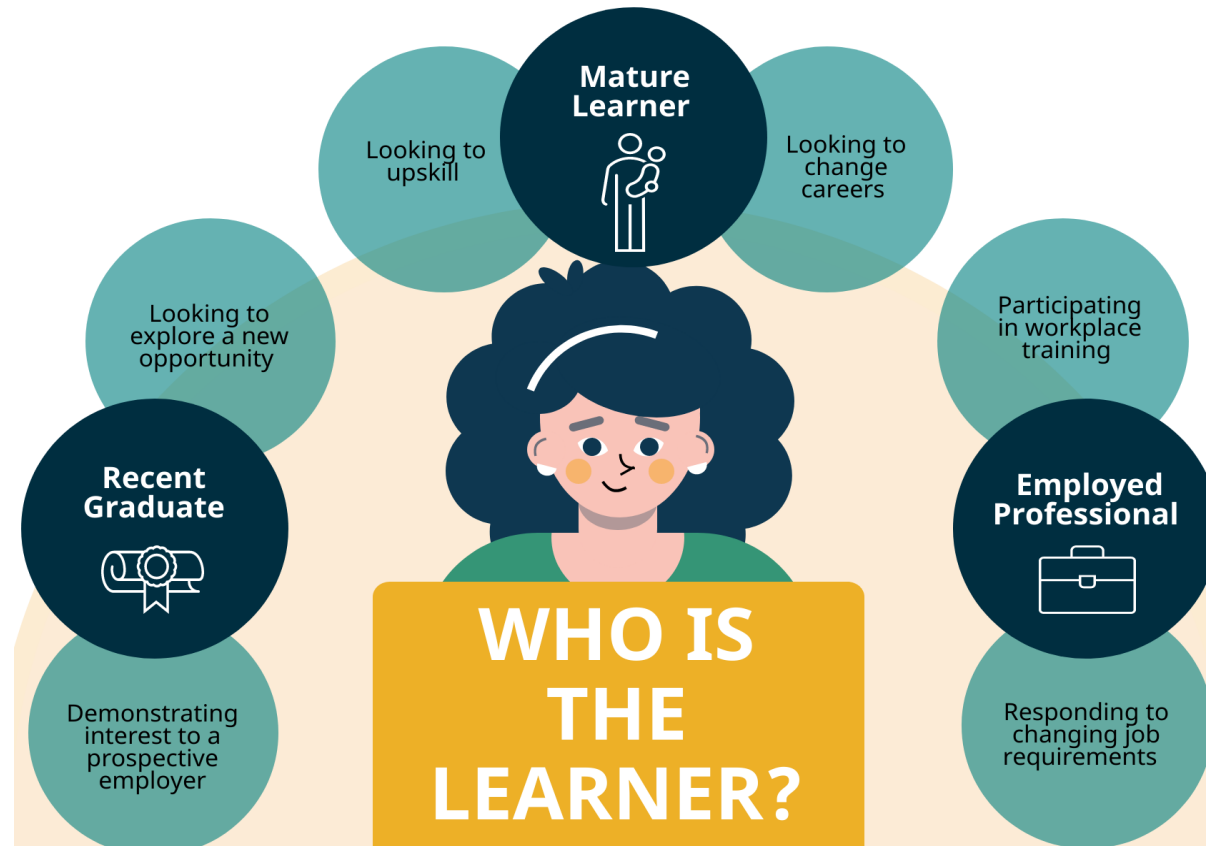


Can be "stacked" or
combined toward a
larger credential, e.g.
a diploma or degree

Higher Education
Quality Council
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Policies, Procedures and Guidelines

Complete Policy Title

Policy on Academic Program Development and Review

Policy Number (if applicable)

Approved by

Senate

Date of Most Recent Approval

December 9, 2020

Date of Original Approval(s)

May 11, 2011 (effective July 1, 2011)

Supersedes/Amends Policy dated

May 17, 2017

February 13, 2013 (effective July 1, 2013)

May 11, 2011 (effective July 1, 2011)

Procedures for Undergraduate Program Reviews, 2004,

New and Revised Undergraduate Programs Policy, 2009

Policy on Steps for Creation of New Graduate Programs or New Fields in Existing Doctoral Programs, 2009

Responsible Executive

Vice-Provost (Faculty)

Policy Specific Enquiries

[Equity and Inclusion Office](#)

General Policy Enquiries

[Policy \(University Secretariat\)](#)

DISCLAIMER:

If there is a Discrepancy between this electronic policy and the written copy held by the policy owner, the written copy prevails.

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1. PREAMBLE

McMaster University is widely recognized for innovation in teaching and learning and for the quality of its programs. Nevertheless, knowledge of our disciplines and the scholarship of teaching and learning are constantly evolving. Our reputation can only be maintained and improved if we, as academics and educators, critically review what we do in our programs and seek opinions and advice from colleagues at McMaster and at other institutions.

Although the primary objective for these reviews is the improvement of our academic programs, the processes that we adopt is also designed to meet our responsibility to the government on quality assurance: Every publicly assisted Ontario university that grants degrees and diplomas is responsible for ensuring the quality of all of its programs of study, including modes of delivering programs and those academic and student services that affect the quality of the respective programs under review, whether or not the program is eligible for government funding.

The process by which institutions meet this accountability to the government is outlined in the Quality Assurance Framework (QAF), developed by the Ontario Council of Academic Vice- Presidents (OCAV) and approved by Executive Heads in April 2010. Institutions' compliance with the QAF is monitored by the Ontario Universities Council on Quality Assurance, also known as the Quality Council, which reports to OCAV and the Council of Ontario Universities (COU).

As part of the Quality Assurance Framework, McMaster was required to develop an Institutional Quality Assurance Process (IQAP), which is contained within this Policy. In addition to the 15 guiding principles contained within the QAF, McMaster determined the following internal principles to guide the development of the IQAP Policy:

- curriculum development and improvement is an ongoing, iterative process that is initiated, developed and controlled at the departmental level
- McMaster's IQAP incorporates input from all principal stakeholders
- McMaster's IQAP is designed primarily to help improve programs and shape them to have characteristics that are most valued at our University, while also meeting the responsibility for quality assurance

Thus, the goal of McMaster's IQAP is to facilitate the development and continued improvement of our undergraduate and graduate academic programs, and to ensure that McMaster continues to lead internationally in its reputation for innovation in teaching and learning and for the quality of its programs. McMaster's IQAP is intended to complement existing mechanisms for critical assessment and enhancement, including departmental reviews and accreditation reviews. The uniqueness of each program at McMaster will emerge in the IQAP self-study.

The IQAP is subject to approval by the Quality Council when it is initiated and thereafter, when it is revised. The Quality Council will audit the University on an 8-year cycle under the terms outlined in the Quality Assurance Framework.

1.1 Cyclical Audit

One-year prior to the scheduled Cyclical Audit, McMaster's key contact to the Quality Council (or their delegate) will participate in a half-day briefing by the Quality Council Secretariat and an Audit Team member.

In advance of the cyclical audit, the Vice-Provost (Faculty) and Vice-Provost and Dean of Graduate Studies, or their delegates, will prepare a self-study of McMaster's Institutional Quality Assurance Process, highlighting its strengths as well as areas for improvement and enhancement. The self-study will also identify the institutional response to any issues identified in the previous audit. To prepare this self-study, consultation with Faculty representatives as well as key stakeholders from central university supports, such as the Registrar's Office, the MacPherson Institute, Institutional Research and Analysis and the Library will take place, as appropriate. The self-study will be submitted to the Quality Council's Secretariat as part of the Cyclical Audit process.

The Cyclical Audit provides accountability to the principal stakeholders of Ontario's university education system. The purpose of the Cyclical Audit is to evaluate the alignment of past and current practice with policy as well as the university's approach to continuous improvement. Cyclical Program Reviews that were undertaken within the period since the previous Cyclical Audit are eligible for selection for the university's next Cyclical Audit. Any new undergraduate and graduate programs that have been approved since the previous Cyclical Audit are eligible for selection in the next university's cyclical audit. Graduate Diplomas that were approved through the expedited approvals process as well as major modifications to existing academic programs are not subjected to the institution's cyclical audit.

Excluding any confidential information, the Audit Report and any follow up response report will be posted on McMaster's Quality Assurance webpage. If an area of concern is identified during the Cyclical Audit, the Quality Council may determine that a focused audit of a specific process is necessary. Reports related to a Focused Audit will be posted on McMaster's Quality Assurance webpage.

2. CONTACT

The authority responsible for the IQAP is the Vice-Provost (Faculty). The authorities responsible for its application will be the Vice-Provost (Faculty) for undergraduate programs and the Vice-Provost and Dean of Graduate Studies for graduate programs. When undergraduate and graduate programs are reviewed concurrently, the Vice-Provost (Faculty) and the Vice-Provost and Dean of Graduate Studies will be jointly responsible for its application.

The person responsible for all contact between the University and the Quality Council is the Vice-Provost (Faculty).

Throughout this Policy, the Chair refers to the head of the academic unit (usually a Department, sometimes a School or an interdisciplinary group) that is proposing a new program or is responsible for an existing program, although we recognize that the official title of such person varies across programs and Faculties. Similarly, the Dean refers to the head of the Faculty or equivalent individual responsible

for the program, again recognizing that official titles vary.

In the case of joint academic programs (e.g., a combined honours program or a collaborative program with another educational institution), the relevant Chair and Dean shall be those at McMaster University who have the administrative responsibility for the program.

3. PURPOSE

This Policy on Academic Program Development and Review guides the development of new undergraduate and graduate programs (including for-credit graduate diploma programs) and aids in the ongoing improvement of existing programs. It has also been designed to meet the University's responsibility of ensuring the quality of such programs. It applies to all undergraduate and graduate programs offered at McMaster University, as well as programs offered in collaboration with other institutions that lead to McMaster University degrees or graduate diplomas.

4. DEFINITION OF NEW PROGRAMS

A new program is considered to be any new degree or degree program that has not been previously offered at McMaster University. In contrast to the normal evolution of academic programs, a new program will generally involve some combination of new courses, new learning outcomes, and new or re-allocated resources, and will be meant to provide students with an academic path that was previously not available to them.

Although not new, a program that has been offered at McMaster University without funding from the Ministry of Colleges and Universities and for which a request for funding is to be made, will follow the procedures for new programs that are outlined in Section 5.

5. NEW GRADUATE AND UNDERGRADUATE PROGRAMS

The steps required for the approval of any new program include:

5.1 Beginning a New Program Proposal

Proponents of a new program may begin by preparing a Statement of Intent and acquiring endorsement from the relevant Dean(s) and Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies.

5.2 Broad Consultation

The Chair, in consultation with the Dean, is responsible for ensuring that there is broad consultation. It will also be essential to have appropriate discussions with other institutions when the proposed programs are to be offered in collaboration with those institutions.

Whenever faculty members from several departments will be involved in a proposed program, these

proponents must have the opportunity to discuss the proposal with their respective Dean(s) and Chair(s). Similarly, if there is a proposal to cross-list a course, or to recommend or require students in the new program to take existing courses, the teaching Department(s) must be consulted and agreement obtained, in writing, from the appropriate Chair/Dean. Approvals of the relevant Curriculum Committees are required.

Discussions are to be held with central support units such as, but not limited to, the Library, the Registrar, the MacPherson Institute for Leadership, Innovation and Excellence in Teaching and Learning, and other relevant units, to assess the impact of the introduction of the new program. Input also should be sought from relevant groups of students for whom there is a potential impact of the proposal.

Broad consultation is especially important when proposing interdisciplinary programs particularly when the initiators of the proposed plan are unfamiliar with all disciplines involved in the proposed program or individual faculty members who might potentially be interested or have expertise. A proposal for a new interdisciplinary program must be presented to any related Faculty/Program to ensure that there is widespread awareness of the program and of its potential impact. If a new interdisciplinary program utilizes or cross-lists one or several new courses from other Departments, the Department(s) offering the course(s), rather than the new interdisciplinary group, must submit those courses for approval. Prior written agreement also must be obtained from Chairs of participating Departments for teaching, graduate supervision and other resources required for interdisciplinary programs. Departments must be given adequate time to consider these requests. The program proponents, in consultation with the appropriate Dean(s), or their delegate(s), will consult and obtain proposed administrative and governance structures from the Faculties involved in interdisciplinary program proposals for inclusion in the new program proposal.

5.3 New Program Proposal

The Chair is responsible, in collaboration with relevant groups and/or individuals, for the preparation of a New Program Proposal. Both the Chair and the Dean, or Dean's delegate, ensure that the proposal has met all of the New Program Proposal criteria outlined below and both will sign off on the completeness of the proposal. For an interdisciplinary program, all affiliated program Chairs and appropriate Deans, or the Deans' delegates, sign off on the completeness of the proposal. Program proponents are to complete McMaster's New Program Proposal template and address the criteria for the New Program Proposal as outlined below:

5.3.1 Program Overview

- Description of the extent and method of the consultation process undertaken during the development of the proposal, including the diversity of groups and /or individuals who were engaged in and informed the preparation of the proposal
- Consistency of the program's goals with the University's tripartite research, teaching, and service excellence mission, its values and purpose, and its academic priorities and plans
- Ways in which the program addresses the institution's current Strategic Mandate Agreement
- Ways in which the program addresses the institution's current strategies, frameworks and/or principles regarding equity, diversity and inclusion, and how the program advances EDI-related academic goals (e.g., Indigenous perspectives, international relevance, interdisciplinarity, intercultural competencies, social and environmental equity and sustainability)
- Clarity and appropriateness of the program's requirements and the Program Learning Outcomes in meeting the University's Undergraduate Degree Level Expectations (UDLEs) or Graduate Degree Level Expectations (GDLEs), as outlined in Appendix A.
- Appropriateness of degree nomenclature and program's goals.

5.3.2 Admission requirements

- Appropriateness of the program's admission requirements for meeting its goals and the Program Learning Outcomes established for completion of the program.
- Alternative requirements, if any, for admission into the program, such as minimum grade point average, additional languages or portfolios, along with how the program recognizes prior work or learning experience.
- Consideration of the demographics of the student market for the program, and accessible and equitable admissions processes and practices

5.3.3 Structure

- Appropriateness of the administrative, governance, and communication processes proposed in support of the program.
- Appropriateness of the program's structure and regulations to meet specified Program Learning

Outcomes and Degree Level Expectations.

- For graduate programs, a clear rationale for program length, which ensures that the program requirements can be reasonably completed within the proposed time period.

5.3.4 Program content, curriculum, and teaching

- Ways in which the curriculum addresses the current state of the discipline or area of study, and extent to which a comparative review of the state of the discipline informs the curriculum.
- Identification of any unique curriculum or program innovations or creative components with attention to experiential and community-engaged pedagogy.
- Appropriateness of the proposed mode(s) of delivery to meet the intended Program Learning Outcomes and Degree Level Expectations and availability of the necessary physical resources including infrastructure and technologies for accessible education.
- Ways in which the program addresses current institutional, faculty, or departmental priorities (e.g. experiential learning, diversity and inclusion, accessibility, community engagement, entrepreneurship, et cetera).
- Ways in which the program addresses the current Strategic Mandate Agreement.
- For research-focused graduate programs, clear indication of the nature and suitability of the major research requirements for degree completion.
- For graduate programs, verification that the courses included meet university requirements in terms of the minimum number of courses required, the level of courses required, and the appropriate inclusion of other required elements appropriate for the degree level (e.g., transfer exams, comprehensive exams). At least two thirds of the course requirements must be at the 700-level.

5.3.5 Assessment of teaching and learning

- Plans to monitor and assess the overall quality of the program and whether the program is achieving its proposed goals, ensuring evaluation methods are accessible and inclusive and audiences are diverse.
- Appropriateness of the proposed methods for the instruction and assessment of student achievement of the intended Program Learning Outcomes. The Program Learning Outcomes must meet the Degree Level Expectations.
- Completeness of plans for documenting and demonstrating the level of performance of students, consistent with the Degree Level Expectations.
- Description of how the resulting information from level of student performance will be documented and used to inform continuous program improvement.

5.3.6 Resources

For all programs:

- Adequacy of the administrative unit's planned utilization of existing human, physical and financial resources, and any institutional commitment to supplement those resources, to support the program.
- Participation of a sufficient number and quality of faculty who are competent to teach and/or supervise in the program.
- Evidence that there are adequate resources to sustain the quality of scholarship produced by undergraduate students, as well as graduate students' scholarship and research activities, including library support, information technology support, and laboratory access.
- 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 applicable, provision of supervision of experiential learning opportunities
- If applicable, additional institutional resource commitments to support the program in step with its ongoing implementation.

For undergraduate programs:

- Evidence of plans for adequate numbers of faculty and staff to achieve the goals of the program.
- Evidence of plans to provide the necessary resources in step with the implementation of the program.
- Planned/anticipated class sizes.
- Provision of supervision of experiential learning opportunities, if applicable

For graduate programs:

- Evidence that full-time tenured/tenure-track/CAWAR faculty have the recent research and/or professional/clinical expertise needed to sustain the program, promote innovation, foster an appropriate intellectual climate, and provide excellent supervision of students in academic and research components of the program.
- Where appropriate to the program, evidence that financial assistance for students will be sufficient to ensure adequate quality and numbers of students.
- For programs with a research component, evidence that faculty research supervisors have current and ongoing research programs and funding, and space and relevant research

infrastructure appropriate to support students' research in the program.

- Evidence of how supervisory loads will be distributed, and the qualifications and appointment status of faculty who will provide instruction and supervision.
- Evidence of prior experience in graduate teaching and research supervision for faculty participating in the program.

5.3.7 Quality and other indicators

- Definition and use of indicators that provide evidence of quality of the faculty (e.g., qualifications, research, innovation and scholarly record; appropriateness of collective faculty expertise to contribute substantively to the proposed program).
- Evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience.
- If applicable, any other evidence that the program and faculty will ensure the intellectual quality of the student experience.

5.4 External Evaluation: Review Team

The Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, in consultation with the Dean will select a diverse team of reviewers to assess the proposal. The Review Team will consist of two external reviewers and one internal reviewer. Additional members may be added to the team, if appropriate, for instance when evaluating professional programs or interdisciplinary programs.

External reviews of new undergraduate, Master's and PhD program proposals must incorporate a site visit. Site visits are conducted on-site. There may be circumstances that require exceptions to on-site visits. Exceptions to on-site visits for new undergraduate program reviews are determined by the Vice-Provost (Faculty) or, in the case of new graduate programs, the Vice-Provost and Dean of Graduate Studies, in consultation with the appropriate Dean or Dean's delegate and agreed to by the Review Team prior to the commencement of the review. The Vice-Provost (Faculty) or, in the case of new graduate programs, the Vice Provost and Dean of Graduate Studies, will provide clear justification for the decision for an exception to an on-site visit.

If it is determined that a site visit can take place virtually, the virtual site visit will require all elements of the Review Team's site visit using videoconferencing software and/or other suitable platforms. A virtual site visit will still include elements such as virtual meetings with students, faculty, and other stakeholders. It may also include remote attendance at performances or events, and virtual facilities tours. A virtual site visit may replace an in-person site visit with agreement from both the external reviewers and the Vice Provost (Faculty) or, in the case of graduate programs, the Vice Provost and Dean of Graduate Studies.

As appropriate, the Review Team shall meet with the following:

- Chair or Director
- Full-time faculty members (a broad cross section, in groups)
- Part-time faculty members (a broad cross section, in groups)
- Program students (a broad cross section of students is to be invited by the program to participate in a meeting with the review team)
- Departmental/Program support staff
- Associate Dean
- Dean
- for graduate programs, the Vice-Provost and Dean of Graduate Studies
- for undergraduate programs, the Vice-Provost (Faculty)
- Provost and Vice-President (Academic), if available

External members of the Review Team will be individuals who are in the same discipline as the program under review (or across disciplines for interdisciplinary programs) and who are distinguished senior academics of broad experience, with an established commitment to higher education. External reviewers will not be faculty members from McMaster University. Internal reviewers are faculty members from McMaster but from outside of the discipline (or interdisciplinary group) engaged in the proposed program. Non-academics with relevant expertise and experience are permitted to serve as reviewers when it would enhance the diversity of relevant disciplinary or interdisciplinary perspectives, or in community-engaged or professional programs. Reviewers must have an impartial, arms-length relationship to the program (for clarity, arms-length reviewers should not have been a research supervisor or student of members of the proposed program; and should not have collaborated with members of the proposed program within the past six years or have made plans to collaborate with those individuals in the immediate future. There also should be no other potential conflicts of interest (e.g., personal or financial). Wherever possible the review team will represent broad institutional categories and/or geographic regions.

External reviewers will be selected from a list of at least six suggested individuals compiled by the Department and endorsed by the Dean. An internal reviewer will be selected from a list of at least three suggested individuals compiled by the Department and endorsed by the Dean. Reviewers will be selected from a list of at least six suggested individuals compiled by the Department and endorsed by the Dean.

The lists shall include, for each proposed external reviewer:

- name
- rank and position
- institution or company and current address, telephone, e-mail address, and URL if available
- professional (including administrative) experience or expertise relevant to the Program under

review

- details of any previous or current affiliation with the University, and any association with individual members of the Program under review (e.g., co-author, previous student/supervisor, close relationship)
- for graduate programs, a description of research expertise, and a partial listing of recent scholarly publications

The New Program Proposal, all relevant faculty CVs, the McMaster's Review Team Guidelines and other materials specific to the review will be provided to all members of the review team no less than two weeks prior to their visit.

5.5 Reviewers' report

Excepting when contrary circumstances apply, the Review Team will submit a co-authored report, including an Executive Summary, for the program(s) under review within four weeks of the visit to the Vice-Provost (Faculty), or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies. The report will be written primarily by the external reviewer(s), and then sent to the internal reviewer for their review and comment. The report will appraise the standards and quality of the proposed program, and address the criteria set out in Section 5.3, including the associated faculty and the adequacy of existing physical, human and financial resources. Reviewers also will be invited to acknowledge any clearly innovative aspects of the proposed program, together with recommendations on any essential or otherwise desirable modifications to the program. The report may include a confidential section (e.g., where personnel issues can be addressed). The Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, will review the reviewers' report for completeness. If satisfactory, the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, will approve the reviewers' report and disseminate it to the Chair. If there are concerns with the completeness of the report, the Review Team will be asked to provide more clarity

5.6 Internal response

Responses to the reviewers' report from both the Chair and the Dean, or their delegates, should be prepared, as per the New Program Response template, and attached to the reviewers' report. Any substantive revisions (e.g. revisions to Program Learning Outcomes; modes of delivery; curriculum and/or assessment practices) to the New Program Proposal required by the Reviewers' Report and agreed to by the Chair and Dean must be made to the proposal prior to submission for approval at Undergraduate Council or Graduate Council.

5.7 Institutional approval

In addition to the completion of the external review, approval of new program proposals by the following University bodies, in the order listed below, is required:

- The Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of

Graduate Studies, will review the New Program Proposal to ensure that the program is consistent with McMaster's principles and priorities and existing strengths of the University, the program is of high academic quality; there is convincing evidence of student demand and societal need for the program; and, sufficient financial support, infrastructure, and human resources can be made available to initiate and support the program either within the Faculty budget or based on the program being a full revenue generating program.

- The Faculty Curriculum Committee(s), representing a diversity of faculty members and equipped to consider EDI principles reviews the New Program Proposal to ensure that the new program adds sufficient value to the programs already offered in the Faculty.
- the Faculty(ies) reviews the New Program Proposal to ensure that the program is consistent with the Faculty's strategic plans and that the necessary resources are available if these are to be provided from within the Faculty's envelope
- the Executive Director of Finance and Planning reviews the Resource Implications and Financial Viability document to ensure that all potential University resource requirements are captured, and the program is properly costed. In addition, for interdisciplinary or partnership programs, ensures that an MOU is properly completed
- for Undergraduate programs, the Undergraduate Curriculum and Admissions Committee reviews the New Program Proposal to assess the impact of the new program on students enrolled in other Faculties
- the University Student Fees Committee reviews the proposed Resource Implications and Financial Viability document and ensures that Ministry and University fee policies are adhered to, are reasonable relative to market and that fee collection can be properly administered within existing systems
- Undergraduate Council or Graduate Council reviews the New Program Proposal to provide a venue for a broad discussion on the new program by elected faculty and student members with specific knowledge of and expertise in undergraduate or graduate programming, and ensure that the program is consistent with University-wide goals and criteria specifically related to undergraduate or graduate programming
- University Planning Committee reviews the New Program Proposal and the Resource Implications and Financial Viability documents to understand the financial implications of the new program, evaluate the impact University-wide, and assess value-for-money for the intended student
- Senate reviews the New Program Proposal and Resource Implications and Financial Viability documents to ensure that the program is consistent with the University's general strategic plans with respect to academic program

These bodies should consider the criteria outlined in Section 5.3 when evaluating the proposal.

The site visit with external reviewers will be held after The Faculty Curriculum Committee(s) and prior to approval at Undergraduate Council or Graduate Council and Senate.

Special considerations, such as collaboration agreements or non-standard distribution and full revenue generating programs are to refer to the Academic Revenue Generating Activity Policy and other relevant University policies, as applicable.

5.8 Quality Council Secretariat

Once all approvals outlined in Section 5.7 are obtained, the institution will submit the New Program Proposal, together with the Reviewers' Report and the internal response to the Report, to the Quality Council Secretariat. The submission template will require information on whether or not the proposed program will be a cost-recovery program. The same standards and protocols apply regardless of the source of funding.

Once all approvals outlined in Section 5.7 are obtained, the institution will submit the New Program Proposal, together with the Reviewers' Report and the internal response to the Report, to the Quality Council Secretariat. The submission template will require information on whether or not the proposed program will be a cost-recovery program. The same standards and protocols apply regardless of the source of funding. The Quality Council Appraisal's Committee will review the new program proposal submission and determine if additional information is required. If sufficient, the Quality Council will review the new program proposal submission and will make one of the following decisions:

- Approved to commence
- Approved to commence, with report
- Deferred for up to one year during which time the university may address identified issues and report back
- Not approved
- or such other action as the Quality Council considers reasonable and appropriate in the circumstances.

Within 30 days of being notified, the university may appeal Quality Council's decision.

5.9 Announcement of new programs

Following its submission to the Quality Council, the University may announce, per guidelines within the New Program Proposal Guidebook, its intention to offer the program, provided that clear indication is given that approval by the Quality Council is pending, and that no offers of admission will be made until the program has been approved by the Quality Council. Ministry approval may also be required. When such announcements are made at this stage, they must contain the following statement: "Prospective students are advised that the program is still subject to formal approval."

5.10 Approved new programs

After a new program is submitted to the Quality Council, the University may seek Provincial funding for the program, which must begin within thirty-six months of the date of approval; otherwise, the approval will lapse. If program approval lapses, the program must begin the new program proposal process again.

Between eighteen and twenty-four months after onset of the program, the Chair will provide the Dean and Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate studies, with a brief progress report on the program, that assesses the program's success in realizing its goals; addresses any concerns from the program reviewers' report and notes from the Appraisal Committee; and highlights any unanticipated changes in curriculum, resources, enrollment, funding mechanisms, or governance structure. If, after consultation with the Dean, the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, deems it appropriate, an informal internal assessment of the program may be undertaken, including interviews with current faculty, students, and staff, to determine if a more complete, early cyclical review is warranted.

The first cyclical review for any new program must be conducted no more than eight years after the date of the program's initial enrolment. Outcomes identified in the program progress report, described above, must be included in the program's first cyclical review.

New undergraduate and graduate programs that have been approved are eligible for selection in the university's next cyclical audit.

6. EXPEDITED APPROVALS OF NEW PROGRAMS

The Protocol for Expedited Approvals applies when one or more of the following applies:

- an institution requests endorsement of the Quality Council to declare a new Field or to revise Fields in a graduate program (note: there is no requirement to declare fields in either master's or doctoral programs);
- there is a proposal for a new Collaborative Specialization; a Collaborative Specialization must have:
 - At least one core one-semester course that is foundational to the specialization and does not form part of the course offerings of any of the partner programs. This course must be completed by all students from partner programs registered in the specialization and provides an opportunity for students to appreciate the different disciplinary perspectives that can be brought to bear on the area of specialization. This course may serve as an elective in the student's home program.
 - Clear and explicit requirements for each Collaborative Specialization. In programs requiring a major research paper, essay, or thesis, the topic must be in the area of the collaborative specialization. In course-only master's programs, at least 30% of the courses must be in the area of specialization including the core course described above. Courses in the area of specialization may be considered electives in the home program.
 - Only core faculty that are those faculty members in the participating home programs who have an interest and expertise in the area of the collaborative specialization

- Appropriate administrative and academic oversight/governance to ensure requirements associated with the specialization are being met.
- there are proposals for new for-credit graduate diplomas; including new graduate diplomas (Type 2) offered in conjunction with a Master's or Doctoral degree program and usually represent an additional interdisciplinary qualification
- new graduate diplomas (Type 3) a stand-alone, direct-entry program, generally developed by a unit already offering a related master's or doctoral degree

The Expedited Proposal will describe the new graduate field, collaborative specialization, or graduate diploma (including, as appropriate, reference to Program Learning Outcomes, Degree Level Expectations, faculty and resource implications), provide a brief account of the rationale for the changes, and address the evaluation criteria for the program.

The Expedited Approvals process requires all the approvals listed in Section 5.7 and the submission to the Quality Council of a New Program Proposal of the proposed new program and the rationale for it. Expedited approvals of new program do not require external reviewers be involved in the approval process and provides for a faster turn-around on decisions by the Quality Council. Common decisions by Quality Council are: a) approved to commence b) approved to commence, with a report or C) not approved.

Type 3 graduate diplomas are included in the schedule for cyclical reviews and will be subject to external review during the cyclical program review process. Graduate Diplomas not associated with a parent program are reviewed by desk audit. A desk audit is conducted independently of the university (i.e., does not typically include interviews or in-person or virtual site visits).

7. CYCLICAL PROGRAM REVIEWS

All academic programs are scheduled to be reviewed on a seven-year cycle and must be reviewed no more than eight years from the previous review. New programs must be reviewed no more than eight years after the date of the program's first enrolment. The steps taken to address any issues that have been identified in monitoring reports of the new program or in follow up by Quality Council are to be identified in first cyclical review self-study.

The primary purpose for cyclical program reviews is continuous improvement of existing academic programs. An academic program is defined as a complete set and sequence of courses, combinations of courses and/or other units of study, research and practice as outlined by the university for the fulfillment of the requirements for either undergraduate or graduate degrees. Combined programs do not require review if their constituting programs are reviewed separately. Undergraduate diplomas, Emphases, Options and Minors are not required to undergo the cyclical program review process outlined in this policy, however, Chairs are to consult with the Vice Provost (Faculty) to determine if other review processes are required. The list of programs that require review including those that are joint/inter-institutional, multi-disciplinary, interdisciplinary, and at multiple sites, as well as the schedule of such reviews, will be

maintained by the Vice-Provost (Faculty) in consultation with the Vice-Provost and Dean of Graduate Studies. Programs that are closed or that have suspended admissions are not subject to cyclical program review. Program Chairs will be notified of a scheduled review by the Vice-Provost (Faculty) or their delegate. Each of the specific programs to be reviewed will be listed in the notification.

Departments can choose to review undergraduate and graduate programs jointly or separately. If the reviews are done jointly, the evaluation criteria and quality indicators described below must be applied to each program included in the self-study and there must be sections within the report to address different situations that apply to each program. Program reviews can also be done jointly with accreditation reviews, at the discretion of the Chair, in consultation with the Dean (see Section 7.5). Where programs seek to combine previously separate undergraduate and graduate reviews, they shall adopt the timeline of the earliest scheduled program review. For academic programs delivered in partnership with other educational institutions, the Chair must ensure that representatives from all educational institutions in the partnership are consulted during all key stages of the cyclical review process, including self-study, site visit, implementation and monitoring. For professional programs, the Chair must ensure the views of employers and professional associations are solicited and included in the self-study and site visit.

The key outcome of a cyclical program review is the Final Assessment Report and its associated Implementation Plan which forms the basis of the continuous improvement process. It is the primary responsibility of the program Chair to ensure that the implementation plan is achieved.

The review consists of the following steps:

7.1 Self-study: Internal program perspective

The Chair is responsible, in collaboration with relevant groups and/or individuals such as faculty, students and staff, for preparing a self-study document that is broad-based, reflective, forward-looking and inclusive of critical analysis. The self-study must address and document the consistency of the program's learning outcomes with the University's mission and Degree Level Expectations, and how its graduates achieve those outcomes. Both the Chair and the Dean, or the Dean's delegates, ensure that the self-study has met all of the self-study criteria and sign off on the completeness of the self-study. For interdisciplinary programs, all affiliated program Chairs and appropriate Deans, or the Deans' delegates, sign off on the completeness of the self-study.

The self-study criteria and quality indicators are as follows

7.1.1 Program Description and Overview

- Program goals are consistent with the University's tripartite research, teaching, and service excellence mission, its values and purpose, and its academic priorities and plans
- Ways in which the program addresses the institution's current strategies, frameworks and/or principles regarding equity, diversity and inclusion, and how the program advances EDI-related academic goals (e.g., Indigenous perspectives, international relevance, interdisciplinarity,

intercultural competencies, social and environmental equity and sustainability, etc.)

- Program structure and requirements are appropriate to meet the Program Learning Outcomes
- Program Learning Outcomes are clear, appropriate and align with the Degree Level Expectations.

7.1.2 Admission requirements

- Admission requirements are appropriately aligned with the Program Learning Outcomes established for completion of the program.
- 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
- Consideration of the demographics of the student market for the program, and accessible and equitable admissions processes and practices

7.1.3 Curriculum

- How the curriculum reflects the current state of the discipline or area of study, and extent to which a comparative review of the state of the discipline informs the curriculum.
- Evidence of any significant innovation or creativity in the content and/or delivery of the program relative to other such programs, with attention to experiential and community-engaged pedagogy.
- How the mode(s) of delivery are appropriate and effective at meeting the Program Learning Outcomes, including infrastructure and technologies for accessible education.
- Ways in which the program addresses current institutional, faculty, or departmental priorities (e.g. experiential learning, equity, diversity and inclusion, accessibility, community engagement, entrepreneurship) and the current Strategic Mandate Agreement.

7.1.4 Teaching and assessment

- Methods for assessing the overall effectiveness of the program quality are appropriate and effective, ensuring evaluation methods are accessible and inclusive, and audiences are diverse.
- Methods for assessing student achievement of the defined Program Learning Outcomes and Degree Level Expectations are appropriate and effective.
- Appropriateness and effectiveness of the means of assessment, especially in the students' final year of the program, in clearly demonstrating achievement of the Program Learning Outcomes and the Degree Level Expectations and the program's goals.
- Description of how information on assessment effectiveness is documented and used to inform

continuous program improvement

7.1.5 Resources

- Appropriateness and effectiveness of the academic unit's use of existing human, physical and financial resources in delivering and maintaining the quality of its program(s), in relation to the University's priorities for and constraints on funding, space, and faculty allocation.
- Given the program's class sizes and cohorts, as well as its program level learning outcomes, describe the participation of a sufficient number of qualified 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, discuss 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 applicable, outline the supervision of experiential learning opportunities

Graduate Programs Only

- Given the program's class sizes and cohorts as well as its program-level learning outcomes, provide evidence that faculty have the recent research or professional/clinical expertise needed to foster an appropriate intellectual climate, sustain the program, and promote innovation
- Evidence of how supervisory loads are distributed, in light of qualifications and appointment status of the faculty
- If appropriate, evidence that financial assistance for students is sufficient to ensure adequate quality and numbers of students

7.1.6 Quality indicators

- Information on the quality of the program under review. Standard quality indicators, outlined in the McMaster's Self-Study Guidebook, are available to Chairs from the Office of Institutional Research and Analysis, the Office of the Registrar, the School of Graduate Studies, or from the departments themselves. Chairs will be expected to provide context and commentary on the data. When possible and appropriate, Chairs will also refer to applicable professional standards.
- Evidence of the 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)
- For students: grade-level for admission, scholarly output, success rates in provincial and national scholarships, competitions, awards and commitment to professional and transferable skills, and times-to-completion and retention rates

- Any other evidence that the program and faculty ensure the intellectual quality of the student experience

Additional graduate program criteria:

- Evidence that students' time-to-completion is both monitored and managed in relation to the program's defined length and program requirements.
- Quality and availability of graduate supervision.
- 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
- Definition and application of indicators that provide evidence of faculty, student and program quality, for example:
 - Faculty: funding, honours and awards, and commitment to student mentoring
 - Students: grade-level for admission, scholarly output, success rates in provincial and national scholarships, competitions, awards
 - Program: evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience, and commitment to development of professional and transferable skills; evidence of sufficient and regular graduate level course offerings to ensure that students will be able to meet university requirements in terms of the minimum number of courses required, the level of courses required, and the timely completion of other required elements appropriate for the degree level (e.g., transfer exams, comprehensive exams)

7.17 Quality enhancement

- Concerns and recommendations raised in previous reviews especially those detailed in the Final Assessment Report, Implementation Plan and subsequent monitoring reports from the previous Cyclical Review of the program
- Initiatives that have been undertaken to enhance the teaching, learning and/or research environments thus far, the quality of the program, and how these will be sustained
- Areas identified through the conduct of the self-study as requiring improvement
- Areas that hold promise for continued enhancement

7.1.8 System of governance

- Evidence that a consultative and inclusive system of governance has been used on an ongoing basis to assess the program and implement changes as appropriate.

7.1.9 Academic Services

- Academic services that directly contribute to the academic quality of each program under review.

7.1.10 Self-Study Participation

- Participation of program faculty, staff, and students in the self-study and how their views were obtained and taken into account, and who contributed to the development and writing of the self-study. For professional programs, the Chair must ensure the views of employers and professional associations are solicited and included in the self-study and site visit.

7.1.11 External Participation

- The input of others deemed by the Chair to be relevant and useful, such as graduates of the program, representatives of industry, the professions, practical training programs, and employers is to be included in the self-study.

7.2 External evaluation: Review Team

The Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, in consultation with the Dean (or the Dean's designate), will select a diverse team of reviewers to evaluate the program. The Review Team shall consist of two external reviewers. If appropriate, additional members are to be added to the review team, such as when evaluating professional programs or interdisciplinary programs. The team will also include one internal reviewer selected by the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, in consultation with the Dean (or the Dean's designate).

External members of the Review Team shall be individuals in the same discipline as the Program under review (or across disciplines for interdisciplinary programs) who are distinguished senior academics of broad experience, with an established commitment to higher education. Where it would enhance the diversity of relevant disciplinary or interdisciplinary perspectives, or in community-engaged or professional programs, non-academics with relevant expertise and experience are permitted to serve as reviewers with the approval of the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies. Reviewers must have an impartial, arms-length relationship to the Program (as defined in Section 5.4). Wherever possible the Review Team shall represent broad institutional categories and/or geographic regions.

External reviewers will be selected from a list of at least six suggested individuals compiled by the Program/Department under review and endorsed by the Dean. An internal reviewer will be selected from a list of at least three suggested individuals compiled by the Department Chair and endorsed by the Dean. The lists shall include, for each proposed reviewer

- name

- rank and position
- institution or company and current address, telephone, and e-mail address, and URL if available
- professional (including administrative) experience or expertise relevant to the Program under review
- details of any previous or current affiliation with the University, and any association with individual members of the Program under review (e.g., co-author, previous student/supervisor, close relationship)
- for graduate program or combined reviews, a description of research expertise, and a partial listing of recent scholarly publications

Cyclical Program Reviews must incorporate a site visit. Site visits are conducted on-site, however, exceptions to on-site visits for undergraduate program reviews are determined by the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, in consultation with the Dean or Dean's delegate prior to the commencement of the review and agreed to by the Review Team prior to the commencement of the review. The Vice-Provost (Faculty) or, in the case of graduate programs, the Vice Provost and Dean of Graduate Studies, will provide clear justification for the decision for an exception to an on-site visit.

If it is determined that a site visit can take place virtually, the virtual site visit requires all elements of the external reviewers' site visit using videoconferencing software and/or other suitable platforms. A virtual site visit will still include elements such as virtual meetings with students, faculty, and other stakeholders. It may also include remote attendance at performances or events, and virtual facilities tours. A virtual site visit may replace an in-person site visit with agreement from both the external reviewers and the Vice-Provost (Faculty) or in the case of graduate programs, the Vice Provost and Dean of Graduate Studies.

The Self-Study, the Guidelines for Review Team, and other materials specific to the current review will be provided to all members of the Review Team no less than two weeks prior to their visit. If applicable, the results of the previous accreditation review also will be made available to the Review Team to provide them with the views of the relevant professional association(s). The Guidelines for Review Team describes the review process and the roles and obligations of the Review Team, which include:

- to identify and comment on the program's notably strong and creative attributes
- to describe the program's respective strengths, areas for improvement, and opportunities for enhancement
- to recommend specific steps to be taken to improve the program, distinguishing between those the program can itself take with existing resources and those that require external action
- to recognize the University's autonomy to determine priorities for funding, space, and faculty allocation
- to respect the confidentiality required for all aspects of the review process

As appropriate, the Review Team shall meet with the following:

- Chair or Director
- Full-time faculty members (a broad cross section, in groups)
- Part-time faculty members (a broad cross section, in groups)
- Program students (a broad cross section of students is to be invited by the program to participate in a meeting with the review team)
- Departmental/Program support staff
- Associate Dean
- Dean
- for graduate programs, the Vice-Provost and Dean of Graduate Studies
- for undergraduate programs, the Vice-Provost (Faculty
- Provost and Vice-President (Academic), if available

The Review Team will submit a co-authored report, including an Executive Summary, for the program(s) under review within four weeks of the visit to the Vice-Provost (Faculty), or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies. The report will be written primarily by the external reviewer(s), and then sent to the internal reviewer for their review and comment. The Review Team's report is to address the substance of both the self-study report and the evaluation criteria set out in Section 7.1. The report may include a confidential section (e.g., where personnel issues can be addressed). In the case that the self-study addresses more than one program, for example when a self-study describes both an undergraduate and graduate program or multiple undergraduate programs, reviewers in their report must make specific reference to each program described in the self-study. The intent of these reports is to be formative and constructive. Reviewers are required to make at least three recommendations for specific steps to be taken that will lead to the continuous improvement of the program, distinguishing between those the program can itself take and those that require external action. Any commentary on issues such as faculty complement and/or space requirements made by the reviewers must be directly tied to issues of program quality and/or sustainability. The reports are intended to provide counsel rather than prescriptive courses of action. The Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, will review the Review Team's report for completeness. If satisfactory, the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, will approve the reviewers' report and disseminate it to the Chair. If there are concerns with the completeness of the report, the Review Team will be asked to provide more clarity.

Responses to the reviewers' report from both the Chair and the Dean, or the Dean's delegate, is prepared, as per the Program Response template, and attached to the reviewers' report.

7.3 Institutional perspective and Final Assessment Report

The self-study, reviewer's report excluding the confidential section, and responses from the Chair and Dean, will be submitted as a package to McMaster's Quality Assurance Committee, a joint committee of Undergraduate and Graduate Councils. The Quality Assurance Committee will assess the review and will submit a Final Assessment Report (FAR) to Undergraduate Council or Graduate Council that:

- provides an Executive Summary
- identifies significant strengths of the program
- addresses the appropriateness of resources for the success of the program
- identifies opportunities for program improvement and enhancement
- identifies and prioritizes the recommendations; may include additional recommendations or comments to the Provost and Vice- President (Academic). Recommendations could include, for example, requiring a detailed progress report that will describe progress towards addressing major concerns or scheduling an additional cyclical review sooner than specified by the normal 8-year cycle
- includes an Implementation Plan that: prioritizes recommendations that will be implemented; identifies who is responsible for acting on each recommendation; specifies timelines related to each recommendation; and, as necessary, identifies the unit or individual responsible for providing resources needed to address each recommendation.

The Final Assessment Report from the Quality Assurance Committee along with any recommendations or comments is sent to the Chair and presented to Undergraduate Council or Graduate Council, as appropriate, for approval and then to Senate for information. These governing bodies will consider if additional recommendations or comments are necessary. If so, these recommendations or comments will be presented to the Provost and Vice-President (Academic). These will be communicated to the Chair, the Dean and the Vice-Provost (Faculty) or, in the case of graduate programs, to the Vice-Provost and Dean of Graduate Studies. Once approved, the FAR including an Executive Summary and the associated Implementation Plan is posted on the institution's Quality Assurance webpage. Programs are strongly encouraged to post their FAR and Implementation Plans on their program's webpage as well. The Final Assessment Report is the synthesis of the cyclical review process and as such is an important tool for a program's continuous improvement.

Eighteen months after receiving the report from Undergraduate Council or Graduate Council, the Chair will submit a progress report on the program to the Dean. The Dean will provide commentary and response to the progress report and submit the progress report along with their commentary to the Quality Assurance Committee summarizing the status of any actions taken or being taken. The Quality Assurance Committee, in some circumstances, will request follow up reporting on specific components if not satisfactorily addressed in the 18-month report. These reports are posted on the institution's Quality Assurance webpage as an addendum to the program's FAR and Implementation Plan. The Quality Assurance Committee will present progress reports to Undergraduate Council or Graduate Council, if

deemed necessary by the Chairs of the Quality Assurance Committee.

7.4 Reporting requirements

The Final Assessment Reports, which include the Implementation Plans, and subsequent Progress Reports are posted on the Provost and Vice-President (Academic) section of the University's website. The Vice-Provost (Faculty) provides an annual report to Quality Council that lists the past year's completed Final Assessment Reports and attests that all IQAP-required Cyclical Program Review processes have been followed. This report will also provide the link to the institution's Quality Assurance webpage. The annual report of Final Assessment Reports and their related Cyclical Program Review processes will occasionally be reviewed for compliance by the Quality Council and that if issues are found, the Quality Council may decide to initiate a Focused Audit.

7.5 Use of accreditation and other external reviews in the Institutional Quality Assurance Process

Programs that periodically undergo accreditation reviews are permitted to request that the associated accreditation documentation serve to meet some of the elements required of the IQAP cyclical review self-study when these elements are fully consistent with the requirements outlined within this policy. The program chair with support from the Dean of the program will submit a request form and all required supporting documentation to the Vice Provost (Faculty) for undergraduate programs or the Vice Provost and Dean of Graduate Studies for graduate programs.

When requested by the Dean, or the Dean's delegate, and permitted by the accreditation authorities, the site visit by the Review Team is permitted to be performed at the same time as the accreditation review, however there must be at least two external reviewers and one internal reviewer dedicated to the Cyclical Program Review.

The Vice Provost (Faculty) for undergraduate programs or the Vice Provost and Dean of Graduate Studies for graduate programs will review the request and decide if an accreditation review can be substituted in part for a cyclical review. The program will be notified in writing of the decision. A record of substitutions or additions, and the grounds on which they were made, will be eligible for audit by the Quality Council.

Approval for substitution is only applicable for the cyclical review year related to the request. The remaining steps in the cyclical review will then take place. Programs must participate in all reporting related to the cyclical review. If desired by the program, a request to substitute some accreditation documentation in order to meet partial requirements of their program's Quality Assurance review must be submitted for every subsequent cyclical review.

8. Institutional Identification of Major Modifications to Existing Programs

As part of the continuous improvement of McMaster's academic programs, existing programs are

expected to routinely undergo revisions with the aim of improving student experience and quality enhancement. This includes, for example, the introduction or deletion of courses, major exam structures, change in emphases, options, minors, or mode of delivery. Such revisions provide an opportunity for improving the student experience and staying current with the discipline.

The revisions must be submitted through the university's curriculum approval process. This is the same approval process as outlined for New Program Proposals in Section 5.7 (excluding the University Planning Committee and University Fees, unless there are significant resource implications).

Program revisions are described as minor or major modifications. In both cases, any changes to the program will be subject to the regular cyclical program review process as outlined in Section 7. Once per year, the MacPherson Institute and School of Graduate Studies consults with the Registrar's Office and prepares a report of major modifications to existing programs including program closures and submits the report to the Quality Council.

In situations where it is unclear or where disagreement exists on whether a planned change constitutes a minor modification, a major modification, or a new program, the determination will be made by the Vice-Provost (Faculty) for undergraduate programs or the Vice-Provost and Dean of Graduate Studies for graduate programs, in consultation with McMaster's Quality Assurance Committee, where appropriate. Quality Council has the final authority to decide if a major modification constitutes a new program and, therefore, must follow the Protocol for New Program Approvals. A record of any decision will be kept with McMaster's Quality Assurance Committee.

Minor modifications include: changes to course titles or codes; the addition or deletion of a single course; weighting of courses; creating or closing a minor; and creating or closing an undergraduate certificate.

Major modifications include the following program changes:

- a) Requirements that differ significantly from those existing at the time of the previous cyclical program review or, if a program review has not taken place yet, from the new program proposal. For undergraduate programs, it would be considered a major modification when more than 30% of the program requirements are being changed from one academic year to the next. For graduate programs, it would be considered a major modification when more than 50% of the program requirements (including requirements such as courses, major exams, and research) are being changed from one year to the next.
- b) Significant changes lasting more than one academic year and that differ from what was outlined in the last cyclical program review or, if a program review has not taken place yet, from the new program proposal to the faculty engaged in delivering the program and/or to the essential physical resources, for example, where there have been changes to the existing mode(s) of delivery (such as different campus, online delivery and inter-institutional collaboration)
- c) Significant changes to the Program Learning Outcomes that are made outside of the cyclical program review process. Significant changes are defined as: changes to the majority of the Program

Learning Outcomes such that they differ from those existing at the time of the previous cyclical program review (or, if a program review has not taken place yet, from the new program proposal) but do not, however, meet the threshold of a new program

- d) Change in program name and/or degree nomenclature, when this results in a change in program learning outcomes
- e) Program closure
- f) The inclusion of a new program of specialization where another with the same degree designation already exists
- g) The addition of a single new field to an existing graduate program. The creation of more than one field at one time or over consecutive years may be required to complete the Expedited Approvals process. This process is outlined in Section 6.

Chairs are responsible for ensuring any major modifications align with the Program Learning Outcomes and that the impact of the modification on students has been assessed, where appropriate.

Changes to an existing Emphasis, Option, or Minor Program; the creation of a new micro-credential(s); undergraduate certificate(s); and laddering, stacking or similar options, or comparable elements do not require Quality Council appraisal or approval. Micro-credentials are approved using the same internal approval process outlined in Section 5.7. This approval process is subject to change and proponents of micro-credentials are encouraged to consult with the Vice Provost (Faculty) or the Vice Provost and Dean of Graduate Studies prior to seeking institutional approval for a micro-credential.

There may be situations where although the changes to the program meet the definition of a major modification, the changes are of such significance that a more immediate review is desirable. This situation may occur, for example, when the fundamental goals of the program change; or there are significant changes to the faculty engaged in delivering the program and/or to the essential physical resources. In such cases, the Department, the Faculty, Undergraduate Council or Graduate Council may, if it deems it advisable after consultation with the relevant Dean(s) and Vice-Provost (Faculty) and/or Vice-Provost and Dean of Graduate Studies, initiate a program review and request that the Quality Council review the major modification proposal. The proposal must include a description and rationale for the proposed changes and how they will improve the student experience. The proposal will include input from current students and recent graduates of the program. When requested, this process will occur through Quality Council's Expedited Approval Process.

APPENDIX A

McMASTER UNIVERSITY'S STATEMENT ON DEGREE LEVEL EXPECTATIONS

A McMaster education enables students to develop sets of life and learning skills that promote a continuing ability and desire to learn, and a set of technical and professional skills that permit a range of career choices. Degree level expectations elaborate the intellectual and creative development of students and the acquisition of relevant skills that are usually widely, yet implicitly, understood.

McMaster University has adopted the following Undergraduate Degree Level Expectations (UDLEs) or Graduate Degree Level Expectations (GDLEs) that were developed by the Ontario Council of Academic Vice-Presidents and endorsed by the Council of Ontario Universities in December 2005. These degree level expectations are to be viewed as a minimum threshold for all degree programs at McMaster.

UNDERGRADUATE

	BACCALAUREATE / BACHELOR'S DEGREE This degree is awarded to students who have demonstrated the following:	BACCALAUREATE / BACHELOR'S DEGREE: HONOURS This degree is awarded to students who have demonstrated the following:
1. Depth and breadth of knowledge	<p>a) General knowledge and understanding of many key concepts, methodologies, theoretical approaches and assumptions in a discipline</p> <p>b) Broad understanding of some of the major fields in a discipline, including, where appropriate, from an interdisciplinary perspective, and how the fields may intersect with fields in related disciplines</p> <p>c) Ability to gather, review, evaluate and interpret information relevant to one or more of the major fields in a discipline</p>	<p>a) Developed knowledge and critical understanding of the key concepts, methodologies, current advances, theoretical approaches and assumptions in a discipline overall, as well as in a specialized area of a discipline</p> <p>b) Developed understanding of many of the major fields in a discipline, including, where appropriate, from an interdisciplinary perspective, and how the fields may intersect with fields in related disciplines</p> <p>c) Developed ability to:</p> <ul style="list-style-type: none"> (i) gather, review, evaluate and interpret information; and (ii) compare the merits of alternate hypotheses or creative options, relevant to one or more of the major fields in a discipline

	<ul style="list-style-type: none"> d) Some detailed knowledge in an area of the discipline e) Critical thinking and analytical skills inside and outside the discipline f) Ability to apply learning from one or more areas outside the discipline 	<ul style="list-style-type: none"> d) Developed, detailed knowledge of and experience in research in an area of the discipline e) Developed critical thinking and analytical skills inside and outside the discipline f) Ability to apply learning from one or more areas outside the discipline
2. Knowledge of methodologies	<p>An understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to:</p> <ul style="list-style-type: none"> a) evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques; and b) devise and sustain arguments or solve problems using these methods. 	<p>An understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to:</p> <ul style="list-style-type: none"> a) evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques; b) devise and sustain arguments or solve problems using these methods; and c) describe and comment upon particular aspects of current research or equivalent advanced scholarship.
3. Application of knowledge	<p>The ability to review, present, and interpret quantitative and qualitative information to:</p> <ul style="list-style-type: none"> a) develop lines of argument; b) make sound judgments in accordance with the major theories, concepts and methods of the subject(s) of study; and 	<p>The ability to review, present and critically evaluate qualitative and quantitative information to:</p> <ul style="list-style-type: none"> a) develop lines of argument; b) make sound judgments in accordance with the major theories, concepts and methods of the subject(s) of study; c) apply underlying concepts, principles, and techniques of analysis, both within and outside the discipline; d) where appropriate use this knowledge in the creative process; and

	<p>The ability to use a basic range of established techniques to:</p> <ul style="list-style-type: none"> a) analyze information; b) evaluate the appropriateness of different approaches to solving problems related to their area(s) of study; c) propose solutions; and d) make use of scholarly reviews and primary sources. 	<p>The ability to use a range of established techniques to:</p> <ul style="list-style-type: none"> a) initiate and undertake critical evaluation of arguments, assumptions, abstract concepts and information; b) propose solutions; c) frame appropriate questions for the purpose of solving a problem; d) solve a problem or create a new work; and e) to make critical use of scholarly reviews and primary sources.
4. Communication skills	The ability to communicate accurately and reliably, orally and in writing to a range of audiences.	The ability to communicate information, arguments, and analyses accurately and reliably, orally and in writing to a range of audiences.
5. Awareness of limits of knowledge	An understanding of the limits to their own knowledge and how this might influence their analyses and interpretations.	An understanding of the limits to their own knowledge and ability, and an appreciation of the uncertainty, ambiguity and limits to knowledge and how this might influence analyses and interpretations.

<p>6. Autonomy and professional capacity</p>	<p>Qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring:</p> <ul style="list-style-type: none"> a) the exercise of personal responsibility and decision- making; b) working effectively with others; c) the ability to identify and address their own learning needs in changing circumstances and to select an appropriate program of further study; and d) behaviour consistent with academic integrity and social responsibility. 	<p>Qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring:</p> <ul style="list-style-type: none"> a) the exercise of initiative, personal responsibility and accountability in both personal and group contexts; b) working effectively with others; c) decision-making in complex contexts; d) the ability to manage their own learning in changing circumstances, both within and outside the discipline and to select an appropriate program of further study; e) and behaviour consistent with academic integrity and social responsibility.
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GRADUATE

	MASTER'S DEGREE This degree is awarded to students who have demonstrated the following:	DOCTORAL DEGREE This degree extends the skills associated with the Master's degree and is awarded to students who have demonstrated the following:
1. Depth and breadth of knowledge	A systematic understanding of knowledge, including, where appropriate, relevant knowledge outside the field and/or discipline, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study, or area of professional practice.	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.
2. Research and scholarship	<p>A conceptual understanding and methodological competence that:</p> <ul style="list-style-type: none"> a) Enables a working comprehension of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline; b) Enables a critical evaluation of current research and advanced research and scholarship in the discipline or area of professional competence; and c) Enables a treatment of complex issues and judgments based on established principles and techniques; and, <p>On the basis of that competence, has shown at least one of the following:</p> <ul style="list-style-type: none"> a) The development and support of a sustained argument in written form; or b) Originality in the application of knowledge. 	<ul style="list-style-type: none"> 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; b) The ability to make informed judgments on complex issues in specialist fields, sometimes requiring new methods; and c) The ability to produce original research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication.

3. Level of application of knowledge	Competence in the research process by applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting.	The capacity to: <ul style="list-style-type: none"> a) Undertake pure and/or applied research at an advanced level; and b) Contribute to the development of academic or professional skills, techniques, tools, practices, ideas, theories, approaches, and/or materials.
4. Professional capacity/autonomy	<ul style="list-style-type: none"> a) The qualities and transferable skills necessary for employment requiring: <ul style="list-style-type: none"> (i) The exercise of initiative and of personal responsibility and accountability; and (ii) Decision-making in complex situations; b) The intellectual independence required for continuing professional development; c) The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and d) The ability to appreciate the broader implications of applying knowledge to particular contexts. 	<ul style="list-style-type: none"> a) The qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex situations; b) The intellectual independence to be academically and professionally engaged and current; c) The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and d) The ability to evaluate the broader implications of applying knowledge to particular contexts.
5. Level of communications skills	The ability to communicate ideas, issues and conclusions clearly, orally and in writing, to a range of audiences.	The ability to communicate complex and/or ambiguous ideas, issues and conclusions clearly and effectively, orally and in writing, to a range of audiences.
6. Awareness of limits of knowledge	Cognizance of the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines.	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.

Policies, Procedures and Guidelines

Complete Policy Title:
**Academic Program Development
and Review – Policy on**

Approved by:
Senate

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Vice-Provost (Faculty)

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**New and Revised Undergraduate
Programs Policy, 2009**
**Policy on Steps for Creation of New
Graduate Programs or New Fields in
Existing Doctoral Programs, 2009**
Enquiries:

Equity and Inclusion Office

General Policy Enquiries

Policy (University Secretariat)

***DISCLAIMER: If there is a Discrepancy between this electronic policy and the written
copy held by the policy owner, the written copy prevails***

POLICY ON ACADEMIC PROGRAM DEVELOPMENT AND REVIEW

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1. PREAMBLE

McMaster University is widely recognized for innovation in teaching and learning and for the quality of its programs. Nevertheless, knowledge of our disciplines and the scholarship of teaching and learning are constantly evolving. Our reputation can only be maintained and improved if we, as academics and educators, critically review what we do in our programs and seek opinions and advice from colleagues at McMaster and at other institutions.

Although the primary objective for these reviews is the improvement of our academic programs, the processes that we adopt is also designed to meet our responsibility to the government on quality assurance: Every publicly assisted Ontario university that grants degrees and diplomas is responsible for ensuring the quality of all of its programs of study, including modes of delivering programs and those academic and student services that affect the quality of the respective programs under review, whether or not the program is eligible for government funding.

The process by which institutions meet this accountability to the government is outlined in the Quality Assurance Framework (QAF), developed by the Ontario Council of Academic Vice- Presidents (OCAV) and approved by Executive Heads in April 2010. Institutions' compliance with the QAF is monitored by the Ontario Universities Council on Quality Assurance, also known as the Quality Council, which reports to OCAV and the Council of Ontario Universities (COU).

As part of the Quality Assurance Framework, McMaster was required to develop an Institutional Quality Assurance Process (IQAP), which is contained within this Policy. In addition to the 15 guiding principles contained within the QAF, McMaster determined the following internal principles to guide the development of the IQAP Policy: The guiding principles used for developing McMaster's IQAP were:

- curriculum development and improvement isare an ongoing, iterative process that is ~~normally~~-initiated, developed and controlled at the departmental level;
- McMaster's IQAP incorporates input from all principal stakeholders; ~~and,~~
- McMaster's IQAP is designed primarily to help improve programs and shape them to have characteristics that are most valued at our University, while also meeting the responsibility for quality assurance.

Thus, the goal of McMaster's IQAP is to facilitate the development and continued improvement of our undergraduate and graduate academic programs, and to ensure that McMaster continues to lead internationally in its reputation for innovation in teaching and learning and for the quality of its programs. McMaster's IQAP is intended to complement existing mechanisms for critical assessment and enhancement, including departmental reviews and accreditation reviews. The uniqueness of each program at McMaster will emerge in the IQAP self-study.

The IQAP is subject to approval by the Quality Council when it is initiated and thereafter, when it is revised. The Quality Council will audit the University on an 8-year cycle under the terms outlined in the Quality Assurance Framework.

1.1 Cyclical Audit

the principal stateholders of Ontario's education system. One-year prior to the scheduled Cyclical Audit, McMaster's key contact to the Quality Council (or their delegate) will participate in a half-day briefing by the Quality Council Secretariat and an Audit Team member.

In advance of the cyclical audit, the Vice-Provost (Faculty) and Vice-Provost and Dean of Graduate Studies, or their delegates, will prepare a self-study of McMaster's Institutional Quality Assurance Process, highlighting its strengths as well as areas for improvement and enhancement. The self-study will also identify the institutional response to any issues identified in the previous audit. To prepare this self-study, consultation with Faculty representatives as well as key stakeholders from central university supports, such as the Registrar's Office, the MacPherson Institute, Institutional Research and Analysis and the Library will take place, as appropriate. The self-study will be submitted to the Quality Council's Secretariat as part of the Cyclical Audit process.

The Cyclical Audit provides accountability to the principal stakeholders of Ontario's university education system. The purpose of the Cyclical Audit is to evaluate the alignment of past and current practice with policy as well as the university's approach to continuous improvement. Cyclical Program Reviews that were undertaken within the period since the previous Cyclical Audit are eligible for selection for the university's next Cyclical Audit. Any new undergraduate and graduate programs that have been approved since the previous Cyclical Audit are eligible for selection in the next university's cyclical audit. Graduate Diplomas that were approved through the expedited approvals process as well as major modifications to existing academic programs are not subjected to the institution's cyclical audit.

Excluding any confidential information, the Audit Report and any follow up response report will be posted on McMaster's Quality Assurance webpage. If an area of concern is identified during the Cyclical Audit, the Quality Council may determine that a focused audit of a specific process is necessary. Reports related to a Focused Audit will be posted on the McMaster's Quality Assurance webpage.

2. CONTACT

The authority responsible for the IQAP is the Vice-Provost (Faculty). The authorities responsible for its application will be the Vice-Provost (Faculty) for undergraduate programs and the Vice-Provost and Dean of Graduate Studies for graduate programs. When undergraduate and graduate programs are reviewed concurrently, the Vice-Provost (Faculty) and the Vice-Provost and Dean of Graduate Studies will be jointly responsible for its application.

The person responsible for all contact between the University and the Quality Council is the Vice-Provost (Faculty).

Throughout this Policy, the Chair refers to the head of the academic unit (usually a Department, sometimes a School or an interdisciplinary group) that is proposing a new program or is responsible for an existing program, although we recognize that the official title of such person varies across programs and Faculties. Similarly, the Dean refers to the head of the Faculty or equivalent individual responsible for the program, again recognizing that official titles vary.

In the case of joint academic programs (e.g., a combined honours program or a collaborative program with another educational institution), the relevant Chair and Dean shall be those at McMaster University who have the administrative responsibility for the program.

3. PURPOSE

This Policy on Academic Program Development and Review guides the development of new undergraduate and graduate programs (including for-credit graduate diploma programs) and aids in the ongoing improvement of existing programs. It has also been designed to meet the University's responsibility of ensuring the quality of such programs. It applies to all undergraduate and graduate programs offered at McMaster University, as well as programs offered in collaboration with other institutions that lead to McMaster University degrees or graduate diplomas.

4. DEFINITION OF NEW PROGRAMS

A new program is normally considered to be any new degree or degree program that has not been previously offered at McMaster University. In contrast to the normal evolution of academic programs, a new program will generally involve some combination of new courses, new learning outcomes, and new or re-allocated resources, and will be meant to provide students with an academic path that was previously not available to them.

Although not new, a program that has been offered at McMaster University without funding from the Ministry of Colleges and Universities and for which a request for funding is to be made, will follow the procedures for new programs that are outlined in Section 5.

~~Examples of what constitutes a 'new program' are included at: <http://oucqa.ca/guide/examples-of-new-programs/>~~

5. NEW GRADUATE AND UNDERGRADUATE PROGRAMS

The steps required for the approval of any new program include:

5.1 Beginning a New Program Proposal

Proponents of a new program may begin by preparing a Statement of Intent and acquiring endorsement from the relevant Dean(s) and Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies.

5.2 Broad Consultation

The Chair, in consultation with the Dean, is responsible for ensuring that there is broad consultation. It will also be essential to have appropriate discussions with other institutions when the proposed programs are to be offered in collaboration with those institutions.

Whenever faculty members from several departments will be involved in a proposed program, these proponents must have the opportunity to discuss the proposal with their respective Dean(s) and Chair(s). Similarly, if there is a proposal to cross-list a course, or to recommend or require students in the new program to take existing courses, the teaching Department(s) must be consulted and agreement obtained, in writing, from the appropriate Chair/Dean. Approvals of the relevant Curriculum Committees are required.

Discussions are to be held with central support units such as, but not limited to, the Library, the Registrar, the MacPherson Institute for Leadership, Innovation and Excellence in Teaching and Learning, and other relevant units, to assess the impact of the introduction of the new program. Input also should be sought from relevant groups of students for whom there is a potential impact of the proposal.

Broad consultation is especially important when proposing interdisciplinary programs particularly when the initiators of the proposed plan are unfamiliar with all ~~various~~ disciplines involved in the proposed program or individual faculty members who might potentially be interested or have expertise. A proposal for a new interdisciplinary program must be presented to any related Faculty/Program to ensure that there is widespread awareness of the program and of its potential impact. If a new interdisciplinary program utilizes or cross-lists one or several new courses from other Departments, the Department(s) offering the course(s), rather than the new interdisciplinary group, must submit those courses for approval. Prior written agreement also must be obtained from Chairs of participating Departments for teaching, graduate supervision and other resources required for interdisciplinary programs. Departments ~~_~~ must be given adequate time to consider these requests. The program proponents, in consultation with the appropriate Dean(s), or their delegate(s), will consult and obtain proposed administrative and governance structures from the Faculties involved in interdisciplinary program proposals for inclusion in the new program proposal. - ~~must include the proposed administrative and governance structures in interdisciplinary program proposals.~~

5.3 New Program Proposal

The Chair is responsible, in collaboration with relevant groups and/or individuals, for the preparation of a New Program Proposal. Both the Chair and the Dean, or Dean's delegate, ensure that the proposal has met all of the New Program Proposal criteria outlined below and both will sign off on the completeness of the proposal. For an interdisciplinary program, all affiliated program Chairs and appropriate Deans, or the Deans' delegates, sign off on the completeness of the proposal. Program proponents are to complete McMaster's New Program Proposal template and address the criteria for the New Program Proposal as outlined below:

5.3.1 Program Overview

- Description of the extent and method of the consultation process undertaken during the development of the proposal, including the diversity of groups and /or individuals who were engaged in and informed the preparation of the proposal ~~including the groups and /or individuals who helped to prepare the proposal.~~
- Consistency of the program's goals with the University's tripartite research, teaching, and service excellence mission, its values and purpose, and its academic priorities and plans ~~mission and academic plans.~~
- Ways in which the program addresses the institution's current Strategic Mandate Agreement
- Ways in which the program addresses the institution's current strategies, frameworks and/or principles regarding equity, diversity and inclusion, and how the

program advances EDI-related academic goals (e.g., Indigenous perspectives, international relevance, interdisciplinarity, intercultural competencies, social and environmental equity and sustainability)

- Clarity and appropriateness of the program's requirements and the Program Learning Outcomes in meeting the University's Undergraduate Degree Level Expectations (UDLEs) or Graduate Degree Level Expectations (GDLEs), as outlined in Appendix A.
- Appropriateness of degree nomenclature ~~and program's goals~~ and program's goals.

5.3.2 Admission requirements

- Appropriateness of the program's admission requirements for meeting its goals and the Program Learning Outcomes established for completion of the program.
- Alternative requirements, if any, for admission into the program, such as minimum grade point average, additional languages or portfolios, along with how the program recognizes prior work or learning experience.
- Consideration of the demographics of the student market for the program, and accessible and equitable admissions processes and practices
- _____

5.3.3 Structure

- Appropriateness of the administrative, governance, and communication processes proposed in support of the program.
- Appropriateness of the program's structure and regulations to meet specified Program Learning Outcomes and Degree Level Expectations.
- For graduate programs, a clear rationale for program length, which ensures that the program requirements can be reasonably completed within the proposed time period.

5.3.4 Program content, curriculum, and teaching

- Ways in which the curriculum addresses the current state of the discipline or area of study, and extent to which a comparative review of the state of the discipline informs the curriculum.
- Identification of any unique curriculum or program innovations or creative components with attention to experiential and community-engaged pedagogy.
- Appropriateness of the proposed mode(s) of delivery to meet the intended Program Learning Outcomes and Degree Level Expectations and availability of the necessary physical resources, including infrastructure and technologies for accessible education.

- Ways in which the program will address current institutional, faculty, or departmental priorities (e.g. experiential learning; equity, diversity and inclusion; accessibility; community engagement; and entrepreneurship)
- For research-focused graduate programs, clear indication of the nature and suitability of the major research requirements for degree completion.
- For graduate programs, verification that the courses included meet university requirements in terms of the minimum number of courses required, the level of courses required, and the appropriate inclusion of other required elements appropriate for the degree level (e.g., transfer exams, comprehensive exams). At least two thirds of the course requirements must be at the 700-level.

5.3.5 Assessment of teaching and learning

- Plans to monitor and assess the overall quality of the program and whether the program is achieving its proposed goals, ensuring evaluation methods are accessible and inclusive and audiences are diverse.
- Appropriateness of the proposed methods for the instruction and assessment of student achievement of the intended Program Learning Outcomes. The Program Learning Outcomes must meet the Degree Level Expectations.
- Completeness of plans for documenting and demonstrating the level of performance of students, consistent with the Degree Level Expectations.
- Description of how the resulting information from level of student performance will be documented and used to inform continuous program improvement.

5.3.6 Resources

For all programs:

- Adequacy of the administrative unit's planned utilization of existing human, physical and financial resources, and any institutional commitment to supplement those resources, to support the program.
- Participation of a sufficient number and quality of faculty who are competent to teach and/or supervise in the program.
- Evidence that there are adequate resources to sustain the quality of scholarship produced by undergraduate students, as well as graduate students' scholarship and research activities, including library support, information technology support, and laboratory access.

- 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 applicable, provision of supervision of experiential learning opportunities
- If applicable, additional institutional resource commitments to support the program in step with its ongoing implementation.

For undergraduate programs:

- Evidence of plans for adequate numbers of faculty and staff to achieve the goals of the program.
- Evidence of plans to provide the necessary resources in step with the implementation of the program.
- Planned/anticipated class sizes.
- Provision of supervision of experiential learning opportunities, if applicable

For graduate programs:

- Evidence that full-time tenured/tenure-track/CAWAR faculty have the recent research and/or professional/clinical expertise needed to sustain the program, promote innovation, foster an appropriate intellectual climate, and provide excellent supervision of students in academic and research components of the program.
- Where appropriate to the program, evidence that financial assistance for students will be sufficient to ensure adequate quality and numbers of students.
- For programs with a research component, evidence that faculty research supervisors have current and ongoing research programs and funding, and space and relevant research infrastructure appropriate to support students' research in the program.
- Evidence of how supervisory loads will be distributed, and the qualifications and appointment status of faculty who will provide instruction and supervision.
- Evidence of prior experience in graduate teaching and research supervision for faculty participating in the program.

For undergraduate programs:

- ~~Evidence of plans for adequate numbers of faculty and staff to achieve the goals of the program;~~
- ~~Evidence of plans to provide the necessary resources in step with the implementation of the program;~~
- ~~Planned/anticipated class sizes;~~
- ~~Provision of supervision of experiential learning opportunities (if required); and Role of adjunct and sessional faculty.~~

5.3.7 Quality and other indicators

- Definition and use of indicators that provide evidence of quality of the faculty (e.g., qualifications, research, innovation and scholarly record; appropriateness of collective faculty expertise to contribute substantively to the proposed program).
- Evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience.
- If applicable, any other evidence that the program and faculty will ensure the intellectual quality of the student experience.

5.3.5.4 External Evaluation: Review Team

The Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, in consultation with the Dean will select a diverse team of reviewers to assess the proposal. The Review Team ~~review team will shall~~ consist of at least one external reviewer for new undergraduate programs and two external reviewers for new graduate programs. The team will will also include and one internal reviewer ~~selected by the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, in consultation with the Dean (or the Dean's designate).~~ Additional members may be added to the team, if appropriate, for instance when evaluating professional programs or interdisciplinary programs.

External reviews of new undergraduate, Master's and PhD program proposals must incorporate a site visit. Site visits are ~~normally~~ conducted on-site ~~however, There may be circumstances that require exceptions to on-site visits.~~ Exceptions to on-site visits for new undergraduate program reviews are determined by the Vice-Provost (Faculty) or, in the case of new graduate programs, the Vice-Provost and Dean of Graduate Studies, in consultation with the appropriate Dean or Dean's delegate and agreed to by the Review Team prior to the commencement of the review. The Vice-Provost (Faculty) or, in the case of new graduate programs, the Vice Provost and Dean of Graduate Studies, will provide clear justification for the decision for an exception to an on-site visit.

If it is determined that a site visit can take place virtually, the virtual site visit will require all

elements of the Review Team's site visit using videoconferencing software and/or other suitable platforms. A virtual site visit will still include elements such as virtual meetings with students, faculty, and other stakeholders. It may also include remote attendance at performances or events, and virtual facilities tours. A virtual site visit may replace an in-person site visit with agreement from both the external reviewers and the Vice Provost (Faculty) or, in the case of graduate programs, the Vice Provost and Dean of Graduate Studies.

As appropriate, the Review Team shall meet with the following:

- Chair or Director;
- Full-time faculty members (a broad cross section, in groups);
- Part-time faculty members (a broad cross section, in groups);
- Program students (a broad cross section of students ~~is~~^{are} to be invited by the program to participate in a meeting with the review team);
- Departmental/Program support staff;
- Associate Dean;
- Dean;
- for graduate programs, the Vice-Provost and Dean of Graduate Studies;
- for undergraduate programs, the Vice-Provost (Faculty); ~~and,~~
- Provost and Vice-President (Academic), if available.

External members of the Review ~~Team will normally~~ be individuals who are in the same discipline as the program under review (or across disciplines for interdisciplinary programs) and who are distinguished senior academics of broad experience, with an established commitment to higher education. External reviewers will not be faculty members from McMaster University. Internal reviewers are faculty members from McMaster but from outside of the discipline (or interdisciplinary group) engaged in the proposed program. Non-academics with relevant expertise and experience are permitted to serve as reviewers when~~Where it would enhance the diversity of relevant disciplinary or interdisciplinary perspectives, or in community-engaged or professional programs. - Non-traditional programs are permitted to have non-academics with relevant expertise and experience are permitted to serve as reviewers.~~ Reviewers must have an impartial, arms-length relationship to the program (for clarity, arms-length reviewers should not have been a research supervisor or student of members of the proposed program; and should not have collaborated with members of the proposed program within the past ~~six~~ years, ^{or} have made plans to collaborate with ~~those~~ individuals in the immediate future. There also should be no other potential conflicts of interest (e.g., personal or financial). Wherever possible the review team will represent broad institutional categories and/or

geographic regions.

External reviewers will be selected from a list of at least six suggested individuals compiled by the Department and endorsed by the Dean. An internal reviewer will be selected from a list of at least three suggested individuals compiled by the Department and endorsed by the Dean.

The list~~s~~ shall include, for each proposed ~~external~~ reviewer:

- name~~;~~
- rank and position~~;~~
- institution or company and current address, telephone ~~and fax numbers~~, e-mail address, and URL if available~~;~~
- professional (including administrative) experience or expertise relevant to the Program under review~~;~~
- details of any previous or current affiliation with the University, and any association with individual members of the Program under review (e.g., co-author, previous student/supervisor, close relationship)~~;~~ ~~and~~,
- for graduate programs, a description of research expertise, and a partial listing of recent scholarly publications~~;~~

The New Program Proposal, all relevant faculty CVs, the McMaster's Review Team Guidelines and other materials specific to the review will be provided to all members of the review team no less than two weeks prior to their visit.

5.45.5 Reviewers' report

Excepting when contrary circumstances apply, the Review Team will submit a co-authored report, including an Executive Summary, for the program(s) under review within four weeks of the visit to the Vice-Provost (Faculty), or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies. The report will be written primarily by the external reviewer(s), and then sent to the internal reviewer for their review and comment. The report will the reviewers normally will provide, within four weeks of the review, a joint-report that appraisees the standards and quality of the proposed program, and addresses the criteria set out in Section 5.3, including the associated faculty and the adequacy of existing physical, human and financial material-resources. Reviewers also will be invited to acknowledge any clearly innovative aspects of the proposed program, together with recommendations on any essential or otherwise desirable modifications to the program. The report may include a confidential section (e.g., where personnel issues can be addressed). The Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, will review the reviewers' report for completeness. If satisfactory, the the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, will approve the reviewers'

report and ~~deseminate~~disseminate it to the Chair. If there are concerns with the completeness of the report, the ~~r~~Review Team ~~ers~~will be asked to provide more clarity.

5.55.6 Internal response

Responses to the reviewers' report from both the Chair and the Dean, or their delegates, should be prepared, as per the New Program Response template, and attached to the reviewers' report. Any substantive revisions (e.g. revisions to Program Learning Outcomes; modes of delivery; curriculum and/or assessment practices) to the New Program Proposal required by the Reviewers' Report and agreed to by the Chair and Dean must be made to the proposal prior to submission for approval at Undergraduate Council or Graduate Council.

5.65.7 Institutional approval

In addition to the completion of the external review, approval of new program proposals by the following University bodies, ~~normally~~ in the order listed below, is required:

- The Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, will review the New Program Proposal to ensure that the program is consistent with McMaster's principles and priorities and existing strengths of the University, the program is of high academic quality; there is convincing evidence of student demand and societal need for the program; and, sufficient financial support, infrastructure, and human resources can be made available to initiate and support the program either within the Faculty budget or based on the program being a full revenue generating program.
- The Faculty Curriculum Committee(s), ~~representing a diversity of faculty members and equipped to consider EDI principles~~ reviews the New Program Proposal to ensure that the new program adds sufficient value to the programs already offered in the Faculty.;
 - the Faculty(ies) reviews the New Program Proposal to ensure that the program is consistent with the Faculty's strategic plans and that the necessary resources are available if these are to be provided from within the Faculty's envelope;
 - the Executive Director of Finance and Planning reviews the Resource Implications and Financial Viability document to ensure that all potential University resource requirements are captured, and the program is properly costed. In addition, for interdisciplinary or partnership programs, ensures that an MOU is properly completed.
 - for Undergraduate programs, the Undergraduate ~~Council~~ Curriculum and Admissions Committee reviews the New Program Proposal to assess the impact of the new program on students enrolled in other Faculties;

- the University Student Fees Committee reviews the proposed Resource Implications and Financial Viability document~~Program and Supplementary Fees~~ and ensures that Ministry and University fee policies are adhered to, are reasonable relative to market and that fee collection can be properly administered within existing systems;
- Undergraduate Council or Graduate Council reviews the New Program Proposal to provide a venue for a broad discussion on the new program by elected faculty and student members with specific knowledge of and expertise in undergraduate or graduate programming, and ensure that the program is consistent with University-wide goals and criteria specifically related to undergraduate or graduate programming;
- University Planning Committee reviews the New Program Proposal and the Resource Implications and Financial Viability documents to understand the financial implications of the new program, evaluate the impact University-wide, and assess value-for-money for the intended student; ~~and,~~
- Senate reviews the New Program Proposal and Resource Implications and Financial Viability documents to ensure that the program is consistent with the University's general strategic plans with respect to academic programs;

These bodies should consider the criteria outlined in Section 5.3 when evaluating the proposal.

The site visit with external reviewers will be held after The Faculty Curriculum Committee(s) and prior to approval at Undergraduate Council or Graduate Council and Senate.

Special considerations, such as collaboration agreements or non-standard distribution and full revenue generating programs are to refer to the Academic Revenue Generating Activity Policy and other relevant University policies, as applicable. ~~If any one of the bodies requires changes to the proposal, those changes may have to be subsequently provided to the other approving bodies for approval, depending on the nature of the changes.~~

5.75.8 Quality Council Secretariat

Once all approvals outlined in Section 5.7 are obtained, the institution will submit the New Program Proposal, together with the Reviewers' Report and the internal response to the Report, to the Quality Council Secretariat. The submission template will require information on whether or not the proposed program will be a cost-recovery program. The same standards and protocols apply regardless of the source of funding. The Quality Council Appraisal's Committee will review the new program proposal submission and determine if additional information is required. If sufficient, the Quality Council will review the new program proposal submission and will make one of the following decisions:

- Approved to commence;

- Approved to commence, with report;
 - Deferred for up to one year during which time the university may address identified issues and report back
 - Not approved
 - or such other action as the Quality Council considers reasonable and appropriate in the circumstances.
- Within 30 days of being notified, the university may appeal Quality Council's decision.

5.85.9 Announcement of new programs

Following its submission to the Quality Council, the University may announce, per guidelines within the New Program Proposal Guidebook, its intention to offer the program, provided that clear indication is given that approval by the Quality Council is pending, and that no offers of admission will be made until the program has been approved by the Quality Council. Ministry approval may also be required. When such announcements are made at this stage, they must contain the following statement: "Prospective students are advised that the program is still subject to formal approval."

5.95.10 Approved new programs

After a new program is submitted to the Quality Council, the University may seek Provincial funding for the program, which must begin within thirty-six months of the date of approval; otherwise, the approval will lapse. If program approval lapses, the program must begin the new program proposal process again.

~~The first cyclical review for any new program must be conducted no more than eight years after the date of the program's initial enrolment.~~

Between eighteen and twenty-four months after onset of the program, the Chair will provide the Dean and Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate studies, with a brief ~~update~~ on-progress report on the program, that assesses the program's success in realizing its goals; addresses ~~addressing~~ any concerns from the ~~initial~~ reviewers' report and notes from the Appraisal Committee; and highlight ~~highlighting~~ any unanticipated changes in curriculum, resources, enrollment, funding mechanisms, or governance structure. If, after consultation with the Dean, the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, deems ~~deems~~

it appropriate, an informal internal assessment of the program may be undertaken, including interviews with current faculty, students, and staff, to determine if a more complete, early cyclical review is warranted.

The first cyclical review for any new program must be conducted no more than eight years after the date of the program's initial enrolment. Outcomes identified in the program progress report, described above, must be included in the programs first cyclical review.

New undergraduate and graduate programs that have been approved are eligible for selection in the university's next cyclical audit.

6. EXPEDITED APPROVALS OF NEW PROGRAMS

The Protocol for Expedited Approvals applies when one or more of the following applies:

- an institution requests endorsement of the Quality Council to declare a new Field or to revise Fields in a graduate program (note: there is no requirement to declare fields in either master's or doctoral programs);
- there is a proposal for a new Collaborative Specialization; a Collaborative Specialization must have:
 - At least one core one-semester course that is foundational to the specialization and does not form part of the course offerings of any of the partner programs. This course must be completed by all students from partner programs registered in the specialization and provides an opportunity for students to appreciate the different disciplinary perspectives that can be brought to bear on the area of specialization. This course may serve as an elective in the student's home program.
 - Clear and explicit requirements for each Collaborative Specialization. In programs requiring a major research paper, essay, or thesis, the topic must be in the area of the collaborative specialization. In course-only master's programs, at least 30% of the courses must be in the area of specialization including the core course described above. Courses in the area of specialization may be considered electives in the home program.
 - Only core faculty that are those faculty members in the participating home programs who have an interest and expertise in the area of the collaborative specialization
 - Appropriate administrative and academic oversight/governance to ensure requirements associated with the specialization are being met.
- there are proposals for new for-credit graduate diplomas; including new graduate diplomas (Type 2) offered in conjunction with a Master's or Doctoral degree program and usually represents an additional interdisciplinary qualification
- new graduate diplomas (Type 3) a stand-alone, direct-entry program, generally developed by a unit already offering a related master's or doctoral degree

The Expedited Proposal will describe the new graduate field, collaborative specialization, or graduate diploma (including, as appropriate, reference to Program Learning Outcomes, Degree Level Expectations, faculty and resource implications), provide a brief account of the rationale for the changes, and address the evaluation criteria for the program.

The Expedited Approvals process requires all the approvals listed in Section 5.7 and the submission to the Quality Council of a New Program Proposal of the proposed new program and the rationale for it. Expedited approvals of new program do not require external reviewers be involved in the approval process and provides for a faster turn-around on decisions by the Quality Council. Common decisions by Quality Council are: a) approved to commence b) approved to commence, with a report or C) not approved.

Type 3 graduate diplomas are included in the schedule for cyclical reviews and will be subject to external review during the cyclical program review process. Graduate Diplomas not associated with a parent program are reviewed by desk audit. A desk audit is conducted independently of the university (i.e., does not typically include interviews or in-person or virtual site visits).

6.1. — Expedited Proposal

The Expedited Proposal will describe the new graduate field, collaborative specialization, or graduate diploma or the significant changes being proposed (including, as appropriate, reference to Program Learning Outcomes, Degree-Level Expectations, faculty and resource implications), provide a brief account of the rationale for the changes, and address the evaluation criteria

7. CYCLICAL PROGRAM REVIEWS

All academic programs are scheduled to be reviewed on a seven-year cycle and must be reviewed no more than eight years from the previous review. New programs must be reviewed no more than eight years after the date of the program's first enrolment. The steps taken to address any issues that have been identified in monitoring reports of the new program or in follow up by Quality Council are to be identified in first cyclical review self-study.

The primary purpose for cyclical program reviews is continuous improvement of existing academic programs. An academic program is defined as a complete set and sequence of courses, combinations of courses and/or other units of study, research and practice as outlined by the university for the fulfillment of the requirements for either undergraduate or graduate degrees. Combined programs do not require review if their constituting programs are reviewed separately. Undergraduate diplomas, Emphases, Options and Minors ~~are~~ do not require to undergo the cyclical program review process outlined in this policy, however, Chairs are to consult with the Vice Provost (Faculty) to determine if other review processes are required. The list of programs that require review including those that are joint/inter-institutional, multi-disciplinary, interdisciplinary, and at multiple sites, as well as and the schedule of such reviews, will be maintained by the Vice-Provost (Faculty) in consultation with the Vice-Provost and Dean of Graduate Studies. Programs that are closed or that have suspended admissions are not subject to cyclical program review. Program Chairs will be notified of a scheduled review by the Vice-Provost (Faculty) or their delegate. Each of the specific

programs to be reviewed will be listed in the notification.

Departments can choose to review undergraduate and graduate programs jointly or separately. If the reviews are done jointly, the evaluation criteria and quality indicators described below must be applied to each program included in the self-study and there must be sections within the report to address different situations that apply to each program. Program reviews can also be done jointly with accreditation reviews, at the discretion of the Chair, in consultation with the Dean (see Section 7.5). Where programs seek to combine previously separate undergraduate and graduate ~~reviews~~ reviews, they shall adopt the timeline of the earliest scheduled program review. For academic programs delivered in partnership with other educational institutions, the Chair must ensure that representatives from all educational institutions in the partnership are consulted during all key stages of the cyclical review process, including self-study, site visit, implementation and monitoring. For professional programs, the Chair must ensure the views of employers and professional associations are solicited and included in the self-study and site visit.

The key outcome of a cyclical program review is the Final Assessment Report and its associated Implementation Plan which forms the basis of the continuous improvement process. It is the primary responsibility of the program Chair to ensure that the implementation plan is achieved.

The review consists of the following steps:

7.1 Self-study: Internal program perspective

The Chair is responsible, in collaboration with relevant groups and/or individuals such as faculty, students and staff, for preparing a self-study document that is broad-based, reflective, forward-looking and inclusive of critical analysis. The self-study must address and document the consistency of the program's learning outcomes with the University's mission and Degree Level Expectations, and how its graduates achieve those outcomes. Both the Chair and the Dean, or the Dean's delegates, ensure that the self-study has met all of the self-study criteria and sign off on the completeness of the self-study. For interdisciplinary programs, all affiliated program Chairs and appropriate Deans, or the Deans' delegates, sign off on the completeness of the self-study.

The self-study criteria and quality indicators are as follows

7.1.1 Program Description and Overview

- Program goals are consistent with the University's tripartite research, teaching, and service excellence mission, its values and purpose, and its academic priorities and plans~~mission and academic plans.~~
- *○ Ways in which the program addresses the institution's current strategies, frameworks and/or principles regarding equity, diversity and inclusion, and how the program advances EDI-related academic goals (e.g., Indigenous perspectives, international relevance, interdisciplinarity, intercultural competencies, social and environmental equity and sustainability, etc.)

- Program structure and requirements are appropriate to meet the Program Learning Outcomes
- Program Learning Outcomes are clear, appropriate and align with the Degree Level Expectations.

7.1.2 Admission requirements

- Admission requirements are appropriately aligned with the Program Learning Outcomes established for completion of the program.
- 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
- Consideration of the demographics of the student market for the program, and accessible and equitable admissions processes and practices

7.1.3 Curriculum

- How the curriculum reflects the current state of the discipline or area of study, and extent to which a comparative review of the state of the discipline informs the curriculum.
- Evidence of any significant innovation or creativity in the content and/or delivery of the program relative to other such programs, with attention to experiential and community-engaged pedagogy.
- How the mode(s) of delivery are appropriate and effective at meeting the Program Learning Outcomes, including infrastructure and technologies for accessible education.
- Ways in which the program addresses current institutional, faculty, or departmental priorities (e.g. experiential learning, equity, diversity and inclusion, accessibility, community engagement, entrepreneurship, ~~et cetera~~) and the current Strategic Mandate Agreement.

7.1.4 Teaching and assessment

- Methods for assessing the overall effectiveness of the program quality are appropriate and effective, ensuring evaluation methods are accessible and inclusive, and audiences are diverse.
- Methods for assessing student achievement of the defined Program Learning Outcomes and Degree Level Expectations are appropriate and effective.
- Appropriateness and effectiveness of the means of assessment, especially

in the students' final year of the program, in clearly demonstrating achievement of the Program Learning Outcomes and the Degree Level Expectations and the program's goals.

- Description of how information on assessment effectiveness is documented and used to inform continuous program improvement

7.1.5 Resources

- Appropriateness and effectiveness of the academic unit's use of existing human, physical and financial resources in delivering and maintaining the quality of its program(s), in relation to the University's priorities for and constraints on funding, space, and faculty allocation.
- Given the program's class sizes and cohorts, as well as its program level learning outcomes, describe the participation of a sufficient number of qualified 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, discuss 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 applicable, outline the supervision of experiential learning opportunities

Graduate Programs Only

- Given the program's class sizes and cohorts as well as its program-level learning outcomes, provide evidence that faculty have the recent research or professional/clinical expertise needed to foster an appropriate intellectual climate, sustain the program, and promote innovation
- Evidence of how supervisory loads are distributed, in light of qualifications and appointment status of the faculty
- If appropriate, evidence that financial assistance for students is sufficient to ensure adequate quality and numbers of students

7.1.6 Quality indicators

- Information on the quality of the program under review. Standard quality indicators, outlined in the McMaster's Self-Study Guidebook, are available to Chairs from the Office of Institutional Research and Analysis, the Office of the Registrar, the School of Graduate Studies, or from the departments themselves. Chairs will be expected to provide context and commentary on the data. When possible and appropriate, Chairs will also refer to applicable professional standards.
- Evidence of the 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)

- For students: grade-level for admission, scholarly output, success rates in provincial and national scholarships, competitions, awards and commitment to professional and transferable skills, and times-to-completion and retention rates
- Any other evidence that the program and faculty ensure the intellectual quality of the student experience

Additional graduate program criteria:

- Evidence that students' time-to-completion is both monitored and managed in relation to the program's defined length and program requirements.
- Quality and availability of graduate supervision.
- 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
- Definition and application of indicators that provide evidence of faculty, student and program quality, for example:
 - Faculty: funding, honours and awards, and commitment to student mentoring;
 - Students: grade-level for admission, scholarly output, success rates in provincial and national scholarships, competitions, awards;
 - Program: evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience, and commitment to development of professional and transferable skills; evidence of sufficient and regular graduate level course offerings to ensure that students will be able to meet university requirements in terms of the minimum number of courses required, the level of courses required, and the timely completion of other required elements appropriate for the degree level (e.g., transfer exams, comprehensive exams);

7.1.7 Quality enhancement

- Concerns and recommendations raised in previous reviews especially those detailed in the Final Assessment Report, Implementation Plan and subsequent monitoring reports from the previous Cyclical Review of the program;

- Initiatives that have been undertaken to enhance the teaching, learning and/or research environments thus far, the quality of the program, and how these will be sustained.
- Areas identified through the conduct of the self-study as requiring improvement;
- Areas that hold promise for continued enhancement.

7.1.8 System of governance

- Evidence that a consultative and inclusive system of governance has been used on an ongoing basis to assess the program and implement changes as appropriate.

7.1.9 Academic Services

Academic services that directly contribute to the academic quality of each program under review.

7.1.10 Self-Study Participation

Participation of program faculty, staff, and students in the self-study and how their views were obtained and taken into account, and who contributed to the development and writing of the self-study. For professional programs, the Chair must ensure the views of employers and professional associations are solicited and included in the self-study and site visit.

7.1.11 External Participation

The input of others deemed by the Chair to be relevant and useful, such as graduates of the program, representatives of industry, the professions, practical training programs, and employers is to be included in the self-study.

7.2 External evaluation: Review Team

The Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, in consultation with the Dean (or the Dean's designate), will select a diverse team of reviewers to evaluate the program. The Review Team shall consist of of at least one external reviewer for undergraduate programs and two external reviewers for either graduate programs or for concurrent reviews of undergraduate and graduate programs. If appropriate, additional members are to be added to the review team, such as when evaluating professional programs or interdisciplinary programs. The team will also include one internal reviewer selected by the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, in consultation with the Dean (or the Dean's designate).

External members of the ~~R~~review ~~T~~eam ~~normally~~ shall be individuals in the same discipline as the Program under review (or across disciplines for interdisciplinary programs) who are distinguished senior academics of broad experience, with an established commitment to higher education. Where it would enhance the diversity of relevant disciplinary or interdisciplinary perspectives, or in community-engaged or professional programs, Non-traditional programs are permitted to have non-academics with relevant expertise and experience are permitted to serve as reviewers with the approval of the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies. Reviewers ~~They~~ must have an impartial, arms-length relationship to the Program (as defined in Section 5.4). Wherever possible the ~~R~~review ~~T~~eam shall represent broad institutional categories and/or geographic regions.

~~-External reviewers~~~~They~~ will be selected from a list of at least six suggested individuals compiled by the Program/Department under review and endorsed by the Dean. An internal reviewer will be selected from a list of at least three suggested individuals compiled by the Department Chair and endorsed by the Dean. ~~-The list~~ shall include, for each proposed ~~external~~ reviewer:

- name;
- rank and position;
- institution or company and current address, telephone ~~and fax numbers~~, and e-mail address, and URL if available;
- professional (including administrative) experience or expertise relevant to the Program under review;
- details of any previous or current affiliation with the University, and any association with individual members of the Program under review (e.g., co-author, previous student/supervisor, close relationship); ~~and,~~
- for graduate program or combined reviews, a description of research expertise, and a partial listing of recent scholarly publications.

Cyclical Program Reviews must incorporate a site visit. Site visits are ~~normally~~ conducted on-site, however, exceptions to on-site visits for undergraduate program reviews are determined by the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, in consultation with the Dean or Dean's delegate prior to the commencement of the review and agreed to by the Review Team prior to the commencement of the review. The Vice-Provost (Faculty) or, in the ~~-~~ case of graduate programs, the Vice Provost and Dean of Graduate Studies, will provide clear justification for the decision for an exception to an on-site visit.

If it is determined that a site visit can take place virtually, the virtual site visit requires all elements of the external reviewers' site visit using videoconferencing software and/or other suitable platforms. A virtual site visit will still include elements such as virtual meetings with students, faculty, and other stakeholders. It may also include remote attendance at performances or events, and virtual facilities tours. A virtual site visit may replace an in-person site visit with agreement from both the external reviewers and the Vice-Provost (Faculty) or in the case of graduate programs, the Vice Provost and Dean of Graduate Studies.

The Self-Study, the Guidelines for Review Team, and other materials specific to the current review will be provided to all members of the Review Team no less than two weeks prior to their visit. If applicable, the results of the previous accreditation review also will be made available to the Review Team to provide them with the views of the relevant professional association(s). The Guidelines for Review Team describes the review process and the roles and obligations of the Review Team, which include:

- to identify and comment on the program's notably strong and creative attributes;
- to describe the program's respective strengths, areas for improvement, and opportunities for enhancement;
- to recommend specific steps to be taken to improve the program, distinguishing between those the program can itself take with existing resources and those that require external action;
- to recognize the University's autonomy to determine priorities for funding, space, and faculty allocation; ~~and,~~
- to respect the confidentiality required for all aspects of the review process

As appropriate, the Review Team shall meet with the following:

- Chair or Director;
- Full-time faculty members (a broad cross section, in groups)
- Part-time faculty members (a broad cross section, in groups)
- ~~Full-time faculty members (in groups);~~
- ~~Part-time faculty members (in groups);~~
- Program students (a broad cross section of students is to be invited by the program to participate in a meeting with the review team);
- Departmental/Program support staff;
- Associate Dean;
- Dean;
- for graduate programs, the Vice-Provost and Dean of Graduate Studies;

- for undergraduate programs, the Vice-Provost (Faculty); ~~and,~~
- Provost and Vice-President (Academic), if available.

The Review Team will submit a co-authored report, including an Executive Summary, for the program(s) under review within four weeks of the visit to the Vice-Provost (Faculty), or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies. The report will be written primarily by the external reviewer(s), and then sent to the internal reviewer for their review and comment. The Review Team's report is to address the substance of both the self-study report and the evaluation criteria set out in Section 7.1. The report may include a confidential section (e.g., where personnel issues can be addressed). In the case that the self-study addresses more than one program, for example when a self-study describes both an undergraduate and graduate program or multiple undergraduate programs, reviewers in their report must make specific reference to each program described in the self-study. The intent of these reports is to be formative and constructive. Reviewers are required to make at least three recommendations for specific steps to be taken that will lead to the continuous improvement of the program, distinguishing between those the program can itself take and those that require external action. Any commentary on issues such as faculty complement and/or space requirements made by the reviewers must be directly tied to issues of program quality and/or sustainability. The reports are intended to provide counsel rather than prescriptive courses of action. The Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, will review the Review Team's report for completeness. If satisfactory, the Vice-Provost (Faculty) or, in the case of graduate programs, the Vice-Provost and Dean of Graduate Studies, will approve the reviewers' report and disseminate it to the Chair. If there are concerns with the completeness of the report, the Review Team will be asked to provide more clarity

Responses to the reviewers' report from both the Chair and the Dean, or the Dean's delegate, is prepared, as per the Program Response template, and attached to the reviewers' report.

7.3 Institutional perspective and Final Assessment Report (FAR)

The self-study, reviewer's report excluding the confidential section, and responses from the Chair and Dean, will be submitted as a package to McMaster's Quality Assurance Committee, a joint committee of Undergraduate and Graduate Councils. The Quality Assurance Committee will assess the review and will submit a Final Assessment Report (FAR) to Undergraduate Council or Graduate Council that:

- provides an Executive Summary
- identifies significant strengths of the program;
- addresses the appropriateness of resources for the success of the program;
- identifies opportunities for program improvement and enhancement;

- identifies and prioritizes the recommendations; may include additional recommendations or comments to the Provost and Vice- President (Academic). Recommendations could include, for example, requiring a detailed progress report that will describe progress towards addressing major concerns or scheduling an additional cyclical review sooner than specified by the normal 8-year cycle.
- includes an Implementation Plan that: prioritizes recommendations that will be implemented; identifies who is responsible for acting on each recommendation; specifies timelines related to each recommendation; and, as necessary, identifies the unit or individual responsible for providing resources needed to address each recommendation.

The Final Assessment Report from the Quality Assurance Committee along with any recommendations or comments is sent to the Chair and presented to Undergraduate Council or Graduate Council, as appropriate, for approval and then to Senate for information. These governing bodies will consider if additional recommendations or comments are necessary. If so, these recommendations or comments will be presented to the Provost and Vice-President (Academic). These will be communicated to the Chair, the Dean and the Vice-Provost (Faculty) or, in the case of graduate programs, to the Vice-Provost and Dean of Graduate Studies. Once approved, the FAR including an Executive Summary and the associated Implementation Plan is posted on the institution's Quality Assurance webpage. Programs are strongly encouraged to post their FAR and Implementation Plans on their program's webpage as well. The Final Assessment Report is the synthesis of the cyclical review process and as such is an important tool for a program's continuous improvement.

Eighteen months after receiving the report from Undergraduate Council or Graduate Council, the Chair will submit a processprocess report on the program to the Dean. The Dean will provide commentary and response to the progress report and submit the progress report along with their commentary to the Quality Assurance Committee summarizing the status of any actions taken or being taken. The Quality Assurance Committee, in some circumstances, will request follow up reporting on specific components if not satisfactorily addressed in the 18-month report. These reports are posted on the institution's Quality Assurance webpage as an addendum to the program's FAR and Implementation Plan. The Quality Assurance Committee will present progress reports to Undergraduate Council or Graduate Council, if deemed necessary by the Chairs of the Quality Assurance Committee.

7.4 Reporting requirements

The Final Assessment Reports, which include the Implementation Plans, and subsequent Progress Reports are posted on the Provost and Vice-President (Academic) section of the University's website. The Vice-Provost (Faculty) provides an annual report to Quality Council that lists the past year's completed Final Assessment Reports and attests that all IQAP-required Cyclical Program Review processes have been followed. This report will

also provide the link to the institution's Quality Assurance webpage. The annual report of Final Assessment Reports and their related Cyclical Program Review processes will occasionally be reviewed for compliance by the Quality Council and that if issues are found, the Quality Council may decide to initiate a Focused Audit.

7.5 Use of accreditation and other external reviews in the Institutional Quality Assurance Process

Programs that periodically undergo accreditation reviews are permitted to request that the associated accreditation documentation serve to meet some of the elements required of the IQAP cyclical review self-study when these elements are fully consistent with the requirements outlined within this policy. The program chair with support from the Dean of the program will submit a request form and all required supporting documentation to the Vice Provost (Faculty) for undergraduate programs or the Vice Provost and Dean of Graduate Studies for graduate programs. McMaster's Quality Assurance Committee.

When requested by the Dean, or the Dean's delegate, and permitted by the accreditation authorities, the site visit by the Review Team is permitted to be performed at the same time or by the same people as the accreditation reviewers, however there must be at least two external reviewers (and one internal reviewer?) dedicated to the Cyclical Program Review.

The Vice Provost (Faculty) for undergraduate programs or the Vice Provost and Dean of Graduate Studies for graduate programs The Quality Assurance Committee, will review the request and decide if an accreditation review can be substituted in in whole or in part for a cyclical review. The program will be notified in writing of the ~~committee's~~ decision. A record of substitutions or additions, and the grounds on which they were made, will be eligible for audit by the Quality Council.

Approval for substitution The Quality Assurance Committee's decision is only applicable for the cyclical review year related to the request. The remaining steps in the cyclical review will then take place. Programs must participate in all reporting related to the cyclical review. If desired by the program, a request to substitute some for accreditation documentation in order to meet partial requirements of their program's Quality Assurance review ~~reviews~~ substitution must be submitted for every subsequent cyclical review.

8. INSTITUTIONAL IDENTIFICATION OF MAJOR MODIFICATIONS TO EXISTING PROGRAMS

As part of the continuous improvement of McMaster's academic programs, ~~existing~~ Existing programs are ~~are~~ expected to routinely undergo revisions with the aim of with the aim of improving student experience and quality enhancement. This includes, for example, the introduction or deletion of courses, major exam structures, change in emphases, options, minors, or mode of delivery. Such revisions provide an opportunity for improving the student experience and staying current with the discipline.

The revisions must be submitted through the university's ~~normal~~ curriculum approval process. This is the same approval process as outlined for New Program Proposals ~~outlined~~ in Section 5.7 (excluding the University Planning Committee and University Fees, unless there are significant resource implications). ~~These revisions will be assessed during the course of the next cyclical review of the program.~~

Program revisions are described as minor or major modifications. In both cases, any changes to the program will be subject to the regular cyclical program review process as outlined in Section 7. Once per year, the MacPherson Institute and School of Graduate Studies consults with the Registrar's Office and prepares a report of major modifications to existing programs including program closures and submits the report to the Quality Council.

In situations where it is unclear or where disagreement exists on whether a planned change constitutes a minor modification, a major modification, or a new program, the determination will be made by the Vice-Provost (Faculty) for undergraduate programs or the Vice-Provost and Dean of Graduate Studies for graduate programs, in consultation with McMaster's Quality Assurance Committee, where appropriate. Quality Council has the final authority to decide if a major modification constitutes a new program and, therefore, must follow the Protocol for New Program Approvals. A record of any decision will be kept with McMaster's Quality Assurance Committee.

Minor modifications include: changes to course titles or codes; the addition or deletion of a single course; weighting of courses; creating or closing a minor; and creating or closing an undergraduate certificate.

Major modifications include the following program changes:

- a) Requirements that differ significantly from those existing at the time of the previous cyclical program review or, if a program review has not taken place yet, from the new program proposal. For undergraduate programs, it would be considered a major modification when more than 30% of the program requirements are being changed from one academic year to the next. For graduate programs, it would be considered a major modification when more than 50% of the program requirements (including requirements such as courses, major exams, and research) are being changed from one year to the next.
- b) Significant changes lasting more than one academic year and that differ from what was outlined in the last cyclical program review or, if a program review has not taken place yet, from the new program proposal to the faculty engaged in delivering the program and/or to the essential physical resources, for example, where there have been changes to the existing mode(s) of delivery (such as different campus, online delivery and inter-institutional collaboration)
- c) Significant changes to the Program Learning Outcomes that are made outside of the cyclical program review process. Significant changes are defined as: changes to the majority of the Program Learning Outcomes such that they differ from those

existing at the time of the previous cyclical program review (or, if a program review has not taken place yet, from the new program proposal) but do not, however, meet the threshold of a new program

- d) Change in program name and/or degree nomenclature, when this results in a change in program learning outcomes
- e) Program closure
- f) The inclusion of a new program of specialization where another with the same degree designation already exists
- g) The addition of a single new field to an existing graduate program. The creation of more than one field at one time or over consecutive years may be required to complete the Expedited Approvals process. This process is outlined in Section 6.

Chairs are responsible for ensuring any major modifications align with the Program Learning Outcomes and that the impact of the modification on students has been assessed, where appropriate.

Changes to an existing Emphasis, Option, or Minor Program; the creation of a new micro-credential(s); undergraduate certificate(s); and laddering, stacking or similar options, or comparable elements do not require Quality Council appraisal or approval. Micro-credentials are approved using the same internal approval process outlined in Section 5.7. This approval process is subject to change and proponents of micro-credentials are encouraged to consult with the Vice Provost (Faculty) or the Vice Provost and Dean of Graduate Studies prior to seeking institutional approval for a micro-credential. Revisions to an existing program will be classified as either a minor or a major modification to the program. In both cases, the program will continue to be subject to a cyclical program review as outlined in Section 7.

Major modifications include the following program changes:

- a) Requirements that differ significantly from those existing at the time of the previous cyclical program review. For undergraduate programs, it would be considered a major modification when more than 30% of the program requirements are being changed from one academic year to the next. For graduate programs, it would be considered a major modification when more than 50% of the program requirements (including requirements such as courses, major exams, and research) are being changed from one year to the next.

b)

Significant changes to the program learning outcomes;
Significant changes lasting more than one academic year to the faculty engaged in

delivering the program and/or to the essential physical resources, for example, where there have been changes to the existing mode(s) of delivery (such as different campus, online delivery and inter-institutional collaboration); program

The inclusion of a new program of specialization where another with the same degree designation already exists. The addition of a new field to an existing graduate program is considered to be a major modification, but is subject to an Expedited Approval process. The Expedited Approvals process requires all the approvals listed in Section 5.7 and the submission to the Quality Council of major modification report. It does not require that external reviewers be involved in the approval process and provides for a faster turn-around on decisions by the Quality Council.

Additional examples of what constitutes major modifications are included at: <http://oucqa.ca/guide/5-major-modifications-to-existing-programs/>

Once per year, the MacPherson Institute and School of Graduate Studies consults with the Registrar's Office and prepares a report of major modifications to existing programs and submits the report to the Quality Council.

institutional
There may be situations where although the changes to the program meet the definition of a major ~~modification~~mediation, the changes are of such significance that a more immediate review is desirable. This situation may occur, for example, when the fundamental ~~goals objectives~~ of the program change; ~~or, or~~ there are significant changes to the faculty engaged in delivering the program and/or to the essential physical ~~resources. resourceresources. es.~~

In such cases, the Department, the Faculty, Undergraduate Council or Graduate Council may, if it deems it advisable after consultation with the relevant Dean(s) and Vice-Provost (Faculty) and/or Vice-Provost and Dean of Graduate Studies, initiate a program review and request that the Quality Council review the major modification proposal. The proposal must include a description and rationale for the proposed changes and how they will improve the student experience. The proposal will include input from current students and recent graduates of the program. When requested, this process will occur through Quality Council's Expedited Approval Process.
Normally, such review will occur through an Expedited Approval Process.

In situations where it is unclear or where disagreement exists on whether a planned change constitutes a minor modification, a major modification, or a new program, the determination will be made by the Vice-Provost (Faculty) for undergraduate programs or the Vice-Provost and Dean of Graduate Studies for graduate programs, in consultation with McMaster's Quality Assurance Committee, where appropriate. A record of any decision will be kept with McMaster's Quality Assurance Committee.

APPENDIX A McMASTER UNIVERSITY'S STATEMENT ON DEGREE LEVEL EXPECTATIONS

A McMaster education enables students to develop sets of life and learning skills that promote a continuing ability and desire to learn, and a set of technical and professional skills that permit a range of career choices. Degree level expectations elaborate the intellectual and creative development of students and the acquisition of relevant skills that are usually widely, yet implicitly, understood.

McMaster University has adopted the following Undergraduate Degree Level Expectations (UDLEs) or Graduate Degree Level Expectations (GDLEs) that were developed by the Ontario Council of Academic Vice-Presidents and endorsed by the Council of Ontario Universities in December 2005. These degree level expectations are to be viewed as a minimum threshold for all degree programs at McMaster.

UNDERGRADUATE

	Baccalaureate/bachelor's degree This degree is awarded to students who have demonstrated the following:	Baccalaureate/bachelor's degree: honours This degree is awarded to students who have demonstrated the following:
1. Depth and breadth of knowledge	<p>a) General knowledge and understanding of many key concepts, methodologies, theoretical approaches and assumptions in a discipline</p> <p>b) Broad understanding of some of the major fields in a discipline, including, where appropriate, from an interdisciplinary perspective, and how the fields may intersect with fields in related disciplines</p> <p>c) Ability to gather, review, evaluate and interpret information relevant to one or</p>	<p>a) Developed knowledge and critical understanding of the key concepts, methodologies, current advances, theoretical approaches and assumptions in a discipline overall, as well as in a specialized area of a discipline</p> <p>b) Developed understanding of many of the major fields in a discipline, including, where appropriate, from an interdisciplinary perspective, and how the fields may intersect with fields in related disciplines</p> <p>c) Developed ability to:</p> <p>i) gather, review, evaluate and interpret information;</p>

	more of the major fields in a discipline	and ii) compare the merits of alternate
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	<p>d) Some detailed knowledge in an area of the discipline</p> <p>e) Critical thinking and analytical skills inside and outside the discipline</p> <p>f) Ability to apply learning from one or more areas outside the discipline</p>	<p>hypotheses or creative options, relevant to one or more of the major fields in a discipline</p> <p>d) Developed, detailed knowledge of and experience in research in an area of the discipline</p> <p>e) Developed critical thinking and analytical skills inside and outside the discipline</p> <p>f) Ability to apply learning from one or more areas outside the discipline</p>
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<p>2. Knowledge of methodologi es</p>	<p>An understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to:</p> <p>a) evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques; and</p> <p>b) devise and sustain arguments or solve problems using these methods.</p>	<p>An understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to:</p> <p>a) evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques;</p> <p>b) devise and sustain arguments or solve problems using these methods; and</p> <p>c) describe and comment upon particular aspects of current research or equivalent advanced scholarship.</p>
<p>3. Application of knowledge</p>	<p>The ability to review, present, and interpret quantitative and qualitative information to:</p> <p>a) develop lines of argument;</p> <p>b) make sound judgments in accordance with the major theories, concepts and methods of the subject(s) of study; and</p>	<p>The ability to review, present and critically evaluate qualitative and quantitative information to:</p> <p>a) develop lines of argument;</p> <p>b) make sound judgments in accordance with the major theories, concepts and methods of the subject(s) of study;</p>

	<p>The ability to use a basic range of established techniques to:</p> <p>a) analyze information;</p> <p>b) evaluate the appropriateness of different approaches to solving problems related to their area(s) of study;</p> <p>c) propose solutions; and</p> <p>d) make use of scholarly reviews and primary sources.</p>	<p>c) apply underlying concepts, principles, and techniques of analysis, both within and outside the discipline;</p> <p>d) where appropriate use this knowledge in the creative process; and</p> <p>The ability to use a range of established techniques to:</p> <p>a) initiate and undertake critical evaluation of arguments, assumptions, abstract concepts and information;</p> <p>b) propose solutions;</p> <p>c) frame appropriate questions for the purpose of solving a problem;</p> <p>d) solve a problem or create a new work; and</p> <p>e) to make critical use of scholarly reviews and primary sources.</p>
4. Communication skills	<p>The ability to communicate accurately and reliably, orally and in writing to a range of audiences.</p>	<p>The ability to communicate information, arguments, and analyses accurately and reliably, orally and in writing to a range of audiences.</p>

5. Awareness of limits of knowledge	An understanding of the limits to their own knowledge and how this might influence their analyses and interpretations.	An understanding of the limits to their own knowledge and ability, and an appreciation of the uncertainty, ambiguity and limits to knowledge and how this might influence analyses and interpretations.
6. Autonomy and professional capacity	<p>Qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring:</p> <p>a) the exercise of personal responsibility and decision- making;</p> <p>b) working effectively with others;</p> <p>c) the ability to identify and address their own learning needs in changing circumstances and to select an appropriate program of further study; and</p> <p>d) behaviour consistent with academic integrity and social responsibility.</p>	<p>Qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring:</p> <p>a) the exercise of initiative, personal responsibility and accountability in both personal and group contexts;</p> <p>b) working effectively with others;</p> <p>c) decision-making in complex contexts;</p> <p>d) the ability to manage their own learning in changing circumstances, both within and outside the discipline and to select an appropriate program of further study;</p> <p>e) and behaviour consistent with academic integrity and social responsibility.</p>

GRADUATE

	Master's degree This degree is awarded to students who have demonstrated the following:	Doctoral degree This degree extends the skills associated with the Master's degree and is awarded to students who have demonstrated the following:
1. Depth and breadth of knowledge	A systematic understanding of knowledge, including, where appropriate, relevant knowledge outside the field and/or discipline, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study, or area of professional practice;	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.
2. Research and scholarship	<p>A conceptual understanding and methodological competence that:</p> <p>a) Enables a working comprehension of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline;</p> <p>b) Enables a critical evaluation of current research and advanced research and scholarship in the discipline or area of professional competence; and</p> <p>c) Enables a treatment of complex issues and judgments based on established principles and techniques; and,</p> <p>On the basis of that competence, has shown at</p>	<p>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;</p> <p>b) The ability to make informed judgments on complex issues in specialist fields, sometimes requiring new methods; and</p> <p>c) The ability to produce original research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication.</p>

	least one of the following:	
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	<p>a) The development and support of a sustained argument in written form; or</p> <p>b) Originality in the application of knowledge.</p>	
3. Level of application of knowledge	Competence in the research process by applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting.	<p>The capacity to:</p> <p>a) Undertake pure and/or applied research at an advanced level; and</p> <p>b) Contribute to the development of academic or professional skills, techniques, tools, practices, ideas, theories, approaches, and/or</p>

		materials.
4. Professional capacity/autonomy	<p>a) The qualities and transferable skills necessary for employment requiring:</p> <p>i) The exercise of initiative and of personal responsibility and accountability; and</p> <p>ii) Decision-making in complex situations;</p> <p>b) The intellectual independence required for continuing professional development;</p> <p>c) The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and</p> <p>d) The ability to appreciate the broader implications of applying knowledge to particular contexts.</p>	<p>a) The qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex situations;</p> <p>b) The intellectual independence to be academically and professionally engaged and current;</p> <p>c) The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and</p> <p>d) The ability to evaluate the broader implications of applying knowledge to particular contexts.</p>
5. Level of communications skills	The ability to communicate ideas, issues and conclusions clearly, orally and in writing, to a range of audiences.	The ability to communicate complex and/or ambiguous ideas, issues and conclusions clearly and effectively, orally and in writing, to a range of audiences.

6. Awareness of limits of knowledge	Cognizance of the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines.	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.
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