

Programs and Quality Enhancement

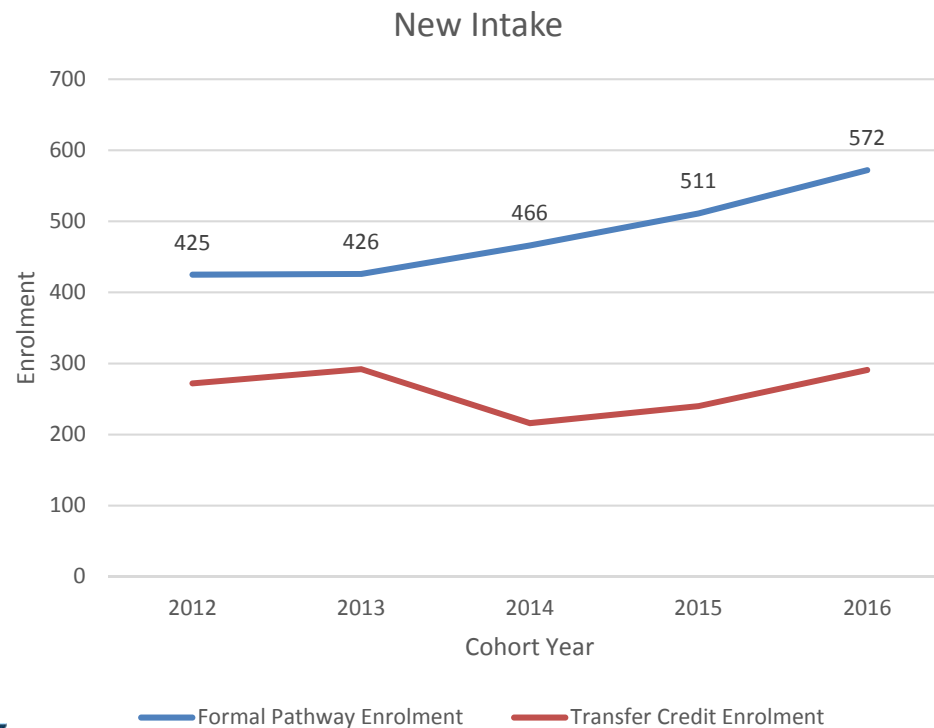
Academic Council Discussion
PACIP Discussion Paper
April 2017

Program Review

- Since 2011-12, we have
 - **created**
 - 16 New Programs
 - 6 New Minors
 - 10 New Specializations
 - **merged or restructured**
 - 5 programs
 - **closed**
 - 2 Programs
 - 12 Specializations

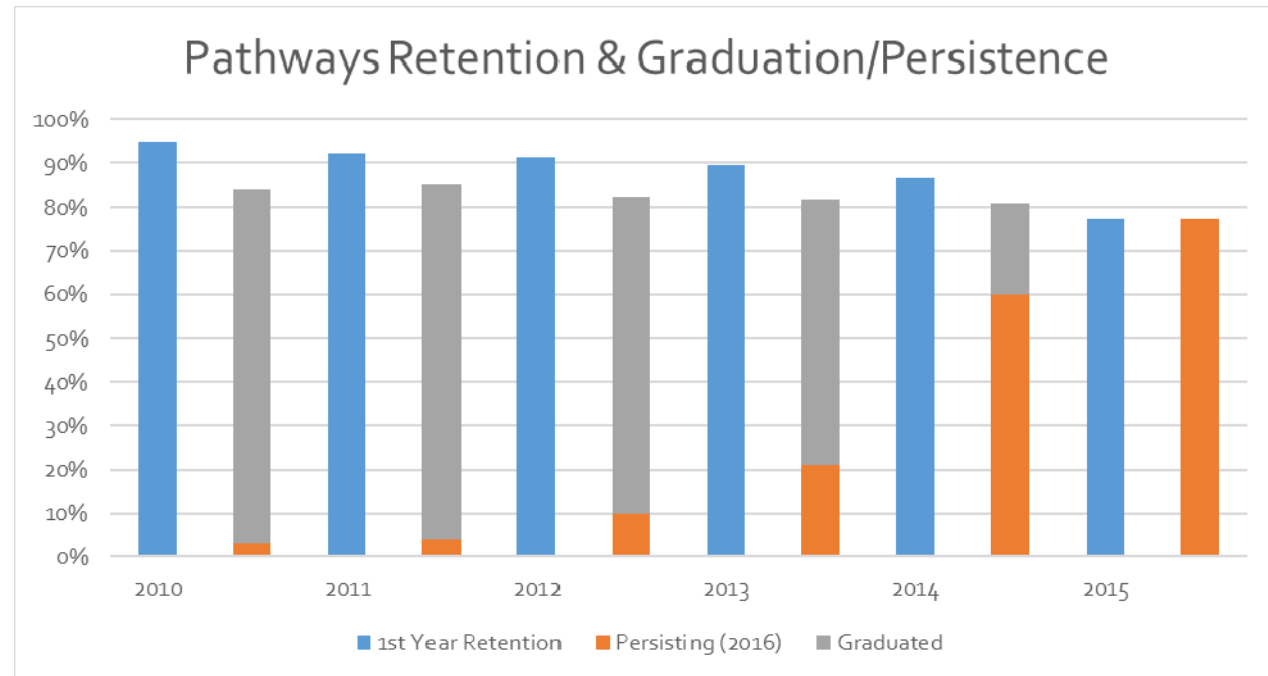
Pathways

- Pathways enrolments are growing



Pathways

- Retention declining



Pathways

- Move to reduce artificial barriers to transfer
- Reduce the use of bridge programs and move towards 2+2 programs.
- Investigate further the need for supports for students to improve retention.

Continuing Education

- We offered 25 programs in 2015-16 to over 1600 participants.
- More to be reported for the 2016-17 academic year.
- Continuing Education at UOIT has growth potential.

Program Reviews

- Number of trends that are emerging from the reviews:
 1. Curriculum/Course level changes – alignment of overall program learning outcomes to course outcomes and assessment methods.
 2. Improving program visibility - recruitment, brand development/identity.

Program Review – Trends con't

3. Enhancement and/or integration of activities/services to support student success.

4. Resources: Space, Human, Equipment and Professional Development.

Programs and Quality Enhancement

DISCUSSION PAPER SERIES

PROVOST ADVISORY COMMITTEE ON INTEGRATED PLANNING

April 2017

1. INTRODUCTION

This report offers a glimpse of opportunities for UOIT in relation to programs – both in terms of growth and potential enhancements going forward. It will address:

- Academic Programs – considerations for new program creation going forward
- Pathways – trends and considerations for the future
- Non-Academic Programs - current offerings
- Trends in the outcomes of program reviews that could focus our overall enhancement efforts.

2. ACADEMIC PROGRAMS

UOIT has grown at an impressive rate in a relatively short time for a university. Enrolment has remained relatively stable (approximately 10,000 students over the past few years) however, we also know that the demographic outlook for 18 to 20 year olds suggests that enrolments will not recover to 2015 levels until 2033¹ (HEQCO, 2017). In a situation of flat or decreasing enrolments, the addition of new programs redistributes the existing enrolments across a greater number of programs. This does not mean that we should not create new programs, as it is important to ensure we continue to create programs that meet our mission and mandate to “advance the discovery and application of knowledge that accelerates economic growth, regional development and social innovation.” However, we should also think strategically about the right program mix for both the university as a whole, as well as individual Faculties. We may also want to consider reimagining or restructuring current programs. The chart below outlines the number of new program and program components as well as closed components and programs over the previous five-year period.

Figure 1

Year	New Programs	New Minors	New Specializations	Merged/Restructured Programs (including nomenclature changes) ²	Closed specializations	Closed programs
11-12	6	1	2	1	0	1
12-13	1	2	6	0	7	0
13-14	2	1	0	1	0	0
14-15	3	1	1	1	2	0
15-16	4	1	1	2	3	1
Total	16	6	10	5	12	2

Appendix A outlines the programs that are seeing growth and declines in overall enrolments. Appendix B lists current Notices of Intent (NOIs) submitted for possible September 2018 start.

¹ The GTA is expected to rebound in 2023.

² Examples include the restructuring of the BSc in Physical Science to a general BSc degree and nomenclature change of BA Community Development and Policy Studies to BA Political Science.

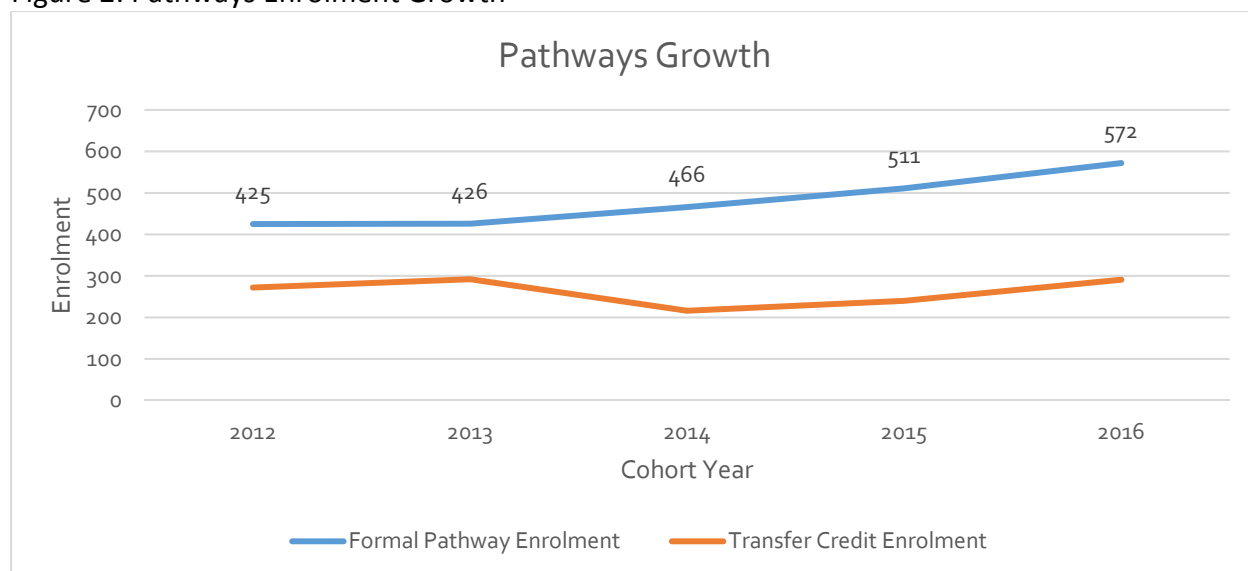
3. PATHWAYS

The Ministry of Advanced Education and Skills Development (the Ministry) defines an educational pathway as a student’s journey through their educational path. At UOIT a ‘pathway’ is loosely defined as any formal program that allows a student to apply a specified set of credits or a credential earned at one institution towards a degree at UOIT. Students may enter defined pathways from institutions with or without formal articulation agreements. The Ministry also considers any student who enters UOIT with transfer credits as arriving through a ‘pathway’, however, UOIT currently defines those students with simple transfer credits as ‘transfer students.’ The following information represents students pursuing formal pathways programs at UOIT (unless otherwise noted).

UOIT has current formal articulation agreements with 13 of the 26 Ontario Colleges of Applied Arts and Technology (CAATs). Appendix C outlines these agreements and the expiry dates.

Enrolment in pathways programs at UOIT has increased over the past five years by almost 35 percent (see Figure 2). Pathways, which in Figure 2 include transfer students, represent 32.4 percent of total intake enrolments. Although this is a positive trend, the competition for transfer students steadily increases within the system as the government is focusing on pathway and degree completion programs. Therefore, institutions will be looking to this population of students to meet enrolment targets in order to counter the decline of the 18-20 year old population.

Figure 2: Pathways Enrolment Growth

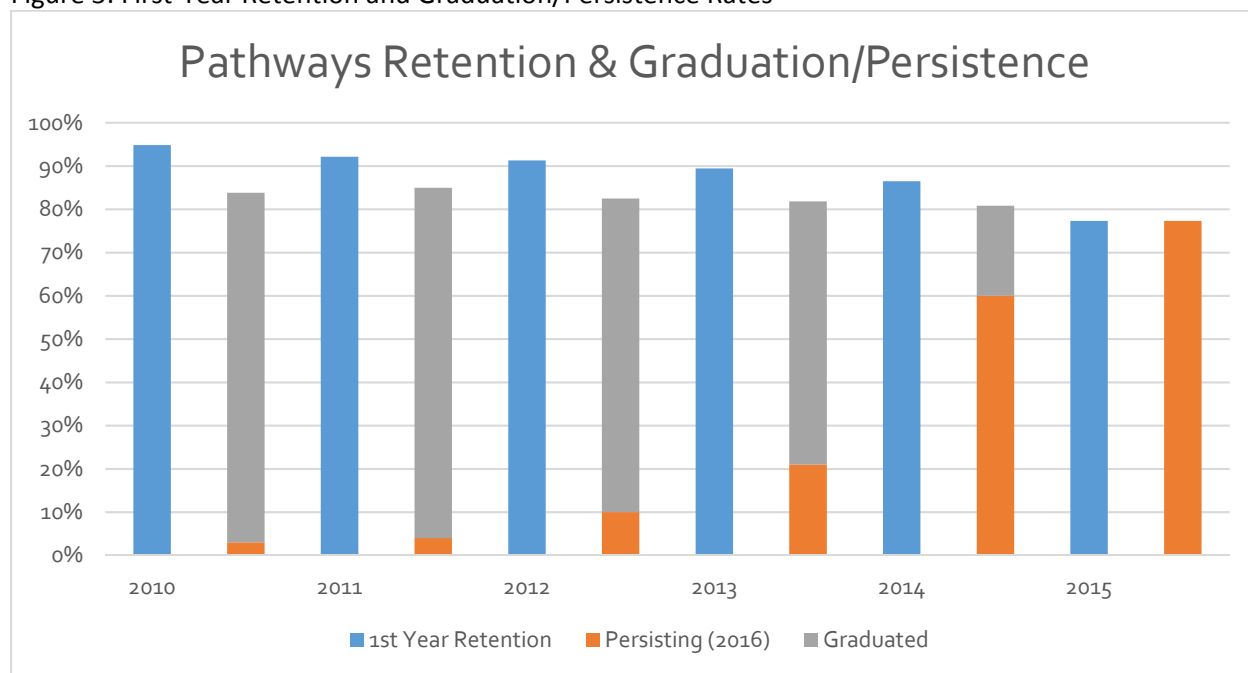


Currently, we attract most of our pathway students from Durham College, Centennial College, and Seneca College (See Appendix D the top 10 Ontario colleges that feed UOIT pathway programs). These three institutions are the closest in proximity to UOIT, validating the research that “most students transfer from a college to a university that is within commutable distance” (Lennon et al., 2016). Students that are willing to travel greater distances are those that are interested in a niche program. For example, the RPN-BScN with Georgian College drives greater enrollment for UOIT even though its geographical distance would suggest otherwise.

Formal pathways agreements are not always necessary. UOIT does not have a formal articulation agreement with two of the top 10 feeder schools, George Brown and Humber colleges, yet students are attracted to pathway programs that match their college credential and to the commutable distance of UOIT.

According to Ontario Council on Articulation and Transfer (ONCAT) the top five transfer programs for students are: Business (17%), Health (15%), Social Science (7%), Engineering (6%), and Liberal/Gen. Arts (5%). At UOIT, the Criminology & Justice studies bridge program admits the most students with Health Sciences and Business programs also popular choices for students. Some programs have robust enrollment, while others have little or no enrollment in the years since the program began (see Appendix E). There is an increasing desire for the embedded 2+2 programs where the student is enrolled as an ‘Undeclared’ student at UOIT while concurrently attending their college program. These opportunities are presently available to students at Durham, Fleming and Loyalist colleges. This particular program track, is currently designed primarily for transition into a Bachelor of Commerce or Bachelor of Information Technology degree program. Breaking down artificial barriers and moving towards increasing the number of 2+2 programs should be a priority for the future.

Figure 3: First-Year Retention and Graduation/Persistence Rates



While we have seen pathways enrolments increase, as seen in Figure 3 the overall first-year retention rate has been steadily decreasing for this population of students from 91 percent in 2012 to 77 percent in 2015. The underlying cause of the declining retention rate is unknown. However, some antidotal evidence suggests these students are academically underprepared for university rigor and confront a shock in academic culture in comparison to their experiences in college. In addition, some academic advisors noted these students tend to have greater family responsibilities than the direct from high school population, indicating they need to care for their children and/or parents. Further examination of causes and solutions to retention of pathways students is needed to preserve the potential overall growth of pathways programs.

4. NON-ACADEMIC (CONTINUING EDUCATION) PROGRAMS

In 2015-2016, the Continuing Education Committee moved forward with establishing further policy and procedures to assist with the initiation of new non-degree activities. Still in its infancy, the Committee has developed a Terms of Reference and update associated Policy documents to reflect the growing number of non-academic offerings at UOIT. A chart of non-degree programs offered in the 2015-16 academic year as reported by Faculties and Support Units can be found in Appendix F.

For the 2016-2017 academic year, we are looking to develop (and promote) assessment tools to assist academic and non-academic units when evaluating their non-degree program offerings. The Committee is anticipating more non-degree offerings reported for the 16-17 academic year as more units become aware of the policy and procedures for initiation. As outlined in the 2013 report, *Expanding Horizons: A business case and strategy for continuing education at UOIT*, there are significant opportunities for growth of ConEd with the report outlining potential growth year over year of between 2% and 5%. To achieve this type of growth, however would require significant investments. The report outlines the need of an investment of approximately \$420,000 to achieve this type of growth.

5. PROGRAM REVIEW - TRENDS

Since 2012, we have reviewed 25 programs and created plans of action to address recommendations made towards program improvement. We have also undertaken an analysis across all programs reviewed between 2012 and 2017 to determine if there are overall trends that emerge. Below are the most often mentioned areas for improvement in order of frequency.

- Curriculum/Course level changes was a top theme for many of the program reviews. This theme captures recommendations that suggest improvements in course-level/ curriculum content. Within this theme, improvements to learning outcomes, development of assessment and evaluation methods and their alignment to the program goals and/or faculty vision were frequently mentioned. This points to the need for increased focus on alignment of program learning outcomes to course expectations and assessment methods.
- Improving program visibility- whether it is through participating in more interdisciplinary practices or enhancing program awareness/visibility through recruitment strategies, brand development or identity. In many instances reviewers were astounded by the quality of the program, faculty and innovation happening but that this is not well known to outside faculty and institutions. They noted that this is a missed opportunity for potential collaborations and for faculty at other institutions to make their students aware of the strong programs in which to recommend for graduate school.
- Student Success also came out as a focus. Reviewers recommended enhancement and/or integration of activities/services that would support student success. They noted that improved access to services and resources (e.g. more online courses, financial aid, etc.) as well as the need for programs to integrate awareness, and the participation of student services (e.g. library, career centre) in their programs. It was not necessarily that the services did not exist,

but rather that students or faculty were not aware of them, pointing to the need for greater integration of student services in the review process.

- The theme of resources captured recommendations that called for either the addition, the enhancement, or the development of factors in the sub-areas below. The most common areas reported were in relation to space and human resources.
 - a. Space: Creating or making more space available for academic use and the pursuit of experiential learning. Most frequently noted was the ability to transform current spaces to meet the requirements of the program (moveable desks and chairs for instance).
 - b. Human: Recommendations of additional staff/faculty but also the need to clearly define or distribute portfolio's for current staff/faculty members to maximize efficiency. Recruitment of faculty members, with certain research backgrounds or research positions.
 - c. Equipment: Updating equipment used in experiential learning and the software or hardware provided to students. The purchasing of new equipment that is reflective of market trends and what is needed to produce workplace/employment ready students. Purchasing access to relevant journals and resources that would benefit student learning.
 - d. Professional Development: Providing training to staff/faculty so job effectiveness is increased. Providing opportunities for faculty and staff to attend professional development opportunities that will allow them to enhance their profiles within their respective communities but also to raise the profile of the institution. At the graduate level, recommendations that mentioned research funding were also included in this area.

6. SUMMARY

There are a number of opportunities available to grow while also enhancing current programs. Some require significant investment for growth while others require innovative ways of thinking about how to do things better, smarter and more strategically. This paper provides a potential starting point for that discussion.

APPENDIX A
Enrolment Changes by Program – 5-Year Trend

Undergraduate	2012/13	2013/14	2014/15	2015/16	2016/17	Trend	Trend
Business & Information Tech	594	589	576	572	561		↓
Business BCOMM	332	371	338	358	330		↓
Networking & IT Security	88	88	87	81	91		↔
Game Development	110	84	95	87	94		↔
Business Bridging Program	55	34	43	38	36		↓
Information Technology Bridge	9	12	13	8	10		↔
Education	257	269	284	183	175		↓
Education (Consecutive) - Intermediate/Senior	123	102	102	51	39		↓
Education (Consecutive) - Primary/Junior	115	151	157	92	103		↓
Educ Studies & Digital Tech	19	16	25	40	33		↔
Energy Systems & Nuclear Sci	69	104	75	66	83		↔
Health Physics & Radiation Sci	11	11	8	8	8		↓
Nuclear Engineering	58	93	67	58	75		↔
Engineering & Applied Science	462	509	559	524	570		↑
Automotive Engineering	53	76	83	63	72		↔
Electrical Engineering	120	124	146	127	112		↓
Manufacturing Engineering	31	32	38	15	24		↓
Mechanical Engineering (Mechatronics)	205	219	222	237	298		↑
Software Engineering	53	58	70	82	64		↔
Health Sciences	510	507	524	545	581		↑
Allied Health Sciences	36	25	42	40	35		↔
Health Sciences	243	111	99	127	142		↑
Medical Laboratory Science	43	43	40	38	43		↔
Nursing (Collaborative)	104	113	106	105	105		↔
Nursing Bridge	84	92	92	96	102		↑
Kinesiology		109	128	124	133		↑
Kinesiology-Adv. Standing Opt.		14	17	15	21		↑
Science	377	383	351	321	319		↓
Applied and Industrial Math	16	13	9	8	13		↔
Biological Science	178	157	141	102	112		↓
Chemistry	76	68	65	48	44		↓
Computing Science	45	68	59	72	81		↑
Forensic Science	43	63	58	56	44		↓
Physics	19	14	19	35	25		↔
Social Science and Humanities	711	658	557	507	511		↓
Communications and Digital Media	62	42	36	37	50		↔
Community Develop & Policy Studies	14	10	16	10	15		↔
Criminology and Justice	218	250	183	143	140		↓
Forensic Psychology	123	98	93	96	80		↓
Legal Studies	52	43	34	28	21		↓
Communications Bridge Program	14	2	5	9	18		↔
Crim & Justice Bridge Program	199	183	123	100	105		↓
Legal Studies-Bridge Program	29	30	29	34	27		↔
Forensic Psychology Bridge			38	47	52		↑
Comm Dev & Policy Std Bridge				3	3		↔
Undeclared	37	47	44	70	131		↑
Not Applicable	21	4	10	19	33		↑
Embedded Program	16	43	34	51	98		↑
Total	3017	3066	2970	2788	2931		↔

Appendix B

NOI's submitted for potential 2018 start

Program	Home Faculty(ies)
Bachelor of Arts in Liberal Studies	FSSH
Bachelor of Technology in Sustainable Energy Systems	FESNS
Graduate Diploma in Emergency Preparedness and Response	FESNS
Graduate Diploma in Energy Systems Analysis	FESNS
Graduate Diploma in Nuclear Security	FESNS
Master of Applied Science and Master of Engineering in Energy Systems Engineering	FESNS
Master of Science in Nursing (Professional Practice Leadership)	FHSc, Durham College, Trent-Fleming School or Nursing (TFSON)
PhD Health Sciences	FHSc

Appendix C

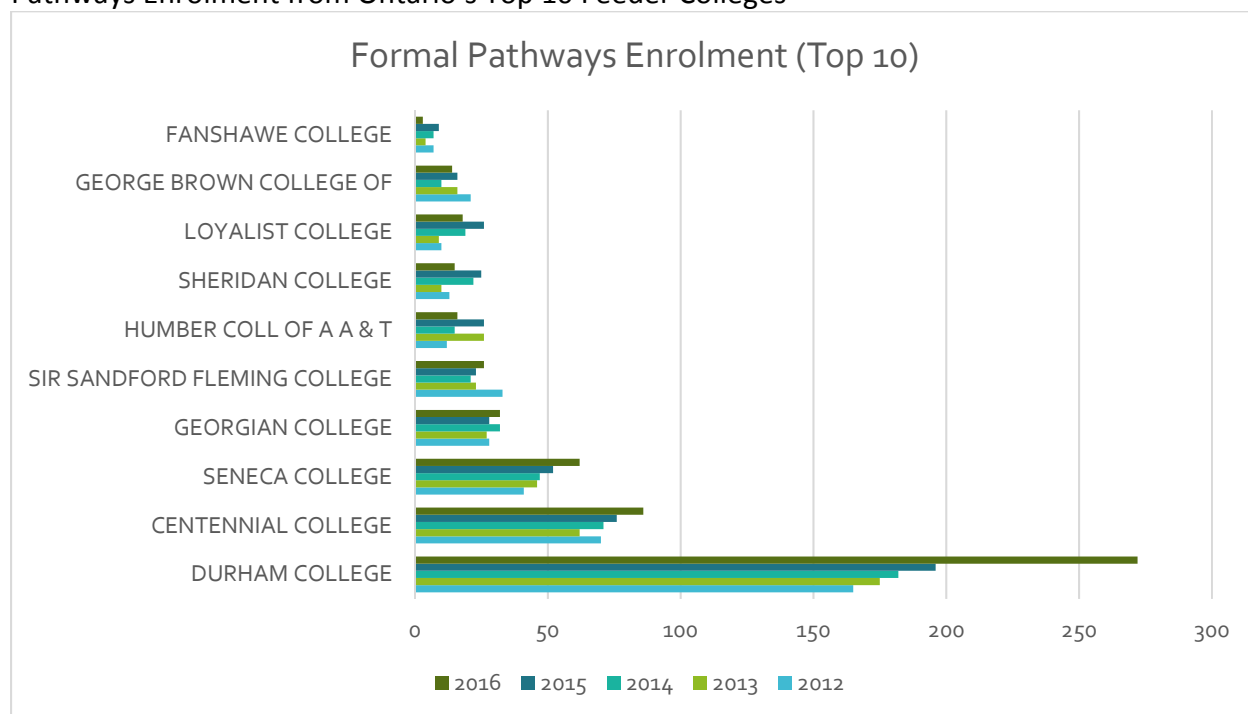
Ontario CAATs Articulation Agreements

College	Location	Articulation Agreement	Expiry Date
DURHAM COLLEGE	Oshawa	Yes	2017
CENTENNIAL COLLEGE	Toronto	Yes	2017
SENECA COLLEGE	Toronto	Yes	2017
GEORGIAN COLLEGE	Barrie/Orillia	Yes	2017
SIR SANDFORD FLEMING COLLEGE	Peterborough	Yes	2017
SHERIDAN COLLEGE	Oakville	Yes	2017
LOYALIST COLLEGE	Belleville	Yes	2018
ST LAWRENCE COLLEGE	Kingston	Yes	2018
ALGONQUIN COLLEGE	Ottawa	Yes	2018
CAMBRIAN COLLEGE	Sudbury	Yes	2017
CANADORE COLLEGE	North Bay	Yes	2018
CONFEDERATION COLLEGE	Thunder Bay	Yes	2017
SAULT COLLEGE	Sault Ste. Marie	Yes	2019
HUMBER COLL OF A A & T	Toronto	No	
GEORGE BROWN COLLEGE	Toronto	No	
FANSHAWE COLLEGE	London	No	

NIAGARA COLLEGE	Niagara-On-the Lake	No	
CONESTOGA COLLEGE	Kitchener	No	
MOHAWK COLLEGE	Hamilton	No	
ST CLAIR COLLEGE	Windsor	No	
LAMBTON COLLEGE	Sarnia	No	
LE COLLEGE BOREAL	Sudbury	No	
NORTHERN COLLEGE	Timmins	No	
LA CITE COLLEGIALE	Ottawa	No	
MICHENER	Toronto	No	
RIDGETOWN (Univ. of Guelph)	Ridgetown	No	

APPENDIX D

Pathways Enrolment from Ontario's Top 10 Feeder Colleges



APPENDIX E

Pathways Enrolment by Program (CAAT only)

	2012	2013	2014	2015	2016	Trend
Business & Information Tech	90	58	78	80	75	
Business	2	2		2	2	
Accounting	15	14	16	14	11	
Finance	2		2	1		
Marketing	5	7	5	2	1	
Org Beh & Human Resources Mngt	4	2	2	7	6	
Business (ACTU)	7		2	4		
Business Bridging Program	42	19	33	37	36	
Networking & IT Security	6	5	7	6	10	
Information Technology Bridge	7	9	11	7	9	
Education	19	15	24	37	29	
Educ Studies & Digital Tech	19	15	24	37	29	
Energy Systems & Nuclear Sci	7	4				
Nuclear Power Bridge Program	7	4				
Health Sciences	96	119	144	147	158	
Allied Health Sciences	23	22	39	39	32	
Kinesiology-Adv. Standing Opt.		14	16	15	21	
Medical Laboratory Science				4	4	
Nursing (Post-PN)	43	48	52	46	57	
Nursing (Post-PN) Georgian	30	35	37	43	44	
Science	4		8	7	11	
Biological Science	4		8	3	5	
Computer Science				4	1	
Science					5	
Social Science and Humanities	194	187	178	189	203	
Comm Dev & Policy Std Bridge				3	3	
Communications Bridge Program	14	1	4	9	18	
Crim & Justice Bridge Program	152	160	109	98	103	
Forensic Psychology Bridge			37	47	52	
Legal Studies-Bridge Program	28	26	28	32	27	
Undeclared	15	43	34	51	96	
Embedded Program	15	43	34	51	96	
Total	425	426	466	511	572	

APPENDIX F

Summary table of non-degree offerings for the 15-16 academic year:

Faculty or Non-academic Unit	Brief Description of Offering	Number of Hours or Length of Offering	Number of Attendees
Faculty of Business and IT/MDC	Master's Certificate in Public Sector Management Program	16 days – 96 hours	24
Faculty of Business and IT/MDC	Management Development Learning Series (Empowerment, Job Satisfaction, Making Meetings Magnificent and Empowerment)	½ day x 4 – 3.5 hours each	44
Faculty of Business and IT/MDC	Presentation Skills Program	1 day – 6 hours	7
Faculty of Business and IT/MDC	Customer Service Program	2 days – 12 hours	8
Faculty of Business and IT/MDC	Agricultural Leadership Certificate Program	5 days - 30 hours (9am – 4 pm with a 1 hr. lunch)	9
Faculty of Business and IT/MDC	Social Media for Business Program	3 days – 18 hours	8
Faculty of Business and IT/MDC	Not-for-Profit Management Certificate Program	5 days - 30 hours (9am – 4 pm with a 1 hr. lunch)	23
Faculty of Business and IT/MDC	Professional Communication Certificate Program	5 days - 30 hours (9am – 4 pm with a 1 hr. lunch)	7
Faculty of Business and IT/MDC	Professional Management Certificate Program	5 days - 30 hours (9am – 4 pm with a 1 hr. lunch)	27
Faculty of Education	Mental Health First Aid	2 days	36
Faculty of Education	Applied Suicide Intervention Training (ASIST)	2 days	22
Faculty of Education	Tools for Community Based research	125	56
Faculty of Education	Digital Tools for Educators	40	4
Faculty of Education	Project Wild	1 day	13
Faculty of Energy Systems and Nuclear Science	AOOM 11 (Advanced Operations Overview for Managers)	Last 3 months of program of 6 months duration	16
Faculty of Energy Systems and Nuclear Science	AOOM 12 (Advanced Operations Overview for Managers)	Full program January to July 2016	16
Student Life- Student Experience Centre	Applied Suicide Intervention Training (ASIST)	2 days	58
OVPRII-Brilliant Entrepreneurship	2 week Entrepreneurship Intensive	10 days - 6 hours per day	5
Student Life - Varsity Athletics	CCES - Canadian Centre for Ethic in sport drug education	1.5hrs	200
Teaching and Learning Centre	Certificate in University Teaching	~40 hours over Fall and Winter terms	11

Teaching and Learning Centre	Certificate in University Teaching for Teaching Assistants	~40 hours over Fall and Winter terms	9
Student Life - Student Accessibility Services	Certificate of completion for the Note taking module	1 hour	76 to date
Student Life - Student Learning Centre	Smart Start - academic preparation/transition program	1-day and 2-day options	275 (in 2016)
Office of Graduate Studies	Graduate Professional Skills Program	~49 hours (Fall, Winter, Spring/Summer terms)	246 students
Student Life- Student Mental Health Services	Campus Connected	2 hrs	357 students + 94 staff faculty

APPENDIX G

A breakdown of the top three themes by faculty related to outcomes from program reviews from 2012-17. This was determined by combining recommendations across programs that were reviewed within the allotted period. While only the top 3 (or more in instances where there was a tie among themes) are reflected in this table, it is pertinent to note that all of the themes listed below came up during the external reviewers' reports.

Undergraduate (top 3 themes indicated by faculty; in no particular order)

Faculty	Theme						
	Curriculum	Program Develop.	Student Success	Resource-Space	Resource-Human	Resource-Equipment	Resource-Prof. Develop
FEAS	X	X			X		
FBIT	X	X	X				
FSc	X*	X		X*	X		
FHSc	X	X	X				
FSSH	X	X	X*		X*		

X*-indicates a tie between themes for times it appeared as a recommendation.

Graduate (top 3 themes indicated by faculty; in no particular order)

Faculty	Theme						
	Curriculum	Program Develop.	Student Success	Resource-Space	Resource-Human	Resource-Equipment	Resource-Prof. Develop
FEAS	X	X	X*		X*		
FBIT	X*	X	X	X*	X*		
FSc		X	X		X		
FHSc	X	X			X		
FSSH		X					X

X*-indicates a tie between themes for times it appeared as a recommendation.