DURHAM
COLLEGE
SUCCESS MATTERS

DURHAM COLLEGE OF APPLIED ARTS AND TECHNOLOGY
PUBLIC MEETING OF THE BOARD OF GOVERNORS
AGENDA

Date: Wednesday, May 10, 2017, 6:00 p.m.

Location: Whitby Campus, Room 11-09

Tour of Whitby Campus (4:30 p.m.), Dinner Available (5:00 p.m.), Board Pre-Session, Governor Spotlights (5:30 p.m.)

Pages

1.   CALL TO ORDER

2.   INTRODUCTION OF GUESTS

3.   ADDITIONS/DELETIONS TO THE AGENDA

4.   CONFLICT OF INTEREST DECLARATIONS

5.   PRESENTATIONS

    5.1   David Baranowsky, Graduate of the Mechanical Technician - Millwright Program to Share his Experience as a Durham College Student

    5.2   Kimberly Boss, Pathways & Credit Transfer Coordinator to Discuss Changes to Transfer Credits and PLAR

    5.3   Carol Beam, Executive Director, Communications and Marketing to Present an Update on the Website Redesign

    5.4   Alan Dunn, Associate Vice-President, Facilities and Ancillary Services to Present an Update on the Centre for Collaborative Education

    5.5   ACE/DC Centre for Firefighting Research and Education Video

    5.6   Michele James to be Presented the Advanced Good Governance Certificate

6.   CHAIR`S REPORT

7.   CO-POPULOUS GOVERNORS' REPORT

8.   CONSENT AGENDA

Recommendation

That all items listed under the heading of consent agenda be adopted as recommended.

8.1 Approval of the Minutes of the Board of Governors Meeting of April 12, 2017

Recommendation

That the public minutes of the Board of Governors meeting of April 12, 2017, be approved as read.

8.2 Appointment of Election Dispute Committee and Election Appeal Committee - Administrative Staff Governor Election

Recommendation

That an Election Dispute Committee and Election Appeals Committee be appointed for the duration of the nomination, campaign, election, disputes and appeals period plus ten (10) business days as outlined in By-law No. 4 (Section 4) for the administrative staff governor election to commence on May 15, 2017.

8.3 President's Report - April and May 2017

Recommendation

That Report BOG-2017-81, providing the President's report on College activities and initiatives in April and May 2017, be received for information.

8.4 Centre for Collaborative Education Update

Recommendation

That Report BOG-2017-82, providing an update on the Centre for Collaborative Education, be received for information.

9. **DISCUSSION ITEMS**

9.1 Provincial Key Performance Indicators (KPIs) - 2016-2017 Results - E. Popp & R. Gupta

Recommendation

That Report BOG-2017-76 concerning the key performance indicator data for the 2016-2017 release year, be received for information.

9.2 DC/UOIT Academic Pathways Report for 2016-2017 - E. Popp & R. Gupta

Recommendation

That Report BOG-2017-77 providing the DC-UOIT Academic Pathways update for 2016-2017, be received for information.

Recommendation

That in accordance with Report BOG-2017-75, the proposed Ontario
College Diploma and Ontario College Advanced Diploma programs of
instruction listed below be approved:

•   Civil Engineering Technician
•   Civil Engineering Technology

Recommendation

That pursuant to Report BOG-2017-79, the 2017-2018 Business Plan be
approved.

Recommendation

That based on Report BOG-2017-88, the framework for evaluating the
President's annual performance be approved.

10.   OTHER BUSINESS

11.   UPCOMING EVENTS

Spring Convocation - June 12 to 14, 2017 - General Motors Centre

12.   MOVE TO IN-CAMERA SESSION

13.   ADJOURNMENT

Powered By: eSCRIBE
MEETINGS, EVOLVED

![Durham College - Success Matters logo]

DURHAM COLLEGE OF APPLIED ARTS AND TECHNOLOGY
BOARD OF GOVERNORS REGULAR MEETING
PUBLIC SESSION DRAFT MINUTES

Date: Wednesday, April 12, 2017

Location: DC Boardroom, Gordon Willey Building, A-144

Members Present: Pierre Tremblay, Chair
                         Dan Borowec, Vice-Chair
                         Nneka Bowen (via conference call)
                         Ryan Cullen
                         Ivan DeJong
                         Kristi Honey
                         Michele James (joined the meeting via conference call at 6:06 p.m.)
                         Rick Johnson
                         Don Lovisa, President
                         Bart Lucyk
                         Paul Macklin
                         Debbie McKee Demczyk
                         Heather Quantrill
                         Steve Stewart
                         Jim Wilson
                         Melissa Pringle, Corporate and Board Secretary (non-voting)

Members Absent: Doug Allingham
                         Kevin Griffin

Staff Present: Helene Asselbergs, Chief of Staff
                         Scott Blakey, Chief Administrative Officer
                         Alan Dunn, Associate Vice-President, Facilities and Ancillary Services
                         Barbara MacCheyne, Chief Financial Officer
                         Linda Marco, Associate Vice-President, Office of Development and Alumni Affairs
                         Meri Kim Oliver, Vice-President, Student Affairs
                         Elaine Popp, Vice-President, Academic

Janse Tolmie, Chief Information Officer

1. CALL TO ORDER

With quorum present, the meeting was called to order at 6:01 p.m.

2. INTRODUCTION OF GUESTS

Scott Blakey, Chief Administrative Officer introduced the following guests:

- Ryan Koyanagi, Student
- Gregory Barnes, Student
- In-coming student governor, Rahul Khanna
- Marianne Marando, Executive Dean, School of Business, IT and Management
- Michelle Hutt, Associate Dean, School of Business, IT and Management
- Jay Fisher, Professor, School of Business, IT and Management
- Leslie Morris, Part-Time Professor, School of Business, IT and Management
- Lindsey Jeremiah, Entrepreneurship Coordinator
- Sarah Brathwaite, Administrative Assistant, Office of the President

3. ADDITIONS/DELETIONS TO THE AGENDA

None.

4. CONFLICT OF INTEREST DECLARATIONS

None.

5. PRESENTATIONS

5.1 Students Ryan Cullen, Ryan Koyanagi, Gregory Barnes and Professor Jay Fisher to Share their Experiences at the Recent Enactus Competition

Ryan Cullen, Ryan Koyanagi and Gregory Barnes shared their experiences from the recent Enactus competition, an international non-profit organization dedicated to inspiring students to improve the world through entrepreneurial action. Enactus DC had a successful first year with 25 student members and the initiation of two projects: YO (youth opportunities) and We Grow Food at School. The We Grow Food at School Team tied for third in the league at Central Canada Regionals and the team will be attending the National Competition in Vancouver in May 2017.

Governor James joined the meeting.

5.2 Alan Dunn, Associate Vice-President, Facilities and Ancillary Services to Provide an Update on the Centre for Collaborative Education

The Associate Vice-President, Facilities and Ancillary Services provided an updated on the Centre for Collaborative Education highlighting:

- No safety incidents have occurred;
- The fireproofing, vibration isolation floor and louvers tenders have been awarded;
- The footings have been completed;
- The foundation walls are complete;
- The stair/elevator towers are 80% complete; and,
- Mechanical design is finalized and detailed costing is being completed.

The Board questioned the Associate Vice-President, Facilities and Ancillary Services.

5.3 Linda Marco, Associate Vice-President, Office of Development and Alumni Affairs to Present an Update on the Capital Campaign and Alumni Engagement Events

The Associate Vice-President, Office of Development and Alumni Affairs presented an update on the capital campaign, noting $3,545,561 had been raised to date through government funding, industry partners, alumni, the family campaign and new pay day lottery. A case for support is available and a public launch to raise the additional $1,500,000 will occur later this year. The Office of Development and Alumni Affairs has recently focused on enhanced alumni engagement and have coordinated an email and phone campaign to reconnect with alumni, have developed an enhanced social media presence and have started the brewing memories coffee tour, which has a goal of visiting 50 workplaces over the year.

5.4 Barbara MacCheyne, Chief Financial Officer to Present the 2017-2018 Budget

The Chief Financial Officer presented the highlights of the 2017-2018 budget noting:

- Durham College is presenting a surplus budget of $500,000 for 2017-2018;
- The budget supports the College's business plan priorities;
- Enrolment is forecasted to reach 11,076 full-time students in fall 2017;

- The budget supports the expansion of the College with five new programs and several new hires to support enrolment growth;
- The budget funds $15.1 million of capital expenditures; and,
- The budget allows for a $3.7 million reduction in the long-term debt.

The Board questioned the Chief Financial Officer.

5.5 Kristi Honey to be Presented the Advanced Good Governance Certificate

Governor Honey was presented with her advanced good governance certificate.

6. CHAIR'S REPORT

The Chair noted the following items:

- Rahul Khanna, hospitality management student was the winner of the student governor election garnering 186 votes out of a possible 570 votes.

- Dan Borowec has been acclaimed as Chair and Paul Macklin as Vice-Chair in the recent election for Chair and Vice-Chair of the Board.

- That it was Ryan Cullen's last official in-person meeting as he is leaving for summer employment; Ryan was thanked for his contribution to the Board.

- The success of College Day held at Queen's Park on April 3, 2017 and how DC students participated in the innovation zone and provided catering for the reception.

- The recent funding announcement of $1.95 million on April 7, 2017, with funds to be used to enhance the entrance at Whitby Campus.

7. CO-POPULOUS GOVERNORS' REPORT

Governor Borowec reported that the presidential search is ongoing and appears to be on schedule. President McTiernan is going to remain in the position until the end of December.

8. CONSENT AGENDA

Moved By Governor Quantrill
Seconded By Governor Macklin
"That all items listed under the heading of consent agenda be adopted as recommended." CARRIED

With Governor Bowen and Governor James participating by telephone, the vote was unanimous.

8.1   Approval of the Minutes of the Board of Governors Meeting of February 15, 2017

That the public minutes of the Board of Governors meeting of February 15, 2017, be approved as read.

8.2   Report of the Governance Review Committee Meeting of March 6, 2017

That all actions taken at the Governance Review Committee meeting held on March 6, 2017 be adopted as recommended, and the minutes be approved as read.

8.3   President's Report - April 2017

That Report BOG-2017-59, providing the President's report on College activities and initiatives in February and March 2017, be received for information.

9.   DISCUSSION ITEMS

9.1   Electronic Records Management Program

The Administrative Assistant, Office of the President presented an update on the electronic records management program and the proposed project to digitize Board records.

The Board questioned the Administrative Assistant, Office of the President.

Moved By Governor DeJong
Seconded By Governor Johnson
"1.   That based on Report BOG-2017-69, the existing Board of Governors paper records located in inactive storage classified as permanent under the Durham College Common Records Schedule be scanned in accordance with the approved document imaging procedure and be disposed of accordingly; and,

2.   That the practice of keeping paper records for the Board of Governors be discontinued effective immediately with all Board records to be kept in an electronic format consistent with the electronic records management program; and,

3.   That effective immediately all Board records be classified and managed according to the Durham College Common Records Schedule."
CARRIED

With Governor Bowen and Governor James participating by telephone, the vote was unanimous.

9.2 Approval of New Programs of Instruction - Cosmetic Techniques and Management and Esthetician-Spa Management Diploma Programs

The Vice-President, Academic and the Associate Dean, School of Business, IT and Management presented an overview of two new programs of instruction, Cosmetic Techniques and Management and Esthetican-Spa Management Diploma Programs. Both programs are fully compliant with ministry requirements and have been through the full internal review process.

The Board questioned the Vice-President, Academic and the Associate Dean, School of Business, IT and Management.

Moved By Governor McKee Demczyk
Seconded By Governor Cullen
"That in accordance with Report BOG-2017-56, the proposed Ontario College Diploma programs of instruction listed below be approved:
• Esthetician - Spa Management
• Cosmetic Techniques and Management." CARRIED

With Governor Bowen and Governor James participating by telephone, the vote was unanimous.

9.3 2017-2018 Compulsory Ancillary Fees - Pickering Learning Site

The Vice-President, Student Affairs presented a proposal to reduce compulsory ancillary fees starting in 2017-2018 for students at the Pickering Learning Site. In 2014, the Pickering Learning Site Joint Committee agreed to reduce compulsory ancillary fees for students at the Pickering Learning Site; however, it recently came to the attention of the Executive Director, Strategic Enrolment Services that the decision to remove the fees had not been communicated and therefore the adjustment of fees had never been executed.

The Board questioned the Vice-President, Student Affairs.

Moved By Governor Stewart
Seconded By Governor Wilson
"That based on Report BOG-2017-71, effective 2017-2018 the compulsory ancillary fees for students at the Pickering Learning Site be reduced as presented in Appendix A." CARRIED

With Governor Bowen and Governor James participating by telephone, the vote was unanimous.

9.4   Final Results of 2016-2017 Business Plan

President Lovisa reported the College had a tremendous year, achieving 41 of the 49 objectives listed in the business plan, with the eight remaining objectives to continue into next fiscal. Highlights were present by pillar (our students, our people, our business and our community) and achievements included enhanced international projects, enhanced quality assurance processes, the implementation of mental health first aid for employees, increased applied research opportunities and approval of the new strategic plan.

Moved By Governor Honey
Seconded By Governor Macklin
"That Report BOG-2017-60, providing the final update on the 2016-2017 Business Plan be received for information." CARRIED

With Governor Bowen and Governor James participating by telephone, the vote was unanimous.

9.5   Draft Business Plan for 2017-2018

President Lovisa presented the draft business plan for 2017-2018, noting the plan will support the strategic plan and will focus on actions such as developing enhanced recruitment and enrolment strategies, developing the new strategic mandate agreement, ensuring fiscal sustainability and building community relationships.

The Board questioned President Lovisa.

Moved By Governor Honey
Seconded By Governor Macklin
"That Report BOG-2017-70, providing the draft business plan for 2017-2018 be received for information." CARRIED

With Governor Bowen and Governor James participating by telephone, the vote was unanimous.

10.   OTHER BUSINESS

Governor DeJong congratulated the College for the impact the Centre for Food has had on the local community, and highlighted the importance of teaching young people where their food comes from. Governor DeJong congratulated Governor Cullen for his work in increasing awareness about the Centre for Food.

11.   UPCOMING EVENTS

The following events were highlighted:

- CICan Conference - April 30 to May 2, Shaw Centre, Ottawa
- Employee Town Hall & Launch of Strategic Plan - May 4, 2017

12.   MOVE TO IN-CAMERA SESSION

Durham College By-law No. 1. provides for the Board of Governors to address, in-camera, items of corporate business respecting human resources or litigation matters, confidential items covered under the Freedom of Information and Protection of Privacy Act and, items that the Board deems to be confidential to the College.

Moved By Governor DeJong
Seconded By Governor Stewart
"That the Durham College Board of Governors move in-camera after a short recess."
CARRIED

With Governor Bowen and Governor James participating by telephone, the vote was unanimous.

The meeting recessed at 7:52 p.m. and reconvened in-camera at 8:05 p.m.

The Board rose from the in-camera session at 9:11 p.m.

13.   ADJOURNMENT

Moved by Governor Macklin
Seconded by Governor Wilson
"That the April 12, 2017 meeting of the Durham College Board of Governors be adjourned." CARRIED

With Governor Bowen and Governor James participating by telephone, the vote was unanimous.

The meeting ended at 9:12 p.m.

_____

Pierre Tremblay
Board Chair

_____

Melissa Pringle
Corporate and Board Secretary

Report Number: BOG-2017-81

To: Board of Governors

From: Don Lovisa, President

Date of Report: May 5, 2017

Date of Meeting: May 10, 2017

Subject: President's Report

Purpose

To provide an update of the President's activities and significant college initiatives for the month of April and May 2017.

Our Students

The Chronicle Awarded Second Place Honours in Provincial Competition
April 2017

For the second year in a row, The Chronicle, Durham College's student-led newspaper took second place in the General Excellence category at the Ontario Community Newspaper Association's Better Newspaper Awards Gala. Entrants in the General Excellence category are judged on overall design, front page, quality of content and diversity. The award is in recognition of The Chronicle produced during the 2015-2016 academic year, a year in which the paper transitioned to its current format, complete with new logo and redesigned website.

Students Successfully Create Pop-Up Bake Shop
April 2017

Students in the Advanced Baking and Pastry graduate certificate program at Durham College (DC) were put to their final test – create a Pop-up Bake Shop in which to package, market and sell their creative concoctions.

Teams of students took their work to market with a series of Pop-up Bake Shops featured at the Centre for Food, where they competed for the honour of top shop. After months of preparation, the students were able to see their semester-long projects come to life as they sold an array of artisan breads, confections and preserves to members of the community under their own unique brands.

**Fine Arts Students Exhibit at Robert McLauglin Gallery**
April 2017

The 2017 Fine Arts graduates had their artwork on display at the Robert McLauglin Gallery from April 5-18, 2017. The exhibit's opening reception was on April 7, and an Artists talk event was held on April 9. This annual exhibit is open to the public, and provides students with an exciting opportunity to share their artwork with the community.

Durham College Students Strike Gold at Skills Ontario Competition
May 2017
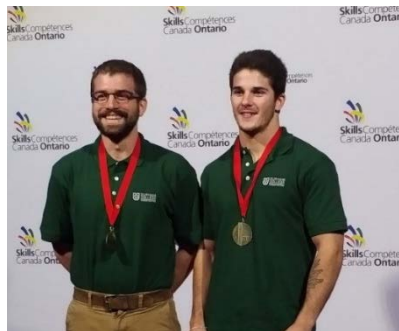
Four Durham College students were among the big winners at the Ontario Technological Skills Competition May 1-3, 2017. James Marangon and Adam Dugas won gold in Horticulture/Landscaping, Craig Cooper won Silver for Welding and Mike Lemay won Bronze in HVAC. The Gold medal winners will now move on and represent Durham College at the Skills Canada competition in Winnipeg from May 31-June 3, 2017.

Our People

Annual Research Day Focuses on Advancing Innovation and Entrepreneurship
April 2017

The Office of Research Services, Innovation and Entrepreneurship (ORSIE) hosted its seventh annual Research Day at the college's Oshawa campus on April 27. The series of diverse breakout sessions served to highlight and celebrate the leading-edge applied research being done by Durham College in collaboration with industry, institutional and community partners.   The event creates awareness of both the important role and impact of applied research to the community and how our students are increasingly benefiting from these learning opportunities. The day's theme also focused on the possibilities, opportunities and successes that exist when innovation meets entrepreneurship and how the advancement of both can make positive impacts on Durham Region and beyond.

Durham College Rise to the Challenge Supporting United Way
April 2017

Durham College has raised $25,032 in support of United Way Durham Region through its annual United Way campaign. This year's campaign saw funds collected via several different payment methods, including payroll deductions, a wine auction, paint night, and food table challenge. Teams from academic schools and departments competed against each other in a battle for taste bud and fundraising supremacy to see who could raise the most funds as well as design the most creative table.

Annual Employee Town Hall
May 2017

Our annual Employee Town Hall is an opportunity to share our successes over the past year and discuss issues of importance to the college and reconnect with colleagues across both campuses. This year's agenda included the launch of the new 2017-2020 Strategic Plan, results from our 2016 Employee Engagement Survey, Key Performance Indicator results and trends, our upcoming PD Day, details about our building plans for this summer, and a financial update.

Our Business

Durham College Named One of Canada's Greenest Employers
April 2017

Durham College has been named one of Canada's Greenest Employers. Awarded as part of the 2017 editorial competition that is organized by the Canada's Top 100 Employers project, this special designation recognizes employers that lead the nation in creating a culture of environmental awareness within their organizations. Durham College's Living Green initiative and participation as an early signatory to the Pan Canadian Protocol for Sustainability were among the reasons for inclusion on this year's list, joining 69 other businesses and institutions from across the country. Also noted were the green features found throughout the college's building footprint.

Bistro'67 Named One of Canada's 150 Best Neighbourhood Gems
April 2017

Bistro'67 has been named one of the 150 Best Neighbourhood Gems in Canada by OpenTable, the world's leading provider of online restaurant reservations.

OpenTable compiled its list of unique local restaurants that define neighbourhoods across the country as a way to honour Canada's 150th birthday in 2017.

Our Community

Durham College Thanks Placement and Practicum Hosts
April 2017

Representatives from businesses, government institutions and non-profit organizations across Durham Region and the Greater Toronto Area gathered at the W. Galen Weston Centre for Food on April 3 for Durham College's annual Placement Host Appreciation Evening. Organized by students in the Event Management program, the event was held to recognize the invaluable contribution placement and practicum hosts make to experiential learning when they open their doors to our students. In fact, more than 600 organizations serve as hosts to more than 5,000 students each year.

High School Students Return for Epic Mac N' Cheese
April 2017

Eight teams of Grade 11 and 12 students from local high schools whipped up their own creative concoctions based on the classic dish at Durham College's third annual Epic Mac N' Cheese competition hosted at the college's W. Galen Weston Centre for Food.   Contestants' family and

friends, along with other community members, gathered to watch the event, taste test the entries and vote for their favourites to help decide the winners. The winning recipe belonged to Katelyn Gadajar and Griffin VanWinden, students at Father Leo J. Austin

Catholic Secondary School in Whitby for their combination of goat cheese, Italian sausage, roasted red pepper and garlic over an exquisite cream-based sauce.

Durham College Celebrates Colours and Cultures in Brooklin
May 2017

Durham College Office of Diversity, Inclusion and Transition was just one of 25 community organizations that joined hundreds of Whitby residents gathered in unity at the first-ever Colours and Cultures of Brooklin Block Party held at Grass Park on April 22. The event was organized by the Rotary Club of Whitby — Brooklin to celebrate diversity across the region and specifically Brooklin. Many of the booths featured musical and dance performances by various cultural groups, as well as family activities and a short block walk as a public show of support for the cause. Businesses and organizations hosted booths and activities during the event. All proceeds going toward diversity-related initiatives at Brooklin High School.

Report Number: BOG-2017-82

To: Board of Governors

**From: Alan Dunn, Associate Vice President – Facilities & Ancillary
Services**

Date of Report: May 4, 2017

Date of Meeting: May 10, 2017

Subject: Centre for Collaborative Education Update

1.   Purpose

The purpose of this report is to provide an update to the Board of Governors on the progress towards designing and constructing the new Center for Collaborative Education.

2.   Recommendation

It is recommended to the Durham College Board of Governors:

That Report BOG-2017-82, providing an update on the Centre for Collaborative Education, be received for information.

3.   Background

The last update provided to the Board on April 12, 2017 contained information about the progress made to that point in time. This report will provide an update on the progress made since the last report.

4.   Discussion/Options

- Interior design packages have been issued for tender.
- Final design sign off was given by the Executive Steering Committee on March 29th and direction provided to Eastern Construction on April 4, 2017.
- Site Plan Approval to Submission # 3 response expected early May.
- Foundation work is complete
- Elevator and stair cores are completed.

- Waterproofing and insulation to frost walls are complete

- Structural steel contractor has mobilized on site and started installation.

- Fifteen (15) weather related delay days reported by Eastern to date. Countermeasures include extended working hours and weekends.

- Chillers for HVAC system have now been resolved between mechanical sub-contractor, mechanical engineer, supplier and Durham College. Ordered, no delivery issues anticipated.

4.1 Bid Process Strategy and Approach (activities completed to date)

- Guaranteed Maximum Price (GMP) Contract has been signed and Purchase Order has been issued. Contract awarded was $27,303,419.00 before HST.

4.2 Next Steps

- Finalization of Furniture, Fixtures & Equipment (FF&E) requirements and reviews with end user groups.

- Resolution on emergency electrical power supply. Feasibility study being finalized.

- Additional interior design tender packages continue to be reviewed and awarded.

4.3 Funding

- Provincial grant from the Ministry of Advanced Education and Skills Development of $22 million announced on April 19, 2016

- Federal grant from Strategic Infrastructure Program of $13 million announced on September 14, 2016

- Durham College Capital Fundraising Campaign of $5 million

- The second installment of Federal funding ($1,625,000) was received on December 1, 2016.

- An installment from the Provincial funding allocation of $5,500,000 was received on November 30, 2016.

4.4 Budget

The budget is estimated as follows:

Item	Budget Allocation
Hard Construction [1]	$ 27,314,000
Soft Costs [2]	$ 2,000,000
Permits	$ 250,000
FFE	$ 3,500,000
IT/AV	$ 3,500,000
Food Services	$ 736,000
Landscaping	$ 900,000
Demolition/Disposal	$ 1,000,000
Temporary Swing Space	$ 300,000
Permanent Swing Space	$ 500,000
TOTAL	**$ 40,000,000**

[1] Hard construction cost is exclusive of HST after rebates. Includes the following additional features: solar panels, green roof, living wall, premium interior and exterior finishes

[2] Soft costs include $280,000 Preliminary Phase Design Scheme Consultant, $1.4 million Construction Phase including Site Mobilization, Build, Substantial Completion and Project Closeout Documents, $250,000 Construction Project Manager, $50,000 Guaranteed Maximum Price Cost Control Consultant

4.5 Schedule

Major Milestone Tasks					
Task	Planned Completion (%)	Actual Completion (%)	Planned Finish Date	Anticipated Finish Date	Delays (Days)
Design Development	100%	97%	03-02-2017	05-05-2017	+65
Procurement	95%	90%	06/12/2017	06-13-2017	+1
Construction	10%	9%	07-31-2018	07-31-2018	0
Occupancy	0%	0%	04-24-2018	04-25-2018	+1
Overall Project	15%	15%	07-31-2018	07-31-2018	0

Revised schedule from Eastern received on April 27, 2017. While completion date for Design Development has slipped, there is no impact to overall project schedule.

5. Financial/Human Resource Implications

There are no long-term Human Resources implications for these projects. Project management services will be overseen by the Durham College Facilities group with assistance from an interim contracted construction management service.

6. Implications for the Joint Campus Master Plan

The development of the Center for Collaborative Education building is consistent with the overall Campus Master Plan as adopted in 2015.

7. Implications for UOIT

The construction of the new Center for Collaborative Education building and demolition of the Simcoe Building will result in a loss of certain lab space currently used by UOIT. This loss of space started in the fall of 2016 with the requirement to vacate the various labs and classrooms along the Simcoe Building east wall. UOIT has been advised of this requirement and plans to relocate this lab to UOIT space accordingly. Additionally, a computer networking lab, computer gaming lab and some shared services with Durham College including a Food Bank and Outreach Services, will be relocated. Durham College Facilities Management, in conjunction with the Student Association, has found alternative permanent locations for the Food Bank and Outreach Services.

8. Relationship to the Strategic Plan/Business Plan

This report relates to the "Our Business" pillar of the strategic plan and the commitment to renew existing campus space in ways that better meet the learning, study and service needs of students, both inside and outside of the classroom.

This report also relates to the "Our Business" objective of the Business Plan and advances the objective related to the Simcoe building project.

Report Number: BOG-2017-76

To: Board of Governors

From: Don Lovisa, President

Date of Report: May 2, 2017

Date of Meeting: May 10, 2017

Subject: Provincial Key Performance Indicators (KPIs) – 2016-2017 Results

1. Purpose

To provide the Board of Governors with the results of the annual provincial Key Performance Indicator (KPI) data released on April 19, 2017.

2. Recommendation

It is recommended to the Durham College Board of Governors:

That Report BOG-2017-76 concerning the key performance indicator data for the 2016-2017 release year, be received for information.

3. Background

Every year the provincial government assesses college performance in five key areas:

- Student satisfaction KPI
  - Paper-based survey completed by current students
- Graduate employment KPI
  - Telephone survey completed by last year's graduates
- Graduate satisfaction KPI
  - Telephone survey completed by last year's graduates
- Employer satisfaction KPI
  - Telephone survey completed by employers of last year's graduates
- Graduation rate KPI
  - Calculated by the college annually and includes those who graduated within a window of approximately twice the program length

Each year, Durham College analyzes and benchmarks KPI results, compiling an "Institutional Snapshot" as well as KPI Report Cards for individual programs and service/facility areas. This analysis is used to identify strengths and key areas

for improvement. Additionally, this past year, a KPI taskforce, reporting to vice-president, Academic, was established to investigate best practices among Ontario colleges and provide recommendations to the Durham College Leadership Team on ways to improve KPI administration and communication, and develop longer-term KPI improvement plans.

4. Discussion/Options

4.1 Results

Durham College's high-level results are as follows:

KPI	2016-17 Durham College	2016-17 System Avg	2015-16 Durham College	2015-16 System Avg	Variance: 2016-17 Durham College vs System Avg	Variance: 2016-17 Durham College vs 2015-16 Durham College	Variance: 2016-17 System Avg vs 2015-16 System Avg
Student Satisfaction (Margin of Error)	75.3 (+/-0.9 percent)	76.5 (+/-0.2 percent)	75.2 (+/-0.8 percent)	76.8 (+/-0.2 percent)	-1.2	0.1	-0.3
Graduate Satisfaction (Margin of Error)	76.2 (+/-2.3 percent)	78.8 (+/-0.2 percent)	77.9 (+/-1.9 percent)	80.3 (+/-0.2 percent)	-2.6	-1.7	-1.5
Graduate Employment (Margin of Error)	84.2 (+/-2.8 percent)	83.0 (+/-0.2 percent)	83.2 (+/-2.3 percent)	83.6 (+/-0.2 percent)	1.2	1.0	-0.6
Employer Satisfaction (Margin of Error)	93.8 (+/-10.6 percent)	91.2 (+/-0.6 percent)	92.2 (+/-8.2 percent)	91.4 (+/-0.6 percent)	2.6	1.6	-0.2
Graduation Rate	68.0	66.6	69.0	66.7	1.4	-1.0	-0.1

Note: For Student Satisfaction, Graduate Satisfaction, and Employer Satisfaction, results reflect the proportion of students who indicated they were satisfied or very satisfied. Graduate Employment reflects the proportion of graduates who were available for employment and who were employed. Graduation rate is calculated by the college.

Durham College's KPI results for 2016-17 are generally comparable to the KPI results for 2015-16 with reference to the margins of error for each year.

To summarize, Graduate Employment, Employer Satisfaction, and Graduation Rate for the college are above the system average by 1.2%, 2.6% and 1.4%, respectively. Student Satisfaction, and Graduate Satisfaction are below the system average by 1.2% and 2.6%, respectively. Three of the five Durham College KPI results are above our own results from last year. Specifically, Employer Satisfaction, and Graduate Employment are above our own result last year by 1.0% and 1.6%, respectively. Student Satisfaction is incrementally above by 0.1%, while corresponding provincial averages have decreased. Graduate Satisfaction and Graduation Rate have decreased at Durham College and for the province.

4.2 Next Steps

We will continue to focus on building our strengths and to undertake an analysis of the data to develop strategies for further improvement. The data will be incorporated into the KPI Report Cards for each postsecondary program and service/facility area. For the academic programs, program teams will use the results to create action plans documented in the Annual Program Review (APR) and will monitor the plans throughout the course of the next academic year with a clear expectation for improvement.

The KPI task force has recommended the following five broad themes to support and improve KPIs at the college:

1. Improved administration processes
2. Improved communications
3. Creation of an employee tool kit
4. Targeted college-wide improvement strategies for one or two key questions annually
5. Evaluate the KPI improvement plan

The college has completed implementation of the first recommendation and implementation of the four remaining recommendations is currently in progress.

We will continue to provide KPI results to the Board on an annual basis each April/May.

5. Financial/Human Resource Implications

Capital and/or other resources required to implement improvement strategies are factored into decisions on capital expenditures. Strategies designed to improve the student experience have and will continue to be factored into future budget and planning decisions.

6. Implications for the Joint Campus Master Plan

There are no implications for the joint campus master plan.

7. Implications for UOIT

Although only Durham College students completed the KPI student satisfaction questionnaire, the results and trends for some of the service/facility areas reflect satisfaction with campus services that support both institutions.

8. Relationship to the Strategic Plan/Business Plan

This report relates to the "Our Students" pillar of the Strategic Plan, and the goal to provide students with the best possible learning experiences by continuing to assess various aspects of student learning experiences, and the related graduate and employment outcomes.

Report Number: BOG-2017-77

To: Board of Governors

From: **Elaine Popp, Vice-president, Academic**

Date of Report: May 2, 2017

Date of Meeting: May 10, 2017

Subject: DC-UOIT Academic Pathways Report 2016-2017

1. Purpose

To provide the Board of Governors with an annual update on the Durham College (DC)-University of Ontario Institute of Technology (UOIT) academic pathways.

2. Recommendation

It is recommended to the Durham College Board of Governors:

That Report BOG-2017-77 providing the DC-UOIT Academic Pathways update for 2016-2017, be received for information.

3. Background

In 2003, the UOIT was established as a science, technology, engineering and manufacturing university. Included in the Act proclaiming UOIT was the mission to facilitate student transition between college-level programs and university-level programs. To that end, UOIT collaborates with DC, and through their respective strategic plans, DC and UOIT are committed to providing students with a transparent and effortless credit transfer system. This collaboration is consistent with the vision of the Ministry of Advanced Education and Skills Development, which articulates the need for increased pathways between colleges and universities, and identifies the development of a comprehensive and transparent credit-transfer system as a high priority for Ontarians.

Each year, DC and UOIT collaborate on data exchange and analysis to continue to assess the pathways framework and the mobility of students between the two institutions.

4.   Discussion/Options

This report presents the update for student mobility between DC and the UOIT.

For the reporting year 2016-17:

- 558 students in the first year of studies at DC had prior UOIT experience.

- 1,545 students in the first year of studies at DC declared prior postsecondary experience at an institution other than DC.

- Of these 1,545 students, 18.8 per cent (282 students) declared prior UOIT experience on their admission application.

- Of the 282 students who declared prior UOIT postsecondary experience, 12.4 per cent (35 students) were enrolled in one year certificate programs, 58.9 per cent (166 students) in diploma or advanced diploma programs, 25.5 per cent (72 students) in graduate certificates, and 3.2 per cent (9 students) in fast-track programs.

For the reporting year 2016-17:

- 434 students who started their studies at UOIT had prior DC experience.

- 659 students in first year of studies at UOIT declared prior postsecondary experience at an Ontario college.

- Of these 659 students, 55.7 per cent (367 students) declared their prior DC experience on their admission application.

- Of the 367 students who declared prior DC experience, 47.7 per cent (175 students) were enrolled in a bridge program, 22.9 per cent (84 students) were enrolled in an embedded bridge program, and 29.5 per cent (108 students) were enrolled in a non-bridging program.

- Of the 108 students who were enrolled in non-bridging programs, 59 graduated from DC prior to enrolling at UOIT and 49 had partial completion of studies at DC.

The attached DC-UOIT Academic Pathways Report – Detailed, further presents 2015-16 and 2014-15 comparisons, identifies specific programs of strong interest at each institution, and provides a list of articulation agreements between the two institutions as of 2016-17.

5. Financial/Human Resource Implications

Capital and/or other resources required to implement improvement strategies are factored into decisions on capital expenditures. Strategies designed to promote the student mobility through integrated curriculum development and other relevant avenues have and will continue to be factored into future budget and planning decisions.

6. Implications for the Joint Campus Master Plan

There are no implications for the joint campus master plan.

7. Implications for UOIT

Both DC and UOIT are committed to promoting student mobility. Collaborative data exchange and analysis may provide both DC and UOIT the opportunity to identify opportunities for potential articulation agreements and assess success of transfer students from their respective institution.

8. Relationship to the Strategic Plan/Business Plan

This report relates to the "Our Students" pillar of the Strategic Plan, and the goal to provide students with the best possible learning experiences by continuing to assess various aspects of student learning experiences, and the related graduate and employment outcomes.

DC-UOIT Academic Pathways Report - Detailed

This report presents student mobility at both Durham College and the University of Ontario Institute of Technology (UOIT).

Figures and tables will be presented for both UOIT and Durham College with results presented in three sections:

Section 1: Pathways Students, presents data on the new non-direct students at each institution;

Section 2: Programs of Interest, presents the programs with the greatest uptake in recent years; and

Section 3: Articulation agreements, presents the new pathway and articulation agreements recently established.

Section 1: Pathways Students

Pathways Students (UOIT --> Durham College)

Figure 1 displays the progressive totals for all students that can be identified as a 'new' non-direct student enrolment at Durham College for the last three years. Students who declared their previous educational experience at Durham College are included only if the student was not enrolled as a Continuing Education student , Academic Upgrading student, or a student returning from an uncompleted program.

Figure 1: Durham College Data
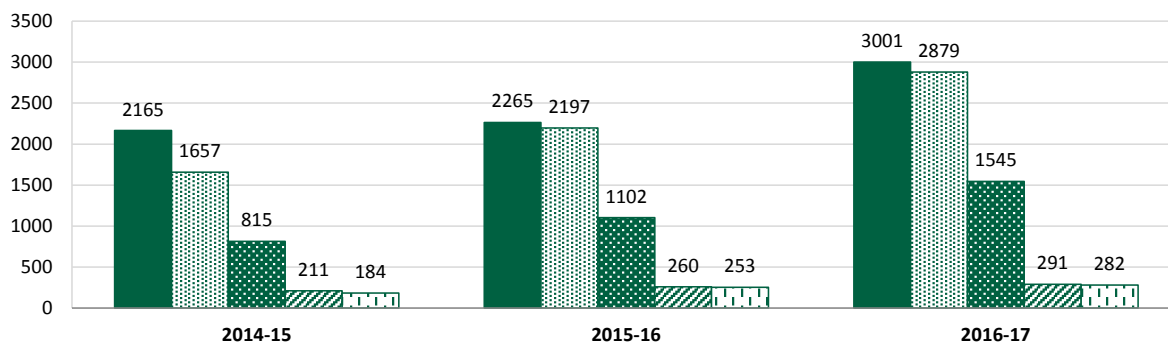
Legend	Student Population	2014-15	2015-16	2016-17
	Starting Student Population: Number of non-direct students new to Durham College	2165	2265	3001
	Subset 1: # of students declaring a previous Post-Secondary experience in Ontario	1657	2197	2879
	Subset 2: # of students declaring a non-Durham College postsecondary experience	815	1102	1545
	Subset 3: # of students declared having a UOIT experience	211	260	291
	Subset 4: # of students that were confirmed as having a full-time postsecondary UOIT experience and declared it on their application	184	253	282

For the 2016-17 reporting year, the total number of Durham College students that can be confirmed by UOIT as having a full-time postsecondary registration record in the previous year is 282 students. Additionally, there are some students with a full-time postsecondary registration record and failed to declare it, as well as students that declared having a full-time postsecondary enrolment, but fail to have a registration record at the time of validation. All three categories are presented below:

• 282 students declared a UOIT experience and had an enrolment record;
• 9 students declared a UOIT experience, but DID NOT have an enrolment record; and
• **276 students DID NOT declare their UOIT experience, but had an enrolment record.**

Additionally, of the 282 students where a full-time postsecondary UOIT record was declared and confirmed in 2016-17, 35 enrolled into a certificate program (12.4%), 166 enrolled into a diploma or advanced diploma program (58.9%), 9 enrolled into a fast-track program (3.2%), and 72 enrolled into a graduate certificate program (25.5%). The data for 2016-17, along with the data for 2014-15 and 2015-16 is presented in Table 1.

Pathways Students (Durham College --> UOIT)

Figure 2 displays the progressive totals for all students that can be identified as a 'new' non-direct student enrolment at UOIT for the last three years. Students declaring a previous educational experience do not include readmit students.

Figure 2: UOIT Data
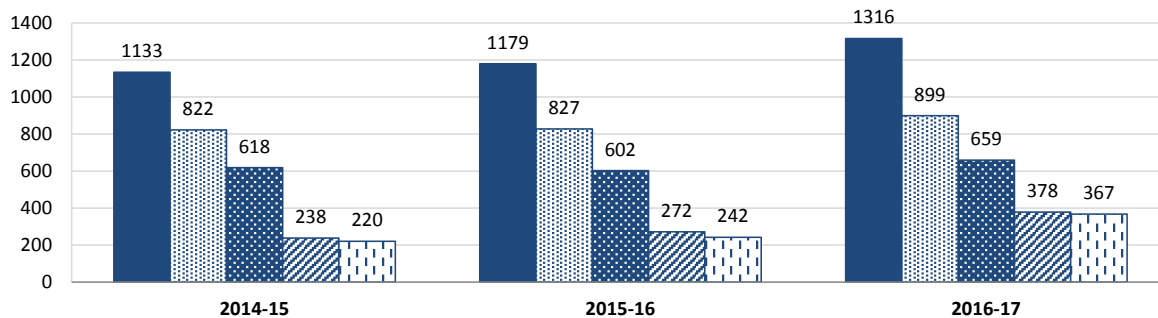
Legend	Student Population	2014-15	2015-16	2016-17
	Starting Student Population: Number of non-direct students new to UOIT	1133	1179	1316
	Subset 1: # of students declaring a previous PSE experience	822	827	899
	Subset 2: # of students declaring an experience at a college	618	602	659
	Subset 3: # of students declaring a Durham College experience	238	272	378
	Subset 4: # of students that were confirmed with a full-time postsecondary Durham College experience and declared it on their application	220	242	367

For the 2016-17 reporting year, the total number of UOIT students that can be confirmed by Durham College as having a full-time postsecondary registration record in the previous year is 367 students. Additionally, there are some students with a full-time postsecondary registration record and failed to declare it, as well as students that declared having a full-time postsecondary enrolment, but fail to have a registration record at the time of validation. All three categories are presented below:

- 367 students declared a DC experience and had an enrolment record;
- 11 students declared a DC experience, but DID NOT have an enrolment record; and
- 67 students DID NOT declare their DC experience, but had an enrolment record.

Additionally, of the 367 students where a full-time postsecondary Durham College record was declared and confirmed in 2016-17, 49 students had a partial Durham College experience, that is they did not graduate (13.4%), 175 graduated from a Durham College program and enrolled in a designated bridging program (47.7%), 84 were actively enrolled in an embedded bridge program (22.9%), and 59 graduated from a Durham College program, but were not enrolled in a designated bridging program (16.1%). The data for 2016-17, along with the data for 2015-16 and 2014-15 is presented in Table 2.

Section 2: Programs of Interest

Table 1 and 2 present student enrolment data at an aggregate level. The purpose of this table is to identify the top five programs of interest among Durham College students into UOIT programs, and UOIT students into Durham programs. In order to determine the rank of each program, the summed student enrolment for the most recent two years is used.

Table 1: UOIT Students --> Durham College Program					
Program (Program Credential)	Sum Total*	2015-16		2016-17	
		# of Students	as a %	# of Students	as a %
Registered Nurse - Critical Care Nursing	57	31	12.3%	26	9.2%
Practical Nursing	16	5	2.0%	11	3.9%
Court And Administrative Tribunal Agent	14	3	1.2%	11	3.9%
Addictions and Mental Health	14	8	3.2%	6	2.1%
General Arts And Science - Nursing Prep	12	6	2.4%	6	2.1%
Computer Programmer Analyst	12	6	2.4%	6	2.1%

Sum Total refers to two-year total for 2015-16 and 2016-17

Table 2: DC Students --> UOIT Program					
Program	Sum Total*	2015-16		2016-17	
		# of Students	as a %	# of Students	as a %
Embedded Bridge/Bachelor of Commerce**	99	12	5.0%	87	23.7%
Bachelor of Science in Nursing	73	40	16.5%	33	9.0%
BA (Hons), Crim Justice Bridge	70	31	12.8%	39	10.6%
BA(Hons), Forensic Psyc Bridge	57	25	10.3%	32	8.7%
BCom (Hons) Bridging Program	36	18	7.4%	18	4.9%
BA(Hons), Legal Studies Bridge	27	13	5.4%	14	3.8%

Sum Total refers to two-year total for 2015-16 and 2016-17

** An embedded bridge program is a program where students take the first two years of a program at DC (inclusive of bridging courses), and then complete the remaining two years of a Bachelor of Commerce at UOIT.*

Section 3: Articulation Agreements

All of the articulation agreements in place between the two institutions as of Fall 2016 are presented in Table 3. The information is presented by the school in which the program resides at Durham College. Please note that the number of programs and the number of associated articulations for those programs are presented at the start of each table. Further, the number of Durham College programs that are new to the articulation roster are presented in bold italics. Any program that may require additional credentialing has been identified with the corresponding note after each school table.

Table 3: Pathway Agreements; by Durham College School Assignment

	Durham College Program	UOIT Program:	Type of Entry
School of Business, IT and Management (# of Programs =15; # of Articulations = 22)			
1	Business - Accounting	Bachelor of Commerce	Bridge, Embedded Bridge
2	Business - Human Resources	Bachelor of Commerce	Bridge, Embedded Bridge
3	Business - Marketing	Bachelor of Commerce	Bridge, Embedded Bridge
4	Business Administration - Human Resources	Bachelor of Commerce	Direct Entry
5	Business Administration - Accounting	Bachelor of Commerce	Direct Entry
6	Business Administration - Marketing	Bachelor of Commerce	Direct Entry
7	*Business - Finance*	*Bachelor of Commerce*	*Bridge*
8	*Business Administration- Finance*	*Bachelor of Commerce*	*Bridge*
9	Computer Programmer	Bachelor of Information Technology in Game Development and Entrepreneurship	Bridge
		Bachelor of Information Technology in Networking and Information Technology Security	Bridge
10	Computer Programmer Analyst	Bachelor of Computing Science	Diploma to Degree
		Bachelor of Information Technology in Game Development and Entrepreneurship	Bridge
		Bachelor of Information Technology in Networking and Information Technology Security	Bridge
11	Computer Systems Technician	Bachelor of Information Technology in Game Development and Entrepreneurship	Bridge
		Bachelor of Information Technology in Networking and Information Technology Security	Bridge, Embedded Bridge
		Bachelor of Computing Science	Bridge
12	Computer Systems Technology	Bachelor of Information Technology in Game Development and Entrepreneurship	Bridge
		Bachelor of Information Technology in Information Technology Security	Bridge
		Bachelor of Information Technology in Networking and Information Technology Security	Direct Entry
13	*Entrepreneurship and Small Business - Business*	*Bachelor of Commerce*	*Bridge, Embedded Bridge*
14	Supply Chain and Operations - Business	Bachelor of Commerce	Bridge, Embedded Bridge
15	Supply Chain and Operations Management - Business Administration	Bachelor of Commerce	Direct Entry

School of Health and Community Services (# of Programs = 8; # of Articulations =15)			
16	Addictions and Mental Health	Bachelor of Allied Health Sciences***	Bridge
17	Child and Youth Care	Bachelor of Arts in Criminology and Justice	Bridge
		Bachelor of Arts in Forensic Psychology	Bridge
		Bachelor of Arts in Political Science	Bridge
		Bachelor of Arts in Legal Studies **	Bridge
18	Dental Hygiene	Bachelor of Allied Health Sciences	Bridge
19	Developmental Services Worker	Bachelor of Arts in Political Science	Bridge
		Bachelor of Arts in Legal Studies **	Bridge
20	Fitness and Health Promotion	Bachelor of Health Science - Kinesiology	Diploma to Degree
21	Occupational Therapist Assistant/Physiotherapist Assistant	Bachelor of Allied Health Sciences	Bridge
22	Practical Nursing	Bachelor of Science in Nursing	Post RPN
		Bachelor of Allied Health Sciences	Bridge
23	Social Service Worker	Bachelor of Arts in Forensic Psychology	Bridge
		Bachelor of Arts in Political Science	Bridge
		Bachelor of Arts in Legal Studies **	Bridge

***If presented concurrently with a college diploma or university degree

**If presented concurrently from a graduate certificate in Legal Research and Information Management, Mediation – Alternative Dispute Resolution, or Paralegal

School of Interdisciplinary Studies (# of Programs =1; # of Articulations = 4)			
24	General Arts and Science – Liberal Arts UOIT Transfer	Bachelor in Communication and Digital Media Studies	Transfer
		Bachelor of Arts in Forensic Psychology	Transfer
		Bachelor of Arts in Legal Studies	Transfer
		Bachelor of Arts in Political Science	Transfer

		School of Justice and Emergency Services (# of Programs = 7; # of Articulations = 16)	
25	Law Clerk - Advanced	Bachelor of Arts in Legal Studies	Bridge
		Bachelor of Arts in Criminology and Justice *	Bridge
26	Office Administration - Legal	Bachelor of Arts in Legal Studies	Bridge
27	Paralegal	Bachelor of Arts in Legal Studies	Bridge
		Bachelor of Arts in Political Science	Bridge
		Bachelor of Arts in Criminology and Justice *	Bridge
28	Paramedic	Bachelor of Allied Health Sciences	Bridge
29	Police Foundations	Bachelor of Arts in Criminology and Justice	Bridge
		Bachelor of Arts in Forensic Psychology	Bridge
		Bachelor of Arts in Political Science	Bridge
		Bachelor of Arts in Legal Studies **	Bridge
30	Protection, Security and Investigation	Bachelor of Arts in Criminology and Justice	Bridge
		Bachelor of Arts in Forensic Psychology	Bridge
		Bachelor of Arts in Political Science	Bridge
		Bachelor of Arts in Legal Studies **	Bridge
31	Youth Corrections and Interventions	Bachelor of Allied Health Sciences	Bridge

**If presented concurrently from a graduate certificate in Legal Research and Information Management, Mediation – Alternative Dispute Resolution, or Paralegal*

If presented concurrently with a graduate certificate in Youth Corrections and Interventions

		School of Media, Art and Design (# of Programs = 12; # of Articulations = 14)		
32	Advertising and Marketing Communications	Bachelor of Arts in Communication and Digital Media Studies	Bridge
33	Animation - Digital	Bachelor of Information Technology in Game Development and Entrepreneurship	Bridge
34	Animation - Digital Production	Bachelor of Information Technology in Game Development and Entrepreneurship	Bridge
35	Broadcasting – Radio and Contemporary Media	Bachelor of Arts in Communication and Digital Media Studies	Bridge
36	Contemporary Web Design	Bachelor of Arts in Communication and Digital Media Studies	Bridge
		Bachelor of Information Technology in Networking and Information Technology Security	Bridge
		Bachelor of Information Technology in Game Development and Entrepreneurship	Bridge
37	Photography	Bachelor of Arts in Communication and Digital Media Studies	Bridge
38	Video Production	Bachelor of Arts in Communication and Digital Media Studies	Bridge
39	Game Development	Bachelor of Information Technology in Game Development and Entrepreneurship	Bridge
40	Interactive Media Design	Bachelor of Arts in Communication and Digital Media Studies	Bridge
41	Broadcasting - Radio and Contemporary Media	Bachelor of Arts in Communication and Digital Media Studies	Bridge
42	Journalism – Mass Media	Bachelor of Arts in Communication and Digital Media Studies	Bridge
43	Public Relations	Bachelor of Arts in Communication and Digital Media Studies	Bridge

School of Science and Engineering Technology (# of Programs = 4; # of Articulations = 6)			
44	Biomedical Engineering Technology	Bachelor of Allied Health Sciences	Bridge
45	Biotechnology - Advanced	Bachelor of Science in Biological Science	Direct Entry
		Bachelor of Health Science in Medical Laboratory Science	Bridge
		Bachelor of Allied Health Sciences	Bridge
46	Environmental Technology	Bachelor of Arts in Political Science	Bridge
47	Pharmaceutical and Food Science Technology	Bachelor of Science	Direct Entry

Centre for Food (# of Programs =1; # of Articulations = 1)			
48	Hospitality Management - Hotel, Restaurant and Tourism	Bachelor of Commerce	Advanced Standing (15 credits)

The following pathways are applicable to all programs offered at Durham College.

General Pathways			
49	Any 2 or 3 year diploma program	Bachelor of Commerce	Bridge
50	Any 2 or 3 year diploma program	Educational Studies and Digital Technology	Direct Entry
51	Any 2 or 3 year diploma program	Designing Adult Learning for the Digital Age	Direct Entry

Data Definitions

Transfer – For UOIT, transfer programs award a block of credit (around one year typically); however, not as much credit as their direct-entry or bridge options.

Direct Entry – a pathway opportunity that allows graduates to gain entry into an upper-level of a program with a full block of credit for the prior year(s). For example, our three-year Business Administration graduates can gain entry into the third year of the Bachelor of Commerce at UOIT.

Bridge – refers to a course or program constructed to provide remedial and/or transition support for students. Graduates of three year diplomas typically bypass the summer bridge and enter directly into year three at UOIT, whereas graduates of two-year programs do not.

Embedded Bridge – refers to a program where students take the bridge courses as part of their Durham College diploma (embedded in their program) rather than completing the bridge after graduating from Durham College and prior to entering the Bachelor of Commerce program.

Added notes: The idea is that the "bridge" term will close the gap between their former and proceeding credentials.

Diploma to Degree – General term used to describe any opportunities to transfer from a diploma to a degree (particularly from a specific diploma to a related degree program. i.e. from Police Foundations to Criminology).

Post RPN – Post-diploma option for Practical Nursing graduates who are certified by the College of Nurses of Ontario.

Advanced Standing – refers to the recognition of prior studies or experiences where granting a student access to a higher level of postsecondary studies or an exemption is appropriate rather than specific credit.

Added Notes: At Durham, the term advanced standing similarly to "direct entry", in the sense that it's awarding students entry into an upper-level ("advanced") term in our program. For UOIT, it refers to a block of credit being awarded to a student (similar to transfer) but perhaps not a formal pathway.

![Durham College - Success Matters]

Public Report

Report Number: BOG-2017-75

To: Board of Governors

From: Dr. Elaine Popp, Vice-President, Academic

Date of Report: April 27, 2017

Date of Meeting: May 10, 2017

Subject: Approval of New Programs of Instruction

1. Purpose

To seek approval from the Board of Governors for the following postsecondary programs of instruction for the September 2018 intake:

1. Civil Engineering Technician
   - Credential: Ontario College Diploma
   - Duration: Four semesters (optional co-op add one additional semester)
   - School: Science & Engineering Technology

2. Civil Engineering Technology
   - Credential: Ontario College Advanced Diploma
   - Duration: Six semesters (optional co-op add three additional semesters)
   - School: Science & Engineering Technology

2. Recommendation

It is recommended to the Durham College Board of Governors:

That in accordance with Report BOG-2017-75, the proposed Ontario College Diploma and Ontario College Advanced Diploma programs of instruction listed below be approved:

- Civil Engineering Technician
- Civil Engineering Technology

3. Background

These two proposed new programs of instruction align with Durham College's commitment to developing programs that will enhance our program offerings for students and that will produce graduates with the knowledge and skills required by industry.

The School of Science & Engineering Technology, through consultations with Durham College faculty members, the Office of Research Services, Innovation and Entrepreneurship (ORSIE) and external industry stakeholders, has received strong support to develop and launch the Civil Engineering Technician diploma and Civil Engineering Technology advanced diploma programs. The civil sector is experiencing a sharp increase in the level of activity and job opportunities as a result of numerous projects, including the ongoing highway 407 extension, expansion of GO Transit railway routes, construction of new homes and subdivisions including schools and shopping centres, increased student enrolment at Durham College and UOIT, new business developments, and an aging municipal infrastructure. Durham College's launch of these programs is both timely and necessary for the Greater Toronto Area, the Durham Region and its surrounding municipalities.

A strategic priority for Durham College is to ensure that work integrated learning experiences are available to all students. Civil Engineering industry stakeholders strongly expressed interest in hiring program students for up to an eight-month co-operative education (co-op) opportunity. Both the Civil Engineering Technician diploma and Civil Engineering Technology advanced diploma program will include an optional co-op for eligible students, or an 80 hour Field Placement component to be completed before graduation. The attached Board Report summaries provide additional information regarding the structure of the co-op options.

As per the Ministry of Advanced Education and Skills Development Minister's Binding Policy Directive 3.0, Programs, Framework for Programs of Instruction, the Board of Governors is responsible for approving programs of instruction the college will offer.

It is the role of the Durham College Board of Governors to ensure that programs of instruction are developed and implemented consistent with provincial program standards where they exist, ensuring that all new and modified postsecondary programs of instruction lead to one of the following credentials – Durham College Certificate, Ontario College Certificate, Ontario College Diploma, Ontario College Advanced Diploma, Ontario College Graduate Certificate or Bachelor Degree.

The Board will request validation that the programs of instruction conform to the Credentials Framework and are consistent with accepted college system principles, and that such credentials are awarded to students on successful completion of their respective programs of instruction.

We confirm that Durham College is in compliance with all Minister's Binding Policy Directives as noted above, for these two programs of instruction.

4.   Discussion/Options

Students enrolled in the Civil Engineering Technician diploma or Civil Engineering Technology advanced diploma program will learn the knowledge and skills required by employers in a variety of industries including municipal services, road and building construction, and consulting firms.

Students will learn how to carry out technical functions related to a broad range of civil engineering fields including structural, municipal, highway and transportation engineering, water resources, geotechnical engineering, environmental protection and infrastructure rehabilitation.

Graduates of these programs will be able to work in a variety of employment settings including consulting engineering firms , civil construction and surveying firms, quality control facilities and municipal government engineering or operations departments. Diploma graduates are typically employed in entry-level positions in the field as Computer-aided Design (CAD) operators, material testing technicians, surveying assistants, junior inspectors or estimators. Graduates from the advanced diploma may be employed in entry-level positions in the field as municipal design technologists, structural design technologists, pavement/geotechnical technologists, material testing technologists, construction inspectors, estimators or technical representatives.

To ensure program sustainability and opportunities for further education, the programs share a common first and second year. The diploma and the advanced diploma programs include a field placement or a co-operative education (co-op) component. Students who meet the eligibility requirements will have the option of participating in a co-op experience within the industry. The field placement and co-op options are appealing to both the students who are looking for real-world work experiences and also to employers who are looking to hire graduates with practical knowledge and skills in the discipline.

A proposal for the Civil Engineering Technician Ontario College Diploma program was developed and submitted to the Credentials Validation Services (CVS). On April 27, 2017 the proposal received validation and the program was assigned the Approved Program Sequence (APS) number **DURH 01256**.

A proposal for the Civil Engineering Technology Ontario College Advanced Diploma program was developed and submitted to the Credentials Validation Services (CVS). On April 24, 2017 the proposal received validation and the program was assigned the Approved Program Sequence (APS) number **DURH 01255**.

5.   Financial/Human Resource Implications

There are both financial and human resource implications for the development and delivery of these two new programs. These programs will be delivered at the Whitby Campus where renovations and additions to current spaces are required. We propose that for the September 2018 start-up, renovations to existing facilities be made at a cost of approximately $150,000. These renovations include changes to the following spaces:

- Room 2-12 - Surveying Storage Area will require some renovations to build shelves and cupboards.
- Room 2-13 - Surveying Lab will require some renovation to add carpet on the floor. This room will remain in the general scheduling pool.
- Shop Lab 3 - Materials Testing Lab for concrete and asphalt.
- Shop Lab 2 - Structures Lab for steel and wood.
- New AutoCAD Lab - Re purpose Lecture Room 2-40 will be shared between many programs delivered at the Whitby Campus.

As a second phase, and in order to create high quality teaching and learning space for the students of the Civil Engineering Technician and Technology programs, additional space (approximately 2400 square feet) will be required as the program enters into second year, at an approximate cost of $1,500,000 to $2,000,000. Durham College is currently exploring the creation of an expansion at the Whitby campus to accommodate future classroom, laboratory, storage and capital needs of these and other programs.

These programs will also require significant start-up capital. Approximately $500,000 is needed in the first and second year to purchase equipment for the soil and geotechnical lab, surveying lab, and structural/concrete/transportation construction lab. In addition, computer hardware for the new AutoCAD lab will cost approximately $75,000 and software for this new lab has been estimated at a cost of $25,000. These computer lab expenses can be shared with other programs offered at the Whitby Campus including, Welding Engineering Technician and Architectural Technician and Technology.

Curriculum development costs in the amount of $20,000 will be allocated for contracting a subject matter expert to create 33 course outlines including related manuals.

A long-range hiring plan has been created to forecast human resources needs for these programs. In year-one, one full-time faculty member, three contract faculty members and 0.2 support staff members will be hired. In the second year, two additional full-time faculty members, three contract faculty members and 0.3 support staff members will be hired. In future years, there will be a need for additional full-time and part-time faculty and support staff members.

6.   Implications for the Joint Campus Master Plan

There are no implications for the joint campus master plan.

7.   Implications for UOIT

There are no implications for UOIT.

8.   Relationship to the Strategic Plan/Business Plan

As identified in the 2016-2017 Durham College Business Plan, the development of new programs aligns with the pillar of "Our Students" with the stated objective of "advance overall academic portfolio through new program development".

Durham College followed the new program development policies, procedures and processes to ensure program quality assurance requirements and expectations are fully met.

General Program Information

Proposed Program Title: Civil Engineering Technician

Proposed Credential: Ontario College Diploma

Funding Unit: 2.3

Weight: 1.2

Ministry Code: 51003

Approved Program Sequence (APS) Number: 01256

Name of Dean Submitting Request: Susan Todd

Proposed Date of Implementation: September 2018

Date of Review by Program Proposal Review Committee: March 8, 2017

Year 1 Enrolment: 20

Number of Semesters: 4 semesters

Total Program Hours:
1260 hours plus an 80 hours Field Placement for a total of 1340 hours; or
1260 hours plus a 420 hour Co-operative Education experience for a total of
1680 hours

Number of New Full-Time Faculty: One new full-time faculty in year one

Space Requirements: Renovations for spaces at the Whitby Campus in the
amount of $150,000 shared between the Civil Engineering Technician diploma
and Civil Engineering Technology advanced diploma.

Capital Costs: Capital costs estimated at $600,000 for years one and two shared
between the Civil Engineering Technician diploma and Civil Engineering
Technology advanced diploma.

Proposed Tuition: $3,024.51 per year (two semesters)

1.   Approval Stages

The following approval stages have been assessed for this program:

- Labour Market

- Student Demand

- New Program Proposal Document reviewed by the Manger, Program
  Development and Quality Assurance and Dean

- Budget reviewed by Director, Planning and Reporting; Manager, Program
  Development and Quality Assurance and Dean

- Budget approved by Chief Financial Officer and Vice-President, Academic

- Reviewed by Program Proposal Review Committee – December 14, 2016

- Approved by Vice-President, Academic
- Approved by Credentials Validation Service
- Reviewed by President

2. Program Overview

2.1 Program Description

Civil Engineering influences almost every aspect of modern human life. Much of the physical infrastructure of modern society is provided through Civil Engineering. Students in the Civil Engineering Technician diploma program will learn how to construct, maintain and recycle the structures in communities such as dams, bridges, roads, buildings, pipelines, railways and tunnels. Students will learn how to collect, process and interpret technical information to produce written and graphical project-related documentation. Program graduates assist in scheduling, cost estimation, quality control and monitoring of civil engineering projects.

Civil engineering is also responsible for the design, construction and maintenance of critical infrastructure elements which keep communities functioning, such as transport systems, wastewater treatment, gas, water and electricity supplies. Graduates of the Civil Engineering Technician program carry out technical functions related to a broad range of civil engineering fields including structural, municipal, highway and transportation engineering, water resources, geotechnical engineering, environmental protection and infrastructure rehabilitation.

2.2 Work Integrated Learning: Co-operative Education (co-op) or Field Placement

Students enrolled in the Civil Engineering Technician diploma program will have the option of participating in one of two work integrated learning opportunities. The Co-operative Education (co-op) experience is available to students who meet the eligibility requirements and consists of one co-op term that will occur after semester two (420 hours) in the spring/summer months (May-August).

The alternative option is an 80 hour field placement (typically unpaid) for students who do not meet the co-op eligibility requirements or who are not able to secure a co-op opportunity. The field placement must be completed before graduation.

The table below demonstrates the flow of the program of studies by semester and work term for the Civil Engineering Technician diploma program work integrated learning options.

	Fall	Winter	Spring / Summer	Fall	Winter	Spring
Technician Co-op option	Sem 1	Sem 2	Co-op (420 h)	Sem 3	Sem 4	
Technician Field Placement option	Sem 1	Sem 2	---------	Sem 3	Sem 4	Field Placement

2.3 Career Outcomes

As members of a civil engineering or multi-disciplinary team, graduates work collaboratively with a range of project stakeholders to contribute to the accomplishment of civil engineering projects and goals in accordance with project plans, workplace health and safety practices, sustainability practices and all applicable laws, codes, industry standards and ethical practices.

Graduates of the Civil Engineering Technician diploma program work in a range of employment settings including consulting engineering firms, civil construction and surveying firms, quality control facilities and municipal government engineering or operations departments. Graduates are typically employed in entry-level positions in the field as Computer-aided Design (CAD) operators, material testing technicians, surveying assistants, junior inspectors or estimators.

2.3 Vocational Program Learning Outcomes

Vocational program learning outcomes must be consistent with the requirements of the Credentials Framework for the proposed credential. As per the Civil Engineering Technician Program Standard, the graduate has reliably demonstrated the ability to:

1. Develop and use strategies to enhance professional growth and ongoing learning in the civil engineering field.
2. Comply with workplace health and safety practices and procedures in accordance with current legislation and regulations.
3. Complete duties and assist in monitoring that work is performed in compliance with contractual obligations, applicable laws, standards, bylaws, codes and ethical practices in the civil engineering field.
4. Carry out sustainable practices in accordance with contract documents, industry standards and environmental legislative requirements.
5. Collaborate with the project team and communicate effectively with project stakeholders to support civil engineering projects.
6. Collect, process and interpret technical data to produce written and graphical project-related documents.

7. Use industry-specific electronic and digital technologies to support civil engineering projects.

8. Participate in the design and modeling phase of civil engineering projects by applying engineering concepts, basic technical mathematics and principles of science to the review and production of project plans.

9. Assist in the scheduling, cost estimation and monitoring of the progression of civil engineering projects by applying principles of construction project management.

10. Perform quality control testing and the monitoring of equipment, materials and methods involved in the implementation and completion of civil engineering projects.

11. Apply teamwork, leadership and interpersonal skills when working individually or within multidisciplinary teams to complete civil engineering projects.

2.4 Admission Requirements

Ontario Secondary School Diploma (OSSD) or Mature Student Status with:
- Grade 12 English (C or U)
- Grade 12 Mathematics: MCT4 (C) or Grade 11 Mathematics: MCR3 (U)

Recommended:
- A course in Technological Designs
- Grade 12 Physics

3 Program of Study

3.1 Drafting and CAD I for Civil – Semester 1

This course consists of two parts. The first part deals with the techniques and standards required to communicate graphically. Students will learn sketching of orthographic and isometric views, geometric constructions, sectional views, lettering, dimensioning and scaling as part of the drafting component. In the second part, students will learn basic AutoCAD skills and its use in preparing Civil/Structural working drawings. 42 hours

3.2 Construction Materials and Testing – Semester 1

Students examine and study the common construction materials, site variables and construction processes relating to house construction as influenced by environment and energy efficiency standards. The course provides a basic knowledge of the terminology, the physical and chemical properties of materials, their manufacturing and fabrication processes, embodied energy, typical installation methods, efficiency of utilization and organization in a construction, repurposing or renovation project. Also, the materials and products are evaluated in relation to their appropriateness as affected by their durability, performance,

sustainability and energy conservation. Metals, wood, concrete, masonry and plastics, thermal insulations, insulating concrete forms, doors, and windows are among the materials reviewed. Students are introduced to Energy Star system, R2000 and LEED for Home standards and study basic issues of sustainable construction. 56 hours

3.3   Applied Engineering Principles – Semester 1

This course analyses the static forces and moments that are created in a variety of structures due to externally applied forces. Topics include loads on structures, simple stresses, and shear forces, bending moments, flexural stresses, shear stresses, deflections and column theory. Emphasis is placed on a problem solving approach using mathematical and calculator methods combined with free body diagrams and sketches. Structural analysis software will be used to demonstrate the mathematical solutions in the classroom. 42 hours

3.4   Surveying Principles – Semester 1

In this first surveying course, students are required to measure, record, and draw to scale.   Students will use various surveying instruments and equipment such as levels, tapes, transits/theodolites, and total stations to determine distances, angles and elevations. Various survey methods and their applications will be covered, as well as relevant calculations on the field data. 42 hours

3.5   Mathematics for Civil Engineering I – Semester 1

The purpose of this course is to refresh and upgrade existing mathematical skills such as algebra, geometry, trigonometry, SI and Imperial units, and solve a variety of measurement problems. Students study properties of lines and angles. They calculate the perimeter, area of basic geometric figures, the surface area, and volume of solid geometric figures with examples in civil engineering. Students manipulate trigonometric functions of acute and obtuse angles and solve problems. 56 hours

3.6   Technical Writing and Communications I – Semester 1

This is a general communications and technical writing course specially designed for the Civil Engineering program. 42 hours

3.7   General Education – Semester 1 – 45 hours

New Program Summary

3.8 Mathematics for Civil Engineering II – Semester 2

Students develop problem solving skills by applying topics of study to related practical problems. Topics of study include: quadratic equations; systems of linear equations in two and three unknowns; trigonometric functions and polar coordinates; exponents and radicals; direct and indirect variation; complex numbers; exponents and logarithms; and analytical geometry. Students use Microsoft Excel to solve equations and for graphing. 70 hours

3.9 Drafting and CAD II for Civil – Semester 2

This course is a continuation of Drafting and CAD I for Civil. The student's knowledge of AutoCAD commands and techniques will be enhanced through further AutoCAD instruction. Tips, tricks and advanced techniques are discussed to improve drawing speed and efficiency. Students develop more complex civil engineering drawings for design and construction. Students also use AutoCAD Civil 3D software. Students will focus on coordinate geometry, alignments, corridors, surfaces, profiles, and the tool space (prospector and settings). 42 hours

3.10 Strength of Materials – Semester 2

Students learn about the importance of understanding how materials react to the environment in which they are used. This introductory theory course lays the necessary foundation for the more advanced structural design courses. The internal axial load, shear and bending moment on simple structural members is studied. The effects are expressed quantitatively in terms of stress and strain. Students assess the adequacy of typical members, such as beams, columns and shafts to theoretically predict various failure modes in these members. Students carry out a number of experiments that help them to understand and visualize how structural materials behave under various loading conditions. 56 hours

3.11 Hydrology and Hydraulics – Semester 2

This course is an introduction to topics such as basic physical principles pertaining to fluid velocities and the relationship between force, pressure, and areas. Schematic diagrams, hydraulic symbols, pumps, actuators, valves, fluid conductors, and all related control functions will be covered. Students will learn analytical techniques pertaining to the design of various hydraulic structures such as sewers, water distribution systems and open channels. Hydrology for hydraulic design will also be introduced. 56 hours

3.12 Advanced Surveying – Semester 2

This course introduces students to advanced survey techniques for civil design and construction. The students get hands-on experience with total stations and data collectors to capture and process digital field data. Students will develop skills associated with circular curves, setting line and grade, cross-section, slope staking, building layouts, and municipal surveys. An introduction to Global Positioning System (GPS) and terrain modelling will be provided. At the end of this course, students will be able to perform total station instrument setups, checks and calibration. 42 hours

3.13 Communication for Career Development – Semester 2

In this course students will develop strategies for ongoing personal and professional development to enhance work performance in a multi-disciplinary workplace. This career development course will allow students the opportunity to consider pathways and professional development related to their program of choice. 42 hours

OR

3.14 Co-op and Career Development – Semester 2

This course prepares students for job searching for their co-op work term and for post-graduate careers. Students will reflect on their skills, attitudes, and expectations and evaluate and interpret available opportunities in the workplace. Self-marketing techniques using resumes, cover letters, networking, social media, and interviewing will be learned and practiced. Students will learn the industry practices, expectations and how to manage technology in the hiring and selection process along with regulations that apply in the workplace with regards to social, organizational, ethical, and safety issues while developing an awareness of self-reflective practice. 42 hours

3.15 General Education – Semester 2 – 45 hours

3.16 Co-op – Spring / Summer

Students will have the opportunity to gain valuable skills in the workforce by completing a co-operative education (co-op) experience. Students who qualify for the co-op will complete an eight-month paid work term after the second year of their program. 420 hours

3.17 Geographic Information Systems (GIS) – Semester 3

This course is an introduction to the Geographic Information Systems (GIS). Topics include basic geographic data such as location, coordinate systems, and thematic mapping. Students will learn use in GIS software in creating geographic data, quarry and manipulate data and analyze spatial and tabular data. 42 hours

3.18 Water and Wastewater Technology – Semester 3

Students are introduced to water and wastewater technology including principles and construction procedures. They study design concepts for community piped storm and sanitary sewer systems, water treatment principles, waste water treatment principles and storm water management. This course also explores the Private Sewage Disposal Systems for sewage not connected to sewers. 56 hours

3.19 Steel and Wood Technology – Semester 3

This course focuses on two main areas, steel structures and wood structures. In the first part students are exposed to the practical steel structures, properties and designs. Students design steel structures by following the Canadian steel structural code- Canadian Standards Association, (CSA) S16-09. In the second part, students learn various design engineered wood structures that conform to the CSA-O86-14 code. Other topics, including safety considerations in fabricating and erecting structures will be discussed. 56 hours

3.20 Soil Mechanics – Semester 3

This course introduces the basic principles of soil mechanics and testing procedures through lectures, problem-solving sessions, and laboratory demonstrations. Topics include mass/volume relationships, soil classification, compaction, and permeability. Students will calculate volume-weight relationships for soils, classify soils using the Unified Soil Classification System, describe compaction and in-place soil density tests and solve applied problems dealing with soil permeability. Students will also conduct laboratory compaction tests, in-situ density tests, and field compaction control. 56 hours

3.21 Construction Site Supervision and Management – Semester 3

This course will use practical examples and industry standard techniques to examine all facets of managing construction jobsites from a contractor's point of view, including the specific duties handled by the superintendent and the interactions with the project manager and other members of the construction team. The lifecycle of a project will be studied - from the configurations of a project team to project closeout. A dedicated focus on the activities of jobsite personnel includes helpful techniques and procedures for effectively managing a project jobsite from start to finish. 42 hours

3.22 General Education – Semester 3 – 45 hours

3.23 Civil Project Estimating – Semester 4

Students study the basic principles of project scoping, input requirements, and costing for a modest sized construction project. The course covers general principles of measurement and pricing of construction work, focusing on sound estimating procedures and defining cost estimates throughout the project life cycle. The course emphasizes specific methods of measurement, estimating forms, earthwork, masonry, above-grade concrete, wood frame, and structural steel work items. The concepts surrounding potential cost escalation factors are studied. 42 hours

3.24 Concrete and Masonry Design – Semester 4

This course will provide the student with an understanding of behaviour and design of reinforced concrete and masonry products based on the latest National Building Code of Canada (NBCC) and Concrete Design handbooks. Students will design simple reinforced concrete and masonry structures in accordance with Canadian Standards Association, (CSA - Concrete Structures and Masonry Structures). Awareness in potential risks dealing with concrete structures will be emphasized in this course. 56 hours

3.25 Municipal Services – Semester 4

Students will become familiar with planning and designing municipal infrastructures. Topics include drainage and sewerage systems with particular emphasis on the topics of roadways and lot layout, hydraulic and structural design of storm and sanitary sewers, lot and pavement drainage, installation, field testing and inspection. It will include the preparation of related drawings using the AutoCAD computer drafting program.56 hours

3.26 Quality Control and Quality Assurance in Civil Works – Semester 4

Quality Assurance and Quality Control are extremely important aspects of any construction project without which successful completion of the project can't be imagined. The course covers general Quality Assurance (QA), Quality Control (QC) Policy, and QA/QC Manager's Responsibilities. Students will learn about the following topics: Site Procedures, Inspection and Testing, Quality Control – Civil, Inspection Planning, Material Procurement and Storage, Procurement Process, Civil Materials Storage and Quality Control Planning, and Concrete Mixing and Testing, Layout of the works, Works by subcontractors, Reinforcing steel, Civil QC Records and Reports, QA/QC Meetings, and QA/QC Reviews. 42 hours

3.27 Pavement Engineering – Semester 4

This course focuses on three areas of pavement engineering. The first part teaches the various types of pavements and their properties. The second part deals with the design of rigid and flexible pavements by following the American Association of State Highway and Transportation Officials (AASHTO) and Ministry of Transportation –Ontario (MTO) guidelines. Finally students gain knowledge on pavement evaluation and pavement maintenance. 42 hours

3.28 Geotechnical Design – Semester 4

Soil testing is an important procedure usually conducted by a geotechnical technologist in order to determine the workability of the soil that is to be located beneath a structure. In this course students design and analyze shallow and deep foundations for support of structures, and select foundation types based on soil conditions. Students will learn various types of soil tests and methods of foundation inspection before, during and after the construction phase. 56 hours

3.29 Field Placement – Semester 4

The Field Placement is an important component of the curriculum where students have the opportunity to work in their field of study prior to graduation. 80 hours

4. Strategic Alignment

4.1 Strategic Fit

With the growing infrastructure needs of the Durham Region and the province, the launch of this program is timely. Durham College will work closely with local industry partners to foster the program ensuring graduates meet the needs of employers.

This diploma program will also create potential new pathways for graduates to pursue further education within the province and abroad. The college will investigate advanced diploma and degree completion pathways with institutions offering advanced credentials including Durham College's own new Civil Engineering Technology program.

This program supports Durham College's commitment to ensuring a work integrated learning experiences for students by incorporating an optional one-semester co-op (420 hours) or a mandatory (80 hours) field placement component.

This new program also aligns with Durham College's Strategic Mandate Agreement (SMA) which has committed to designing programs in areas of strength including the sectors of Skilled Trades, Technology and Construction.

This new diploma program was designed to provide graduates with the technical and theoretical knowledge and skills in civil engineering in order to be successful in the workplace thus fulfilling the SMA's mandate.

4.2   Fit with Existing Programs

The proposed Civil Engineering Technician program is well suited to Durham College's current mix of technology programs in the School of Science & Engineering Technology. The Architecture Technician and Technology programs provide the foundation for introducing the Civil Engineering Technician and Technology programs to the college.

It is also a great addition to the programs in the School of Skilled Trades, Apprenticeship & Renewable Technology. Graduates from the Building Construction Technician, Heating, Ventilation and Air Conditioning Techniques (HVAC), and Crane Operation, Rigging and Construction Techniques programs may wish to pathway into the Civil Engineering Technician diploma recognizing the strong alignment to the industry.

5.   Labour Demand and Graduate Employment Possibilities

- Civil engineers, most of whom work in the architectural, engineering and related services industry, are in greatest demand of all engineering occupations. Predictions for employment in Ontario indicate a need of approximately 13,000 civil engineers between now and 2025, with 700 new civil engineers needed each year until 2019 to meet expansion and replacement needs.
- Although projections are reported for civil engineers, it is expected that a similar demand will exist for civil technicians and technologists. This expectation exists because of the overlapping skills between the three occupations, and the high level of retirement creating a laddering down of job openings, essentially creating an influx of openings for technicians and technologists.
- When combined with the amount of money being spent on infrastructure improvement in Canada ($125B over the next ten years), both technicians and technologists will likely experience consistent employment for the short and long term periods.
- Employment opportunities for Civil Engineering Technologist and Technician are heavily dependent on public and private infrastructure investments. The employment outlook is expected to be good in Ontario.
- Economic growth in Ontario, is projected to strengthen between now and 2019. The major drivers of growth in investment in the province are significant investments in electric power capacity across the province and mining investment in the North. Increases in manufacturing exports drive

the growth in Ontario's exports and manufacturing investment as additional capacity is required to produce the exports (Engineers Canada, 2015).

- The employment outlook to 2020 is expected to be good in Ontario. Employment prospects for this occupation are related to public and private infrastructure investments. Infrastructure spending by various levels of government during the forecast period may generate opportunities in this occupation. In addition, enhancements to the New Building Canada Fund will support infrastructure spending in various communities in Ontario over the next few years.

- Wages for Civil Engineering Technologists and Technicians is above average and is average for Construction Estimators.

- Civil engineering employers are largely centralized in the Toronto, York and Peel areas. However, there is a large number of architectural, engineering and related service employers within the Durham Region, the most relevant industry for these programs.

- As outlined in the environmental scan prepared by Durham College's Institutional Research and Planning team, program graduates are finding related employment in this industry. The table below summarizes 2015-16 outcomes for graduates of the Civil Engineering Technician program in Ontario. Results are based on the Key Performance Indicator (KPI) Graduate Satisfaction Survey for 2014-15 graduates, administered six months after graduation.

2015-16 Outcomes for Civil Engineering Technician Program Graduates (MTCU 51003) in Ontario

Outcome	Civil Engineering Technician	All Programs
Total Graduates	218	97,639
% of Graduates in Survey	45-50%	45-50%
Graduate Satisfaction	75-80%	75-80%
Labour Force Participation[1]	60-65%	70-75%
Employment Rate	80-85%	80-85%
Employed Full-Time	75-80%	60-65%
Average Annual Income (Full-Time)	$40,000-$44,999	$35,000-$39,999
Employed Full-Time (Related/ Partially Related)	55-60%	40-45%
Average Annual Income (Related Employment)	$40,000-$44,999	$35,000-$39,999
Unemployment Rate	15-20%	15-20%

Table 1: *Program Graduate Outcomes. Information Source: MTCU Employment Profile*

---

[1] Graduates who were either employed or looking for work during the reference week.

- Graduates from this program fare better than the provincial average. More specifically, employment, full-time and full-time related, is roughly 15-20% higher than the provincial average. Wages earned are also distinctly higher.

6. Student Interest

- There are currently eight colleges in Ontario's CAAT college system offering a post-secondary program in Civil Engineering Technician (MTCU 51003).The table below displays system-wide applications, first choice applications and confirmed acceptances to the Civil Engineering Technician programs in Ontario.

Applications and Confirmations	2012-13	2013-14	2014-15	2015-16	2016-17
Total Applications	1,073	981	1,034	873	782
First Choice Applications	336	324	334	272	217
Confirmed Acceptances	266	281	261	221	175
Number of Programs	8	8	8	8	8
Avg. conf./program	33	35	33	28	22

Table 2. Total applications and confirmations. Source: OCAS Data Warehouse, accessed September 2016

- On average, applications to Civil Engineering Technician programs have declined over the reporting period. Although some colleges have remained stable, most have experienced decline in total and first choice application over the last five years. First choice applications and confirmations have followed a similar trend.
- Over the reporting period, on average, eight students from the Durham College catchment confirmed their acceptance to the Civil Engineering Technician program at another Ontario CAAT college for the fall intake.

7. Analysis of Competition

The table below presents the colleges within the Eastern region and select colleges in the Central region currently offering the Civil Engineering Technician program (MTCU 51003).

College	Civil Engineering Technician (MTCU 51003)
Algonquin	n/a
Fleming	n/a
La Cite	n/a
Loyalist	Civil Engineering Technician
St. Lawrence	n/a
Centennial	n/a
George Brown	n/a
Humber	n/a
Seneca	Civil Engineering Technician

Table 3. Similar Programs at Other Colleges

8.   Target Market

The target market for this program is domestic and international students, students directly out of high school, and mature students.

9.   Operating Revenue and Expenses

9.1   Capital Requirements

The following list captures the shared equipment and computer hardware and software costs for the Civil Engineering Technician diploma and the Civil Engineering Technology advanced diploma programs.

Equipment Item	Cost	Year Required
Soil and Geotechnical Equipment	$100,000	Year 1, 2 and 3
Surveying Lab Equipment	170,000	Years 1, 2 and 3
Structural/Concrete Lab and Transportation Equipment	$200,000	Years 1, 2 and 3
AutoCAD Computer Hardware and Software (ANSIS, InfoWater, Info sewer, AutoCAD and Arc GIS)	$87,000	Year 1
Total	**$557,000**	

9.2 Budget Projection Summary

The following tables summarize the net contribution of the Civil Engineering Technician diploma program. The first table reflects the contribution for the co-op delivery option and the second table represents the field placement option.

9.2.1 Civil Engineering Technician Diploma: Co-op Option

Student Enrolment	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Year 1	10	10	10	10	10
Year 2	0	9	9	9	9
Year 3	0	0	0	0	0
Total	10	19	19	19	19

Net Contribution	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Total Direct Program Expenses	45,928	89,028	111,019	114,253	117,584
Total Revenue For Program	84,477	166,737	168,336	169,982	171,677
Net Contribution $	**38,549**	**77,710**	**57,317**	**55,729**	**54,093**
Net Accumulated Contribution / (Deficit)	38,549	116,259	173,576	229,305	283,398
Net Contribution - % of Gross Revenue	45.6%	46.6%	34.0%	32.8%	31.5%
Target Net Contribution	**n/a**	**Breakeven**	**40.0%**	**40.0%**	**40.0%**

9.2.2 Civil Engineering Technician Diploma: Field Placement Option

Student Enrolment	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Year 1	10	10	10	10	10
Year 2	0	9	9	9	9
Year 3	0	0	0	0	0
Total	10	19	19	19	19

Net Contribution	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Total Direct Program Expenses	45,928	89,028	111,019	114,253	117,584

New Program Summary

Net Contribution	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Total Revenue For Program	84,477	162,057	163,656	165,302	166,997
Net Contribution $	**38,549**	**73,030**	**52,637**	**51,049**	**49,413**
Net Accumulated Contribution / (Deficit)	38,549	111,579	164,216	215,265	264,678
Net Contribution - % of Gross Revenue	45.6%	45.1%	32.2%	30.9%	29.6%
Target Net Contribution	**n/a**	**Breakeven**	**40.0%**	**40.0%**	**40.0%**
Capital Requirement	**92,833**	**92,833**	**92,833**	**0**	**0**

General Program Information

Proposed Program Title: Civil Engineering Technology

Proposed Credential: Ontario College Advanced Diploma

Funding Unit: 3.4

Weight: 1.2

Ministry Code: 61003

Approved Program Sequence (APS) Number: 01255

Name of Dean Submitting Request: Susan Todd

Proposed Date of Implementation: September 2018

Date of Review by Program Proposal Review Committee: March 8, 2017

Year 1 Enrolment: 40

Number of Semesters: 6 semesters plus field placement or 6 semester plus 3 semesters of co-operative education placement (co-op)

Total Program Hours:

- 1876 hours plus 80 hours of field placement for a total of 1956 hours or
- 1876 hours plus 1260 hours Co-operative Education experience for a total of 3136 hours

Number of New Full-Time Faculty: One new full-time faculty in year one

Space Requirements: Renovations for spaces at the Whitby Campus in the amount of $150,000 shared between the Civil Engineering Technician diploma and Civil Engineering Technology advanced diploma.

Capital Costs: Capital costs estimated at $600,000 for years one and two shared between the Civil Engineering Technician diploma and Civil Engineering Technology advanced diploma.

Proposed Tuition: $3,024.51 per year (two semesters)

1. Approval Stages

The following approval stages have been assessed for this program:

- Labour Market
- Student Demand
- New Program Proposal Document reviewed by the Manger, Program Development and Quality Assurance and Dean
- Budget reviewed by Manager, Planning and Reporting; Manager, Program Development and Quality Assurance and Dean
- Budget approved by Chief Financial Officer and Vice-President, Academic

- Reviewed by Program Proposal Review Committee – December 14, 2016
- Approved by Vice-President, Academic
- Approved by Credentials Validation Service
- Reviewed by President

2. Program Overview

2.1 Program Description

Civil Engineering influences almost every aspect of modern human life. Much of the physical infrastructure of modern society is provided through Civil Engineering. Students in the Civil Engineering Technology advanced diploma program will learn how to plan, design, construct, maintain and recycle the structures in communities such as dams, bridges, roads, buildings, pipelines, railways and tunnels. Civil engineering is also responsible for the design, construction and maintenance of critical infrastructure elements which keeps communities functioning, such as transport systems, wastewater treatment, gas, water and electricity supplies. Graduates of the Civil Engineering Technology program carry out design and technical functions related to a broad range of civil engineering fields including structural, municipal, highway and transportation engineering, water resources, geotechnical engineering, environmental protection and infrastructure rehabilitation.

2.2 Work Integrated Learning: Co-operative Education (co-op) or Field Placement

Students enrolled in the Civil Engineering Technology advanced diploma program will have the option of participating in one of two work integrated learning experiences. The Co-operative Education (co-op) option is available to students who meet the eligibility requirements that consists of three co-op terms:
- The first one-semester co-op will occur after semester two (420 hours) in spring/summer (May-August)
- The second two-semester (840 hour) co-op term will be completed in the spring, summer and fall months (May to December) following semester four.
- Students will resume classes to complete semesters five and six starting in the winter through the spring and summer months (January to August).

The alternative option is an 80 hour field placement (typically unpaid) for students who do not meet the co-op eligibility requirements or who are not able to secure a co-op opportunity. The field placement must be completed before graduation. This group of students will follow a more traditional program of studies and complete semesters five and six in the fall and winter months (September to April).

The table below demonstrates the flow of the program of studies by semester and work term for the Civil Engineering Technology advanced diploma program.

	Fall	Winter	Spring / Summer	Fall	Winter	Spring / Summer	Fall	Winter	Spring
Technology Co-op option	Sem 1	Sem 2	Coop (420 h)	Sem 3	Sem 4	Co-op (420 h)	Co-op (420 h)	Sem 5	Sem 6
Technology Field Placement	Sem 1	Sem 2	------	Sem 3	Sem 4	Field Placement	Sem 5	Sem 6	Or Field Placement

2.3   Career Outcomes

As members of a civil engineering or multi-disciplinary team, graduates facilitate the interaction among a range of project stakeholders to contribute to the accomplishment of civil engineering project goals in accordance with project plans, workplace health and safety practices, sustainability practices and all applicable laws, codes, industry standards and ethical practices.

Graduates of the Civil Engineering Technology advanced diploma program work in a range of employment settings including consulting engineering firms, civil construction and surveying firms, quality control facilities and municipal government engineering or operations departments. Graduates are typically employed in entry-level positions in the field as municipal design technologists, structural design technologists, pavement/geotechnical technologists, material testing technologists, construction inspectors, estimators or technical representatives.

2.4.   Vocational Program Learning Outcomes

Vocational program learning outcomes must be consistent with the requirements of the Credentials Framework for the proposed credential. As per the Civil Engineering Technology Program Standard, the graduate has reliably demonstrated the ability to:

1.   Develop and use strategies to enhance professional growth and ongoing learning in the civil engineering field.
2.   Comply with workplace health and safety practices and procedures in accordance with current legislation and regulations.
3.   Complete duties and monitor that work is performed in compliance with contractual obligations, applicable laws, standards, bylaws, codes and ethical practices in the civil engineering field.
4.   Promote and carry out sustainable practices in accordance with contract documents, industry standards and environmental legislative requirements.

5. Facilitate the collaboration and interaction among the project team and project stakeholders to support civil engineering projects.
6. Collect, process, analyze and coordinate technical data to produce written and graphical project-related documents.
7. Use industry-specific electronic and digital technologies to support civil engineering projects.
8. Participate in the design and modeling phase of civil engineering projects by applying engineering concepts, technical mathematics and principles of science to the review, production and/or modification of project plans.
9. Contribute to the scheduling and coordination and cost estimation of civil engineering projects and monitor their progression by applying principles of construction project management.
10. Coordinate and perform quality control testing and evaluate equipment, materials and methods used in the implementation and completion of civil engineering projects.
11. Apply teamwork, leadership, supervision and interpersonal skills when working individually or within multidisciplinary teams to complete civil engineering projects.

2.5 Admission Requirements

Ontario Secondary School Diploma (OSSD) or Mature Student Status with:
- Grade 12 English (C or U)
- Grade 12 Mathematics: MCT4 (C) or Grade 11 Mathematics: MCR3 (U)

Recommended:
- A course in Technological Designs
- Grade 12 Physics

3 Program of Study

3.1 Drafting and CAD I for Civil – Semester 1

This course consists of two parts. The first part deals with the techniques and standards required to communicate graphically. Students will learn sketching of orthographic and isometric views, geometric constructions, sectional views, lettering, dimensioning and scaling as part of the drafting component. In the second part, students will learn basic AutoCAD skills and its use in preparing Civil/Structural working drawings. 42 hours

3.2 Construction Materials and Testing – Semester 1

Students examine and study the common construction materials, site variables and construction processes relating to house construction as influenced by environment and energy efficiency standards. The course provides a basic knowledge of the terminology, the physical and chemical properties of materials,

their manufacturing and fabrication processes, embodied energy, typical installation methods, efficiency of utilization and organization in a construction, repurposing or renovation project. Also, the materials and products are evaluated in relation to their appropriateness as affected by their durability, performance, sustainability and energy conservation. Metals, wood, concrete, masonry and plastics, thermal insulations, insulating concrete forms, doors, and windows are among the materials reviewed. Students are introduced to Energy Star system, R2000 and LEED for Home standards and study basic issues of sustainable construction. 56 hours

3.3 Applied Engineering Principles – Semester 1

This course analyses the static forces and moments that are created in a variety of structures due to externally applied forces. Topics include loads on structures, simple stresses, and shear forces, bending moments, flexural stresses, shear stresses, deflections and column theory. Emphasis is placed on a problem solving approach using mathematical and calculator methods combined with free body diagrams and sketches. Structural analysis software will be used to demonstrate the mathematical solutions in the classroom. 42 hours

3.4 Surveying Principles – Semester 1

In this first surveying course, students are required to measure, record, and draw to scale.   Students will use various surveying instruments and equipment such as levels, tapes, transits/theodolites, and total stations to determine distances, angles and elevations. Various survey methods and their applications will be covered, as well as relevant calculations on the field data. 42 hours

3.5 Mathematics for Civil Engineering I – Semester 1

The purpose of this course is to refresh and upgrade existing mathematical skills such as algebra, geometry, trigonometry, SI and Imperial units, and solve a variety of measurement problems. Students study properties of lines and angles. They calculate the perimeter, area of basic geometric figures, the surface area, and volume of solid geometric figures with examples in civil engineering. Students manipulate trigonometric functions of acute and obtuse angles and solve problems. 56 hours

3.6 Technical Writing and Communications I – Semester 1

This is a general communications and technical writing course specially designed for the Civil Engineering program. 42 hours

3.7 General Education – Semester 1 – 45 hours

3.8 Mathematics for Civil Engineering II – Semester 2

Students develop problem solving skills by applying topics of study to related practical problems. Topics of study include: quadratic equations; systems of linear equations in two and three unknowns; trigonometric functions and polar coordinates; exponents and radicals; direct and indirect variation; complex numbers; exponents and logarithms; and analytical geometry. Students use Microsoft Excel to solve equations and for graphing. 70 hours

3.9 Communication for Career Development – Semester 2

In this course students will develop strategies for ongoing personal and professional development to enhance work performance in a multi-disciplinary workplace. This career development course will allow students the opportunity to consider pathways and professional development related to their program of choice. 42 hours

Or

3.10 Co-op and Career Development – Semester 2

This course prepares students for job searching for their co-op work term and for post-graduate careers. Students will reflect on their skills, attitudes, and expectations and evaluate and interpret available opportunities in the workplace. Self-marketing techniques using resumes, cover letters, networking, social media, and interviewing will be learned and practiced. Students will learn the industry practices, expectations and how to manage technology in the hiring and selection process along with regulations that apply in the workplace with regards to social, organizational, ethical, and safety issues while developing an awareness of self-reflective practice. 42 hours

3.11 Drafting and CAD II for Civil – Semester 2

This course is a continuation of Drafting and CAD I for Civil. The student's knowledge of AutoCAD commands and techniques will be enhanced through further AutoCAD instruction. Tips, tricks and advanced techniques are discussed to improve drawing speed and efficiency. Students develop more complex civil engineering drawings for design and construction. Students also use AutoCAD Civil 3D software. Students will focus on coordinate geometry, alignments, corridors, surfaces, profiles, and the tool space (prospector and settings). 42 hours

3.12 Strength of Materials – Semester 2

Students learn about the importance of understanding how materials react to the environment in which they are used. This introductory theory course lays the necessary foundation for the more advanced structural design courses. The internal axial load, shear and bending moment on simple structural members is studied. The effects are expressed quantitatively in terms of stress and strain. Students assess the adequacy of typical members, such as beams, columns and shafts to theoretically predict various failure modes in these members. Students carry out a number of experiments that help them to understand and visualize how structural materials behave under various loading conditions. 56 hours

3.13 Hydrology and Hydraulics – Semester 2

This course is an introduction to topics such as basic physical principles pertaining to fluid velocities and the relationship between force, pressure, and areas. Schematic diagrams, hydraulic symbols, pumps, actuators, valves, fluid conductors, and all related control functions will be covered. Students will learn analytical techniques pertaining to the design of various hydraulic structures such as sewers, water distribution systems and open channels. Hydrology for hydraulic design will also be introduced. 56 hours

3.14 Advanced Surveying – Semester 2

This course introduces students to advanced survey techniques for civil design and construction. The students get hands-on experience with total stations and data collectors to capture and process digital field data. Students will develop skills associated with circular curves, setting line and grade, cross-section, slope staking, building layouts, and municipal surveys. An introduction to Global Positioning System (GPS) and terrain modelling will be provided. At the end of this course, students will be able to perform total station instrument setups, checks and calibration. 56 hours

3.15 General Education – Semester 2 – 45 hours

3.16 Co-op I – Spring / Summer

Students will have the opportunity to gain valuable skills in the workforce by completing a co-operative education (co-op) experience. Students who qualify for the co-op will complete a four-month paid work term after the second year of their program. 420 hours

3.17 Geographic Information Systems (GIS) – Semester 3

This course is an introduction to the Geographic Information Systems (GIS). Topics include basic geographic data such as location, coordinate systems, and thematic mapping. Students will learn use in GIS software in creating geographic data, quarry and manipulate data and analyze spatial and tabular data. 42 hours

3.18 Water and Wastewater Technology – Semester 3

Students are introduced to water and wastewater technology including principles and construction procedures. They study design concepts for community piped storm and sanitary sewer systems, water treatment principles, waste water treatment principles and storm water management. This course also explores the Private Sewage Disposal Systems for sewage not connected to sewers. 56 hours

3.19 Steel and Wood Technology – Semester 3

This course focuses on two main areas, steel structures and wood structures. In the first part students are exposed to the practical steel structures, properties and designs. Students design steel structures by following the Canadian steel structural code- Canadian Standards Association, (CSA) S16-09. In the second part, students learn various design engineered wood structures that conform to the CSA-O86-14 code. Other topics, including safety considerations in fabricating and erecting structures will be discussed. 56 hours

3.20 Soil Mechanics – Semester 3

This course introduces the basic principles of soil mechanics and testing procedures through lectures, problem-solving sessions, and laboratory demonstrations. Topics include mass/volume relationships, soil classification, compaction, and permeability. Students will calculate volume-weight relationships for soils, classify soils using the Unified Soil Classification System, describe compaction and in-place soil density tests and solve applied problems dealing with soil permeability. Students will also conduct laboratory compaction tests, in-situ density tests, and field compaction control. 56 hours

3.21 Construction Site Supervision and Management – Semester 3

This course will use practical examples and industry standard techniques to examine all facets of managing construction jobsites from a contractor's point of view, including the specific duties handled by the superintendent and the interactions with the project manager and other members of the construction team. The lifecycle of a project will be studied - from the configurations of a project team to project closeout. A dedicated focus on the activities of jobsite personnel includes helpful techniques and procedures for effectively managing a project jobsite from start to finish. 42 hours

3.22 General Education – Semester 3 – 45 hours

3.23 Civil Project Estimating – Semester 4

Students study the basic principles of project scoping, input requirements, and costing for a modest sized construction project. The course covers general principles of measurement and pricing of construction work, focusing on sound estimating procedures and defining cost estimates throughout the project life cycle. The course emphasizes specific methods of measurement, estimating forms, earthwork, masonry, above-grade concrete, wood frame, and structural steel work items. The concepts surrounding potential cost escalation factors are studied. 42 hours

3.24 Concrete and Masonry Design – Semester 4

This course will provide the student with an understanding of behaviour and design of reinforced concrete and masonry products based on the latest National Building Code of Canada (NBCC) and Concrete Design handbooks. Students will design simple reinforced concrete and masonry structures in accordance with Canadian Standards Association, (CSA - Concrete Structures and Masonry Structures). Awareness in potential risks dealing with concrete structures will be emphasized in this course. 56 hours

3.25 Municipal Services – Semester 4

Students will become familiar with planning and designing municipal infrastructures. Topics include drainage and sewerage systems with particular emphasis on the topics of roadways and lot layout, hydraulic and structural design of storm and sanitary sewers, lot and pavement drainage, installation, field testing and inspection. It will include the preparation of related drawings using the AutoCAD computer drafting program.56 hours

3.26 Quality Control and Quality Assurance in Civil Works – Semester 4

Quality Assurance and Quality Control are extremely important aspects of any construction project without which successful completion of the project can't be imagined. The course covers general Quality Assurance (QA), Quality Control (QC) Policy, and QA/QC Manager's Responsibilities. Students will learn about the following topics: Site Procedures, Inspection and Testing, Quality Control – Civil, Inspection Planning, Material Procurement and Storage, Procurement Process, Civil Materials Storage and Quality Control Planning, and Concrete Mixing and Testing, Layout of the works, Works by subcontractors, Reinforcing steel, Civil QC Records and Reports, QA/QC Meetings, and QA/QC Reviews. 42 hours

3.27 Pavement Engineering – Semester 4

This course focuses on three areas of pavement engineering. The first part teaches the various types of pavements and their properties. The second part deals with the design of rigid and flexible pavements by following the American Association of State Highway and Transportation Officials (AASHTO) and Ministry of Transportation –Ontario (MTO) guidelines. Finally students gain knowledge on pavement evaluation and pavement maintenance. 42 hours

3.28 Geotechnical Design – Semester 4

Soil testing is an important procedure usually conducted by a geotechnical technologist in order to determine the workability of the soil that is to be located beneath a structure. In this course students design and analyze shallow and deep foundations for support of structures, and select foundation types based on soil conditions. Students will learn various types of soil tests and methods of foundation inspection before, during and after the construction phase. 56 hours

3.29 Co-op II and Co-op III – Spring / Summer / Fall

Students will have the opportunity to gain valuable skills in the workforce by completing a co-operative education (co-op) experience. Students who qualify for the co-op will complete an eight-month paid work term after the second year of their program. 840 hours

Or

3.30 Field Placement (Non-Co-op Option: Spring/Summer)

The Field Placement is an important component of the curriculum where students have the opportunity to work in their field of study prior to graduation. 80 hours

3.31 Highway and Transportation Engineering I – Semester 5

This course will introduce students to basic transportation and traffic engineering technology, including road classification and design according to Canadian standards and guidelines. The student will apply the practical aspect of road design elements such as the sight distances, super-elevation, horizontal and vertical alignment as well as rigid and flexible pavement design. 56 hours

3.32 Principles of Project Management – Semester 5

This course provides the background for students to plan, organize, and manage resources to enable the successful completion of a specific project. Bringing a project in on schedule, on budget and up to design standards are key components of the course, which includes discussion of the skills, tools, and

techniques needed to manage projects successfully throughout a project lifecycle. Students develop a project schedule using project management software and assist with processing of change orders, progress, and final billings, in accordance with contract provision. Students will apply cost control practices, assist with planning, sequencing, phasing and scheduling of work for projects, assist in preparing project status reports, facilitate and report on building project meetings and monitor contract compliance and closing. Safety plans compliant with the Ontario Health and Safety Act will be an important component of the course. 42 hours

3.33 Building Information Modelling I – Semester 5

The main objective of this course is to familiarize students with the tools needed to create a model and to document a project using Revit structure. The course will cover the basic principles of Revit Structure Technology and the Building Information Modeling (BIM). Revit structure 2017 will be demonstrated with extensive hands-on experience in a computer lab. Different topics will be covered such as the advantage of BIM, Revit interface, modeling tools, and building structure elements including columns, beams, beam systems, floors, Foundation, reinforcement, Toposurface, annotations, detailing, sheets and printing. 42 hours

3.34 Civil Engineering Codes and Regulations – Semester 5

This course is designed to familiarize students with the concepts and details of the Ontario civil engineering standards and regulations in Canada. Students will be exposed to the Ontario Building Code (OBC), the Canadian Highway Bridge Design Code (S6-14), and some relevant aspects of Ontario Provincial Standards for Road and Public Works. Group assignments will be set to study the codes and their relevance in various civil projects. 42 hours

3.35 Calculus – Semester 5

This course covers topics relating to both differential and integral calculus. Throughout the course, emphasis is placed on the student realizing that calculus offers a significantly different way of looking at many of the math equations which describe the natural world. In differential calculus, this is achieved by investigating the significance of the slope of a curve, primarily for algebraic expressions, and how this knowledge can help clarify the relationship between variables such distance, velocity and acceleration. In integral calculus, the significance of the area under a curve is explored, in particular, its application to motion, areas, and volume problems. 42 hours

3.36 Environmental Engineering and Assessment – Semester 5

The aim of this course is to teach civil engineering students the importance of developing sustainable projects. This course consists of three parts. The first part covers topics such as energy conservation, measures that can be incorporated in building design to reduce its environmental impact, use of sustainable building practices, and measures to mitigate noise pollution. Integral to this course is the application of mathematical concepts. The second part provides instruction on environmental planning. The key study areas will include: the basic philosophy of planning; the current and forthcoming guidelines in planning, particularly regarding the environment; techniques to assess the environment for planning purposes; and specific design considerations to ensure environmental sustainability. The third part provides instruction on conducting introductory phase Environmental Site Assessments for the clean-up and redevelopment of former industrial sites and their conversion to residential or commercial use. 56 hours

3.37 Pre-Civil Capstone Project – Semester 5

The course will develop research techniques, a better understanding of intellectual property, project management and the structure of the final project and project report required in the sixth semester. Students will decide on the vision of the project, as a team of four to five members and write the details of the project proposal. 42 hours

3.38 Building Information Modelling II – Semester 6

This is an advanced level Building Information Modelling (BIM) course designed for students who are familiar with the basics of Revit structure. The purpose is to master advanced techniques in 3D modelling, custom content creation, developing design options in structure model, phasing, work sharing, using massing tools, presentation and documentation. 42 hours

3.39 Introduction to Human Resource Management – Semester 6

This course introduces students to the management aspects of Human Resources. Specific focus is on the factors that affect the overall atmosphere in the workplace and which contribute to an environment conducive to maximum productivity. Students will be introduced to effective strategies for hiring, motivating, managing, and retaining staff. Students will study the following topics: the strategic importance of Human Resources and the role of the Human Resources Manager; competitive challenges facing Human Resources; job analysis and design; Human Resources planning; recruitment and selection; health and safety; and employee rights and discipline. 42 hours

3.40 Repair and Rehabilitation of Civil Infrastructure – Semester 6

The course equips students with appropriate technical skills for management and maintenance of civil infrastructures. Students learn causes, mechanisms, detection and assessment of damages in civil structures; repair materials and techniques for damaged structures; long term protection and maintenance strategies; repair effectiveness and cost comparisons; life-cycle cost analysis. Additional topics will be explored in the area of trenchless technologies for underground utility system maintenance such as horizontal directional drilling, micro tunnelling, pipeline assessment, pipe bursting, and rehabilitation. 42 hours

3.41 Contract Law and Ethics – Semester 6

This course is an introduction to the principles of contract law as they relate to the construction industry. The various types of construction contracts and bidding documents are introduced and examined. This subject builds upon the principles of contract law and introduces standard forms which are used in the construction industry and issued by the Canadian Construction Documents Committee and the Canadian Construction Association. 42 hours

3.42 Civil Capstone Project – Semester 6

This is a capstone project course, offered in the final semester of the Civil Engineering Technology program to demonstrate mastery of the subject matter. The student plans, designs, presents and documents a technical project. A team-based approach by professors and support staff ensures that the student can consult frequently with appropriate subject matter experts on the various aspects of the project. The student produces a report that is intended to help meet the report writing requirement for certification as a Certified Engineering Technologist under Ontario Association of Certified Engineering Technicians and Technologists (OACETT). Students can select a theme for their project with consultations with their professors and also the participating industry partners. 70 hours

3.43 Highway and Transportation Engineering II – Semester 6

This subject covers the techniques used in the design and construction of highways. Topics include road classifications, sight distances, circular and spiral curves, super elevation, profile design, cross section design, quantity take-offs and costs estimates, introduction to intersections and interchanges. This course will focus on the design theory, emphasizing related geometry, industry conventions and agency standards. A comprehensive design project lab is carried out to introduce industry related Computer Aided Drafting and Design (CADD) software applications and to reinforce the lecture concepts. 56 hours

4. Strategic Alignment

4.1 Strategic Fit

With the growing infrastructure needs of the Durham Region and the province, the launch of this program is timely. Durham College will work closely with local industry partners to foster the program ensuring graduates meet the needs of employers and to ensure there are numerous field placements and co-op opportunities for the students. This program supports Durham College's commitment to ensuring meaningful work integrated learning experiences by incorporating an optional co-op education component (1260 hours) for eligible students or a mandatory (80 hours) field placement.

This advanced diploma program will also create potential new pathways for graduates to pursue further education within the province and abroad. The college will investigate degree completion pathways with institutions offering degree credentials including McMaster's Bachelor of Technology, Civil Engineering Infrastructure Technology program. George Brown College offers an Honours Bachelor of Technology (Construction Management) four-year degree that offers block transfer to Civil Engineering Technology graduates. This pathway option will also be investigated.

This new program also aligns with Durham College's Strategic Mandate Agreement (SMA) which has committed to designing programs in areas of strength including the sectors of Skilled Trades, Technology and Construction. This new program was designed to provide graduates with the technical and theoretical knowledge and skills in civil engineering in order to be successful in the workplace thus fulfilling the SMA's mandate.

4.2 Fit with Existing Programs

The proposed Civil Engineering Technology program is well suited to Durham College's current mix of technology programs in the School of Science & Engineering Technology. The Architecture Technician and Technology programs provide the foundation for introducing the Civil Engineering Technology program to the college.

It is also a great addition to the programs in the School of Skilled Trades, Apprenticeship & Renewable Technology. Graduates from the Building Construction Technician, Heating, Ventilation and Air Conditioning Techniques (HVAC), and Crane Operation, Rigging and Construction Techniques programs may wish to pathway into the Civil Engineering Technology advanced diploma recognizing the strong alignment to the industry.

5. Labour Demand and Graduate Employment Possibilities

- Civil engineers, most of whom work in the architectural, engineering and related services industry, are in greatest demand of all engineering occupations. Predictions for employment in Ontario indicate a need of approximately 13,000 civil engineers between now and 2025, with 700 new civil engineers needed each year until 2019 to meet expansion and replacement needs.

- Although projections are reported for civil engineers, it is expected that a similar demand will exist for civil technicians and technologists. This expectation exists because of the overlapping skills between the three occupations, and the high level of retirement creating a laddering down of job openings, essentially creating an influx of opening for technicians and technologists.

- When combined with the amount of money being spent on infrastructure improvement in Canada ($125B over the next ten years), both technicians and technologists will likely experience consistent employment for the short and long term periods.

- Employment opportunities for Civil Engineering Technologist and Technician are heavily dependent on public and private infrastructure investments. The employment outlook is expected to be good in Ontario.

- Economic growth in Ontario, is projected to strengthen between now and 2019. The major drivers of growth in investment in the province are significant investments in electric power capacity across the province and mining investment in the North. Increases in manufacturing exports drive the growth in Ontario's exports and manufacturing investment as additional capacity is required to produce the exports (Engineers Canada, 2015).

- The employment outlook to 2020 is expected to be good in Ontario. Employment prospects for this occupation are related to public and private infrastructure investments. Infrastructure spending by various levels of government during the forecast period may generate opportunities in this occupation. In addition, enhancements to the New Building Canada Fund will support infrastructure spending in various communities in Ontario over the next few years.

- Wages for Civil Engineering Technologists and Technicians is above average and is average for Construction Estimators.

- Civil engineering employers are largely centralized in the Toronto, York and Peel areas. However, there is a large number of architectural, engineering and related service employers within the Durham Region, the most relevant industry for these programs.

- As outlined in the environmental scan prepared by Durham College's Institutional Research and Planning team, program graduates are finding related employment in this industry. The table below summarizes 2015-16 outcomes for graduates of the Civil Engineering Technology program in

Ontario. Results are based on the Key Performance Indicator (KPI) Graduate Satisfaction Survey for 2014-15 graduates, administered six months after graduation.

2015-16 Outcomes for Civil Engineering Technology Program Graduates (MTCU 61003) in Ontario

Outcome	Civil Engineering Technology	All Programs
Total Graduates	648	97,639
% of Graduates in Survey	50-55%	45-50%
Graduate Satisfaction	80-85%	75-80%
Labour Force Participation[1]	75-80%	70-75%
Employment Rate	85-90%	80-85%
Employed Full-Time	75-80%	60-65%
Average Annual Income (Full-Time)	$40,000-$44,999	$35,000-$39,999
Employed Full-Time (Related/ Partially Related)	65-70%	40-45%
Average Annual Income (Related Employment)	$45,000-$49,999	$35,000-$39,999
Unemployment Rate	10-15%	15-20%

Table 1: *Program Graduate Outcomes. Information Source: MTCU Employment Profile*

- Graduates from this program fare much better than the provincial average. More specifically, employment, full-time and full-time related, is roughly 15-20% higher than the provincial average. Wages earned are also distinctly higher.

6. Student Interest

- There are currently 16 colleges in Ontario's CAAT college system offering a post-secondary program in Civil Engineering Technology (MTCU 61003).The table below displays system-wide applications, first choice applications and confirmed acceptances to the Civil Engineering Technology programs in Ontario.

---

[1] Graduates who were either employed or looking for work during the reference week.

Applications and Confirmations	2012-13	2013-14	2014-15	2015-16	2016-17
Total Applications	3,363	3,632	3,731	3,682	3,974
First Choice Applications	1,085	1,175	1,155	1,160	1,247
Confirmed Acceptances	763	932	908	981	1,052
Number of Programs	13	13	14	15	15
Avg. conf./program	59	72	65	65	70

Table 2. Total applications and confirmations. Source: OCAS Data Warehouse, accessed September 2016

- On average, applications to the Civil Engineering Technology programs have increased over the reporting period. Confirmed acceptances have increased by almost 150% over the five year period.
- Over the reporting period, with the exception of the 2015-16 year, approximately eighteen students per year from the Durham College catchment area confirmed their acceptance to Civil Engineering Technology programs at other Ontario CAAT colleges for the fall intake.

7. Analysis of Competition

The table below presents the colleges within the Eastern region and select colleges in the Central region currently offering the Civil Engineering Technology program (MTCU 61003).

College	Civil Engineering Technology (MTCU 61003)
Algonquin	Civil Engineering Technology
Fleming	n/a
La Cite	Civil Engineering Technology
Loyalist	Civil Engineering Technology
St. Lawrence	Civil Engineering Technology
Centennial	n/a
George Brown	Civil Engineering Technology
Humber	Civil Engineering Technology
Seneca	Civil Engineering Technology

Table 3. Similar Programs at Other Colleges

8. Target Market

The target market for this program is domestic and international students, students directly out of high school, and mature students.

9. Operating Revenue and Expenses

9.1 Capital Requirements

The following list captures the shared equipment and computer hardware and software costs for the Civil Engineering Technician diploma and the Civil Engineering Technology advanced diploma programs.

Equipment Item	Cost	Year Required
Soil and Geotechnical Equipment	$100,000	Year 1, 2 and 3
Surveying Lab Equipment	170,000	Years 1, 2 and 3
Structural/Concrete Lab and Transportation Equipment	$200,000	Years 1, 2 and 3
AutoCAD Computer Hardware and Software (ANSIS, InfoWater, Info sewer, AutoCAD and Arc GIS)	$87,000	Year 1
Total	**$557,000**	

9.2 Budget Projection Summary

The following tables summarize the net contribution for the Civil Engineering Technology program. The first table reflects the contribution for the co-op delivery option, the second table represents the field placement option, and the third table displays the contribution for all students enrolled in the Civil Engineering Technician and Civil Engineering Technology programs.

9.2.1 Civil Engineering Technology Advanced Diploma: Co-op Option

Student Enrolment	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Year 1	30	30	30	30	30
Year 2	0	28	28	28	28
Year 3	0	0	26	26	26
Total	30	58	84	84	84

Net Contribution	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Total Direct Program Expenses	139,175	269,781	336,421	346,221	356,314
Total Revenue For Program	250,941	489,889	730,080	737,357	744,853
Net Contribution $	111,766	220,108	393,659	391,136	388,539
Net Accumulated Contribution / (Deficit)	111,766	331,874	725,533	1,116,669	1,505,208
Net Contribution - % of Gross Revenue	44.5%	44.9%	53.9%	53.0%	52.2%
Target Net Contribution	n/a	Breakeven	40.0%	40.0%	40.0%

9.2.2 Civil Engineering Technology Advanced Diploma: Field Placement Option

Student Enrolment	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Year 1	10	10	10	10	10
Year 2	0	9	9	9	9
Year 3	0	0	8	8	8
Total	10	19	27	27	27

Net Contribution	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Total Direct Program Expenses	47,320	91,726	114,383	117,715	121,147
Total Revenue For Program	83,647	160,481	230,323	232,662	235,071
Net Contribution $	36,327	68,755	115,940	114,947	113,924

Net Contribution	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Net Accumulated Contribution / (Deficit)	36,327	105,083	221,023	335,970	449,894
Net Contribution - % of Gross Revenue	43.4%	42.8%	50.3%	49.4%	48.5%
Target Net Contribution	n/a	Breakeven	40.0%	40.0%	40.0%
Capital Requirement	92,833	92,833	92,833	0	0

9.2.3 Civil Engineering Technology Advanced and Diploma Civil Engineering Technician Diploma: Combined Enrollment

Student Enrolment	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Year 1	60	60	60	60	60
Year 2	0	55	55	55	55
Year 3	0	0	34	34	34
Total	**60**	**115**	**149**	**149**	**149**

Net Contribution	2018-19 Projection	2019-20 Projection	2020-21 Projection	2021-22 Projection	2022-23 Projection
Total Direct Program Expenses	278,350	539,563	672,840	692,441	712,629
Total Revenue For Program	501,882	976,011	1,289,240	1,302,149	1,315,445
Net Contribution $	**223,532**	**436,449**	**616,400**	**609,708**	**602,816**
Net Accumulated Contribution / (Deficit)	223,532	659,981	1,276,381	1,886,089	2,488,905
Net Contribution - % of Gross Revenue	44.5%	44.7%	47.8%	46.8%	45.8%
Target Net Contribution	n/a	Breakeven	40.0%	40.0%	40.0%
Capital Requirement	92,833	92,833	92,833	0	0

Public Report

Report Number: BOG-2017-79

To: Board of Governors

From: Don Lovisa, President

Date of Report: April 20, 2017

Date of Meeting: May 10, 2017

Subject: 2017-2018 Business Plan

1.   Purpose

The purpose of this report is to provide the Board of Governors the 2017-2018 Business Plan.

2.   Recommendations

It is recommended to the Durham College Board of Governors:

That pursuant to Report BOG-2017-79 the 2017-2018 Business Plan be approved.

3.   Background

Consistent with the Board of Governors' Board Policy and expectations of the Minister's Binding Policy Directive for Business Plans, the college President is required to bring business plan reports to the Board of Directors throughout the year. This is the final of three reports to be shared with the Board of Governors.

The Business Plan allows Durham College to plan its operations for the fiscal year within the framework outlined in its Strategic Plan and in support of its mission, vision and values. The Business Plan identifies to the public and provincial government the operational outcomes the College expects to achieve in the fiscal year. The Ministry of Advanced Education and Skills Advancement uses the information provided in college business plans for government planning and policy-making.

The business plan was developed with input, direction, review and guidance representing all departments and areas of operation on campus, led by the Durham College Leadership Team. Upon approval, the business plan will be published and submitted to MAESD.

4. Discussion/Options

The following describes the business objectives across the four pillars in the 2017-2018 Business Plan.

The accompanying 2017-2018 Business Plan Scorecard describes in detail the actions and measures that will support reporting on the progress of the plan over the fiscal year. The Board will receive three updates on the progress of the business plan over the course of the year. The objectives driving measureable actions are as follows:

4.1 Our Students
- Implement recruitment and enrolment strategies that achieve DC established targets
- Support program development and excellence
- Expand access to quality student services
- Deepen alumni engagement and recognition to strengthen lifelong relationship with DC students

4.2 Our People
- Support employee development

4.3 Our Business
- Renew Strategic Mandate Agreement
- Provide college system leadership
- Implement OSAP and Net Tuition
- Capital projects
- Information technology projects
- Support effective college governance
- Support effective board governance
- Financial sustainability
- Sustainability of communities

4.4 Our Community
- Support partners in reaching their community goals
- Advance applied research partnerships
- Complete 50th anniversary celebrations
- Grow, retain and engage our donor base
- Enhance DC's community profile through Corporate Council
- Support DC student advocacy

5.   Financial/Human Resource Implications

There are no financial or human resources implications at this phase of the Business Plan.

6.   Implications for the Joint Campus Master Plan

Implications for Joint Campus Master Plan include:

- Simcoe Village Residence under-utilization strategy

7.   Implications for UOIT

Implications for UOIT include:

- DC-UOIT Strategic Fund
- Centre for Collaborative Education Capital Campaign
- Simcoe Village Residence under-utilization strategy

8.   Relationship to the Strategic Plan/Business Plan

The 2017-2018 Business Plan aligns with the new 2017-2020 Strategic Plan launched May 4, 2017 at the DC Employee Town Hall.

2017-18 Business Plan Scorecard

OUR STUDENTS

Goal: To provide students with the best possible learning experience. We will:
- Deliver high-quality programs to help students develop a wide range of career-ready skills.
- Expand flexible, experiential and global learning opportunities.
- Support students' wellbeing with a focus on adaptability and resilience.
- Build lifelong relationships with students.

Objective	Action	Measurement
1.Implement recruitment and enrolment strategies that achieve DC established targets	• Increase domestic enrolment target.	• Post-secondary student domestic enrolment will increase in selective areas, by approximately 210-415 students over the three semesters in 2017-18 from an average headcount* of 20,770 students to 20,975 – an overall increase of 2%.
	• Increase international enrolment target.	• Post-secondary student international enrolment will increase in selective areas by approximately 405 students over 3 semesters in 2017-18 from an average headcount* of 1524 to 1935 – an overall increase of 27%.
	• Diversify international student recruitment by strengthening recruitment activities in the following countries and areas: Russia, Brazil, East Africa, Central America, Indonesia, Philippines and Vietnam.	• Growth in the number of countries represented on campus by international students by 5% (from 54 countries).
	• Implement system functionality to support the school of Continuing Education (CE) students in declaring their post-secondary program of choice at the time of registration.	• Project scope, time, budget and milestones confirmed to achieve 100% system functionality.

(*) Durham College reports on full time students under headcount. Headcount is the total of 3 semesters.

DC receives funding based on FTEs (Full-Time-Equivalent, and FTE count includes full-time and part-time students).

The projected 2017-18 FTEs is 13,875 for the fall 2017 semester (compared to a budget of 9,561 headcount for the same period).

Objective	Action	Measurement
	• Implement system functionality to support Corporate Training Services (CTS) customers with the ability to register for core services and programs.	• Project scope, time, budget and milestones confirmed to achieve 100% system functionality.
	• Develop and implement program-specific marketing strategies to help build awareness and reputation of DC's program quality, ultimately driving an increase in applications for the 2018 and 2019 intakes.	• Launch program-specific online strategy for identified programs. • Increase applications by 5-7% to each identified program (based on funding and program performance). • Increase traffic to identified program pages by 200,000 visits.
	• Implement a program-specific media relations strategy to improve program reputation.	• Develop editorial calendar and faculty expert's guide to proactively seek media relations opportunities. • Increase media engagements by 10%.
	• Complete the website redesign, including the integration of the social ambassador program to drive traffic to program pages to impact applications for each intake.	• Launch website by August 2017. • Launch social ambassador program, with 20 employees in June 2017.

2

Objective	Action	Measurement
	• Embed indigenous studies and knowledge in program curricula in alignment with Truth and Reconciliation Commission (TRC) report with the support of the aboriginal education circle.	• Establish faculty training materials and programs on how to integrate indigenous content within all academic programs identified in the TRC report. • Incorporate indigenous health issues education in nursing courses, and cultural awareness into journalism and media courses as identified in the TRC report

	• Continue launching market-driven programs.	• Implement 5 new post-secondary programs:
		   ○ Massage Therapy,
		   ○ Mechanical Technician-Elevating Devices,
		   ○ Office Administration-Real Estate,
		   ○ Pre-Health Sciences Pathway to Certificates and Diplomas, and
		   ○ Pre-Health Science Pathway to Advanced Diplomas and Degrees.

	• Launch of fully online programs supported by eCampusOntario round 4.	• Lead the development of two fully online programs: eLearning Developer and Data Analytics for Business Decision Making. • Partner in the online development of Nephrology and a computer Engineering Technician bridging program.

3

Objective	Action	Measurement
	• Launch co-operative education programs and continue to explore additional co-op programs to be launched in 2018-19.	• Launch two co-op programs: Fire and Life Safety Technician diploma (School of Justice and Interdisciplinary Studies), and Supply Chain and Operations Management – Business Administration (School of Business, IT & Management). • Continue the development of 8 additional co-op programs for the 2018-19 academic year.

	• Develop and launch degree programs	• Achieve ministry consent to launch the Health Care Technology Management Degree
		• Continue five-year plan for development of 6 degrees:
		  o Bachelor of behavioural science submitted to the ministry spring 2017.
		  o Begin development of third degree paralegal studies for submission 2018-19 fiscal year.

	• Continue advancing entrepreneurship including social entrepreneurship with academic and community partners, e.g. FastStart, Enactus in an effort to provide DC students with a supportive entrepreneurship learning environment.	• To support entrepreneurship, engage 60 students in formal extracurricular entrepreneurship learning, support 20 students to develop, launch and grow their own businesses, and support teams of students in local and cross-jurisdictional events.
	• Build education abroad partnerships and procedures to encourage student and employee exchange, and work integrated learning opportunities in targeted regions.	• Launch three new international partnerships and support 20 - 30 students to participate in education abroad activities. • Develop and implement a new process for International work integrated learning.

4

Objective	Action	Measurement
	• Continue to grow DC's involvement in Education for Employment (EFE) proposals.	• Succeed in two international EFE bids.
	• Develop and launch a refreshed Academic Plan.	• Succeed in launching a refreshed academic plan that integrates with the college's other strategic planning documents and that provides direction to academic matters and initiatives.
	• Continue preparations for OCQAS Audit.	• Submit our list of programs to be considered in the OCQAS Audit.
	• Establish Campus Health Centre new strategic plan to be implemented by new director.	• CHC strategic plan aligns with DC strategic plan.
	• Develop strategic response to student mental health / resilience.	• Revitalize coaching program to focus on strength building and proactive measures through increase in student meetings with coaches during summer Start Strong. Increase numbers from 900 to 1500 participants. • Increase direct staff to student conduct through addition of health educator (July) and full time mental health nurse (August).
	• Increase access to SALS online for weekend flex students.	• Produce 3 videos for "how to access on line supports for health sciences" that will be emailed out to students in the flex programs. The same will be used for Continuing Education students. • Enhance 10 key interactive resources (quizzes used +1700 times a semester).

5

Objective	Action	Measurement
	• Create an inclusive campus environment through the implementation of comprehensive organizational strategies in support of the diverse campus population.	• Policies and procedures implemented and updated according to established protocols (e.g. Sexual Violence, Harassment and Discrimination, All Gender Washroom). • Increased diversity and inclusion initiatives in the form of education awareness campaigns; classroom sessions; On-Line training modules. • Offer social events, conference, and activities supporting diversity. • Implementation of programs in support of TRC report.
	• Explore the development and implementation of a restorative justice program on campus.	• Restorative Justice Survey, Focus Group Sessions; Pilot-Case Studies; Feasibility Report.
	• Develop academic support resources for new programs including degree programs. Identify student needs for academic support for successful degree completion. Research to match timing and content with launch of individual degrees.	• Complete development ready for implementation at start of approved programs. Degree students access supports in numbers that indicate value. Student Satisfaction surveys indicate satisfaction with services provided for degree level programs.
4. Deepen alumni engagement and recognition to strengthen the	• Increase accuracy of alumni database and maintain contact with new graduates for the purpose of fostering relationships.	• Increase the accuracy of the alumni database by 3%, representing 2,280 records. Develop and implement communication plan for new graduates.

6

Objective	Action	Measurement
lifelong relationship with DC students	• Measurably elevate the perceived value of the Durham College Alumni Association to students, alumni, employees and the DC leadership team.	• Review and refresh Memorandum of Understanding between DC and DC Alumni Association. • Increase participation in Backpack to Briefcase by 10%. • Determine new opportunities to grow member satisfaction and develop strategy to grow membership

OUR PEOPLE

Goal: To optimize the experience and expertise of our people and help them make the best possible contribution toward the student experience. We will:

- Improve communication across all levels of the college to better facilitate co-operation, collaboration and a culture of service.
- Continue to grow diversity in our workforce to reflect our student body and community.
- Cultivate and reward employee engagement, creativity and innovation.
- Invest in the professional development and personal wellbeing of our employees.

Objective	Action	Measurement
1.Support employee development	• Revitalize new employee orientation, develop and implement sessions for new managers.	• Monthly orientation for new hires, emphasizing collaboration, customer service, support for the student experience.
	• Implement professional development advisory/communications team to promote professional development and wellness events, solicit input and receive feedback on offerings.	• PD advisory committee meeting bi-monthly, sharing information on upcoming events, providing input for new offerings, resulting in increased employee participation in PD and wellness events.
	• Align college professional development to employee engagement, personal and professional development, enhancing teaching and learning and succession-planning. Support full time employees in completion of degrees that enhance their workplan deliverables.	• 4-6 employees participating in leadership development specific to their individual needs/goals.
	• Research and design a professional development program for middle management.	• Conduct a needs analysis. • Research best practices. • Determine appropriate delivery models. • Source and price delivery agents.

Objective	Action	Measurement
	• Expand professional development sessions and activities offered by the Centre for Academic and Faculty Enrichment (CAFE).	• Increase the number of faculty professional development sessions offered by the CAFE by 10%.
	• Expand mental health first aid for employees. • Celebrate our employees' successes and acknowledge significant milestones and achievements.	• MHFA delivered to all full time faculty and available to part-time faculty. • Recognize and celebrate employee successes, milestones and achievements through annual employee recognition, retirement receptions, acknowledgements at town halls and dialogue session.

9

OUR BUSINESS

Goal: To manage resources responsibly and ensure that we are financially and environmentally sustainable, demonstrate good governance, and are leaders in the support of outstanding teaching and learning. We will:

- Offer quality programs, services and systems that modernize, support and grow our business.
- Maximize resources and processes in all aspects of our business oversight and leadership to achieve financial sustainability.
- Connect our objectives with economic, social and environmental policy perspectives that support the wellbeing of our local, provincial, national and international community.
- Expand our reputation among the local and global community.

Objective	Action	Measurement
1. Renew Strategic Mandate Agreement	• Renew SMA, align with DC strategic plan.	• Negotiate Strategic Mandate Agreement reflecting DC's areas of strength and growth and a college-driven definition of experiential learning.
2. Provide college system leadership	• Provide college system leadership through participation in college and community-related committees and initiatives.	• Number and quality of memberships in key college-related committees and initiatives. • Contribute to meaningful public policy debate and decisions that strengthen the formation of partnerships and greater DC visibility in communities, such as the Ideas Summit.
3. Implement system changes for OSAP and Net Tuition	• Implement OSAP changes with supports to students while accessing financial support that is available to them. • As pilot institution, implement the Ministry's "Net Tuition" initiative within required timelines.	• Achieve Ministry mandate - OSAP and Net Tuition within timelines.

10

Objective	Action	Measurement
4. Capital projects	• Continue Centre For Collaborative Education (CFCE) build.	• CFCE built on time and budget.
	• Implement Simcoe Residence Redevelopment Plan with Funding / Financing from Province: develop redevelopment plan, business plan, financing plan, approvals to Finance and Audit Committee and Board, and commence construction.	• Simcoe Residence Redevelopment Plan approved and implemented with budget.
	• Implement next iteration of the W. Galen Centre For Food (CFF) vision at Whitby Campus.	• CFF plan completed on time and budget.
	• Enhance Whitby Campus through College's 50th Anniversary Commemoration Fund.	• Whitby Campus capital enhancement completed on time and budget.
	• Continue to renovate and enhance Oshawa campus to support continuity in program and services.	• Squash Courts renovation is completed.
5. Information technology	• Upgrade Banner.	• Initial delivery of upgrade test system for Banner Student and Finance. • Delivery of test system for Banner HR and other self-service systems. • Complete user testing. • Go live.

Objective	Action	Measurement

6. Support Effective College Governance	• Review operational policies and procedures due for renewal to ensure they are consistent and compliant with the College's by-laws and ministry binding policy directives.
	
	• Implement an enhanced communication strategy to support employee awareness, adoption and compliance with operational policies and procedures,
	
	• Facilitate support for the Board:
	  o Transition of new members including Board Chair with orientation supports (material, orientation session)
	  o Facilitate timely and comprehensive reporting through committees and Board
	  o Facilitate board member recruitment in support of desired board composition
	  o Facilitate supportive, focussed board culture, such as advising on effective and appropriate meeting procedures through to meaningful board member engagements that contribute to respectful and meaningful dialogue and decision-making
	  o Support the board in achieving its goals.
		• All operational policies due for renewal in 2017-2018 are renewed as scheduled, and reviewed for consistency and compliance with the College's by-laws and ministry binding policy directives
		
		• Board operations supported by relevant, timely information.

Objective	Action	Measurement

	• Implement DC-wide Records Management Best Practices:
	  o The Office of the President, Strategic Enrolment Services, the International Office and 4 Academic Schools (BITM, HCS, JES, MAD, SET) will have standardized record naming conventions, shared drives organized according to Common Records Schedule file classifications and receive training (capacity development) to support the transition into the long term.
	  o Strategic Enrolment Services, the International Office and 4 Academic Schools will have begun utilizing Banner Document Management and Banner Document Retention software and have received training (capacity development) to support the transition into the long term.
		• 1/3 of DC will be brought into compliance with records management best practices.

13

Objective	Action	Measurement

7. Support Effective Board Governance	• Facilitate support for the Board:
	  o Transition of new members including Board Chair with orientation supports (material, orientation session)
	  o Facilitate timely and comprehensive reporting through committees and Board
	  o Facilitate board member recruitment in support of desired board composition
	  o Facilitate supportive, focussed board culture, such as advising on effective and appropriate meeting procedures through to meaningful board member engagements that contribute to respectful and meaningful dialogue and decision-making
	  o Support the board in achieving its goals.
		• Board operations supported by relevant, timely information.

8. Financial sustainability	• Deliver a small surplus budget.	• Deliver $500K surplus budget (net profit) reported on year-end financial statements.
9. Contribute to the sustainability of communities	• Contribute to local food strategies. • Advance DC efforts in environmental sustainability strategies.	• DC's efforts advance local food community and agri-food industry strategies. • Incorporate a Canadian sustainability framework for DC projects, e.g., Sustainability Tracking, Assessment & Rating System (STARS).

14

OUR COMMUNITY

Goal: To contribute and respond to the economic, social and environmental well-being of our community.

We will:
- Develop new programs and services to meet the evolving demands of the job market and our students.
- Celebrate and support advances in entrepreneurship, innovation and sustainability.
- Advance our role as a community hub in Durham.
- Demonstrate leadership in volunteerism and giving back to our community.
- Strengthen our industry and community partnerships, including our campus partner the University of Ontario Institute of Technology.

Objective	Action	Measurement
1. **Support partners in reaching their community goals**	• Provide range of supports, e.g. in-kind support, as well as time and resources of students, staff, and faculty to achieve community impact.	• DC supports enable organizations and the college's partners to reach their shared goals, e.g. Chambers of Commerce, St. Vincent's Kitchen, non-profit community partners.
2. **Advance applied research partnerships**	• Advance applied research project opportunities across four themes of DC's strategic research agenda - advancing agriculture and agri-business, enabling technologies of the future, cultivating healthy lives and resilient communities, and enhancing scholarly teaching and learning.	• Secure 5% increase from previous year in project funding representing at least 25 projects and 15 partnerships. Submit for multi-year funding.
	• DC-UOIT Strategic Fund is supported through to its second year.	• DC-UOIT Strategic Fund projects for the inaugural year are successfully completed with summary report completed. • Second year of projects are funded in alignment with the four pillars of DC's applied research agenda.

Objective	Action	Measurement
3. Complete 50th anniversary celebrations	• Ensure all stakeholders are aware DC is celebrating its 50th anniversary this year and encourage participation. • Host Speaker Series Event. • Close the 50th anniversary year with a final celebration. • Final report summarizing all activities and promotion related to the 50th anniversary.	• Prepare and execute communications and marketing plans promoting 50th anniversary activities that reach stakeholders through all available channels. • Speaker Series Event is well-attended. • 400+ in attendance for the 50th anniversary final celebration event. • Report prepared and submitted to leadership team, board and government.
	• Host a successful Homecoming Weekend celebration.	• Homecoming Weekend celebrations attended by 1000 people over the weekend event.
	• Align activities with College's Ontario 50th anniversary initiatives: William G. Davis Innovation fund; bus tour; social media. Host Speaker Series Event.	• 1-2 Durham College students submitted for the William G. Davis Innovation Fund.

4. Grow, retain and engage our donor base.	• Implement plans that cultivate deep, lasting relationships between DC community groups and individuals:
	  o annual fundraising campaign
	  o donor stewardship plan
	  o foundation operating plan
	  o alumni plan / alumni association MOU
		• Reach 100% of fundraising goal.
		• Increase participation in PayDay Lottery by 20%.
		• Implement meaningful stewardship reports for Scholarship and Bursary donors.
		• Engage Foundation Board in Campaign solicitation.
		• Develop Annual Donor Report
		  Plan CFCE donor wall and develop complementary donor wall solutions.

16

Objective	Action	Measurement
5. Enhance DC's community profile through the Corporate Council	• Expand DC engagement across communities in the region, promoting DC programs, training, applied research and entrepreneurship, and experiential learning.	• Corporate Council Terms of Reference formalized. • Increase advocacy for the greater utilization of DC services, e.g. Career services, Co-op, etc.
6. Support DC student advocacy	• Support DC students in achieving a new DC student association.	• Establish new Agreement with DC student association to define relationship with the College, and align related agreements and services.

17

Report Number: BOG-2017-88

To: Board of Governors

From: Don Lovisa, President

Date of Report: May 5, 2017

Date of Meeting: May 10, 2017

Subject: President's Responsibilities, Accountabilities and Performance

1.   Purpose

The purpose of this report is to present a framework for the annual evaluation of the President that aligns with the Board policy on assessing the President's performance.

2.   Recommendation

It is recommended to the Durham College Board of Governors:

That based on Report BOG-2017-88, the framework for evaluating the President's annual performance be approved.

3.   Background

As stated in the Board-President Relationship policy, 'President's Job Description', the President is the Chief Executive Officer of the College and the single official link to the Board of Governors, and is responsible for the overall leadership and management of the College.

The President is accountable directly to the Board and is delegated total accountability for organizational performance.

The responsibilities of the president are defined as, accomplishing throughout the institution the Board's outcomes policies regarding "Mission, Vision and Values" and "Strategic Goals".

Operating within the boundaries of prudence and ethics, established through Board policies on Executive Limitations, the president is authorized to establish, monitor and amend college operational policies and practices within the Executive Limitations policies.

Operating within established boundaries and in consultation with the Board, the president will address mutually agreed upon professional development goals and other responsibilities as directed by the Board or pursuant to legislation.

The Board defines the nature and limits of that accountability through the Board 'Outcomes' and 'Executive Limitations' policies. Consequently, the President's performance will be considered synonymous with the degree to which these outcomes and executive limitations are met.

The President's performance is continuously appraised through the various monitoring and information reports presented at all Board meetings, retreats and Board events. Leadership behaviours are observed and also monitored through a variety of formal and informal internal and external reports, events, advocacy and relationships.

Performance Context and Methods:

- The nature and limits are set by the strategic plan (vision, mission and values), the board work plan and annual business plan.

- The College's values are demonstrated internally and externally being integrity and transparency, respect, equal access and diversity, personal and team accountability and collaboration.

- Annual compliance reports are provided to the Board confirming all legislative and executive limitations have been fully met.

- A 360 survey of internal and external stakeholders is conducted every three years.

- An annual Board survey is conducted as part of the formal performance assessment process.

4. Discussion/Options

4.1 Strategic Mandate Agreement

The College has signed a Strategic Mandate Agreement (SMA) with the Ministry of Advanced Education and Skills Development, which aligns closely with the pre-existing 2017-2020 Strategic Plan.

The role of the President is to execute the Durham College strategic plan, and the SMA, both of which include the College's mission, vision, values, goals and strategies. The President ensures that the strategic plan and SMA are implemented throughout the institution and is measured by the effectiveness by which those strategic elements are met.

Performance method:

- Monitoring reports are provided to the Board – SMA report back, business plan reporting, PAC committee reporting and president's report.

4.2 Application of Board Policy

Guided by Ontario legislation, College by-laws and policy of the Board, the President is authorized to establish practices, make all decisions, take all actions and develop all activities on behalf of the College, as long as they are consistent with reasonable interpretation of the Board's policies.

Performance Methods:

- Annual compliance reports that confirm all legislative and executive limitations have been fully met.

4.3   Business Plan

The President is accountable for executing goals in the strategic plan and SMA through the College's annual business plan. In this regard, the President provides strategic leadership to the College's leadership team in modeling College core values, as well as alignment for all College employees, at every level of the organization, to the achievement of performance objectives.

Performance Methods:

- Leadership demonstrated through DCLT relationships, effectiveness and reporting to the Board of Governors.

- College performance measures such as a balanced budget, meeting business plan objectives and monitoring reports.

- Demonstrated core values internally and externally being integrity and transparency, respect, equal access and diversity, personal and team accountability and collaboration.

4.4 Core Objectives of the Board and President

Core objectives of the Board and President:

1. To provide students with the best possible learning experiences.

2. To optimize the experience and expertise of our people and help them make the best possible contribution toward student experience.

3. To manage resources responsibility and ensure that we are financially and environmentally sustainable, demonstrate good governance, and are leaders in the support of outstanding teaching and learning.

4. To contribute and respond to the economic, social and environmental well-being of our communities.

Performance Methods:

- Objectives are measured through regular monitoring and Board reports, reflective conversations at Board retreats and other relevant board reports.

4.5 Evaluating Performance of the President

The annual evaluation and Board decision regarding performance pay is the responsibility of the Board of Governors.

The president's goals for 2017 to 2020 are to:

1. Deliver a balance budget.

2. Successfully complete (a minimum of 90 percent) of the business plan objectives.

3. Represent Durham College professionally, ethically and responsibly.

4. To strategically advance the College.

The performance tools available to the Board are extensive, including:

1. Board annual presidents' performance survey

2. 360 feedback every three years

3. Employee engagement report every three years

4. Annual compliance reports

5. Annual financial and risk performance reports.

6. Regular Board monitoring reports, such as

    a. Pathway report
    b. Human resources report
    c. Student Association report
    d. President's report – community engagement
    e. KPI reporting
    f. SMA report back report
    g. Board annual work plan
    h. Business plan reports
    i. The President's self-assessment.

4.6 Performance Pay Allocation

Performance pay allocation would be as recommended:

- Exceeds performance goals – achieved all College goals plus additional ad hoc goals – 100%

- Meets all performance goals – 90%

- Achieved most performance goals - some missed with acceptable explanations -75%

- Achieved most performance goals – some missed without acceptable explanations – 50%

- Unsatisfactory performance – no performance pay bonus.

5. Financial/Human Resource Implications

The amount of the President's performance pay, up to a maximum of 20% of President's salary, is determined by the Board of Governors.

6. Implications for the Joint Campus Master Plan

There are no implications for the joint campus master plan.

7. Implications for UOIT

There are no implications for UOIT.

8. Relationship to the Strategic Plan/Business Plan

This report aligns to the "Our Business" pillar of the strategic plan and the goal to demonstrate good governance.